PRESS ON!

Selected Works of General Donn A. Starry

Volume II

Selected, Edited, Annotated, and with an Introductory Essay by

Lewis Sorley

Combat Studies Institute Press
US Army Combined Arms Center
Fort Leavenworth, Kansas

Library of Congress Cataloging-in-Publication Data

Starry, Donn A. (Donn Albert), 1925-
Selected works of General Donn A. Starry / selected, edited, annotated, and with an introductory essay by Lewis Sorley.
p. cm.
Includes index.
1. Military art and science--United States--History--20th century. 2. Military doctrine--United States. 3. United States--Military policy. I. Sorley, Lewis, 1934- II. Title.

UA23.S675 2009
355.00973--dc22

2009017784

First printing, September 2009.

CSI Press publications cover a variety of military history topics. The views expressed in this CSI Press publication are those of the author(s) and not necessarily those of the Department of the Army or the Department of Defense. A full list of CSI Press publications, many of them available for downloading, can be found at http://usacac.army.mil/CAC2/CSI/

The seal of the Combat Studies Institute authenticates this document as an official publication of the CSI. It is prohibited to use CSI's official seal on any republication of this material without the written permission of the Director of CSI.

Cover photo: Colonel Donn A. Starry while commanding the 11th Armored Cavalry Regiment, Republic of Vietnam, 1970. *Starry Family Collection*

Contents

Page

Volume II

Articles, Speeches, and Correspondence

17. Soldiers 701
18. Strategy 729
19. Training 767
20. Uniforms 853
21. Values 871
22. Varied Topics 905
23. Vietnam War 947

Oral History Interviews

1. Life and Career of General Donn A. Starry 980
2. Reminiscences of General Creighton Abrams 1171
3. Experiences as a Commander 1196
4. *Soldiers* Magazine Interview "This Is a Tough Business . . ." 1218
5. Desert Storm Lessons Learned 1223
6. Development of Doctrine 1256
7. Air Force: AirLand Battle 1274

Glossary of Acronyms and Abbreviations 1293

Index 1311

About the Editor 1341

Accompanying Disk, Key Starry Speeches

17. Soldiers

Page

Showcasing the Real Army 702

The Soldier (9 August 1978) 703

Recruiting and the Soldier 705

The All-Volunteer Force 709

The Soldier (14 August 1980) 713

The Soldier and Training 714

Redress Provided 718

Soldier Quality 719

Soldiers 720

Warriors 722

Blackhorse 724

Showcasing the Real Army

Message to Lieutenant General E. C. Meyer
Deputy Chief of Staff for Operations
24 April 1978

1. The visit by the [Executive Seminar] went extremely well. I'm happy to report that we gave them the full treatment and maximum exposure to soldiers and equipment.

2. Under ideal conditions (40 degrees rain/snow/mud) the group participated energetically in all planned activities, which included firing the TOW and Dragon simulator/trainer, the caliber .45 pistol and submachine gun (one minor casualty resulted), the laser trainer while tracking targets, all weapons on the M60A1 MBT to include the main gun. Additionally, they observed a howitzer battery demonstrating many of its firing capabilities. Each drove an M60A1 and an M113A1 APC over less than ideal terrain and under damp conditions, and was shown how the Armor Center trains the armor crewman for today's Army.

3. All meals were taken with soldiers in the 194th Brigade and 1st Training Brigade except for the official dinner. Breakfast on 21 April was with the 54th Infantry at 0615 hours.

4. The Louisville Chamber of Commerce hosted a short bus tour of the city's waterfront area, capping the tour with Bloody Marys in the Galt House prior to departure. A little Kentucky hospitality closed out the trip.

5. The insight the group gained by the short visit to the Armor Center was immeasurable and beneficial to all concerned.

6. Mission accomplished.

The Soldier

Association of the United States Army Executive Council
Fort Rucker, Alabama
9 August 1978

Today, I'd like to briefly share with you some observations on the soldier in the US Army.

Many recent media presentations, both written and visual, have portrayed the soldier in the Army as a lackadaisical, slow-witted, poorly trained, and poorly motivated individual. Usually this portrayal is accompanied by a raft of statistics that are skewed this way or that to prove whatever point is being made. Many in the Army, in attempting to refute the allegations made, have answered in kind with still another avalanche of statistics.

Now, statistics are wonderful things. My job, and I'm sure the jobs of most of you here, in some way or another depend upon, use, or even thrive on statistics. But even an ornery statistician will tell you that statistics can be made to relate or justify anything. Statistics are good for relating trends, but judging anything else by them is dangerous. But they are impressive.

The point I want to make today is that, behind all the statistics and analysis and gratuitous comments that one hears today from experts and instant field marshals, are some real live human beings.

They don't spring out from a briefing chart or appear between the lines of scripts or articles. But they are there. They are alive; they are the youth of America; they are thinking; they are the defense of this country; they are soldiers, sailors, airmen, and marines. Their genealogy is legion; their outlook is cosmopolitan; their strength is youth. They are young; they are still learning; they are eager.

Their ability is not really measurable; their motivation is mixed; their values reflect what we, their parents, have taught them. But they are young persons and oh-so-important to all of us, for the gift they give, now and to the future, is freedom.

Now, all that may sound like motherhood and apple pie, but it's true and you can verify it—not by statistics or TV or newspapers, but the way I do by talking to soldiers, those here at Fort Rucker in a maintenance shop repairing turbine engines or at Fort Knox driving a tank or at Fort Sill firing a cannon.

They might not have a college education or a vast vocabulary of fancy words, but ask them about their jobs. In plain, simple, and sometimes earthy terms, you'll find out they know what they're doing. But, even more important, they're doing it day in and day out, rain or shine, often for long hours. It may be repetitious, boring, and hard, but they keep at it, and as long as they do, we enjoy the freedom they guarantee.

To say they are bad or hopheads or lazy is just not reality. They're doing the job and doing it well. The Army they serve in is so much more complicated and sophisticated than the "old" Army there is almost no basis for comparison. Yet they have a common bond of courage and enthusiasm with the old soldiers of yesteryear. It's foolhardy to sell them short or dismiss them as dummies. In their military world, lasers, radars, computers, calculators, thermal sights, turbines, and sophisticated televisions are commonplace items. Listen to them talk; you'll hear them toss around terms that, even today, are strange to the tongue of older generations.

Yet their courage is the same kind that carried Utah Beach, the Pusan Perimeter, and Kaesong. There is no change and there is, in my mind, no doubt. Their enthusiasm still makes up for the mistakes of their elders. They are intense, much more so than years ago. They are challenging and alert. They expect help to learn, but are quick to point out when their time is being wasted. They have put all of us on notice that they resent being talked down to. They expect respect and will return it in kind. They resent being categorized or described in generalities or treated as numbers or statistics. They want to be dealt with as individuals and human beings.

Recently, at a nearby fort, two young men, new trainee soldiers, died from what has been alleged as abuse. Now, if that's true, it's not the old Army or the new Army or the training Army. It's not trainee abuse or child abuse or any fancy term; it's human abuse and has no place in any Army, new or old. That kind of conduct is not challenging or productive, and today's young soldier knows it and so do we all. Those who can't recognize that simple fact don't belong in this Army or any other one.

Abuse, "make work," busy work, irrational orders, or poor leadership can no longer be tolerated or hidden. If you could see the soldiers at Fort Bliss, Texas, in 110-degree days testing our new XM-1 tank, you'd know what I mean. Those crews are technically and professionally sharp. They are real tankers. You'd be proud to watch them teach the Chrysler engineers easier techniques to maintain the tank. There are soldiers like that all over the Army, and I'm glad they're here.

It would be less than honest to deny there are any problems. The world of today, civilian or military, is full of them. Drugs, morality, crime—they press in on the soldiers too. They're not immune; remember they're human. They're part of our culture, and they make bad judgments just as easily as anyone else. But they're not lost, nor are they losers. They have the backbone of their forefathers and their strength and courage. They haven't yet gotten all the wisdom that comes from experience, but they're learning.

To sum up, I'd have to say that we as leaders, parents, peers, and companions must remember to judge and treat them as human individuals, not as some kind of machine that can be summarized in statistical output. They reject it, and we do too when we're treated that way. The American soldier today is the most important weapon system we have, much too precious and valuable to squander with indifference or impersonality. They are truly the hope for the future—yours, mine, and theirs, and our children's children. I urge you to look beyond the statistics, charts, and graphs for the man or woman—for they are there, brave and constant. You won't be disappointed. I assure you, I'm not.

Recruiting and the Soldier

Association of the United States Army
Huntsville, Alabama
2 October 1979

My credentials are that I have been in the US Army—in the United States and abroad, in what passes for both peace and war—for over 32 years. Soldiers are and have been my life study and companionship.

So tonight let me briefly share with you some observations on the US Army, force modernization, and soldiers. The Army is in the throes of modernization. It is perhaps the most dramatic such an undertaking since early World War II. Today's modernization is made more significant and urgent than previous efforts because of the nearly 10 years in which resources and other energies normally applied to force modernization were parceled out to support the war in Vietnam.

In the next six years, Army divisions are programmed to add more than 40 new equipment systems to their motor parks, command posts, and training grounds. Some of these systems are new and vastly improved versions of systems already in the division—new tanks, for example. Some are systems that have no counterpart today and, because of that, provide not only new operational capabilities but new and demanding tactical, organizational, and training challenges. Among the most striking examples are the infantry fighting vehicle and the general support rocket system. Still other new systems reflect advances in technology that make possible important improvements in our ability to command and control the various functional aspects of battle. Tomorrow's division, with nearly a thousand computers, is typical. Ten years ago, divisions owned but a few such devices.

All this modernization, however, must proceed apace with the required training for our soldiers. Today, that training takes place in an atmosphere where it is only one of many priorities and, often, the lowest. Out where the soldier is in the unit, sound training gives way to other programs, and training is done only after the other tasks are accomplished. We call this the hostile training environment. It is in the context of that environment I want to talk about modernization.

In considering all dimensions of modernization, it is quite clear that the human factor is the most challenging problem the Army faces, and the most pressing issue has to do with numbers. It is no secret that the available pool of 17- to 21-year-old males will decrease by more than 15 percent over the next 10 years. Considering physical and mental qualifications, prior service, and educational and military commitments, only one out of four of today's young men between 17 to 21 years of age is qualified and eligible for active military duty. The Army must enlist 1 out of every 16 of these young men. This year, the Army will apparently be unable to recruit sufficient numbers. In succeeding years, this situation will likely worsen.

How can we attract young people to want to serve? Virtually since the onset of the volunteer force, we have treated recruitment as a marketing exercise and the Army as another marketable commodity—a job. Bonuses, promises of job transferability, and "normal" hours have been but marginally successful in filling the ranks of support forces; they have failed to recruit enough fighters for the combat arms—the hardened edge of the Army. Even well-intentioned promises lead to trouble, as postenlistment depression develops when soldiers learn the Army is not the "job" they had been led to expect. The result is a leadership problem that aggravates the hostile

training environment. *The Army must decide why it wants young men and women to join. The Army can never join them—they have to join the Army.*

There is considerable discussion about intelligence levels and functional illiteracy among today's soldiers and the effect of those factors on soldier trainability. Based on scores used to indicate intelligence, there has been an overall decline in military intelligence levels. Based on downward trends in similar type test scores in the civilian community, this reflects an apparent general decline in intelligence levels in the society as a whole. However, it's no secret that 58 percent of 1978's new male soldiers had ASVAB scores in mental category IIIB or IV.

We know they are trainable; we also know training them takes more time, both because of declining intelligence levels and the increased sophistication of greater numbers of systems that soldiers must be able to operate successfully. Further we know that, in the hostile training environment, time is the most precious resource. Trainability is a variable most easily dealt with in terms of time. Every other Army in the world gives its soldiers more than four times the training given in the same skills by the US Army. That fact suggests that either we know something about training they don't or their soldiers are much less trainable than ours, neither of which is true. *The Army must provide more time to train and better ways of training individual soldiers and small units to high levels of proficiency in essential military skills.*

Soldier motivation is a root problem in the hostile training environment. Some of today's young soldiers bring with them from our society a strong attitude of social alienation. Produced by isolation, cynicism, and a sense of meaninglessness, social alienation is completely at odds with what it takes to make an Army. Isolation—social, political, and emotional—produces introspection and self-induced separation from others, the antithesis of teamwork and cohesion, which are the backbone of an army. Cynicism denies the virtues of honesty, integrity, and patriotism. In its grip, soldiers cannot find a moral code to which they can subscribe or leaders in whom they can trust and believe. Meaninglessness is believing it senseless to risk your life for your country because nothing, even the country, is worth preserving at that price.

Soldier motivation today is a formidable leadership challenge. To be effective, an army requires cohesiveness, a sense of community. Liberalizing an army does not help the soldiers or the Army. Armies, our own more than most, need a unique set of values to be effective. These include discipline, obedience, integrity, a high order of technical excellence in military skills, and dedication to a well-defined purpose—defense of the country. *Even if those values are somewhat different from those popular in the society at large, we must state clearly what values our Army community demands of its members and make that value system an integral part of the training of our soldiers.*

What happened to the Army in the last months of Vietnam was not that the ethical value system of the officer and NCO corps collapsed, as some have alleged. Rather it was that, in redeployment from Vietnam, the centralized individual replacement system demanded redeployment of individuals, not units. Those who remained were reassigned to remaining units. As the pace of redeployment quickened, this constant shuffling ensured lack of cohesion in the residual force—in the leadership and among the soldiers. Careerism there may have been, and may still be, but the root problem was that the sense of community was destroyed. There simply was no cohesion. In that hostile environment the leadership was overloaded, and it behaved accordingly. In many ways, today's hostile training environment is very much akin

to that of the last days of Vietnam. *If leadership is to be effective, then we must improve the training of the leaders, but more important, we must reduce the obstructions that clutter the environment in which leadership must do its work.*

Now, those are some of the rather hard and weighty problems that face the Army today. We could, all of us, throw up our hands and say it's too hard. It's not solvable! Or we could do nothing, merely move with the flow, hoping that over time some magic panacea will solve everything. Some will even say it's too late, or that the Army never really was able to face these problems.

I don't believe that. There can be a different Army, but it takes some hard work, dedication, and, above all, the sincere support of a public that is concerned and wants to help. Frankly, we've had almost enough criticism. We all know and recognize the problems. What we need now is encouragement to get the job done correctly. Whether that public support is in budgeting, in time, in recruiting, or just old-fashioned patriotism, we need your help and we need it now.

Twice in the brief time of my own service, it has been my good fortune to serve in exceptionally good outfits in peacetime. In the early 1950s I served in a battalion in USAREUR in which personnel were stabilized for nearly two years, a result of the crisis in Europe that accompanied the onset of the Korean War. Again, in the early 1960s, the Berlin crisis resulted in long-term personnel stability in the battalion in USAREUR in which I was serving. Both were superb organizations. Here are some reasons why:

- There was a clear and urgent focus on the *mission*. Crisis was upon us; we worked hard at the essential business of soldiering because we were certain we might have to demonstrate our soldierly skills very soon.
- There were *enough soldiers* assigned to man the equipment; *enough officers and NCOs* of the right grades were assigned to allow the organization to train and function as a unit.
- *Motivation* was high. In both units the personnel were largely volunteers. In the former, they were remnants of the pre-Korea volunteer Army. In the latter, about 93 percent of the unit was volunteer. Trainability may have been a problem, but motivation was not. While we can't recapture why they enlisted, it clearly was not for the "job opportunity." Soldiers in those times were not paid that well, and both periods were times of crisis, crises that clearly could ultimately call for the clash of military forces.
- There was *stability* of soldiers and leaders. Many left those battalions having served with the same team or crew, under the same sergeant, for three years or more.
- There was *cohesion*. Soldiers, NCOs, and officers were pressed together by crisis, shared a common danger, and concentrated on a mission all saw clearly—the immediate need to be able to fight and win.
- There was considerable *standardization* of everything that could be standardized—tactics, gunnery, maintenance, everything. We simply hadn't the time to be deciding anew about everything, so we decided once and turned our attention to practicing the standards to perfection.
- There was *well-trained leadership*—technically competent, able, dedicated, trained officer and NCO leadership that had trained together long enough to become effective as a team.
- There was a *shared system of values and priorities*. We told the truth about important things, we did important soldier business well, and we believed in ourselves and our outfit. We

knew our lives might depend on those things, and we were certain the success of our unit in its mission surely depended on them. Therefore we put training for the mission ahead of all the priorities that did not contribute to winning.

- There was an *informed, concerned, and active public support* of the Armed Forces. We knew that those we had left behind and those who had sent us to represent them were united in our support. We acted with the inherent confidence of those who know that what they are doing is what the nation wants. It quickly develops a team spirit.

As has been the case in the past, the success or failure of our modernized Army will most likely turn on a few very critical battles, battles whose outcomes depend on what a handful of soldiers are able to get done under the most difficult of circumstances—great stress, considerable uncertainty, the pervading presence of fear, and the high challenge of battle. So somewhere, sometime, once again, the fate of our national policy will rest in the hands of a very, very few courageous, dedicated, disciplined men who are trained well in time of peace to fight well in time of war. It is on these men that the full burden of force modernization falls, for no matter how good the equipment, how tidy the organization, or how brilliant the tactics, none can be effective if we can't train the soldiers to put them all together in battle in such a way that the combination is more effective than similar combinations in the hands of the enemy.

The informed support of the American public and the continued support of the Association of the US Army are vital to achieving the well-trained Army we need. Your chapter and others throughout the country help to create that informed public support. Together, we can build an atmosphere that will make the US Army all that it should be.

The All-Volunteer Force

Association of the United States Army
Washington, DC
12 October 1980

As the All-Volunteer Army begins its eighth year, there is growing concern about how well it is doing. Allegations of failure by its critics and of success by its advocates become more vocal daily. Objectivity on either side is an alarmingly rare phenomenon. Consensus is lacking on the broader issues of whether or not the volunteer force is indeed the instrument of national policy the country wants, needs, and deserves. A considerable volume in the debate has recently converged on the individual soldier. Unfortunately, arguments about soldiers have tended to coalesce around the issue of "quality." Like beauty, quality is all too frequently in the eyes of the beholder and, all too many times, but dimly perceived.

Perhaps what is needed more than anything is a common body of facts from which we might fashion some perspectives about the soldier, for only if we proceed from a common database can fruitful discussion proceed. The Army's Training and Doctrine Command (TRADOC) holds a unique role in this regard. Development of doctrine, organizations, equipment, and training, especially initial entry training for soldiers and officers, is the command's mission. Moreover, TRADOC must put these mission elements together not as separate entities but as interrelated and interdependent functions. For more than seven years, TRADOC has gathered and studied facts about soldiers. As the public debate intensifies, these facts should be useful to those who wish to address themselves to the soldier problem—objectively. Let's look at some of them.

First, it's important to note that the last time our Army fielded 16 active Army divisions, its military strength was 969,000 and it employed 453,000 direct- and indirect-hire civilians. That 1965 Army was larger than today's Army by 210,000 soldiers and 58,000 civilians. Some would argue we were terribly wasteful of manpower in those days; others would argue we are very efficient today. Neither argument is true. The bald uncompromising fact is that today we are trying to do the same or more than with that earlier Army, and do it with 268,000 fewer people! It is no wonder, then, that in today's smaller Army every dysfunctional circumstance that befalls us is aggravated far more dramatically than before. There is just no resiliency.

So the first fact to remember is this: our problem is not the 15,000 we fell short in recruiting last year; it is that the shortfall took place at a time when we were 268,000 people short of having enough manpower to provide the flexibility of that earlier 16-division force.

The second point to keep in mind is that, when the volunteer force came into being, there were about 10 million 17- to 21-year-old males, the group that provides most of the Army's new soldiers. That group increased in size, reaching nearly 11 million in 1978. From that high, the 17- to 21-year-old cohort will decline in size nearly 25 percent by 1995. If current recruiting standards and exemptions are continued, only 25 percent of the 17- to 21-year-old population will be available or eligible for active military service.

Some would argue that, all things equal, we will get our share. The Armed Forces will need approximately one out of every four. The fact is that the 25 percent that are qualified and eligible also represent those whom the country needs for industrial and commercial careers. Thus, without some national commitment to national security service, the Armed Forces, and

particularly the Army—which will need one out of every nine young men available—will be hard pressed to fill the ranks. Considering only the numbers, then, one can see we have our work cut out for us.

While everyone professes concern about the quality of soldiers, no one seems certain of just what quality is. Many argue that a high school diploma means quality. Statistically the high school diploma signifies achievement of some predetermined academic standard, generally expressed by a grade point average. The facts are that, in the last 10 years, the percentage of combined As and Bs to Cs given high school seniors has risen by more than 15 percent. On the other hand, scores achieved by that same group on one of the college entrance examinations, the Scholastic Aptitude Test (SAT), have fallen dramatically *during the same period*. College grade point averages *during the same period* have risen almost 20 percent. It could be said, then, that the education system of our country has for 10 years or more been giving better and better grades to a population that is, by their SAT scores at least, dumber and dumber. Or is it that they just don't test as well—is it the test or the testee that's the problem? Or could it be that one or more of these various measurements cannot be correlated with the others?

What does this tell us about the high school diploma? It just means, as is so often the case, that numbers don't tell the story. The real value of the diploma is that it signifies achievement. It says these young men and women have accomplished something that to them was difficult and that they will, therefore, tend to finish the next difficult hurdle they encounter in greater numbers than those who failed to complete high school. And so it is that high school graduates succeed in the Army at a significantly higher rate than nongraduates.

For all these reasons, the Army would like more high school graduates. Attracting them is not easy. About half the high schools in the country today deny Army recruiters access to the school. Of the remaining half, only half will grant free access. The remainder insist that military recruitment be done on "job day," along with all the other business and industry proselytizing allowed on that day. It would indeed be fortuitous if our critics would spend more time prying open the nation's high schools to recruitment and less time trying to force the Army to do something it wants to do but cannot due to circumstances over which we have absolutely no control.

I'll talk about the ASVAB/AFQT issue in greater detail later if you'd like, but for now I'll just say I'm not sure why there is such a fuss about these scores. We did a little comparison and found that, on balance, soldiers of today are not radically different from the 12 million or so drafted to serve in World War II. In that earlier time, although they came from a relatively unsophisticated and immobile society, they too were immediately confronted with new equipment, new environments, new routines, and a strange society. More important, the fighting forces in those years were not composed of "the best and the brightest." They were a random mixture that, in the combat units of the Army, leaned heavily toward the unsophisticated. We found that, in the combat arms branches during World War II, most soldiers had aptitude test scores not at all unlike those in the lower percentiles of today's ASVAB. They were seized with all the problems of mechanization—they adapted and succeeded. They did so for one reason and by one means—training, training, and more training. Should we find it necessary to mobilize in the future, we will again be confronted with large numbers of young men and women whose scores will describe them as average or below. It is, therefore, more than appropriate that we perfect now the type of training needed to turn them into effective soldiers.

How trainable are they? Is our equipment too complex for them to operate? I don't think so. All too often we tend to sell these young people short. We should recognize that terms like lasers, energy beams, nuclear energy, computers, calculators, sensors, and microwaves are part of their daily vocabulary. "Star Trek," "Star Wars," and "Battlestar Galactica" are the visual fare of the 10 to 12 year olds who also operate handheld calculators and microwave ovens. Radar devices, now used by almost every police force in the nation, can be defeated—every self-respecting teenager can tell you 10 ways to beat them and how a "fuzz-buster" radar detector works. Today's young talk for hours on citizens' band radios with perfect confidence, using an unknown and often untranslatable language. Nuclear energy and solar power, pros and cons, are discussed rationally and intelligently by fifth graders. Yet they are not all geniuses. Sophistication is a very real part of their world.

Compared to 20 years ago, our world is indeed more complex, but in the context of the environment in which our young people now mature, the problem is not complexity but sophistication. True, electronic black boxes are complex, but if the soldier has only to press a button to make them work, they're not complex—they're sophisticated. Today's tank soldiers must learn to *use* a laser rangefinder. They push a button and read a digital number. They are not being asked to build the laser.

Having said that, it is, however, true that today there are more things to be learned, and if complexity means more, then we've got to plead guilty.

Considering all the factors, then, the problem is not the "quality of the soldiers." Rather it is our unwillingness and inability to pay the price to ensure they are given enough time and resources to enable them to learn.

More than any other single factor or combination of factors, soldier performance is a function of motivation, motivation through training. Motivation comes from sound values, shared hardships, and solid leadership. In the Army the values that motivate soldiers must differ significantly from many of those held by the society as a whole.

Since the soldiers entering our Army reflect the attitudes and biases of the society from which they are recruited, it will be necessary to train into the soldiers some higher order of values than those held by the society. For example, the trend in our society is toward less and less discipline. Yet, if we are to retain our freedom, it is becoming more and more obvious that we will need more, not less, discipline. It is also certain that, in modern battle, soldiers must display a yet higher order of discipline.

In the end, the values that the military profession must embrace, if it is to serve the nation well, are the same values that soldiers must develop if they are to be effective. Values spring from the heart of an Army—from its traditions, shared hardships, and its leadership. Sociologists speak of values; soldiers know and live values.

What are the values that can make good soldiers good? I suggest there are four. The first is professional competence. For a soldier, competence includes a superior sense of discipline and professional responsibility; it acknowledges willingness to sacrifice. It means the soldier's ability to do a job as a member of a team. Soldier competence is not talked about; it must be demonstrated. Competence establishes who the leaders are; it can't be faked; it quickly singles out the phonies. Professional competence is what makes XM-1 tanks work perfectly, no

matter how many or how few diplomas the crew may have. It causes squads and companies to maneuver properly, no matter what their collective average ASVAB or SAT scores may be.

Commitment is the second important soldier value. The profession of arms represents a commitment—an obligation. Commitment is a word not often used in our society. We seem more and more reluctant to make a commitment. Commitment means sharing hardships. Soldiers make few commitments. Their world is small. If we train them properly, their first commitment is to their buddies, then to their crew or squad, then perhaps to their platoon or company. Soldier commitment to larger units or to the nation is always much less than their commitment to Company B or to the Bandit Battalion. There's nothing wrong with that; in the good armies, it's always been that way. Commitment builds on competence. One cannot exist without the other. Commitment on the battlefield is backed by a shared danger in which life is the stake. There is no higher bond.

Third among our soldier values is candor—truthfulness. Characteristic of today's changing society is the way in which the language is used to diffuse the truth. It may be we don't tell the truth very much anymore because it's most often unpleasant. It may be that it's just harder to discern truth because today's issues are so complex. In any case, the military profession must hold in high merit the value of candor, the willingness and ability to discern and tell the objective truth. The candor of the battlefield is why lies told there are punished not with gossip but with action. In battle, it is always necessary to tell the truth. Someone's life usually depends on it.

Finally, there is courage—the courage necessary to tell the unpleasant truth, the courage to make a commitment to something larger than self, the courage to insist on that higher order of values essential to a successful military profession, and the courage to understand and articulate convincingly the extent to which military force has utility in the pursuit of national objectives.

Courage is a very much talked about value. In the young soldier's world, courage is not the absence of fear. Everyone has fears, all the time, every day. On the battlefield, they become all too real. Courage is the willingness to admit and the ability to control fear. Courage grows on the other three values. Courage makes things happen; courage sees actions through to the finish. Courage is the simplest display of competence, candor, and commitment.

Now, the sum of those values is military professionalism and the real honest definition of "quality." It is the only real definition that counts.

If our Army is to be allowed but a few soldiers, then they must be a few good soldiers. And, for the sake of the nation, their goodness must be measured not in terms of ambiguous scores, norms, and averages but rather in terms of their motivation, their values. Our experience is that successful leaders and soldiers at all levels do hold fast to these values. Uniquely, they are values that fit well in our open society. They are the Army's "bottom line," "where we are coming from." However, it is also true that we've not been entirely successful in instilling these values institutionally. But we're working hard at it. Nor have we convinced either our supporters or our critics that these values represent the "quality" by which they must judge us. But convince them we must. We just have to reject any attempt to measure our quality on any basis other than the values for which we exist—competence, commitment, candor, and courage.

The Soldier

Message to Major General Sinclair L. Melner
Fort Benjamin Harrison, Indiana
14 October 1980

I believe we need a program manager for the soldier. Not sure whether we should call this Soldier 86 or Soldier 90 or some other title not related specifically to time.

The Soldier and Training

Cavalry Ball
Fort Carson, Colorado
9 January 1981

You're far too knowledgeable an audience for me to dwell long on the legends of cavalry, so I thought instead we'd share some thoughts on command in today's Army. As a first order of business, let me assure you that I'm not naïve enough to believe that the environment of command is the same as it was when I was in your place. To believe that is to ignore, at some peril, the events of the last 25 or so years—military, sociological, economic, and political. Times have indeed changed, and so has the Army, and with it the atmosphere of command.

In fact, the only constant in the equation of command is the soldier—the young man or woman who has to lay his [or her] life on the line for his [or her] country. That may surprise you that I believe the soldier is the same, considering the media exposures and expert committee reports that have drawn so much attention recently. With behavioral sciences, the technological revolution, the TV generation, and all the other tags, titles, and panaceas that have been applied to this generation of young people, we are often led to believe they are radically different. But they aren't. They are still young human beings. They are, like their forebears, impressionable, scared, brave, and willing to respond to the right approach.

That's the big hitch—the right approach. It does no good as a commander to agonize over whether they can read or not, whether they were properly motivated to join the service, whether they are losers, whether they have high aspirations or not. Those points are primarily interesting from an academic point of view. Today's soldiers are indeed products of the world in which they were raised. In the short time they are under your command, you won't realistically be able to change much or any of that.

So the first point for a commander is to accept them as they are—young human beings with a basic desire to succeed. For some of them, it hasn't been easy. No one has ever taught them the necessity to keep trying even when they fail. They grew up in a success-oriented world, and many were rebuffed on their first try. Some were tossed aside by society and given no encouragement or alternatives. So they drift. Not yet losers—they're too young for that; they haven't really had a good fight. The danger is that, when society quickly gives up on them, they give up on themselves.

In accepting them as a product of their times, the commander must realize they don't in fact read as well as we did because they have learned through pictures—TV, electronic media, whatever you want to call it. They don't or can't visualize on their own because, in their world, they never had to. So our training must be presented in the same fashion—either through electronic media or on the real item of equipment. We cannot rely on their imagination because it's not very highly developed.

The second point I'd like to make concerns their own attitudes. They have been raised in a world of nuclear jeopardy and learned to live with it on a day-to-day basis. Crises, whether real or manufactured, no longer impress them. Theirs has not been a quiet time. Assassinations of high officials, kidnappings, wars, threats of wars, protests, strikes, marches, and crises of integrity at high levels have been their steady diet, brought instantly into focus by the cameras.

Given that type of environment, who wouldn't be affected by it? They are cynical of all that they see and outspokenly candid in their thoughts. They have observed that the "squeaking wheel gets greased," and they have learned to apply that principle. They are not often content to do something or believe something just because someone says so. They require, and will demand if necessary, explanations for the way others attempt to arrange their lives.

Facing this, many oldtimers and some new ones throw up their hands and say, "They're untrainable, undisciplined and losers." That's a real easy alternative. Of course it doesn't solve anything, but it does absolve us all of any blame, if we're still around after the next war. Gratefully, those who approach the problem in this vein are few in number.

For the rest of us, those who are willing to do some real work, there is an approach we can take. It involves some understanding of our soldiers' background; some candor on our part; some imagination as to how we approach training; and finally a realization that our Army and our soldiers cannot be equated to some impersonal, quantified statistic. Let me talk for a minute on that last point.

Because of the fast-paced world we live in, the invention of the computer, the discovery of vast new analysis techniques, and the proliferation of pocket calculators, we are a nation that consumes statistics at an ever-increasing rate. We have raised the art of quantifying—the ability to put a number on everything—to a religion, or at least an obsession. Unfortunately we only quantify the easy things. The hard things we ignore.

So in the Army we have indicators of morale, leadership, command, and so on—AWOL rate, courts-martial rate, disease rate, bond rate, charity rates. It never seems to end. Many believe we can put a number on just how good or bad a commander is. After all, we have over a hundred various indicators ranging from operational readiness rates to chapel attendance. In a recent survey, one division published a 62-page quarterly book covering 46 different topics.

None of these so-called indicators are ever addressed in any priority or in relation to their contribution to how to fight and win the next war. They exist, they are a statistic, they're measurable, they're quantifiable, and therefore they are important. But because they are measurable, are they really important? Can command, can our soldiers, can our Army be reduced to a bar graph presentation of statistics? I think not.

So what approach can we take to command and to our soldiers that is fair and that takes into account the important unmeasurable intangibles? General Creighton Abrams said it best, "People are not *in* the Army, they *are* the Army." People require a personal approach by commanders. Personal observation, personal guidance, and personal interest mean that you can't command anything from behind a desk. It doesn't require charisma. Most of us aren't blessed with that anyway. But it does require eyeball-to-eyeball contact with those under our charge.

Second, we've got to put a brake on the meaningless collection of unrelated and irrelevant statistics—irrelevant because they don't measure either our soldiers or our mission. We struggled with this problem in TRADOC in training. Remember the old MOS tests and ATTs? When we went to change these, we discovered that we were measuring irrelevancy. So we did some front-end analysis and developed sets of tasks that a soldier and the unit should be able to do to accomplish his job. These became the SQTs and ARTEPs that we use today. Notice, however, that these measures provide a standard, a norm, not a comparison point.

Commanders should apply that same methodology to all the statistical data they collect today, a front-end analysis to decide if the statistic really measures anything relevant to being a soldier. If not, do away with it. Hand in hand with this is the absolute necessity to avoid comparison of units and individuals to each other by statistics. They should be measured to a standard, not to each other. Comparison to each other only results in a race. If you put enough emphasis on a comparison, you'll get a change, but the cost often invalidates the statistic.

Let me sum this up. Command in today's Army requires that the commander understand the background of the generation of young people in his charge. He must communicate with them using methods and terminology that they understand. He must challenge them with tasks and jobs that they understand are meaningful to the mission.

The commander today must be more candid and patient in explaining the why of doing things. Sometimes, when this is done, we find no real reason for the task. If that's the case, we probably don't need to do it. "Because we always did it that way" is no longer a valid reason. This kind of introspection is good for any unit or individual.

Commanders must avoid statistical comparisons between units or individuals. Standards—performance tests—should be our basic approach to any mission. The use of statistics has to be modified with a personal interest and evaluation of the unit or individual. Professionalism in our craft requires that commanders know their own job and that of their subordinates. Above all, we must be willing to teach our soldiers how to do their jobs. It can't come only from books and TV tapes. As a part of the teaching process, we must allow our subordinates room to experiment, to make mistakes, and to learn from those mistakes. It's much better to go through this process in peacetime training than to pay the painful cost in war.

Now, all that I've said doesn't mean that there is no place for competition. Competition is a natural process; the human desire to succeed, to be the best, is deeply rooted. It would be foolish not to capitalize on that. But the competition has to be mission-oriented—meaningful again. Even more important, the competition must be organized in such a way that the competitors—units or individuals—can in fact affect the end result.

It is of no value to have competition on operational readiness rates if the competitors are ultimately at the mercy of the supply system for parts. We're not measuring the readiness program of the unit; we're measuring the whole system. Nor is it any good to compare test scores on SQT tests between individuals when they, in turn, are at the mercy of various training systems that must compete for time with operational missions. Only a common standard will avoid the frustrations that will result from these examples.

So competition must be controlled and guided toward a goal that the competitors can achieve and one that produces a worthwhile result. That, in itself, is a big challenge to the commander.

Finally, let me note that commanders of today have an opportunity to correct a serious mistake that has been made by their predecessors, relegating of the NCO to an administrative assistant role. How or why this happened is buried in the parameters of 20-year retirements, the Vietnam War, and many other reasons. But it has occurred, and our NCOs know it, and we should be candid enough to admit it. We've tied a generation of NCOs to paperwork, orderly rooms, and administrative work.

The job of training our soldiers in individual tasks—Sergeants' Business—has been usurped by the officers or left to the individual or, worse yet, ignored. We've got to change that. We've got to turn Sergeants' Business back to the sergeants. Individual training of the soldiers is the responsibility of the NCO. Those NCOs I've talked with want that responsibility and the authority to carry out.

With the advent of SQTs, Soldier's Manuals and Job Books, we have a ready-made system for the NCOs to take over. Only they can make the system work. Commanders have a rare opportunity to put this system on solid ground and, at the same time, return the NCO to his rightful position as a leader, a teacher, and a small unit commander. Of all the things you can do as a commander, this change will serve your unit and the Army the most.

I'd like to leave you with a thought I've said before and I firmly believe. Wars are won by the courage of soldiers, the quality of leaders, and the excellence of training. Of the soldier's courage, there is no doubt. The quality of our leaders can be enhanced by the excellence of training, training that is realistic, meaningful, and thorough; training that adheres to standards that are understood and achievable; training that provides the intangible spark that convinces our soldiers and our leaders that they can and must win the battles of the next war; training that gives them the will and the knowledge that they are the best; training that provides them the skills and craftsmanship to do the job.

Redress Provided

Message to General E. C. Meyer
Army Chief of Staff
20 February 1981

1. This is the case of the female captain [Captain Kathleen M. Wilder] who was denied qualification as a Special Forces officer and denied award of ASI 5G based on evaluation in which she failed Phase III—the so-called Robin Sage phase of the Special Forces Officer Course at Fort Bragg. Subsequently Captain Wilder alleged that she was improperly failed and improperly denied the ASI because of discrimination. At the time the case received national press attention which you may recall.

2. Captain Wilder's request for redress was denied by the Commander JFK Center—Joe Lutz at the time. She then appealed to Commander XVIII Airborne Corps under article 138 UCMJ. Tom Tackaberry appointed Cecil Adams as investigating officer. Cecil has conducted what I consider to be a thoroughgoing and first-rate investigation. Tom reviewed the case and found that in his judgment a wrong had been done and redress was appropriate. In such cases AR 27-14 requires that the case be presented to the authority empowered to grant the petitioner's request. In this case that is me.

3. Extensive review of the case leads me to conclude that Cecil and Tom, both of whom recommend redress, are correct. Eight of nine allegations of discrimination were fully sustained; the ninth was partially sustained. My Judge Advocate reports all this to be correct and in order.

4. Accordingly I have granted Captain Wilder's appeal and directed that she be declared a graduate of SFOC 2-80 and awarded ASI 5G. The file will be transmitted to the DA in due course, according to established procedures. I've taken this means of telling you about it because it is bound to get further publicity. We will make an appropriate low-key press release; interested parties have been informed by message to be followed by letter instructions.

Soldier Quality

Letter to Charles C. Moskos Jr.
Northwestern University
4 December 1981

Yesterday I flew in the F-16 for the first time. Last night, as I reflected on that machine, on the Ml tank, the AH64, the Bradley fighting vehicle and the levels of technology they represent compared to equipment of the Army I joined as a private soldier thirty-eight years ago, my judgment switch locked firmly into the "better quality" divot—better quality, almost regardless of how we recruit and what it costs. There's just no way to realize the combat potential of those machines without very smart guys who are very, very well-trained. And to become as well-trained as they need be, they must be smart to begin with! I'm afraid the viability of the mass draft Army, or even of volunteer numbers recruited without strict regard to their smarts, may be a thing of the past for us—in any context, emergency or other.

Soldiers

Letter to Lieutenant General Paul S. Williams Jr.
Commanding General, V Corps, US Army, Europe
26 May 1982

I need to tell you a funny story. It may help you should you ever decide to go to the opera in Frankfurt. We flew from Chievres to Rhein/Main. We were met by your protocol guy who got us over to the hotel. The security goons were there, as was a nice young PFC with a VW carryall. We had planned to go to see "Rigoletto" at the Frankfurt opera. Hugh McGinnis had got tickets and we were to meet him at the opera at 2000 hours. They asked if we'd mind going in the carryall. Not at all. The PFC assured us he'd reconned the route and knew exactly where to go.

We started at 1000 from Rhein Main. By 1930 we were stuck in holiday-bound traffic on the autobahn near the Miguel Allee exit. I couldn't understand why he passed up the two Messe exits which were clear. But as we approached the Abrams gebaude I asked where we were bound. The PFC allowed that the way he reconned it was from the Abrams building and that was the only way he knew! So he pulled up at 1940 to the old opera house.

As you know, it's been fixed and they have things there. Not operas, but rock concerts, etc. But I presumed there'd been a change and we went in. A rock concert had been scheduled, but cancelled, so grumbling showgoers were milling about. I was told "Rigoletto" was playing at the "theater"—the new opera house, where I was sure it was to be in the first place.

While we were doing this, the PFC had managed to bump a German car and he and the goons were in a hot debate with the irate owner. Lots of radio transmission between the goons and the MPs. It's 1945 hours. Obviously prompt decisive action is needed. So we hopped in a cab and took off for "Rigoletto," since the goons said they couldn't leave until the MPs arrived. Good. Off we went. Got there. Breathless. McGinnis waiting with tickets. We dashed for our seats and made it. Super opera! You must see it. But wait! You need to know the whole story!

As we made it to our seats, one of the goons rushed in to say they were on station. But they wouldn't be able to guard us because they had tickets for the rock concert at the opera house, not for the opera at the theater. Ah, well, says I, just get the van, or something, here by 2230. Okay.

Opera is done. Humming "La donna è mobile," we sally forth. The goons come up to report they can't find the van and driver. The kid has taken off after the MPs finished writing up his accident. But they've found a car—I don't think it was yours, but it was someone's armored Mercedes. So we sail off to dinner—a few blocks away. In fact, just near the old opera! The driver said he knew right where that was and off we went up Eschenheimer Landstrasse toward the Abrams gebaude. The driver finally explained that was the only place he knew how to get to the old opera from. So we got there. The restaurant had closed by this time, but we found another nearby and there we went. Nice dinner.

Came out to find the kid with the carryall. The sedan has disappeared. Okay. Let's go to Rhein Main. Right. So off we go. In a few minutes, I realized we were again headed for the—you guessed it—Abrams gebaude. But wrong! We sailed directly by that edifice and headed out toward Gibbs Kaserne. The kid explains that the only place he can get to the autobahn from is

Gibbs Kaserne, where he lives. So we stopped that, circled the PX and made it out toward the autobahn and back to old Rhein Main. And so to bed—it was 0145.

Now I highly recommend the opera. How you can possibly get there from where you live will obviously be a very challenging matter indeed!

A sequel. The next morning we were to go 'round to the civilian side and catch our 1145 Delta to Atlanta. Despite the fact that I had expressed the desire not to travel with him again, the kid with the van is present once more. So we put the bags in the van, ourselves in an *Air Force* protocol car, and started 'round the field toward Delta—around the inside of the fence. Glancing off to the side, I noted the van—mit bags—sailing off up the autobahn! Too late! So we went on over and finally he showed up from a different direction—again he didn't know how to get there from the hotel without going back up the autobahn. Fortunately, he did not go all the way to Gibbs! Even tho all he had to do in truth was to follow us in the protocol sedan! Anyway, we were off!! I knew you would appreciate this little bit of "soldier humor."

Warriors

Rededication of the Monument Honoring the Men of the 11th Armored Cavalry Regiment Who Died While Serving Their Country and Their Regiment in the War in Vietnam
Fort Knox, Kentucky
11 May 1985

We have met here to honor the memory of the soldiers whose names are inscribed on this monument. They are our comrades who died while serving our country and our Regiment in the war in Vietnam.

For the first time, the names of all 716 of our honored dead from that war are recorded in one place. It is our intention to now move this monument to the ground of the Patton Museum of Cavalry and Armor, where it will take its place with other permanent records of the service of cavalry and armor in our nation's wars.

And so this event is a milestone. Someone observed that this might be the last occasion on which we assemble around this monument. I truly hope that is not the case, for several reasons.

For, while this monument honors our dead, it is truly a monument for the living. As we view it, gathered round, we are reminded that these were men who answered when their country called, went where they were told to go, did what they were asked to do, and in the process paid the ultimate price. While many of their peers sought refuge in colleges and universities, in neighboring countries, in strange little communes in remote parts of the United States, these men stood up, saluted, and marched to do their country's bidding.

While the media babbled on in strident tones, these men served on in silence, their deeds remarking more eloquently and meaningfully than all the words of the others.

While the enemy fueled the fires of discord and dissent in our own homeland, these men went about their difficult and dangerous tasks, ever true to themselves, true to their leaders, true to their Regiment, true to their country.

For us, the living, there can be no greater example.

Now, I know war is out of fashion.

I also know that war can be frightening, exciting, even dull.

But I know, too, that after time has passed it becomes evident that war's message was perhaps more divine than profane.

That's why we need occasions like this one, to gather round once more to reflect on the example that the lives, the service, the sacrifice of these men and their families represent to us, the living.

We need occasions like this to remind us that our relatively comfortable routine is really just a little piece of calm in an otherwise tempestuous world so that, being reminded, we may be better prepared for danger when danger finds us, for find us it will.

We need occasions like this in times of individualist negation, of cynicism, of seeking after personal well-being at the expense of all else, of denying that anything is worthy of reverence. We need them to remind us of all the things the buffoons would have us forget.

For the ultimate challenge of war's danger teaches us to believe things our doubting minds are slow to prove for themselves: out of heroism grows faith in the undying worth of heroism.

I do not profess to know any ultimate truths.

Nor do I pretend to know the meaning of the universe.

But in the midst of doubt about values, in the collapse of beliefs and creeds, in the denial of the virtues of duty to God, fellow man, country, there is one thing I do know beyond all doubt.

And that is that faith is a true faith that brings soldiers to risk and sacrifice their lives in an acknowledged duty, in a cause they may imperfectly understand, in a battle whose plan of campaign may be to them obscure.

Having tasted of battle, the warrior knows the cynic force with which reason assaults the human mind in time of stress. The warrior knows well the vicissitudes of humor, terror, victory, and death in war.

But, in a larger sense, the warrior knows the joy of life is in the living of it; that, as one of them said, to those who fight for it, life has a meaning the protected can never know; that the ultimate worth of war's challenge is that it forces men to bring their full powers to bear, stretched as far as their capacity will allow in order to solve life's most difficult problem—fear.

Above all, these warriors speak to us with but a single voice, one that rises over the dissonant sounds, one that reassures us that man has in him that unspeakable something that makes him capable of a miracle, able to lift himself above the commonplace by the might of his own will, able to face annihilation based on faith in his God, faith in himself—in his warrior's soul—and faith in the men who are his comrades in arms.

That is the legacy left us by these warriors. It is a large legacy. It is perhaps larger than we deserve.

Blackhorse

Reunion of 11th Cavalry Regiment
Veterans of Vietnam and Cambodia
Washington, DC
8 August 1987

This morning we gathered by the Vietnam War Memorial to honor the memory and the sacrifice of our 716 comrades who died while serving our country and our Regiment in the war in Vietnam.

Tonight it seemed appropriate that we spend a few moments considering the living—who we were and what all this means to us. This morning I suggested that this day is truly a day for us, the living. Our fallen comrades are gone, their service done, their sacrifice given. Yet their memory remains, their example is ever with us. We owe it to them and to ourselves to try to draw some larger meaning from the gift they have given us. For if we cannot do that, or at least try, their sacrifice will have been in vain, and that would be tragic indeed. As I observed this morning, they left us a large legacy. How are we to acknowledge that and, more important, how are we to preserve and tend it, hopefully add value to it, so that when we too are gone, it is larger and richer yet?

While each of us here will have a somewhat different version of what I am about to say, I'd be willing to wager that there might be a pretty consistent thread or two through it all. So tonight I'd like to try to examine two or three of those threads as they are viewed at least by this older soldier.

The first thing we must acknowledge is that our service in the war in Vietnam gave us new values. Regardless of where we came from or where we went after, we went away much different men than when we came. That is true, I believe, whether we came, as I did—a professional soldier, having served in two previous wars, or if we simply enlisted or were drafted, trained up, sent as individual replacements and by the luck of the draw were assigned to the Regiment. However we came, we left different people than when we arrived. Why do I say that, and why is it important?

Our lives are shaped by the things in which we believe. Values are formed in the home, in school, in the church; they reflect the collective wisdom and values of our parents and the institutions we encounter as we grow up. Values change. People who study this process tell us that values change as a result of the significant emotional events in our lives. These are things that happen to us that are so dramatic that they change what we fundamentally believe.

This is not a lecture in social psychology, but I do believe that, while many experiences qualify as significant emotional events, war is the ultimate such event. It teaches us something about ourselves and about our fellow men that we likely could not have learned any other way. It dramatizes human frailties and reduces them to the most basic ingredient: fear—apprehension in the face of the unknown. The war forced each of us to cope with that very, very elemental problem. And it was the attempt by each of us to cope that shaped our attitudes and formed new values.

Out of heroism grows faith in the worth of heroism. Out of shared danger grows faith in the little bit of heroism that's in each of us, and in our ability to summon it up when it's needed.

Out of fear of the unknown grows humility and the sure knowledge of the need for and value of strength from outside ourselves—from teammates, leaders, organizations.

Night has fallen along the Cambodian border. The troop has laagered to resupply and dig into a night defensive position. Despite a few contacts during the day, there's been no heavy fighting. The early evening clouds, which brought a brief thunderstorm, move aside, and the moon makes strange shadows that seem to move now and then as watching gunners set up fields of fire. Claymores are wired in to protect the perimeter and the troop hunkers down for the night—as it has done for more than fourteen hundred nights before. Then there's a sudden whoosh of incoming rockets, a whump whump of incoming mortar rounds, the hiss of fragments overhead, and salvo after salvo of RPG rounds land in and among the Sheridans and ACAVs. The troop opens fire on the moving shadows 800 meters away. Out of a nearby tree line, several RPG teams work in and out of the fallen timber and bomb craters to get close enough for better shots against the vehicles. Friendly artillery and mortar fire begins to fall on the moving shadows. The troop commander moves his artillery back and forth in the area where he can see flashes from RPGs and machineguns. Watching for the right moment, he lets go a Claymore ambush against the maneuvering RPG teams, then brings down machinegun and mortar fire on fleeing remnants as the enemy breaks and runs for cover. The first sergeant, seeing a nearby ACAV hit by an RPG, rolls out of the back of the command track, grabs medics and fire-fighting equipment, and runs to help the disabled vehicle and its crew. The troop commander shouts at him to keep down and keep control. He does. Incoming fire dies down; no more rocket and mortar incoming, a sharp high-pitched zip from an AK here and there. The shadows move quickly toward jungle cover. The Sheridan gunner has the tail-end RPG team in his sights and is about to let go when the RPG team turns and lets go one last round to end the fight. That last random round, unaimed, screams into the perimeter and hits the first sergeant as he moves quickly from track to track to redistribute ammo and help with the wounded. He falls.

Just the day before, I had landed where the first sergeant was directing a recovery operation to ask if he needed help. We talked a little. I said, "You're pretty exposed out here." He said, "Colonel, I know they are watching us from that tree line over there. So, I've got to get this track unstuck before they can get set up and bring the RPGs around. The troops are a little spooky, so the old first sergeant is here to keep them working instead of worrying." When they wakened me in the night to tell me he'd been killed, I cried. I was and am a better soldier because of him and dozens like him. Out of heroism grows faith in the worth of heroism. Out of shared danger grows faith in the little bit of heroism that's in each of us, and in our ability to summon it up when it's needed.

As a normal practice I interviewed every officer who reported to the Regiment. This was usually done late at night after the troops were laagered in and I'd finished my private fight with the day's paperwork. The interviews usually took place in the bunker where I worked and slept. It was my custom to try to learn a little bit about each officer—background, training, experience, attitude. In the process, among others, one question I always asked was, "Are you scared?" For I believe that, unless you're willing to acknowledge the presence of fear and to decide ahead of time how you're going to handle it in yourself and in others, you really shouldn't be allowed to command in battle. To that question, I got a wide variety of answers, most not too solid. Most people simply hadn't thought about it. Some obviously had, but equally obviously had not been able to decide what to do about it.

Two lieutenants I recall distinctly. One very nervous fellow right out of the Basic Course at Knox, an ROTC graduate from a good university, brushed aside the question. I sensed he hadn't thought about it. Several times during the conversation, he asked about being assigned to our civic action program. I told him that we had plenty of room in that program for people who were interested but that we insisted that everyone serve six months on the line so that we had combat-experienced people in our civic action operation. So we assigned him to a recon platoon as a platoon leader, and he left the bunker, heading into the night. The next day his squadron commander called to say that the lieutenant had arrived and had refused to take command of his platoon. So I called the lieutenant back to the headquarters and presented him with a letter. In effect it laid out the possible consequences of his refusal to accept his command and gave him 24 hours to write me back saying what he intended to do. Inevitably, when confronted with this situation, they would write back accepting their posting. Just as inevitably, I would send them back to USARV as unacceptable to the Regiment, for I was not willing to risk other men's lives by putting in command of them people in whom I had no confidence. And my criterion for confidence was quite simple. They had to acknowledge that they were scared and to at least claim they had figured out what to do about it.

In this case, the lieutenant followed the pattern. He wrote me saying he would take command of his platoon. We then sent him to the rear where he served out his tour as an assistant club officer in Long Binh.

Several weeks later another lieutenant came for a late night interview. His response to my question about being scared went something like this: "Yes, Sir, I am scared. But I've thought about it a lot. I've decided I can cope with it and that I know how to help my soldiers overcome their fears as well. I wish I were better trained for this, but I also understand the Army has done about all it can do, given the time available to train me for my job. I'd like to be a platoon leader. There are a lot of things a hell of a lot worse than dying for your country while commanding a cavalry platoon in combat, so I'm ready to go."

And he was. He was a good platoon leader, one of the very best. Several months later, word came one afternoon that he'd been killed in action while leading a dismounted patrol down a dry creek bed outside Loc Ninh in Binh Long Province. I went there to see what had happened. They had run into an ambush set up by a company of one of the North Vietnamese divisions we were fighting daily along the Cambodian border. He was in front, leading his platoon. He recognized immediately that they were in trouble, signaled for a battle drill he'd worked out with the platoon, and the platoon deployed to attack the ambush as their leader went down. They moved in quickly. The platoon sergeant directed mortar and artillery fire and later some gunship fires. The enemy broke and ran after about 10 minutes, leaving the platoon with one KIA—the lieutenant—and four wounded. And that platoon marched out of the jungle carrying on their shoulders the body of their fallen leader—a man of character who could lead other men to victory in battle, a man who knew the bitter taste of fear—in himself and in others, and knew what to do about it. Out of heroism grows faith in the worth of heroism. Out of fear of the unknown grows humility and the sure knowledge of the need for and value of strength from outside ourselves—from teammates, leaders, organizations.

Now what has this all to do with our Regiment? Well, as it stands on the border today, it is absolutely magnificent. Some of you have been there and visited. I wish all of you could go, for you'd just have to be impressed—and excited. Good young soldiers, good leadership, superb

equipment, great physical facilities—barracks, motor pools, training grounds. It just has to be very impressive.

But, as I tell them when we talk there once or twice a year, they're about as good as they will ever get. The first round that's fired, the first casualties, the first vehicle losses will bring them down off the high they're on now and make them less effective—more experienced, perhaps, but less well trained and less "ready to fight." So the ability of the unit to endure over the long haul and to fight well is measured by the courage of the soldiers, the quality of the leadership, and the excellence of the training they've been able to accomplish, even as attrition takes its toll.

And it will do well, our Regiment, if ever it has to fight again. It will do well because it has all those things—soldier courage, quality leadership, good training. It will do well because of the legacy of the warriors whose sacrifice we honored this morning and the warriors who have taken that legacy and made of it a living presence—the Blackhorse. It made of our lives something that they were not before. It demanded of us great deeds, stark sacrifice, but it gave in return in measure far beyond that which it demanded.

Out of heroism grows faith in the worth of heroism. Out of shared danger grows faith in the little bit of heroism that's in each of us, and in our ability to summon it up when it's needed. Out of fear of the unknown grows humility and the sure knowledge of the need for and value of strength from outside ourselves—teammates, leaders, organizations—our Regiment.

Blackhorse, Sir!

18. Strategy

Page

Readiness Posture in Europe....730
Tactical Nuclear Weapons....731
Atomic Demolition Munitions....733
Tactical Nuclear Weapons....735
Tactical Nuclear Weapons Employment....736
POMCUS Issues....738
Dealing with the Soviets....739
NATO Strategy....741
Strategy Formulation....742
The Principles of War....743
Strategic Planning....752
Maritime Strategy....757
Battle Simulations....758
European Strategy....760
Strategy Issues....761

Readiness Posture in Europe

Letter to General Alexander M. Haig Jr.
Supreme Allied Commander, Europe
18 July 1977

First, there's still great reluctance to load up ammo. In my mind nothing short of having it all loaded again will suffice. You know a little of the trouble I had with George. In V Corps the tank ammo is loaded. That's all I could get done in the time I had. The program needs constant, relentless pressure. If you don't watch them, they'll manipulate the numbers to show they can meet the deployment times without loading up. It just isn't true!

Secondly, the alerting system is still not right. I'm referring to the pause that has been inserted between the announcement to get ready for an alert and the order to go ahead and have one. The troops don't understand sitting around for hours—even days, ready to move but not allowed to move because of the system. It may be necessary for some of the allies, but it's counterproductive in US units. When you have an alert, you go get your gear and move out. If SACEUR needs a pause for political purposes, that need can't be reflected in every platoon in Europe. The troops simply don't understand it—neither did I! It makes the whole thing considerably less than a credible exercise. However, George's guys think it's great, despite my continual pressure to change it.

Tactical Nuclear Weapons

Message to Lieutenant General E. C. Meyer
Deputy Chief of Staff for Operations
28 December 1978

1. Tomorrow Bill Schneider is scheduled to report to you on his study of the tacnuke situation. While his study does not deal directly with the issue I'm about to raise, I felt it important to surface this for you to ponder as Bill reports. In October you mentioned you were reviewing the tacnuke situation; with that in mind I tried to press ahead with some work we've been doing on the subject. I couldn't get our act together quickly enough to talk coherently this soon, however I'll spell out my hypothesis, we can talk about it later, and I will tidy up the analysis in due course.

2. First a word about threat and the problem of using nuclear weapons against him. Characteristic of the Soviet threat, or any formation using Soviet-style tactics, is the echelonment of forces—in offense and in defense. We have examined that geometry very carefully, from his manuals, from watching his maneuvers in the Warsaw Pact area, and from analysis of Syrian and Egyptian versions of Soviet echelonment of forces in the Yom Kippur War. We find two things. First, we haven't the target acquisition or surveillance means at corps level or below to find formations or targets any deeper than first-echelon regiments of first-echelon divisions. The SLAR on the Mohawk can see into the area where second-echelon divisions are normally deployed, but only imprecisely. We can get some SIGINT from this area as well, but SIGINT today is a grand clutter with a very high noise level. Sorting from the noise level signals for which one is looking is an art not yet developed to the requisite extent. Unsatisfactory as that may be, there's a second finding—that we can't fire beyond the first-echelon regiments with corps and lower organic fire support. An exception is Lance, which will just reach into the forward edge of the second defensive belt or the second-echelon divisions of the attacking army. Tube artillery today won't even reach the second-echelon regiments of first-echelon divisions. Therefore it can be said that, if corps or lower commanders must know of, and be able to cope with, second-echelon regiments and second-echelon divisions, they must depend on means outside their control both for target acquisition and surveillance and for delivery of weapons. This says that, if these echelons are a serious threat to the guy fighting the first-echelon battle, then he is totally dependent on the US Air Force and SIGINT sources to find, and the Air Force to deliver ordnance against, the second-echelon threat—from regiment on up.

3. How concerned are we about those echelons? Israeli ground commanders say that, if it's beyond the first-echelon fight, it's an Air Force responsibility and turn their backs on it. I don't believe we can afford to do that. The most important reason is that we have more armies echeloned against us than the Israeli ever had. This means that the ensuing long continuous fight that we face whilst defending will probably wear us down in the end, and that we'll never have the opportunity to attack, or even to counterattack. The Israeli attacked after the Syrian second echelons pooped out on them. What I'm saying is that I don't believe Warsaw Pact second echelons will poop out in like fashion. Therefore the critical question is what do we have to do to the second echelon in order to gain more respite and freedom of action for the force fighting the first echelon so that force may not only defend successfully, but in order that it might attack. The answer to that question is that we must somehow delay or hold up the onset of second-echelon forces by at least 36 hours. It turns out that nothing less than

that will suffice. There are a number of reasons for this, but the primary ones have to do with force generation, that is the marshalling of sufficient forces to either mount a successful attack or a devastating defense. That's 36 hours from the times we can now expect them to arrive, given their tactics and analysis of their maneuver experience. Obviously there's an information arrival time interval with which I won't try to deal here. Suffice it to say that, in today's world, there's no chance that the corps commander can get the kind of info he needs in anything like the time in which he needs it to frag aircraft for timely ordnance delivery to achieve that kind of delay. This is of course a problem to which Beta and Assault Breaker address themselves. More importantly, it's a problem to which TAC and TRADOC are addressing themselves in the notion that technology will probably provide an imperfect solution to the problem and we shouldn't just sit back and bet on the technical come.

4. The second element of this equation that begs analysis is our ability to release and deliver tacnukes. The totality of my own experience in Europe with release procedures, commo procedures attendant thereupon, a host of other considerations, and considerable analysis of the battle leads me to conclude that there's no reasonable way for us to count on nuclear weapons in the first-echelon fight. A host of reasons support this contention. Most of them are obvious, especially to you, so I won't belabor the point. However, that sort of analysis says in the end that tacnukes are probably a second-echelon weapon. Indeed it invites a closed loop target acquisition and fire delivery system such as Beta was conceptually in the beginning. It also says that, if you believe anything like the line of reasoning set forth above, we have a whole lot of the wrong kind of weapons in our stockpile. We can't deliver them in time, we can't deliver them on the most critical targets, we haven't enough to deliver from the delivery means that can reach the critical targets, and so on.

5. Very short treatment of a very deep and complex subject, and I fear I haven't spelled it out very well. But I have concluded, as a result of several years of struggling with the problem, and most recently several months of pretty intense study, that we've probably got it pretty well wrong with regard to our doctrine for employment of tacnukes, the weapons themselves, and their delivery systems. In the next few months I intend to pursue this idea to some sort of conclusion; when we're ready to talk, I'll get with you.

Atomic Demolition Munitions

Message to Lieutenant General E. C. Meyer
Deputy Chief of Staff for Operations
5 March 1979

1. Some time ago you asked our views on what to do about ADM. There is a spread of opinion in TRADOC—for and against. USANCA, USAREUR, and SHAPE seem to favor their retention. In the context of our reevaluation of nuclear doctrine, and following my last nuclear message to you, I conclude the ADM question in the negative, for reasons following:

a. Political uncertainties and the resultant highly structured constraints associated with ADM employment, especially those related to release, command-control, and safety, make timely employment of ADM a highly unlikely possibility—one that could surely not be depended on with any certainty. The urgency of the need to use ADM simply could not be viewed with anything like the same perspective by a field commander and the National Command Authority. The prudent commander must, therefore, always provide conventional backup for at least his critical nuclear ADM targets.

b. The oft-cited argument that ADM would be useful as a means of conveying NATO's willingness to go nuclear is specious and highly suspect. "Signaling" with nuclear weapons of any kind would be a high-risk act, and an unlikely one on our side, given our almost overwhelming inclination to avoid their use at all costs. Should there develop a tactical situation so urgent as to demand the use of nuclear weapons, according to the current liturgy for their employment, the utility of ADM would quite likely be even less than when considering their early use. In short, in a situation that critical the use of ADM would pale beside the much larger issues.

c. In their present configurations ADMs consume inordinate resources—personnel, security, training. They are a considerable administrative burden. Especially is this so when they are deployed overseas. Burdensome physical security requirements, convoluted personnel security requirements, and the difficulty of assigning and keeping trained personnel all militate strongly against keeping ADM in the force under present schemes for their deployment, employment, and training of employment teams.

d. While it is true that technology affords us the opportunity to correct many physical shortcomings of present generation ADM, none of these improvements offer relief from the underlying inhibitions to their employment. In short, technology can't possibly improve their utility to the field commander.

e. It is also true that technology affords the opportunity to develop explosives that could approximate the demolition effects per unit weight and volume without inviting the complex of problems that one buys with an ADM.

2. Therefore we conclude: first, that while ADM might have some utility in some situations in Europe or elsewhere, the several considerations which militate against their use weigh in so heavily that ADM should be considered to be of less than marginal utility. Second, that if it is considered that the United States need maintain an ADM capability for reasons not now clear, then the weapons and teams to employ them should be stationed, trained, and maintained at some central CONUS location, to be deployed at an appropriate time as international circumstances dictate in the perception of the National Command Authority. Third, any decision to fund

development of a new generation of ADM must be weighed out very carefully against the possibility that modern explosives technology could produce weapons nearly as effective but without the nuclear stigma.

3. I footnote with the observation that in large part many of the preparations for using ADM in Europe have been outdated by changing concepts of defense. Chambers prepared for defense plans of 20 years ago are quite useless in today's defense scheme. There is also, in USAREUR's barrier planning, a plethora of targets designated for ADM. Many of these don't require ADM at all in terms of target toughness. Many more don't offer much if any impedance to enemy movement. They seem to have been added to barrier schemes by succeeding generations of staff officers and commanders without much attention to disciplining the barrier plan and largely on the basis that ADM were available.

Tactical Nuclear Weapons

Message to General Bernard W. Rogers
Army Chief of Staff
21 March 1979

1. The use of tactical nuclear weapons on the battlefield is an important element of our force capability and essential to our successful defense in Europe. We have recently completed within TRADOC a comprehensive review and identified several significant shortfalls in doctrine, materiel, procedures, training, and instruction which preclude us from having a credible capability for the use of tactical nuclear weapons on the battlefield. I intend to correct those for which TRADOC is responsible and will encourage others to join in rebuilding this vital part of our total force capability.

2. A concept of operations for the tactical use of nuclear weapons is being prepared and will be included as part of the TRADOC Battlefield Development Plan and Division 86 concept of operations. The concept will address the use of nuclear weapons in the central battle as well as in force generation. Interdiction of Warsaw Pact second-echelon regiments and divisions offers some attractive tacnuke alternatives. I expect each Division 86 task leader to become personally involved with integrating nuclear considerations into his particular areas of responsibility. SCORES Europe III includes nuclear considerations.

3. In about a month I will have completed a detailed plan of action to guide and coordinate all of your many actions to correct this problem. Actions should commence now to reestablish the training in technical operations, release procedures, custodial unit operation and target analysis. Concurrently, instruction at CGSC can move forward with the aid of guest speakers to establish the base for employment of nuclear weapons, theater planning, and division/corps/army group consideration.

4. The overall effort to correct this problem will be directed from a tactical nuclear directorate to be established within DCSCD, HQ TRADOC. Until that is fully operational, about June 1979, the Commandant of the Field Artillery School will continue as the principal in this area. I expect this initiative to require about three years before tactical nuclear matters are fully integrated within TRADOC. During this time the Interagency General Officer Steering Group will continue to guide the rebuilding of this important capability.

Tactical Nuclear Weapons Employment

Message to Major General Jack Merritt
Fort Sill, Oklahoma
10 April 1979

. . .

2. What must be made clear about nuclear concepts we are describing now, as against those we have embraced before, is that our now concept of integrated tacnukes has as its primary objective solution to the problem of second echelons. First, to hold second echelons at risk by a continuous targeting system which includes surveillance and target acquisition means, weapons—nuclear and conventional, and target staffs at division and corps who have at hand the requisite command-control communications/computer/security connections, interfaces, and intercourses to make real time real and response time responsive. Second purpose—to disrupt the advance of second echelons as they seek to join and become part of the first echelon battle. Disrupt means destroy command-control commo nodes, perhaps destroy some fighting systems in advancing units, create obstacles at chokepoints by destroying bridges, rubbling towns, obstructing defiles, and so on.

3. Now with regard to tacnukes and the first echelon, we should emphasize the unlikelihood that tacnukes can indeed be used against first-echelon forces once the battle has been joined. This is so because of the present time requirements for securing release, troop warning, and so on. All these realistically will certainly inhibit if not prohibit timely use of tacnukes against first-echelon forces in contact. In the first-echelon battle, then, integration of tacnukes and conventional fires is a matter of applying each against targets best serviced by each under the circumstances. In my mind this means that the conventional fight will take place between the engaged forces, and the nuclear fight will be directed against indirect fire delivery systems, reserves, and second-echelon regiments moving to join the first-echelon fight. Counterfire in the first-echelon fight could be a nuclear mission, and it could release conventional artillery fires to aid the forces locked in conventional combat.

4. Finally there is the problem of penetrations as first-echelon enemy forces charge on to make their assigned objectives. We have never done a very good job of explaining to ourselves just how we intended to deal with penetrations. We always draw that magic bulge in the defensive position, then say that's as far as we want to let them get lest they destroy something called the integrity of the defense. The problem is that, when we draw that line realistically in terms of the "integrity of the defense," it always winds up being a fairly shallow bulge in the line. Then, if we figure out when in time the defending commander would have to know about the enemy attack, issue instructions, and begin moving forces and convert that time to where the enemy force would be at that time, to stop and counterattack the enemy penetration, we always find ourselves with a sort of trigger line for doing all that which lies way back in the enemy echelonment of forces—it is in fact in the second-echelon area. As a matter of fact, if you lay out the nuclear release and troop safety time warning lines and distances for such a caper, you'll find the nuclear trigger line backed up into the second-echelon area as well. If you want to attack the forces assumed to be in the penetration in such a way that they do not challenge the "integrity of the defense," then you have to begin preparations when they are way back in the formation—back in the second echelon. As a matter of fact, the maneuver calculus and the

nuclear delivery calculus for that eventuality are strikingly similar. Therefore in striking forces in a penetration one must get ready very early—even before there is a penetration. If indeed the defender waits until they penetrate, then the defender is reduced to a desperate conventional fight against the forces in contact, striving to marshal maneuver forces to prevent a disaster, and with first-echelon fighters so mixed up that he couldn't use nukes were he completely free to do so. [There is] a chart . . . which shows central battle set for planning before the battle. While it might be prudent to plan such a thing before the battle, the likelihood of its happening the way that chart and the accompanying text describe is, I believe, somewhat less than zero. This is the single thing that has always made nuclear planning at brigade and division level almost ludicrous. Any reasonable man, looking at the time required to move units, and the time required to secure release and warn troops, trying to figure where enemy forces would have to be if one backed off to accommodate those time requirements, would have to conclude the whole thing to be not realistic. Dreamed up at Leavenworth, worse yet at Fort Sill—heaven forbid! Now if we are to be believable in our present effort to get the Army back on track with tacnukes, we must attack this problem head-on. And I fear we haven't done it.

5. Such a complex problem doesn't lend itself to description and discussion by message. We should talk about this some more before you move ahead developing the concept, for I fear we have the thrust slightly askew. I do not want to trod down the familiar primrose path. Rather we have to strike out and plow some new ground. I believe we have the concepts fairly well defined. Now the problem is to translate them into the real world of G3s and FSOs so that we are believable. When you get a chance to think this over, call me and let's see if we can't get together ere long and talk this out.

POMCUS Issues

Message to Lieutenant General William R. Richardson
Fort Leavenworth, Kansas
23 April 1980

. . .

2. Regardless of the warning time prior to the initiation of hostilities, it seems to me that the actions we must take with regard to POMCUS will remain essentially the same. Using the 48-hour SW scenario should give us a better perception of the whole POMCUS question and define the risk of continuing current POMCUS practices.

3. Thus I would like to defer decision on the scenario question until you have looked at some other aspects of the problem:

a. Soviet priorities will dictate what nuclear and chemical weapons are targeted against our artillery, nuclear delivery means, and other targets in the MBA. Some analysis of that planning, along with our best estimate of the numbers, types, yields, and CEPs of weapons systems, may yield an indication of how much of the POMCUS could be damaged or destroyed in the present sites and disposition. We might find that, given 48 hours, the Sovs do not have the capabilities to do much to our POMCUS.

b. But if you find that an unacceptable level of POMCUS is affected, that tells us we have a requirement to change our way of doing business with POMCUS.

c. One thing we might consider is the use of more but smaller POMCUS locations (brigade-size POMCUS sites dispersed over greater distances). In this configuration more sites might survive. We also might have to change our plans for what we do in the first 48 hours—for example, a plan for rapid dispersal. If we adopt the 10/15 day scenario, we will never address ourselves to this requirement; we just assume our current POMCUS way of doing business is satisfactory. I am not prepared to abide by that assumption.

d. In analysis of increased ADA and CEGE option, did the option provide any protection against chemicals? Dispersing the vehicles into areas within 5–7 kilometers of the original site, what is the extent of predicted damage to the vehicles?

4. Put another way, whatever we must do with POMCUS at the onset of hostilities must be done in any event. The question is what we can do in 48 hours vice five days measured against what they might do in the first few hours given short warning, and what damage levels we suffer thereby. Before we give up completely on the "capabilities" scenario, let's size the problem a little better.

Dealing with the Soviets

Letter to General Alexander M. Haig Jr.
Secretary of State Designate
5 January 1981

As perceived by the Sovs and many of our allies as well, the United States is or is fast becoming a clear second or third rate power. This is a direct result of nearly ten years of virtual unilateral disarmament by the US on the one hand and accelerated armament by the Sovs on the other hand. While one might argue the details of the growing imbalance, we must acknowledge, at least to ourselves, that there is one. Rhetoric to the contrary is so much political nonsense anymore.

As perceived by the Sovs and many of our allies as well, there is considerable uncertainty about US resolve and ability to organize and apply effective assortments of national means to the pursuit of clearly defined national goals. This perception was recently aggravated by the dismal operation in Iran. While a relatively small event, and a military one at that, many take that as symptomatic of our growing national ineptitude.

Ability and resolve are best perceived in the context of the military shambles which the current administration has brought to fruition in the Defense Department. While pleading the case for more resources for defense, I have to say we need to look first at the balance of what we're spending our current inadequate resources for. No question our strategic capability needs an upgrade. No question we need improved intratheater airlift. But to provide those improvements virtually at the expense of the general purpose air/land battle team is sheer folly. Especially so in the context of the cumulative effects of starvation of resources for those forces for nearly ten years. To a systems analyst, especially one who has been an Air Force Secretary, one must spend more on strategic systems anytime strategic arms limitation negotiations are underway—or so goes the mythology. This begs the larger truth that strategic nuclear parity, near parity, or a perception of near party simply raises the premium on nonnuclear and nonstrategic forces. The more the Sovs believe themselves equal strategically, the more flexibility they perceive in their operating options with nonstrategic forces.

This brings us to our much maligned, undermanned, understrength, underarmed, overworked, overequalized, oversocialized Army. Detailing all that is not necessary, especially for you. Suffice it to say, in many ways things have got much worse since you left—certainly since you left to go back to the White House, but even since you left as SACEUR. A few points are worth noting.

We are trying to modernize—but we're not very effective at it. We keep being forced to buy too many expensive things we don't need, and we won't give up anything. The result is that we're buying a little of everything but not enough of anything, and the pace at which we are modernizing can in no way keep up with, let alone catch up with, the Sovs.

We are more than a quarter of a million fewer in numbers than when last we had a 16-division active Army. The quarter of a million people and the money to support them came out of:

- The wholesale and retail logistics base; the result is marginal logistical support in peacetime and a near total inability to support mobilization in an emergency.
- The base ops workforce; the result is marginal base ops support in peacetime and a near total inability to mobilize rapidly in an emergency.

- The training base; we give our soldiers somewhere between a quarter and a seventh of the training given soldiers in other armies in their individual skills—sometimes on the same weapon systems.

Whatever qualitative edge we may once have enjoyed over opposing weapon systems has been lost, due to our inability to field new technology rapidly enough to convert whatever qualitative advantage we may have on the labor force bench to fielded systems as quickly as or more quickly than does the enemy.

There's nothing wrong with the soldiers. Most of the debate over quality/scores and all that has taken place between people who don't understand or don't want to understand the real problem. The real problem is that we simply have not been willing to pay the price to train the soldiers adequately to fight and win against a foe who is quantitatively superior and qualitatively at least equal. Until we're willing to pay the price, no amount of adjusting scores or arguing about a draft will come close to solving our problem.

The RDF is a myth; one that has turned into an interservice standoff between the Army and the Marine Corps—largely to see who can get his hand deepest into the resources being provided for the RDF. Creating a JTF when command-control means for a deploying force already exist simply begs the larger issue, which is that the means have not been provided to make such a force any more rapidly deployable today than before all the cosmetics about an RDF began.

Details abound, but if you're to be provided the means to bargain from a clear position of strength, what is outlined above is necessary as a first order, and a continuing order, for one simply does not easily catch up on ten years of neglect.

. . .

I really don't expect an answer. You've more to do. But I wanted to tell you that we are really in trouble—especially the Army!

NATO Strategy

Letter to Lieutenant Colonel Aadu Karemaa
San Diego, California
1 April 1981

Thanks for sending me your study "Nine Days to ODER." It's very, very good, and I'd not seen it before. The question of how to effect a change in NATO strategy is a tough one. We started at it with the extended battlefield; your study goes just a step beyond. It has always been interesting to me to find that the proscription against crossing the border comes not from 14/3 itself, but from the JCS documents drawn up in furtherance of the instructions set forth in 14/3. Why that is, or how it came to pass, no one now knows, but it is. To my knowledge, no other nation in the Alliance so restricts itself in its national documents—at least we can't find it if they do.

No question that we need set this aright. The enemy must understand that if he begins the war, he has himself created a whole new set of circumstances—a situation to be resolved on guidelines probably quite removed from the status quo antebellum. Unless and until we do that, there's a critical element missing in our attitude toward deterrence. We must not forget that in Russian there is no word which means "deterrence." So we're dealing with a single-sided and shortsighted perception of what we're about.

Strategy Formulation

Letter to David S. C. Chu
Office of the Secretary of Defense
19 July 1981

Don't forget—the operational concept comes first—we shouldn't make strategy with budgets. It's supposed to be the other way 'round—at least at the beginning.

The Principles of War

Military Review
September 1981

Modern warfare requires the application of both the science and the art of war. The science of war is in a constant state of change, driven by new technological developments which can radically change the nature of the battlefield. The art of war, on the other hand, involves the critical historical analysis of warfare.

The military professional derives from this analysis the fundamental principles—their combinations and applications—which have produced success on the battlefields of history. The principles of war thus derived are, therefore, a part of the art rather than the science of war. They are neither immutable or causal, nor do they provide a precise mathematical formula for success in battle. Their value lies in their utility as a frame of reference for analysis of strategic and tactical issues.

For the strategist, the principles of war provide a set of military planning interrogatives—a set of questions that should be considered if military strategy is to best serve the national interest. For the tactician, these principles have provided an operational framework for the military actions he has been trained to carry out.

In the soon-to-be-published revision of Field Manual 100-1, *The Army,* the US Army has another look at its time-honored and battle-tested principles of war. Readers familiar with principles of war embraced by our Army will recall that they have been traditionally more tactically precise and less strategically perceptive than might have been desired. This fact, among others, occasioned a reevaluation of their relevance in today's world in which large quantities of very high-quality weapons systems are likely to come together in battles. The intensity of these battles may be like nothing experienced before, and the lethality and pace of the battles will surely outreach the most imaginative notions.

First, however, a few words of history might be in order as a background against which to array the principles as they are soon to be set forth. In the United States, our fundamental military heritage derives from the Napoleonic wars. More precisely, it has grown from the writings of two men who reported on Napoleon's campaigns. Each drew inferences which were to have far-reaching influence on the US military system. The two men were Baron Henri Jomini and Major General Karl von Clausewitz. We will come back to them but, first, a few words about war in Napoleon's time.

The European monarchs of the time had set out to break the back of the French Revolution and thereby stem its spread throughout Europe. As a result, France's incentive to resist, fight and win became so great that it demanded and stimulated new and revolutionary forms of war. France's stake was high—survival. It is not difficult, therefore, to understand why it was considered necessary to marshal the nation's total manpower and other resources in defense of the republic. Nor is it difficult to understand why, once the enemy was driven from French soil, he should be attacked in his homeland and brought under French control so that he could not attack France again.

Reprinted with permission from *Military Review*.

Napoleon found victory by lavishly expending manpower. Imposing even greater losses on his enemy, he forced his foe literally into abject surrender. Napoleon's idea of battle, annihilation, as later embellished by Jomini and Clausewitz, was abetted by new developments in artillery and innovations in organization which formed armies into independent divisions, each capable of acting on its own in execution of assigned missions. It was essentially an operational scheme drawn from the conviction that, to win, one need only organize forces, firepower and maneuver in concert to overwhelm—that is, to outnumber and overpower—the foe at some unexpected place and time and in some unexpected fashion.

It was Jomini's Napoleon that became the foundation of military tactics and strategy as taught in the US Army. This was so largely because Clausewitz was not translated into English until 1873.

In many ways, Jomini was less-well-equipped to interpret Napoleon than was his Prussian contemporary Clausewitz, for Jomini's intellectual roots were deep in the 18th century. He was repelled by Napoleon's indiscriminate bloodshed; he abhorred armies that lived off the land, leaving destruction in their wake. But he seized on the essential Napoleon—the massing of one's forces to bring the greatest possible weight to bear at a point and time where and when the enemy could bring but part of his force to bear. It was Jomini, too, who recorded Napoleon's conviction that the offensive was the military operation necessary to victory.

While his concentration on the decisive place tended to put Jomini more in the 18th-century tradition of a quest for terrain rather than destruction of enemy armed forces, this subtlety was often lost on his American readers. This was all the more so once Clausewitz's more powerful interpretation of Napoleon was available in English.

It was not until after World War I that the US Army tried to codify the fundamental essence of war. This was despite Jomini's early teaching that it was necessary for armies to develop and follow certain principles to guide their operations. The first principles of war espoused by the US Army were set forth in War Department Training Regulation 10-5 of 1921. Not much has been done to change them in the ensuing years, as their modern counterparts, by title alone, suggest. Whether this reflects the ultimate wisdom of their first drafter, intellectual bankruptcy, or some other circumstance would be hard to say.

Principles of War

1921 Version	**Current Version**
Objective	Objective
Offensive	Offensive
Mass	Mass
Economy of force	Economy of force
Movement	Maneuver
Surprise	Surprise
Security	Security
Simplicity	Simplicity
Cooperation	Unity of command

Other armies of the world have codified their experience into principles also. All European armies, including the Soviets, are basically children of the Napoleonic experience, interpreted by both Jomini and Clausewitz. It will be further recalled that Jomini reported on Napoleon from both sides—French and Russian—a point not at all lost on modern Soviet strategists. And so, foremost among all European nations perhaps, the Soviets are advocates of classic Napoleonic battle—annihilation.

At the moment, the Soviets can afford both the manpower and the weapons. Time may change that, as it has done in our own country. Nevertheless, as a comparison of principles reflects, there is a strong Napoleonic flavor in the principles laid down by the Soviets to guide their study and application of the art of war.

Comparison of Principles of War Used by Various Nations

United States (Army)	Great Britain and Australia	Soviet Union	France	People's Republic of China
				Political mobilization
Objective	Selection and maintenance of the aim	Advance and concentration		Selection and maintenance of the aim
Offensive	Offensive action	Offensive		Offensive action
Mass	Concentration of force	Concentration	Concentration of effort	Concentration of force
Economy of force	Economy of effort	Economy of force		
Maneuver	Flexibility	Maneuver and initiative		Initiative or flexibility
Unity of command	Cooperation	Combined arms		Coordination
Security	Security	Adequate reserves		Security
Surprise	Surprise	Surprise and deception	Surprise	Surprise
Simplicity				
	Maintenance of morale	Morale		Morale
	Administration	Annihilation		
			Liberty of action	Freedom of action
				Mobility

Since Napoleon or, more correctly, since Jomini and Clausewitz provided their perspectives on Napoleon's operations, the history of battle has provided some additional insights. These insights are quite relevant to reconsideration of principles of war today.

First is the truth that, more often than not, the outcome of battle defies the force ratios extant at battle's onset. The side that is outnumbered at the beginning is not foredoomed to defeat. In fact, quite the contrary is the case. The study of why this is so brings one to some revised viewpoints with regard to principles of war.

Second is the growing importance of the synchronization of all elements of national power in pursuit of national goals. Also, there is the equal imperative of public support for the policies—economic, social, political and military—adopted to achieve the national aims. Traditionally inept at synchronizing the nonmilitary facets of national policy, democracies all too frequently turn all too quickly to their military forces. They do this without first having laid the requisite groundwork to attain and sustain strong public support for the policy course adopted.

Dramatic demonstration of this fact in the last two decades leads to some further revised viewpoints about principles of war. So, without being unfaithful to the useful truths of our Napoleonic heritage, and with due acknowledgment of our historical experience since Napoleon, let us postulate some modest revisions to our principles of war.

Objective. Every military operation should be directed toward a clearly defined, decisive and attainable objective.

As a derivative of the political aim, the *strategic military objective* of a nation at war must be to apply whatever degree of force is necessary to allow attainment of the political purpose or aim for which the war is being fought. When the political end desired is the total defeat of the adversary, then the strategic military objective will most likely be the defeat of the enemy's armed forces and the destruction of his will to resist.

It is essential, however, that the political purpose be clearly defined *and* attainable by the considered application of the various elements of the nation's power. Not until the political purpose has been determined and defined by the president and Congress can strategic and tactical objectives be clearly identified and developed. Once developed, the strategic objectives must constantly be subjected to rigorous analysis and review. This is to ensure that they continue to reflect accurately not only the ultimate political end desired, but also any political constraints imposed on the application of military force.

The strategic military objective focuses on the political ends. So tactical military operations must be directed toward clearly defined, decisive and attainable *tactical objectives* which ultimately assist in achieving the strategic aims. Similarly, intermediate tactical objectives must quickly and economically contribute, directly or indirectly, to the purpose of the ultimate objective.

Selection of objectives is based on consideration of the overall mission of the command, the commander's assigned mission, the means available, and the military characteristics of the operational area. Commanders must clearly understand and must communicate clearly to their subordinate commanders the intent of the operation upon which the command as a whole is about to embark.

The principle of the objective requires that all efforts be directed toward a clearly defined "common goal." The principle of the offensive suggests that offensive action, or maintenance of the initiative, is the most effective and decisive way to pursue and attain that "common goal." This is fundamentally true in both the *strategic and tactical sense.* While it may sometimes be necessary to adopt a defensive posture, this should be only a temporary condition until the necessary means are available to resume offensive operations. An offensive spirit must be inherent in the conduct of all defense operations—it must be an *active* defense, not a *passive* one.

Offensive. Seize, retain and exploit the initiative.

Offensive action, whatever form it takes, is the means by which the nation or a military force captures and holds the initiative, achieves results, and maintains freedom of action. It permits the political leader or the military commander to capitalize on the initiative, impose his will on the enemy, and set the terms and select the place of confrontation or battle. It also allows him to exploit weaknesses and react to rapidly changing situations and unexpected developments. No matter what the level, strategic or tactical, the side that retains the initiative through offensive action forces the foe to *react* rather than *act*.

Mass. Concentrate combat power at the decisive place and time.

In the *strategic context,* this principle suggests that the nation should commit, or be prepared to commit, a predominance of national power to those regions or areas of the world where the threat to vital security interests is greatest. Some nations, including the United States, have global security interests in terms of politico-military alliances and commitments and resource dependencies. For such nations, the accurate and timely determination of where the threat to vital national interests is greatest is becoming increasingly more difficult.

In today's volatile world, the nature and source of the threat often change in dramatic fashion. It is, therefore, incumbent upon military strategists to anticipate the most likely areas of concern and develop suitable contingency plans. Since every possible contingency or trouble spot cannot be anticipated, much less planned for, it is absolutely essential for Army planners and Army forces to retain flexibility of thought and action.

In the *tactical dimension,* the principle of mass suggests that superior combat power must be concentrated at the decisive place and time in order to achieve decisive results. This superiority results from the proper combination of the elements of combat power at a place and time and in a manner of the commander's choosing in order to retain the initiative. The massing of forces, together with the proper application of other principles of war, may enable numerically inferior forces to achieve decisive battle outcomes.

As a reciprocal of the principle of mass, economy of force in the *strategic dimension* suggests that, in the absence of unlimited resources, a nation may have to accept some risk in areas where vital national interests are not immediately at stake. This means that, if the nation must focus predominant power toward a clearly defined primary threat, it cannot allow attainment of that objective to be compromised by unnecessary diversions to areas of lower priority. This

involves risk, requires astute strategic planning and judgment by political and military leaders, and again places a premium on the need for flexibility of thought and action.

At the *tactical level,* the principle of economy of force requires that minimum means be employed in areas other than where the main effort is intended to go. It requires, as at the strategic level, the acceptance of prudent risks in selected areas in order to achieve superiority in the area where decision is sought. Economy-of-force missions may require the forces employed to attack, defend, delay, or conduct deception operations.

> *Economy of force. Allocate minimum essential combat power to secondary efforts.*

In the *strategic sense,* this principle has three interrelated dimensions—flexibility, mobility, and maneuverability. The first of these involves the need for flexibility in thought, plans, and operations. Such flexibility enhances the ability to react rapidly to unforeseen circumstances. Given the global nature of US interests and the dynamic character of the international scene, such flexibility is crucial.

> *Maneuver. Place the enemy in a position of disadvantage through the flexible application of combat power.*

The second dimension involves strategic mobility, which is especially critical for an insular power such as the United States. In order to react promptly and concentrate and project power on the primary objective, strategic airlift and sealift are essential. The final strategic dimension involves maneuverability within the theater of operations so as to focus maximum strength against the enemy's weakest point and thereby gain the strategic advantage.

In the *tactical sense,* maneuver is an essential element of combat power. It contributes significantly to sustaining the initiative, exploiting success, preserving freedom of action, and reducing vulnerability. The object of maneuver is to concentrate or disperse forces in a manner designed to place the enemy at a disadvantage, thus achieving results that would otherwise be more costly in men and materiel. At all levels, successful application of this principle requires more than fire and movement. Other requirements are flexibility of thought, plans and operations, and the considered application of the principles of mass and economy of force.

This principle ensures that all efforts are focused on a common goal. At the *strategic level,* this common goal equates to the political purpose of the United States and the broad strategic objectives which flow therefrom. It is the common goal which, at the national level, determines the military forces *necessary* for its achievement. The coordination of these forces requires unity of effort.

> *Unity of command. For every objective, there should be unity of effort under one responsible commander.*

At the national level, the Constitution provides for unity of command by appointing the president as the commander in chief of the Armed Forces. The president is assisted in this role by the national security organization. This includes the secretary of defense and the Joint Chiefs of Staff at the highest level and, at the operational levels, the unified and specified commands and joint task forces.

In the *tactical dimension,* it is axiomatic that the employment of military forces in a manner that develops their full combat power requires unity of command. Unity of command means directing and coordinating the action of all forces toward a common goal or objective. Coordination may be achieved by cooperation. It is, however, best achieved by vesting a single tactical commander with the requisite authority to direct and coordinate all forces employed in pursuit of a common goal.

Security. Never permit the enemy to acquire an unexpected advantage.

Security enhances freedom of action by reducing friendly vulnerability to hostile acts, influence, or surprise. At the *strategic level,* security requires that active and passive measures be taken to protect the United States and its Armed Forces against espionage, sabotage, subversion, and strategic intelligence collection. However, implementation of such security measures must be balanced against the need to prevent them from severing the link between the American public and its Army.

In addition, such measures should not be allowed to interfere with flexibility of thought and action, since rigidity and dogmatism increase vulnerability to enemy surprise. In this regard, thorough knowledge and understanding of enemy strategy, tactics and doctrine, as well as detailed strategic staff planning, can improve security and reduce vulnerability to surprise.

At the *tactical level,* security is essential to the protection and husbanding of combat power. Security results from the measures taken by a command to protect itself from surprise, observation, detection, interference, espionage, sabotage, or annoyance. Security may be achieved through the establishment and maintenance of protective measures against hostile acts or influences. It may also be assured by deception operations designed to confuse and dissipate enemy attempts to interfere with the force being secured. Risk is an inherent condition in war. Application of the principle of security does not suggest overcautiousness or the avoidance of calculated risk.

Surprise. Strike the enemy at a time or place and in a manner for which he is unprepared.

To a large degree, the principle of surprise is the reciprocal of the principle of security. Concealing one's own capabilities and intentions creates the opportunity to strike the enemy unaware or unprepared. However, *strategic surprise* is difficult to achieve. Rapid advances in strategic surveillance technology make it increasingly more difficult to mask or cloak the large-scale marshaling or movement of manpower and equipment. This problem is compounded in an open society such as the United States where freedom of press and information are highly valued.

However, the United States can achieve a degree of psychological surprise due to its strategic deployment capability. The rapid deployment of US combat forces into a crisis area can forestall or upset the plans and preparations of an enemy. This capability can give the United States the advantage in both a physical and psychological sense by denying the enemy the initiative.

Surprise is important in the *tactical dimension,* for it can decisively affect the outcome of battle. With surprise, success out of proportion to the effort expended may be obtained. Surprise results

from going against an enemy at a time or place and in a manner for which he is unprepared. It is not essential that the enemy be taken unaware, but only that he become aware too late to react effectively. Factors contributing to surprise include speed and alacrity, employment of unexpected forces, effective intelligence, deception operations of all kinds, variations of tactics and methods of operation, and operations security.

Simplicity. Prepare clear, uncomplicated plans and clear, concise orders to ensure thorough understanding.

In both the *strategic and tactical dimension,* guidance, plans and orders should be as simple and direct as the attainment of the objective will allow. The *strategic importance* of the principle of simplicity goes well beyond its more traditional tactical application: it is an important element in the development and enhancement of public support.

If the American people are to commit their lives and resources to a military operation, they must understand the purpose which is to be achieved. Political and military objectives and operations must, therefore, be presented in clear, concise, understandable terms. Simple and direct plans and orders cannot compensate for ambiguous and cloudy objectives. In its military application, this principle promotes strategic flexibility by encouraging broad strategic guidance rather than detailed and involved instruction.

At the *tactical level,* simplicity of plans and instructions contributes to successful operations. Direct, simple plans and clear, concise orders are essential to reduce the chances for misunderstanding and confusion. Other factors being equal, the simplest plan executed promptly is to be preferred over the complex plan executed later. While any set of principles of war adopted by a nation has application across the entire spectrum of warfare, it must be understood that the principles are interdependent and interrelated. No single principle can be blindly adhered to or observed to the exclusion of the others, and none can assure victory in battle without reinforcement from one or more of the others. Indeed, military forces of each nation conduct operations on the basis of operational concepts which are derived from combinations of principles. For example, an operational concept derived from a combination of offense, mass, surprise, and maneuver might suggest a large military force, using large numbers of swiftly moving armored forces. The dominant mode of operation of this force is to overwhelm, disrupt and destroy, using surprise and maneuver to assist in the execution.

The most common application of the principles of war is in the form of operational modes on the field of battle. However, the principles can also be useful when integrated into the military estimate and decision process as an aid to judgment and analysis. The principles of the objective and unity of command, for example, can assist in mission analysis both at the strategic and tactical levels. They are also valuable aids in determining the purpose and direction of effort.

In like manner, the principle of simplicity can serve as a yardstick for the formulation of tasks. The principles of offense, mass, economy of force, maneuver, security and surprise can assist in the analysis of the situation, as well as in the formulation of courses of action. Again, simplicity can serve as the measure against which various courses of action can be compared.

It is essential that practitioners of the military art understand the interdependence of principles. The adroit combination of principles into appropriate operational concepts for winning in battle is the essence of the art of war. The clear understanding of the history of battle which argues

conclusively that there is more to winning than just outnumbering the other fellow puts Jomini and Clausewitz on Napoleon in correct perspective.

The soldier has the opportunity to make a unique contribution to his Army and the nation. First, however, he must understand the need to synchronize all elements of national power in coherent national policies. And, second, he must understand the absolute need to marshal and sustain public support for those policies from the outset, especially if they involve military operations.

Strategic Planning

Memorandum to Colonel John M. Collins
Library of Congress
3 September 1981

1. This responds to your . . . memo with which you enclosed a copy of your draft report on strategic planning in the Pentagon.

2. For whatever it may be worth to your effort, in the paragraphs following, I'll summarize what appear to me to be the most glaring deficiencies in our strategic planning process. One man's viewpoint. You know my credentials; I make no pretense at being unbiased. Like each of us, I am a product (victim) of my own experience and observations.

3. National Purpose and Priorities. It is in the nature of democracies that, short of the obvious desire to survive and perpetuate society, nation and state, statements of goals and national priorities tend to be vague, ambiguous, subject to interpretation and misinterpretation. Avowed national aims most often try to be all things to all people. This is so because people run for and get elected to public office based on those statements; there is, therefore, a tendency to try to make everyone happy as can be. So, there is first the problem of ambiguity and vagueness. This is made more difficult by the fact that campaign promises all too often don't form the basis for rational policies once an administration takes office. Intentional or not, the gap between what's promised and what can be delivered is always substantial. Some, like Carter's, apparently come to Washington in all naivete, believing their own promises. With this type, learning that all promised is not possible is often painful. In the Carter case, it was politically fatal. Be that as it may, we must accept, indeed expect, our national goals [to be] and priorities couched in terms somewhat less than useful in the practical world of trying to decide what policies can and should be pursued to arrive at those grandly stated ends. Nowhere in modern times has this natural state of things been better illustrated than in the case of France in Indochina and Algeria. The French Army returned to Indochina after World War II acting according to their understanding of policies and strategies endorsed if not promulgated by their government. When it developed they had not read their political masters correctly, the French military set out to devise a better way to interpret national aims, and to translate them into action programs. After Indochina, the soldiers retreated into the colleges and universities; they emerged for Algeria with a solution. It was called La Guerre Revolutionnaire. A complete military/political strategy for prosecuting counterrevolutionary war, it was designed to implement the presumed national goal of preserving Algeria for France. Frenchmen in Algiers could count the graves of four generations of their ancestors as they honored their dead on memorial days; Algeria was the metropole—France would not sacrifice the metropole! But France did sacrifice the metropole. The man who did it was himself a soldier turned president. Rejection by the state set the French military profession back a hundred years. They are not yet recovered.

4. Defense Policy Formulation. That example illustrated all too well the notion that soldiers and others who devise and implement programs to carry out national goals will always find themselves in the dilemma of setting forth how best to go about doing something that is ill defined at the outset. Further illustrated is the fact that when the political types see, in action, not to their liking, programs devised to achieve their goals, they may be quick to change; they may indeed change before their own agencies can react with rational programs set on the revised azimuth. Related is the problem of who is responsible for devising a specific

strategy from those earlier and more ambiguous goals in which are set forth the general terms of reference of the national strategy. In our system, specific formulation can be, and often is, accomplished by three or four agencies. First, some ASD—ISA, Policy, or whatever, can formulate a strategy; the Joint Chiefs can and do attempt to set forth a military strategy; the service staffs can develop a strategy. Normally, OSD and JCS-developed strategies will be vague, ambiguous, non-affordable, just as were the national formulations from which they tried to draw substance. In each case, this reflects the fact that neither are agencies embroiled in the programming process. The de facto military strategy is that which is made affordable by the resources provided by service and OSD Program Objective Memorandums. POMs are drawn up by service staffs and by OSD, PAE. Of the two, strategies made possible by service POMs tend to have less influence than those developed by PAE. This is so because service strategies, developed apart one from the other, reflect service parochialisms. In addition, they always are derived from the requirements process. Service POMs, therefore, tend to be unaffordable in the real resource world. It is the OSD, PAE-developed POM that determines. As a practical matter, therefore, our defense strategy is determined by the office which connects resources and goals, sets forth and husbands the programs. Programs will then be amended, altered, changed by the Congressional review process; this poses some unique problems which will be the subject of later paragraphs.

5. Resource Allocation.

a. At action level, then, vague and ambiguous goals must be translated into programs which match resources against goals.

b. All programs are surely not affordable—certainly not at the same time. Therefore, budgeteers become de facto goal setters, for it is they who determine what can and will be paid for. But budgeteers are not strategy fellows—nor are strategy fellows budgeteers. To make matters worse, there is no effective mechanism to force coordination between the two. In the McNamara system, the national military strategy was and is largely determined in the Systems Analysis or PAE offices. They are not in charge of the strategy, but they are in charge. For they are the resource allocators. In the parts of government where resources buy things as opposed to services, program elements are more visible and subject to scrutiny than is the case with service or welfare programs in which no tangible product is bought with the resource expended. Therefore, defense programs which buy goods and services are at once more open, visible, and subject to puts and takes by all parties to the budget process than are other less visible programs which may have at their core identical aims.

6. Reconciling Ends with Means. As programs are tried and fitted in the budget process, the services hang [on] desperately to each and every program. This reflects the requirements-driven process by which the services state their needs. The liturgical proscriptions of that process require a full statement of requirements; to do less would be irresponsible. However, when the time comes to rationalize programs with available resources, none of the programs can be sacrificed. So, all get cut a little. This horizontal slicing of service programs eventuates in the service buying a little of everything, but not enough of anything to do whatever it was they thought the strategy required. So, the strategy, in fact, becomes whatever can be supported; it's never enough—but no one will voluntarily strike down vertically in service programs to eliminate chunks instead of slices. Today's circumstances are illustrative. The announced national strategy speaks of one and a half wars. In truth, we barely have the capability for

one war. If the half war occurs along the periphery of the Soviet Union, we can't get to the half war rapidly enough to be very menacing. And we clearly haven't the capability to cope with simultaneity of the war and a half. The result is an announced strategy of which we are not capable. As further slicing of the salami is contemplated, no one has the cleaver aligned vertically instead of horizontally.

7. The Legislative Branch.

a. As the Constitutional agency charged with raising and maintaining military forces, the Congress must inevitably be a part of the strategy formulation process. Three problem sets intrude on the efficient functioning of this aspect of national strategy formulation.

b. First, there is frequently all too little consensus building by an administration for support of either the broad framework of the strategy or for programs devised to buy capabilities to implement the strategy.

c. Second, the Congress deals with budgets rather than with statements of strategy. Service budgets as viewed by the Congress are long shopping lists of things, people, facilities. Nowhere, except possibly in SECDEF, Chairman, and Service Chiefs' posture statements is there an opportunity for a coherent strategy to be presented, rationalized and set forth as a basis for the expenditures represented by all those seemingly unrelated budget lines. There is seldom, if ever, any presentation of an underlying rationale—an operational concept which forms the basis for what any individual service or the services as a group see as their requirements. Lacking a coherent rationale, all those budget lines appear less than rational.

d. Finally, the work of the various committees of the Congress has become so specialized that there is virtually no opportunity for an overall rationalization of any budget or program. Congressmen have more and more turned over the detailed work of those increasingly specialized committees and subcommittees to staffers. Staffers become experts, usually in a very narrow field of knowledge. Few, if any, seek or have a broad-ranging intellectual grasp of strategy, total program, or even total budget. Staffers act at the behest of the committee chairman who appoints them. Most often, they act in the absence of other instruction, on the motive that their man must get some visibility; they contrive to provide him that visibility by whatever means may be at hand, without regard to the relevance of their actions. The result is a series of puts and takes, endless hours of testimony over miniscule matters and virtually no testimony about broader and more comprehensive matters which should more properly be the concern of the Congress. In the end, the work of the committees and their staffs appears to those who testify year after year to be capricious at best, irresponsible at worst.

8. Strategic Planning in Practice.

a. In practice, there is no military strategic planning worthy of the name. As suggested above, strategy (whatever it may be) is more often determined by programmers than by strategists. So long as the JCS as a corporate body, and the OSD offices issuing policy pronouncements, remain outside the programming process, this is inevitable. From a military standpoint, three important items in this regard. First, the requirements-driven military planning system will always pit the military planner against his programmer counterpart, be the latter military or civilian. Secondly, the military "can do" attitude all too frequently creates a circumstance in which the military people charge off to do something without adequate resources, or without having made it clear to their politica1 masters that the resources were not adequate and what

risks must be acknowledged. Third, the military tend always to hang onto every program, salami slicing ensues, the strategy then becomes what is possible with what is provided, and that is always overstated or its risks understated, or both. Today's JCS, with a single exception, are of the mind that their business is to run out and do whatever the civilian masters have decreed. The trouble is that the civilian masters have not been all that precise about what is decreed, and so there's a great deal of thrashing about doing things, the purpose for which is unclear at best. An example: The RDJTF is operating under a series of vaguely formulated mission statements about its operations in SWA. Words such as "deter," "dissuade," "delay" are used to describe what the force is to do. The real purpose of intervention in SWA is never made clear—is it to secure oil, secure territory, secure populations, all the foregoing, none of the foregoing? Is it to defend against the Soviets? If the latter, we have pitted a token force against an awesome capability. The force is at highest risk, and the civilian leadership will quickly be in the position in which they must sacrifice the force or employ nuclear weapons. Is that the strategy? No one has said so, but that's what it is—the programmers made it so. There is at the moment an enormous debate over whether or not the RDJTF should by 1 October be made a separate task force responding directly to the JCS. In point of fact, it makes no difference what the command relationships are as of 1 October. The task force hasn't the resources—manpower, communications equipment, facilities, to be a stand-alone task force on 1 October. Our best estimates are that it would take at least two years to assemble enough people and equipment to make that possible; longer to provide the facilities. So, the real question is, what is it that the RDJTF is to do that requires it to be a separate task force, and which justifies the substantial expenditures of scarce resources necessary to make that possible. No one wants to discuss the matter from that perspective. The Chairman and his chiefs, all but one, are operating from a false sense of their proper role in formulating national strategy and implementing programs.

b. In this regard, it is regrettable but true that a rational and relevant military voice has not spoken, and but infrequently been sought, in Washington since the Bay of Pigs. For understandable reasons, no one trusts advice provided by military folk. Military strategy in today's operational world is bankrupt. Of the thirty-eight major contingency plans for which USREDCOM is responsible or is responsible to support:

All respond to Soviet initiatives.

All reflect a policy of containment of the Soviets around the periphery of the Soviet Union.

All depend on lots of I&W and deployability, none of which do we have.

All but a handful lack a coherent military operational concept for employment of the forces once launched and in position.

All reflect a strategy of gradual response—the gradual application of military force.

All proceed as military strategies without reference to, or knowledge of, other aspects of national power available or extant in the area of operations under consideration.

c. Flexible response—the gradual application of force strategy of General Maxwell Taylor was a relevant strategy when we had both strategic and theater nuclear superiority and some avowed determination to use those weapons should the need arise. Once those conditions no longer obtained, flexible response as originally set forth was bankrupt as a military strategy. Where is its successor? It is not. There isn't one.

9. In sum:

- The national strategy of containment of the Soviet Union physically around the periphery of the Soviet Union is defunct; they have bypassed us. Yet we have not decided on, nor have we articulated, a suitable substitute.
- The national military strategy of flexible response is similarly defunct now that we no longer enjoy a nuclear monopoly and there is considerable demonstrated unwillingness on our part to use those weapons if other measures fail. Yet we have not decided on, nor have we articulated, a substitute.
- So long as the policy/strategy formulators at various levels of our system are separated from the programmers and there is no requirement for rationalization of resources with goals in the process of formulating goals as well as budgets, the programmers will continue to determine the de facto national strategy and supporting military strategy. And the strategy folks will continue to ignore the fact that this is so.
- So long as the JCS are out of the Program Objective Memorandum development cycle, they will be ineffective as formulators of national military strategy.
- So long as the Joint Chiefs as a body, or in the majority, fail to give relevant advice to their political masters, and continue in the "can do" mode, no cogent military advice will be sought or given in the formulation of strategy—national or military.
- So long as the Joint Chiefs and their organization continue to split along service lines and exhibit gross service parochialism, their service to the nation is of limited value. In fact, for what the organization costs us, and for what it produces, it probably should be done away with.
- So long as the Congress operates on budget details without a coherent grasp of the strategy, and so long as the members give over the bulk of their responsibilities to staffers, there will continue to be an impossible imbroglio between programmers and the Congress.
- So long as the nation continues unable to develop and articulate for itself a balanced national strategy that includes political, social, economic, and—lastly, military resources and programs necessary to support and promulgate such a strategy, we will continue to be reactive to Soviet initiatives—reacting after the fact to the other side, to whom we have given over the initiative. In the long run, if we elect to proceed in this mode, we are foredoomed to be overwhelmed, outmaneuvered, and eventually defeated.

10. That's about enough—probably more than enough. If you want me to flesh out some of that as you go along, tell me.

Maritime Strategy

Letter to John F. Lehman Jr.
Secretary of the Navy
5 November 1981

This letter follows our exchange at the 30 October meeting of the Defense Resources Board on the subject of a so-called Maritime Strategy as set forth in the Draft Defense Guidance (DDG). It is written because, as I judge the gist of the comments which you used to respond to my commentary, it is quite clear that I failed rather completely to convey accurately what I was trying to say. Wanting not to be misunderstood, therefore, what follows is an attempt to restate my convictions in somewhat more lucid and convincing prose.

There can be no question that sea power is an essential element of a balanced national strategy. Indeed, if the United States intends to be an effective presence in South West Asia and elsewhere, across a range of circumstances, a strong presence at sea is critical. Naval forces for power projection, for establishment and protection of sealift, and for sustainment of deployed joint forces are essential to a successful maritime strategy. The DDG describes the United States' position in the world as that of an "island nation." While that perspective is appropriate, it is so more in the conventional sense than in the strategic context—certainly in the strategic nuclear context. In the perspective of an Alfred Thayer Mahan, or that of British strategists of the eighteenth and nineteenth centuries, the "island nation" could be secure behind its sea power. That is not true today; it is perhaps only partly true in the conventional, vis-a-vis the strategic nuclear, sense. The last time this idea surfaced in United States strategy was in the 1950s, when it was suggested that we should withdraw forces from Korea, from Europe, from wherever else they might be and, behind the deployed might of our naval forces and under the umbrella of our own strategic nuclear monopoly, rest secure in our "island nation." To the extent that the DDG attempts to resurrect that now long-ago concept it is, as in that long-ago context, clearly an inappropriate strategy for the 1980s. However, it is also true that a maritime strategy has relevance as a basic underpinning for the nation's military strategy in the decades unfolding before us. In that framework, a relevant maritime strategy sees strong conventional naval power projection, line of communication protection, and sealift forces as important and indispensable features of an overall balanced national strategy.

And so it is, for example, that not only would I support Harry Train's plea for 15 Carrier Battle Groups, but urge that we need a 16th. So it is also that, instead of a handful of SL-7s reconfigured roll-on/roll-off (RO/RO), I would contend that RO/RO numbers in the forties and fifties make [far] more sense in a balanced global strategy. Both of those recommendations I have made, officially or semiofficially, over the last eight years. Not being a naval strategist, and being "obsessed with the central front," I apparently get no credit for having proffered that advice. However, to your charge of "gross parochialism" I plead "not guilty"—in spades. As must we all, I plead "guilty" to being a product of my experience. Three years in Vietnam, two in Korea, more than a decade in Europe perhaps induce some biases in outlook. However, you might agree, I believe that a charge of obsession with a single theater on the basis of that experience is no more appropriate than it would be to charge Bob Long with being obsessed with the Pacific or with submarines, or to accuse Harry Train of being an Atlantic man obsessed with the Iceland and Caribbean approaches.

It is my hope that these paragraphs may prove a more accurate, and I'd hope a more persuasive, representation of what obviously we failed to communicate last time.

Battle Simulations

Message to General E. C. Meyer
Army Chief of Staff
5 February 1982

1. On 3 Feb Jack Merritt and I met at Carlisle to review McClintic Theater Model (MTM) and related matters.

2. After looking at MTM and the model program at Carlisle, I believe it necessary to revamp the REDCOM strategy for battle simulations I described to you earlier. You will recall that I have been working the theater war game problem by trying to develop, from the bottom up, a series of unit- or command-level simulations which would in the aggregate provide us with a theater-level game. MTM is, of course, a top down modeling system in which the results of lower level combat are represented by gross, and sometimes oversimplistic, aggregations of battle action at lower levels. Particularly vexing in a top down model is the calculus of attrition. I find that MTM has now managed to accommodate to my most serious concerns with Lanchestrian attrition calculus. I am further persuaded that providing ourselves with something better than WIE/WUV and the gross calculus of armored division equivalents (ADE) embedded in the SAGA ARID game, and in Gorman's presentation for the SecDef, is a matter of considerable urgency. So much so that we cannot wait for the bottom up work to break through to the theater level. Rather I now believe that what we should do is link these two efforts—MTM at Carlisle and the bottom up development effort. More on the latter point in another signal. For getting things moving top down in the REDCOM world, here's what Jack and I agreed to try to do.

3. First, run a real world plan—1003, using MTM. Do it this summer, that being the earliest our respective work schedules would allow. Do it at Carlisle. We'll take some folks there and probably use the Ops Group facility. It will take three or four weeks. We will run the plan without the overriding assumptions which made the plan work regardless. Those include assumptions with regard to: the outcome of the air to air war; delay of Soviet advance as a result of the combined interdiction campaign; capability of the force deployed to fight the battle against the enemy force that can be brought to bear; and hopefully some eval of the sustainability of the deployed force. If we can get several iterations, so much the better. In any event the outcome would be a much better estimate of our ability to execute 1003 than we have now.

4. To do that it will be necessary for me to restructure the architectural work for which I have already let a contract with JPL. Restructuring will be designed to use MTM as the overarching framework within which the rest of the model development will take place, and as the end game into which the low-level hi-resolution games must feed their output in the end. I have already started redesigning our instructions to the architecture contractor.

5. Thirdly, the electronic game boards used in MTM could provide us an automated control capability for joint CPXs and CPX play in FTXs. At the moment we are using First Battle with boards run by hand. Thus we get no aggregation of outcome because of the immensity of the bookkeeping problems, and so no eval of whether or not we've done anything right. This was one of my great frustrations with Gallant Knight. The MTM boards could replace First Battle boards and provide the automation we need. We could then run the CPX and evaluate a plan at the same time—something we cannot do now. Jack and I agreed to undertake a program to do that by Gallant Knight 83, now scheduled for March–April 1983.

6. In a separate signal I will provide you with more comprehensive recommendations about how these agreements fit into the overall framework of simulation for joint operations. This signal is simply to inform you of what Jack and I want to do. Jack has seen this and concurs. If you agree we'll press on.

European Strategy

Letter to General Edward C. Meyer
Army Chief of Staff
1 July 1982

After we talked about the matter of the constitutionality of the Germans crossing the IZB, I've gone back over my notes since the time we first began to talk with them about Integrated/Extended/AirLand battlefields. We first surfaced the matter at the Munich staff talks in 1978. Reichenberger was Vice Chief; Hildebrandt was the Inspekteur. At first it was all so sensitive that Reichenberger and I had to talk about it personally with no more than one or two others present from either staff. I remember he went and got a copy of the Bonn Constitution, and he and I discussed Article 26 specifically as it related to the instant problem.

We agreed that we shouldn't hedge on battle-winning doctrine because of some local political circumstance—like the IZB. So long, that is, as some grander political consideration might not make the doctrine totally untenable. And we agreed that the latter was not the case with the IZB problem.

It was on that basis that we began joint development of concepts which have led to multiple rocket systems and their accompanying acquisition means and a host of other systems on the materiel side. It was also on that basis that we moved from the Integrated Battlefield to the Extended Battlefield and on to the AirLand Battle. Burandt knows all this—from Reichenberger as well as from me, and we've never had negative discussion on the matter. Nor have I had such with Horst Wenner, who understands and agrees completely.

I'm therefore at somewhat of a loss to understand the source of the concerns expressed to you by Glanz and Von Senger. I've enclosed a copy each of a page from the Bonn Constitution and its amendments, each of which includes Article 26. It is most difficult to understand how the wording in that article leads to the thinking you reported. There has to be more to it than meets the eye (or ear) at first blush. I have gone to work to try and flush the problem out.

Von Senger was at SHAPEX where Bernie [General Bernard Rogers, SACEUR] laid down very clearly what the direction is to be. Glanz was not there. However, Burandt was, and he was as delighted with AirLand Battle, SHAPE, as I was. Von Senger and I did not talk after the meeting, so I don't know what his reaction was. However, the part of it all that so appealed to Reichenberger, Hildebrandt, and the others from the beginning was that here was the means to get the battle—nuclear and conventional, off their soil, in part at least, and so avoid the total destruction of their civilization.

That still, and even more now than then, has to be a very compelling argument. The Sovs are very sensitive to AirLand Battle, have risen to the bait several times, and are hard at work trying to find out if we're doing anything; and if so, what programs to pursue to support their own doctrine.

That just may be where this is coming from. If so, we've a very large problem indeed! I'll follow it up and report.

Strategy Issues

Message to the Secretary of Defense
7 September 1982

1. This responds to requirement . . . to submit CINC's personal recommendations for changes to the FY 85–89 Defense Guidance (DG). My recommendations are set forth in the following paragraphs.

2. Our single most critical need is for a fully coordinated national strategy, one in which all elements of national power—economic, political, social, and military—are combined and fully interactive. Only against the backdrop of clearly defined national policies and objectives is it possible to set forth military strategy, force structure, modernization goals, and supporting programs which together provide the military means to act in consonance with the overall national strategy.

3. The Defense Guidance must provide the military wherewithal to do three things: first, to deter and discourage our adversaries from using military force as an instrument of national policy in international affairs; secondly, to provide a credible warfighting capability as a relevant backdrop to our economic, political and social policies, goals, programs, and strategies; thirdly, to deploy, employ, and sustain appropriate military forces in pursuit of national goals in situations in which other means are inadequate to the demands of the situation.

4. In the broadest terms, military programs set forth by the Defense Guidance must provide the means to cope with the fundamental problems facing the United States in the near as well as in the longer term. Foremost among these problems are:

a. The massive improvement in Soviet and Soviet surrogate warfighting capabilities seen over the last 10 years, and the rate of sustained improvement that ongoing programs, agreements, alliances, and other arrangements are likely to provide for. The fundamental problem here is that, while we are modernizing, our pace of modernization must be at a rate which does not allow us to fall farther and farther behind. This is true on both the conventional as well as the nuclear side. Equally important is the need to redress the conventional imbalance at a rate greater than the rate at which we seem to redress the nuclear imbalance. For too long have we mortgaged our conventional deterrent and warfighting capability to the nuclear weapon.

b. The world energy dilemma. The next so-called "oil crisis" is surely in the offing, although the exact circumstances by which it will be brought on may yet be dimly perceived. There is an urgent need for a set of widely based national and international agreements, programs, and measures designed to mitigate the effects of such a crisis when it does occur. As that national strategy set unfolds, it is prudently necessary to plan for adequate military forces and for their use in circumstances in which critical resources may be at risk and other means for problem solution have failed. It must also be clearly recognized that, in the case of oil, the use of military force to ensure the continued flow of Persian Gulf oil exports is without question a last and probably least effective resort. When and if the "oil problem" is resolved, an identical problem set can be foreseen with regard to the critical mineral resource exports of south central Africa—chromium, for example. The instant energy problem and the longer term mineral problem are but microcosms of the grander problem of world economic (resource) interdependence. It is upon us now; it is something we must calculate how to contend with, for it will stay with us from now on.

c. The world nuclear problem. The national strategy must include nuclear energy programs as part of the solution to the world energy dilemma; more urgently, the national strategy and particularly the Defense Guidance must wrestle with growing asymmetries apparent in the theater nuclear weapons systems and operational concepts for their employment by the largest of the world's nuclear weapons holders—the US and the USSR. US theater/tactical nuclear systems were designed essentially to redress a conventional force imbalance in NATO Europe. It was then, and still is, widely perceived that they would be used primarily to reestablish some status quo antebellum. The enemy, while in possession of overwhelming numbers of tanks, artillery, and tactical aircraft, did not initially have tactical nuclear weapons—at least not in substantial numbers, and his nuclear weapons systems have, from the outset, been designed to meet an operational concept quite different from our own. It is precisely this set of asymmetric operational concepts and supporting weapons systems which tends to make one or the other, or perhaps both, of the sets dangerously irrelevant. Particularly is this the case as we have more recently developed our own operational concepts with regard to how modern battle must be fought into the AirLand Battle concepts. Our theater nuclear weapons systems, designed and fielded long ago, no longer match battle strategies relevant against a vastly modernized enemy who also possesses an impressive array of tactical nuclear weapons specifically designed to support his own concept of operations. Further, our nuclear strategy must take into account the new dimension of nuclear proliferation among nonindustrialized and developing countries. We are on the threshold, if not already across the threshold, of a time when irresponsible governments or leaders could use nuclear devices in a variety of modes, for a variety of reasons. Related directly to this is the progressive militarization of conflicts in the so-called Third World—militarization with modern weapon systems. Today, smaller nations with smaller, albeit impressively modern, conventional forces and small nuclear capabilities could quite likely adopt the notion that their relative quantitative disadvantage could be offset by nuclear weapons, for the same reasons that the NATO alliance adopted that stance many years ago. This just increases the risk of nuclear war and at the same time risks the spread of nuclear conflict from wherever it may have begun into NATO Europe as well. If nuclear disaster is to be averted, and be averted it must, the growing debate over nuclear weapons in Europe, and the growing potential for their use elsewhere, cannot be allowed to obscure the fact that the cloudier the nuclear equation becomes the more we require strong conventional forces simply so that matters might be resolved without risking nuclear disaster.

d. The dilemma of sufficiency in the short term and how much is enough in the longer term. Despite our widespread system of alliances, it is quite clear that we cannot overnight, or even in a few short years, overcome the economic, political, and social effects of trying to pay simultaneously for the Vietnam War, landing on the moon, and the Great Society out of the same not unlimited coffers. Even the wealthiest nation on earth does not recover easily from 10 years or more on that course and in a short time chart an affordable program towards recovery. In addition, the world energy situation will likely have the general effect of limiting the rate of economic growth in the years ahead, especially in the industrialized world; more especially in those countries who are net importers of oil and whose energy efficiency (marginal unit of GNP output per marginal unit of energy input) is low; the United States and the USSR are both in that category. Therefore, not only can we anticipate the need to continue curtailment of some of the social/economic largesse of the great society, but it will quite likely not be possible to fully fund our defense improvements at rates that will allow us to catch up on all

fronts—nuclear and conventional at the same time. The question of the relative rates at which we can afford to modernize to improve our ability to fight and win is therefore one of the key dilemmas that must be resolved. To modernize on a broad front—simultaneously improving our conventional as well as our nuclear capabilities at reasonable rates, would likely require that some 10 or more percent of the GNP be applied to defense programs per annum. Unless the nation is willing to increase defense spending to this level, at the expense of other programs, this department will be required to establish realistic priorities with regard to the relative rates of modernization which are affordable as between conventional and nuclear capabilities. For it is our conviction that at GNP levels below the 10 percent per annum figure it is simply beyond our capability to modernize at reasonable rates on a broad front. The DG must lay the foundation for programming decisions on that course.

e. Meantime, and especially in the short term, as we husband our modest resources, there is an urgent need for well defined guidelines for the employment of our military forces lest we become embroiled in some caper beyond our reasonable capabilities for reasons which are obscure at the outset and become even more so as time goes on. A relevant set of such guidelines follows.

(1) First, if military forces are to be employed, it is imperative that it be stated early on what is to be done. All military actions are undertaken for political goals; however, many military courses of action may well be the antithesis of many political goals. Therefore, political aims and military tasks and missions must be carefully matched at the outset and kept aligned throughout.

(2) Secondly, whatever may be the course of action on which we embark, it must be decided whether or not sufficient forces are or can be made available to accomplish the mission. There must be a reasonable probability of success at costs which are bearable in terms of the importance of what is being attempted. A cause that seems truly good may just not be worth substantial cost. That may be the single most important lesson of Vietnam. Never having set forth at the outset just what we were about, we waited until far too late to calculate what might be the cost of a reasonable probability of success.

(3) Thirdly, deployment means must be available to move the forces to the right place in time to accomplish the mission. There must be sufficient redundancy in the deployment means to provide a reasonable probability of success. If ships or airplanes are lost, for whatever reason, we must understand at the outset whether or not the forces can be deployed anyway.

(4) Fourthly, the forces deployed must be sustained after they're employed. The sinews of war—replenishment and services, must be provided in sufficient quantities, in time, at the places needed to keep the deployed forces operating. Again, there must be a fairly reasonable estimate in the beginning as to whether or not this can be done.

(5) Finally, having satisfied one commitment with whatever forces, deployment means, and sustainment resources required, there may be a need to respond to other commitments as well. We must understand if that can be done. With forces deployed in the Persian Gulf, for example, could we then respond to a crisis in Europe? Elsewhere?

While the Defense Guidance cannot possibly postulate "if . . . then" equations for the total spectrum of possible involvements which might require employment of US military forces, it is quite possible to follow the suggested formula with sufficient faithfulness to at least spell out

the general terms for possible military involvement in the principal arenas in which we have treaties, alliances, vital or enduring interests.

5. The FY 84–88 DG places improvement of existing forces in first priority. It also emphasizes strategic nuclear forces. I would argue that conventional force modernization, to include expansion and modernization of our rapid deployment capability, should receive far more emphasis than is provided in the current DG. We must fully develop our ability to fight and win the AirLand Battle; our programs must be those which will improve our ability to do that as a matter of first priority. Among these we would cite the following examples as illustrative.

a. Modernizing theater nuclear forces by upgrading our aging weapons stockpile with enhanced radiation weapons; trading off some shorter-range, lower-yield weapons for mid-range weapons mounted on dual-purpose delivery means, weapons that can contribute to the AirLand Battle concept of fighting follow-on forces at the same time we fight the assault echelons; this enhanced dual-purpose capability is one way of raising the nuclear threshold, lessening the need to consider the use of nuclear weapons.

b. Modernizing the mid-range and deep-looking reconnaissance, surveillance, and target acquisition means and supporting C3 linkages to enable theater commanders to find and engage the follow-on echelons with timely and effective actions.

c. Increasing tactical fighter procurement programs to ensure continued modernization, and the requisite number of aircraft to provide the full range of CAS/BAI/interdiction capabilities.

d. Provide for accelerated procurement of mid-range systems such as the multiple launch rocket system and the corps support weapons system, along with their supporting surveillance and target acquisition systems, to provide the capability to extend the battlefield in depth in accordance with the requirements of the AirLand Battle.

e. Provide modern tactical fusion systems for synthesizing the product of all intelligence sources into usable near-real-time tools for use by commanders who must fight the AirLand Battle. Accelerated programs to procure and field such systems to provide this vital link must be pursued. We must be able to see the battlefield, both near and deep, in order to be able to apply the right force at the right time and place.

f. Modernize Army forces with a better balance between combat and combat service support units in order to support an even modestly scaled contingency operation.

g. We have too often neglected to embrace realistic strategy-force combinations and therefore plan for deployment of light forces for contingencies because they can be moved quickly with limited lift. Acknowledging the lift problem, which must be solved, deploying light forces into areas where there are forces equipped with substantial numbers of modern mechanized weapons is a high risk enterprise of the first order. Even with current lift assets we can move a smaller, heavier force that would be much more effective in combat situations likely to be encountered and get it there just about as fast. We must not let our critical shortage of lift lure us into adopting a strategy of deploying forces that cannot fight and win.

h. The current conventional force structure is undermanned and equipped. We should have well under way programs to adequately man and equip the structure we have before considering expanding the force. We can do this, in part, by opting to stretch out part of the strategic

nuclear force modernization program while cutting back or delaying marginal programs such as poststrike damage assessment capability. We should defer additional Army divisions and expansion to a 600-ship Navy in deference to procuring RO/RO ships, more airlift, accelerated procurement of essential conventional force systems, and adding sufficient end strength to fill out the structure we have.

i. Modernization of our C3 systems is imperative. It seems prudent, in light of the quantum leaps made in the commercial world, to actively pursue commercially adaptable systems to reduce development and procurement times. In a technology said to "turn over" every three and a half years, it is clearly not relevant to continue to embrace an R&D/procurement cycle which at best is three to four times as long.

6. Defense Guidance must make clear what is to be done by the forces provided for deployment to SWA. Many situations could lead to a decision to deploy forces—intrusions from outside the area, intratheater war, domestic disorder, disruption or denial of oil, or blockades, to suggest a few. The possibilities are almost limitless. If we are to go there, it is necessary to decide at the outset what is vital and what we are willing to do to secure successful resolution of problems that threaten our interests there. For it is increasingly true that, against forces in the region, and/or those deployable into the region by the Soviets, war in SWA is no half war—it would require the full panoply of US military power deployed over distances two and a half times those necessary to reinforce our forces deployed in NATO Europe. That is a risk operation of the highest order indeed. That being the case, it would be most prudent to decide just how vital are our interests in the region.

7. Lastly, a relevant Defense Guidance must include consideration of the likelihood of crisis simultaneity—that even if we are confronted with only a war and half, it will be a long time indeed before modernization programs presently programmed will provide us a comfortable probability of satisfying our requirements for the "whole war," let alone those for the "half war" if that should occur at the same time. The Soviets know this as well as do we. Surely they would not be so short-sighted as to let us off the hook with but one crisis at a time.

19. Training

Page

Training Issues 769
Training in Europe 772
Junior Officer Maintenance Training 773
Training Management (Mundie) 774
Training Management Review 777
Training Management (Blanchard) 778
Training and Development 779
Tank Crew Performance 780
Training Base Issues 781
Training Resources 782
Training and Testing 783
National Training Center (Meyer) 786
Initial Entry Training (Multiple Addressees) 787
Advanced NCO Course 789
National Training Center (Kerwin) 790
Army Training Study (Kerwin) 792
Training Ethics 793
Noncommissioned Officer Training 794
Highly Effective Forces 795
SQT Preparation 798
Army Training Study (Kroesen) 799
Individual Training and Evaluation (6 September 1978) 800
Physical Fitness Training 803
Individual Training and Evaluation (28 September 1978) 805
Pre-Command Course 807
NCO Advanced Courses 808
Initial Entry Training (Rogers) 809

Page

ARTEP Feedback 810
Army Training Study (Rogers) 812
Training Management in Units 815
Training Systems Management 824
Precommand Course for General Officers 825
Training the Army in the Field 826
Treatment of Trainees 828
Tank Gunnery Competition 830
Trainee Abuse 832
Training Key to Success of Force Modernization 833
Officer Training 837
Battle Simulations 838
Basic Training 839
Training Development Products 840
Interservice Training 841
TRADOC Commanders Video Conference 842
National Training Center (Multiple Addressees) 843
Battle Drills 845
TRADOC Commanders Video Teleconference 846
ROTC Expansion 847
TRADOC Videoteleconference 848
Training Techniques 849
Officer Advanced Courses 852

Training Issues

Letter to Brigadier General Paul F. Gorman
Fort Monroe, Virginia
28 January 1974

This responds to your letter of 8 January and the accompanying "How to Win Outnumbered" and task list papers. It's a great paper and I appreciate your invitation to provide my reaction; that is the purpose of this letter.

"How to Win . . ." makes as a first point the fact that neither Army training nor training tests today adequately integrate gunnery and maneuver training. True. Looking back, there has not been sufficient emphasis in this area since the Korean War. In the late 40s and early 50s we had it; Knox taught it to Basic Officer courses; Europe-based armor units practiced it on the battle-run courses at the BAOR Training Center at Bergen-Hohne. For some reason we began to drift away from it after Korea.

And so today the be all and end all of tank gunnery is the Tank Crew Qualification Course (TCQC), which tests and scores the individual tank crew. Tank sections, platoons, and companies are seldom if ever tested in live fire and maneuver exercises; no requirement exists to do so, and it happens only when an imaginative commander sees the need and makes the effort.

Never have I heard a satisfactory explanation of why or how we abandoned integrated tactics and gunnery training. Several facts bearing on the matter are germane.

- Limited range facilities, becoming more limited as gun ranges and urban encroachment increase. Even so it is interesting to note that in Europe it was General Bruce Clarke who abandoned the battle run ranges at Bergen and turned instead to using Bergen for Tables I through VI, requiring US units to go to Grafenwöhr to fire TCQC, and eliminating unit fire and maneuver from the training scene.
- Limited ammunition and a perception that not enough ammo was available to do more than fire crews through eight tables annually. It is instructive to note that for years in Europe a 10 percent increase in ammo allocated would have permitted crew qualification twice a year, and that enterprising battalion commanders have long qualified crews twice a year by good management and by picking up unused ammo allocations.
- Service schools (Knox in particular) have long regarded the problem as one of unit training. Since the service school mission is individual training, anything more than qualification of the individual crewman in his individual crew is unit training—not to be dealt with in the service school system. Several of my distinguished predecessors contributed to this viewpoint.

So what do we need? First we need a more realistic, less canned TCQC; we should determine how often it should be fired for a crew to be proficiently ready. Second we need to create live fire platoon, then company, exercises which integrate gunnery and maneuver and to find out how often they need to be run. Third we need to find out how often we can afford to run TCQC, platoon and company live fire, with ammo and ranges available. The gap between the first and second step combined and the third step will give a requirement for dry run courses which somehow simulate the real thing, and for necessary frequencies of repetition of dry run courses. Fourth, we need to look at simulation and training devices that will aid in gunnery training itself, but more importantly solve the dry run problem fairly realistically and fairly

cheaply. We have several things in mind and will be prepared to discuss them at the conference on this subject I agreed to host. MILES, SIMFIRE, laser, and many other candidate systems will be included. We need an organized program with identifiable goals and a funding program to support it.

The ATT problem I believe to have been satisfactorily wrung out last week and we're working on that.

As you observed when you were here last week, we're working on the tank commander problem. The course you saw is just one step in that process. We're trying to develop techniques that are adequate to our purposes here and that can be transported by our graduates back to their units.

We're working on a Master Gunner's Course along the lines we talked about last week, and will have a proposal to offer shortly.

The observation that the better MOS 11E NCOs gravitate to other than tank crew jobs is indeed a valid one. A TC job in a line unit is tough, and it is understandable that NCOs who can qualify as Recruiting Sergeants, Operations Sergeants, and the like find such positions attractive. I would guess the same could be said for Infantry Squad Leaders, except that the existence of MOS 11F (Operations Sergeant) may camouflage the problem to some degree. Also, it would be grossly wrong to place all blame for this situation on the line NCO. Every commander worth his green tabs has on many occasions had to pull top-notch line NCOs to perform other "more important" duties both within and outside his command. And neither is it correct to leave the impression this is solely an enlisted personnel management problem. From both the individual's and the commander's point of view, the exact same observation can be made about officers—of both Armor and Infantry. I would dearly love to see the Army try to solve this problem in its total scope, but it seems unfair to make the 11E TC appear as the only one needing help.

The idea of awarding pro-pay to TCs in TOE positions only is attractive, but I wonder if pro-pay alone is sufficient incentive to solve the total TC manning problem. Past experience would indicate that Drill Sergeant and Recruiting Sergeant pay alone were not enough to fill those ranks with only our best qualified NCOs. Full pay for TC duty regardless of rank would be another approach. And we should certainly not overlook the significance of distinctive uniform items if motivation and reward are to be properly considered.

Regarding eligibility for NCOB, I fully support the thought that all TCs and potential TCs should be allowed to attend. Ideally, all would be required to attend NCOB, and would lose, or be denied promotion to, their TC position if they failed to graduate. The NCOB Course should be so skill/common sense oriented that a soldier's GT score need have no bearing on his ability to graduate if he is fully motivated.

Our MOS tests today are a farce, or worse. There are many challenges in this area. The first is to structure a test which reflects the knowledge we want the NCO/EM to have for various levels. Current tests reflect neglect, ignorance, and dogmatic pursuit of stupid rules. The next step is to write questions that make sense and that any experienced, well trained NCO/EM can answer correctly if he applies himself. Many current questions are so confusing, inaccurate, and otherwise poorly written that they constitute a severe learning obstacle, and the overall result of administering such questions is undoubtedly detrimental to the taker and the Army. The ultimate step, if it can possibly be taken, is to throw out the written MOS test and substitute a

performance test in its place. How this can be done, I do not know, but I feel strongly we should try. Only in this way do I see a realistic possibility of tying TC skills, gunnery qualification, and tank crew training to MOS evaluation scores.

Finally, as I pointed out last week, the Army is short NCOs to begin with because the manpower program was deliberately reduced below the level required by the force structure—even though the force structure levels were within regulatory grade constraints. When one adds to this the inefficiencies of the DCSPER distribution system and the disruptions imposed by personnel "managers" down the line, it's a wonder anyone gets where he's supposed to go. With you, I would hope this situation could be improved. Having watched it firsthand at high level and low, I cannot be sanguine that there is a workable solution.

Training in Europe

Letter to Francis L. Rose
Cherry Hill, New Jersey
5 April 1976

This is indeed a new world—one with many of the same problems as the other one. But out here solutions to those problems tend to get subverted by the press of day-to-day living—statistical indicators of discipline, morale, and all sorts of things, some of which relate to the mission, some of which don't.

Training is still our most serious problem—the methods in use at unit level haven't improved substantively since Napoleon passed this way en route to the Battle of Ulm in the 1809 campaign. We just haven't done very good work in this area. Time to try something new.

Junior Officer Maintenance Training

Letter to Major General Willard Latham
Fort Benning, Georgia
18 May 1976

The second matter I wanted to bring to your attention has to do with the second lieutenants out of Infantry Officers' Basic who are assigned to mechanized battalions. I know this has been an issue over the years—I recall it from my last assignment here, but they don't know enough about maintenance of any kind, especially of the M113. During my tenure at Knox we doubled the hours devoted to maintenance for Armor lieutenants in the basic courses. It is paying off. We still need to give them more, but time just wasn't available. But of all the changes we have made in the past few years in the education of our young Armor officers, that one appears to be paying the biggest dividends in the field. We are having a hell of a time with major assembly failures in the M113, part of which at least reflects the fact that the lieutenant platoon leaders don't know anything about maintenance, driver training, and driver abusive practices. The other day I asked one why his track was deadlined. His response was that the fan tower was broken. When I asked him to point out the fan tower to me, he grabbed the exhaust stack. I have some people running a little survey to try to help me figure out what to do about this, and I'll convey that to you with some proposals for corrective action. If they aren't going to come to us properly trained to do their job in a mech unit, then I'm going to have to start a maintenance course of some kind for them. Unfortunately, the ignorance extends to their company and battalion commanders in mech units as well—for but a few years ago they too were lieutenants out of a basic course, and nothing that has happened to them since has done much to improve awareness of our facility with the machines in which they ride to war.

Training Management

Letter to Major General William L. Mundie
Fort Benjamin Harrison, Indiana
16 August 1976

This responds to your letter of 3 August about consolidation of training management at battalion level. First may I say that in my judgment that's where training management is already centralized. I say that because that is where we find the S3 and an S3 staff. Battalions are assigned resources with which to accomplish training goals. S4s handle these resources according to the plans drawn up and set forth by the commander and his S3. Our organization does not provide S3s and S4s and other staff elements for companies. Nor do we allocate resources—in the management sense, to companies. The fact that we have de facto S3 sections at company level throughout the Army does not imply that this is the way it was intended to be. Indeed it is not.

What has happened to us is that we have decentralized training, and decentralized it without clearly understanding up and down the line what decentralization is. All too many battalion commanders will tell you that decentralization means that the company commanders are responsible for their own training, without being able to say precisely what that means. Some battalion commanders abrogate their training management responsibility completely—dumping it on the company commander. This is convenient. It allows the weak battalion commander to back away from and not get involved in the training problem personally. Secretly he knows he is not competent to do it, and therefore is more comfortable if he doesn't have to do it.

Secondly, it allows the battalion commander to blame all the mistakes on his company commanders. They are responsible for training under the decentralization concept, and so if it goes wrong it is obviously their fault. This is a convenient dodge for those who want to get their time in command without having any smudges on their own record. So what is at fault is our general lack of consensus on what decentralization means at the battalion level, and some other command-related problems which take advantage of opportunities afforded by ambiguities inherent in the concept of decentralization. I have attached as an enclosure a commander's note on the subject.

If you accept my philosophy about decentralization in that note, then it remains to be said how training management is done. There are many ways. At the second enclosure is a bundle of papers from a battalion training program. Although they are several years old, they strike at the heart of the problem to which you have addressed yourself and they are as applicable today as they were when written. Attached to the directive part itself are two sample sheets describing Standard Instructional Blocks and Standard Lesson Outlines written by the battalion to help company-level people conduct training. You will note the blocking system reflects the basic philosophy of trying to prescribe what level of proficiency is required, and how often that skill or set of skills must be practiced in order to maintain the required proficiency.

In the Standard Lesson Outline you will note at the bottom of the first page a set of what are essentially tasks to be taught. It is a list of skills—like the SQT, in which the battalion commander requires proficiency. To what level? Look at the references. Note that they are set forth by paragraph and page number. The descriptions in those specific references generally

describe the skill levels. The task lists started with those additional skills in which the battalion commander required proficiency. The whole thing is a comprehensive system.

In the battalion in which that system was used, there were no training staffs at company—the first sergeant and company commander were the training staff. They had time to do it because the battalion had centralized administration using a device called a Battalion Policy Manual. It was along the lines of your CABL book and it removed several tons of paper from orderly rooms. It was not necessary to have additional people in the battalion S3 section in order to run the system. The tasks prescribed by the Standard Lesson Outlines could be increased—added to, by company commanders if they wished. There was time for that. The battalion drafted up an outline schedule four weeks in advance based on a master board which contained the consolidated Standard Instructional Blocks. Each week the S3 and company commanders met, and the company commanders gave to him their penciled notes on what else they wanted to do and other details that may have changed since the last meeting. The battalion published the training schedule. A typewriter was not touched at company.

I have seen other systems that strike at the problem. None are quite as comprehensive as this one, probably because this one consumed nearly a year in development and most commanders simply don't have that much time—they aren't in command long enough to form their system and get it into being.

With regard to the samples you sent from the 7th Division—you can see from what I described above that the system I believe we need has a far more detailed and precise background than is at least immediately apparent in the sample. Those who do not understand decentralization too well will tell you that the 7th Division system is the epitome of decentralization. It all goes back to the *what* and *how* argument central to my paper on decentralization. The more precisely one describes what is to be done, the less difficult it is for the fellow who has to decide how.

Company commanders in the system I described had complete and absolute latitude in deciding *how* the instruction was to be conducted. There were of course some restrictions because of range and maneuver area scheduling. But aside from those, there were no limits except the imagination of the commander and his NCOs. My criticism of what I read in the 7th Division system is that it is not precise enough about *what* is to be done.

All too often I find that the NCO who gives the instruction simply starts all over again at the beginning and therefore training never really progresses. Let me be specific. The AIT graduate as I recall must be proficient in four first aid skills in order to graduate. They are the skills contained in his Smart Book. After he graduates from AIT and goes to his unit, the unit training program should simply sample those skills now and then to see that he has retained them or provide sufficient repetitive practice to retain whatever level of proficiency the battalion commander thinks necessary in his unit. However, when you write the training schedule as broadly as that 7th Division schedule is written, what I'm finding is that the sergeant teaching the first aid class, for example, is still stumbling around in those four basic things we taught the soldier in AIT. That's all the sergeant himself knows well enough to teach without a lot of work. And besides, no one told him to do anything different. So he doesn't. And the soldiers are bored. Their training never progresses. Therefore, someone must say what is to be done and must do it rather precisely and comprehensively. Then the man who teaches the class must be

provided a complete resume of what's available for him to use in teaching the class—that's the purpose of the first part of the first page of the Standard Lesson Outline.

It will not suffice just to say first aid and then let it go at that. The battalion commander will never have any assurance that the things he thinks the soldiers need to be taught are in fact being taught, and taught to the level of proficiency he thinks necessary to maintain the required skill levels. Not the least of our problems in this area is the fact that nowhere is there any body of data to describe what it takes to teach anybody anything to any prescribed level of proficiency. We've wasted a lot of money on HUMMRO and similar organizations without ever getting any data that relates in a comprehensive way to our basic problem—training soldiers.

I know you didn't ask for the whole load—but you know better by now than to ask me an open-ended question. So you got the whole load. I'll be happy to talk with Don Connelly or anyone else about this. But let's not make a big thing of it. The problem is that we don't know how to make the system we've got work right. There's nothing wrong with the system itself.

Training Management Review

Memorandum to Multiple Addressees
V Corps
23 August 1976

1. Over the next few months I will review training management in V Corps. The review will be conducted at battalion level; it should require no more than 2 or 3 hours per battalion. The purpose of the review is to provide each battalion commander the opportunity to review for me what his battalion training program consists of and how he plans and programs training for his battalion. Programming includes consideration of what training goals have been established and by whom, what resources have been provided to accomplish the goals and by whom, and what means have been established to measure progress toward goals. Planning includes the week by week scheduling and conduct of training by battalion commanders and their staffs, and by company commanders and their key personnel.

2. Due to the difficulty of scheduling such a large undertaking precisely in advance, the following method of operation will be used. For brigade, regimental, and group-size units, the aide-de-camp will notify the brigade-level commander about two days in advance of my intent to review training of a battalion or battalions in his brigade-level unit. This will be done to try to fit the review schedule better to local garrison activity schedules, and permit the necessary persons to arrange their schedules to be present. For the most part, the reviews will be conducted during afternoon hours, the intent being to review about two battalions in an afternoon. For separate battalions the same procedure will apply, except that the aide-de-camp and the battalion commander will arrive at a mutually agreeable date . . . date and time about two days in advance of the review.

3. It is not required that brigade-level or higher commanders be present at these reviews if their schedules require their presence elsewhere. These commanders are not, however, precluded from attending.

Training Management

Letter to General George S. Blanchard
Commander in Chief, US Army, Europe
22 November 1976

For some time we've been working at trying to improve our ability to program and manage training. As I have done with tactics in our General Defense Planning, I am visiting each battalion in the corps and providing the battalion commander an opportunity to explain to me how he plans, programs, and manages training. Before I began I expected to find considerable ineptitude—we don't cover this in our school system, and we don't put obvious premium on good training management. The degree of ineptitude I encountered far surpassed my most pessimistic preconceptions. Not only do they not know how to relate goals and resources, they simply don't understand how to run good battalion training programs. In addition, no one seems to understand the basic concepts underlying the Soldier's Manuals-SQT for individual training and the ARTEP for unit training.

In an effort to get this whole matter on track I'm issuing a series of Commander's Notes. The most recent Note (#4) deals with the role of the NCO in individual training and use of the Soldier's Manual-SQT in that process. While in the States last month I discussed the whole matter at some length with General DePuy. Note #4 is a result of agreements reached in our discussions. I plan to start my CSM and the NCO chain to work getting our NCOs back into their correct place in the individual training business. It won't be done instantly—I know that. But it must be done, and so there must be a beginning. I hope we are making one.

Training and Development

Letter to Major General Paul F. Gorman
US Army Training and Doctrine Command
24 January 1977

I've been through about half of our 71 battalions now looking into how they program training, and how the CSMs are doing with the NCO-SQT-Soldier's Manual business. While the results are spotty at the moment, obvious progress is being made. It is a big education problem, and we just have to keep wearing away at it. It will take some time initially—perhaps as much as a year, before we have all that tied together to my satisfaction. Then, given our perpetual turnover problem, it will require further and additional effort to orient the newly assigned officer and NCO trainers to their responsibility. I emphasize that it requires command emphasis—we all must get out and push this down to the lowest level or we will never get it done. There are still too many commanders sitting back and expecting something to happen by osmosis.

In that regard, a word of advice which you might want to pass on to General DePuy. General Blanchard has expressed concern to me that we—me, DePuy, you—are putting too much emphasis on the NCO role in training at the expense of some necessary emphasis on his development as a leader. CINC's allegation is that we are ignoring all the "know your men" type things and going overboard on training. I have tried to dissuade him from this notion, as have my division commanders, with whom he has also raised the question. What we told him is that the two matters are inextricably related and intertwined. The sergeant who keeps a good job book on each of his men is thereby accomplishing a big part of what we also want him to do toward knowing his men. I've assured him that we are producing in V Corps not just job books, but adding to our job books pages which incorporate all the other things about his men the NCO must keep track of and know about. I'm not at all sure we have him convinced, and he may raise the issue with General DePuy.

Tank Crew Performance

Letter to Dr. George H. Heilmeier
Defense Advanced Research Projects Agency
30 March 1977

Sam Parry has drawn out of the STAGS performance some very significant data about crew performance. It confirms what we found at Knox as a result of the M60A3 tests, but is much cleaner and quantifies more precisely factors to pursue in further analysis. In fact it is so good that I intend to recommend to General DePuy that he see it when they have it ready for viewing, and that TRADOC mount a task force effort to determine why the test crews performed the way they did and what we might do about that in training. It is quite clear that the biggest payoff in the gunnery equation is to reduce gunner error. If we could figure out how to do that, the return on investment would be far and away more dramatic than anything we might do mechanically to reduce error budgets by further sophisticating fire control systems.

Training Base Issues

Letter to General Bernard W. Rogers
Army Chief of Staff
31 October 1977

I am deeply concerned over recent events which indicate that the training base may be reduced well beyond the range dictated by prudence. The OMB Recruit Training Study which recommends a reduction of Basic Training by nine days and the announcement that Secretary Brown is considering proposals to cut back the training of enlisted men and women in all services serve to reinforce this concern. I believe that both of us should go on record as opposing any such action which would adversely affect the training and potential combat effectiveness of our soldiers.

As you know, I am committed to making the training base more efficient while retaining the quality of our product. This effort is not new, but a continuation of a process that began in earnest several years ago. At that time, reception station processing was reduced from four to three days and Basic Training start dates were moved from Monday to Friday to save extra training days. Further, the minimum training required for overseas deployment of new soldiers was reduced from 16 weeks to 12 weeks with the adjustment to Public Law 51 in 1976. This has afforded an optimization of the training development process and has allowed maximum scheduling flexibility with attendant cost effectiveness. Conversion to One-Station-Unit Training (OSUT) in as many skills as possible has become my immediate goal and a key ingredient in our current efficiency efforts. We are now completing the OSUT conversion at Fort Benning and have begun to introduce variations to existing OSUT programs where self-paced techniques are applicable, such as the Wheeled Vehicle Mechanics Course at Fort Dix, NJ. These promise significant student man-year savings. Any reduction of Basic Training now will inhibit these initiatives.

Basic Training performs the unique and essential function of turning a civilian into a soldier. Over the last year we have developed a new Basic Training COI considering every aspect of the Basic Training process to determine the proper mix of common skills and information objectives needed to facilitate this transformation. We have concluded that over 300 hours of scheduled training in addition to time spent in reception station and training company in-processing (approximately 40 hours) is required to present the skills and information objectives. To instill in the trainee those intangible qualities that make a soldier, many additional hours are spent by Drill Sergeants and other members of the cadre in reinforcement training and counseling. This process does not lend itself to precise measurement, but in some training centers has reached as high as 300 hours. In my judgment, reducing Basic Training below the current seven-week cycle will not allow sufficient time to produce the soldier the Army needs.

We can play the numbers game indefinitely. The Army's Basic Training Program has not reached its current state by haphazard evolution, but through systematic development, and has been validated by wartime experience. It is time to put our professional judgment on the line and stand firm in our commitment to the current seven-week Basic Training Program.

Training Resources

Letter to General Ralph E. Haines Jr.
San Antonio, Texas
11 January 1978

We are in the throes of trying to save the training base in the face of cuts directed by OMB that strike at the very heart of our training system. You'll read a lot about this in the weeks to come, so don't conclude we've lost our minds. Someone has convinced the President that the services spend too much on training—and cutting out all that "fat" will help balance the budget. The cuts proposed verge on the ridiculous, and we're doing our best to avoid doing anything too dumb.

Training and Testing

National Guard Management Conference
Louisville, Kentucky
23 January 1978

If you read your agenda this morning, this presentation is billed as the "senior guest speaker." I hope that doesn't sound as awesome to you as it does to me. I've come here not as a speaker to impress you but as the representative of a command that is in the business of supporting you. It's important that we both keep that in mind. My main purpose here is to find out what TRADOC can do to help the National Guard with its training mission—to solicit your counsel.

I won't insult your intelligence and tell you about the mission and functions of TRADOC. I think you all know who we are and what we do. At one time or another, most of you have seen firsthand one or more innovations in training generated in the TRADOC community. Some of these innovations have been sophisticated, some complicated, many have far-reaching impacts. Hopefully most of them have been helpful.

Admittedly not all of them have been fielded, and a small few have been counterproductive. We are now reviewing these last two categories to focus clearly on putting into the field, particularly to the Reserve Components, all that we have promised. For an organization that started off with a rush, as did TRADOC, I think you'd agree that a readjustment period may be due at this time.

That really is why I agreed to accept your kind invitation to spend some time with you. I hope to sound out your advice on what we can do to improve our training developments and what we can do to make your training job easier.

Recently, in Washington, I briefed some newly appointed National Guard general officers on what we believe needs to be done to get the Army ready for the next war. One very important thing we have to do is train. So I'd like to share with you some points about training that might help you shape your training plans.

The first is that the Soldier's Manual-SQT-Commander's Manual-ARTEP training system is here to stay. That's important to know, as it represents a radical change in our training philosophy. For it says we now train to absolute, measurable standards that are the same for everyone. No more can we afford the luxury of grading people or units on a "curve." Our business is too important. We have to know how everyone shapes up compared to a universal standard. Of necessity, there will be improvements. But the Total Army, Active and Reserve Components, will be trained within this system. The standards of the SQTs will be used to evaluate individual training and those of the ARTEP to evaluate unit training. We've just begun this process in the active Army, and only for selective MOSs, but as more and more Soldier's Manuals are produced, more MOSs will be evaluated. The same process will follow for the ARTEPs. Now, SQTs and ARTEPs are not yet prepared for many combat support and combat service support MOSs and units. That is the result of a decision we took to concentrate on the combat arms first. But now that they are nearly done, we're putting our emphasis on SQTs and ARTEPs for supporting units. I can't promise instant proliferation, but they are coming.

We believe firmly that our Reserve Components must use this system. As a diagnostic and motivational tool for training, the SQT-ARTEP system has no peer. It will hit hard at and,

hopefully, eliminate the troopers' complaint that training only repeats the things they already know. It can make the job of training management a lot easier, since training will be based on performance to standards—standards equally clear to the soldier and the trainer, Active, National Guard, or Reserve.

The second point I'd like to make is that the noncommissioned officers are the keystone to the individual training system. They must be given authority and responsibility for maintaining individual soldier proficiency in soldier skills. I call this "Sergeants' Business." It means that officers have to back off and allow sergeants to get about their business—individual skill training.

This may be difficult for us. It represents a cultural and attitudinal change on the part of all of us. But it has to be done. The NCOs are the ones for whom this system was designed. They are with the soldiers most of the time. They make the real evaluation of what training is needed. To assist them in this, TRADOC is publishing Job Books. These are just lists of tasks from Soldier's Manuals, with a place to record go/no-go and the date. The NCO can thus keep current the status of each individual and what he can or can't do.

The idea behind this is that first-line supervisors, the NCOs, must seek out opportunities to check and make sure their men are proficient in their tasks. This isn't all done on scheduled time. Most of it is done in those periods when everyone is waiting to do scheduled training or is finished with training. Much of it is integrated concurrently with other training. In the armory, on the range, or wherever, whenever soldiers have idle time, NCOs must conduct individual training. They must do it often enough to maintain the proficiency of the soldiers they supervise. How often, only the NCOs can tell, but as we get more experience with the system, I think that answer will become more measurable.

Now obviously that means the first-line supervisors have to be proficient enough in the skills themselves to train and evaluate their soldiers. There's the rub. The truth is, not all our first-line supervisors—Active or National Guard—can do this. The problem is all too often made more difficult in your case when unit redesignations cause whole units to lose MOS qualification instantly. But we must get hold of it, and the NCOs must carry the ball. Individual training starts at the top with the command sergeant major. He conducts instruction for first sergeants, first sergeants in turn instruct platoon sergeants, and each succeeding level right down the line goes through the same process.

In fact, reflecting on the many unit redesignations and branch changes many of the National Guard units and many of you have endured, you may have a big advantage. You're used to studying your job in depth to become proficient. The only difference is this is not a one-time shot but a continuous process against a universal set of standards.

I think the soldier motivation is there. If training relates to the tasks in the Soldier's Manual and the soldier knows he'll be tested on it, there is built-in motivation. It will also put to rest the spurious arguments as to whether the National Guard is prepared or not. If you take the same SQTs and ARTEPs as everyone else and are successful, then no one can argue as to your preparedness, regardless of what other peripheral issues may be debated. The proof will be in the SQTs and ARTEPs, and the discussion ends there.

Now I know, with limited training time and equipment, your problem is magnified. But I think TRADOC can help you with that. Our training developments people are starting to field many

of those devices we promised years ago—TEC, simulations, subcaliber devices, self-paced texts, models. Many are available and can really improve your training. We can do more and we will. We need you to tell us what is needed. If it's simple and quick, we can and will try to respond. The important thing to remember is that sophisticated training devices take years to develop. That won't solve your problem today, and you can't afford to wait. A lot can be accomplished right now today with what you have. TRADOC is in being to see that you get it in quantity.

You know, since I'm a spokesman of the "first battle of the next war" philosophy, you may find it incongruous of me to say that I strongly believe the Reserve Components are needed. But in today's world your readiness is part of winning the first battles, the subsequent battles, and so the war.

The principles and techniques of FM 100-5 apply to all battles, not just the first one. They are the foundation to success in any battle; they are as important to you as to the active Army.

Realistic training, training to standards, is the only way any of us can be ready to fight and win. That's the job facing all of us.

National Training Center

Message to Lieutenant General Edward C. Meyer
Deputy Chief of Staff for Operations
27 March 1978

1. Understand you are still wrestling with how to fund a National Training Center, and where it should fit within your list of priorities. As you know, NTC is in TRADOC's eyes an initiative of great potential. I'm afraid if we don't fund it now we'll kill it, not just delay it.

2. We are working with ARPA to determine if any or all of the developmental costs for range instrumentation can be borne under the ARPA flag. While I believe we can count on some ARPA help, amounts and types of monies are at the moment unidentified. Therefore we need a funded budget line for the NTC.

Initial Entry Training

Message to Multiple Addressees
30 March 1978

1. DA has forwarded, for appropriate action, your responses in which you assess quality of new soldiers you are receiving. The substance of your responses is similar, both in assessment and degree of generality. Your responses match the more or less unsystematic assessments I garner here and there around the Army. Thus there is general agreement that soldiers seem to have substantially lower reading skills than was formerly the case, and there's a judgment that they are less well trained than previously.

2. We are nearing completion of plans, in coordination with DA, to attack the reading level problem. Having said that, I nevertheless have a problem: nothing in your feedback is sufficiently specific to give me or a TRADOC school commandant an operational handle on necessary actions to take corrective action where warranted. I do not say this defensively; I want to invite specific findings on specific training problems—to the commandant of the school concerned, or to me when that does not prompt action or is beyond our present capability to correct.

3. As you know, TRADOC is in a virtually unprecedented resources bind. In order to do more of any kind of training, we need coherent data on why such training is required. Here is an example:

- Last autumn Jim Boatner reported to us that he had tested incoming 71L over a period of several months and determined that they averaged an ability to type only 12 words per minute (WPM). Yet we had trained them to a minimum standard of 20 WPM as a precondition to completion of AIT. Investigation revealed that the difference represented typical loss of proficiency during leave and travel time to first unit station. But units tend to put such marginally incompetent typists to work on other jobs, such as filing, thereby ensuring that competence in typing deteriorated further and that the soldier never did become an effective typist. In short, we had undertrained and largely wasted effort, but only specific unit repeat specific unit feedback made us aware of this fact.
- As a result, we are now beginning to train to 25 WPM. Should this prove inadequate, I am confident we can make the case for resources to train to whatever level will satisfy legitimate unit needs to receive a trained "apprentice" who truly can be transformed into a "journeyman" by experience and further training in the unit.

4. In my judgment, typing training represents one of the easiest cases facing us, for the simple reason that it is inherently reinforcement-oriented: the trainee is doing nothing but repeating skills in order to internalize them. But in multifunctional skill areas such reinforcement is not inherent; we must design it into training, sometimes by contrivance that makes it appear to be a repeat of training already given. The trouble is that we do not know enough about how much reinforcement is necessary. Hence we do not know when it becomes wasteful. We are getting commandants to learn more about this difficult issue by a course-end comprehensive exam which has the purpose of forcing enough reinforcement training so that competence can be demonstrated at the end of a course rather than at some point within the course—and then perhaps forgotten. We are entirely willing to use "competence when reporting to unit" as a

valid measure, for reasons suggested in the example above, but this absolutely requires specific feedback from the operating commands.

5. To correct this problem we need your help in the form of statements of specific shortcomings. The Commander's Manual (CM) gives a clear statement of what training is done in the training base and what tasks remain to be trained in the unit. We will welcome data to inform us where we are not holding up our end of the log, where we should—for cogent reasons—redefine responsibilities, and where we are on track and should make sure we keep it that way.

Advanced NCO Course

Message to Multiple Addressees
10 April 1978

1. The most consistently criticized part of our NCO Education System is the Advanced NCO Course. There are several reasons for this, not the least of which is the fact that we never conducted a good front-end analysis (FEA) of that course. We started it along with other parts of the system, hoping eventually to have time for a good FEA. Time and other requirements continue to press in on us, and we never seem to get any further with the FEA for ANCOC.

2. In order to get on quickly with a meaningful program to fix ANCOC, I have commissioned CSM Frank Wren to head a task force of senior NCOs whose mission it is to draw up a fairly detailed accounting of what we expect the ANCOC to do for its students. This is not to be a detailed front-end analysis; however it will very closely approximate an FEA which the technicians can then take and flesh out in the necessary detail. The end product will enable us to make the necessary revisions to ANCOC to bring it in line with the rest of our NCO courses, and more importantly with the needs and expectations of the NCO corps as viewed by our senior NCO leadership. By late this summer I hope to have in hand a program to fix ANCOC as a result of the Wren task force's work.

3. I have given CSM Wren a blank check. Both he and I understand very clearly what must be done, and have worked together on defining the problem for him so that we don't waste a lot of time in startup. He will require the assistance of several of your key senior NCOs. Rather than assemble a big group somewhere, the task force will operate low profile, selectively, tackling one essential element of a problem at a time until we have arrived at a satisfactory solution. The purpose of this message is to solicit your help, and that of such of your senior NCOs as CSM Wren believes necessary to accomplish his mission. In some cases a little TDY money may be required. To the extent possible we will defray those additional expenses to which you might be put. CSM Wren will contact your CSMs with details as our work unfolds.

National Training Center

Message to General Walter T. Kerwin Jr.
Army Vice Chief of Staff
19 April 1978

1. Know how busy you are on the eve of the SELCOM meeting to finalize the Army's POM submission for FY 80–84. I would be remiss, however, were I not to call to your and the Chief's attention a problem of utmost importance to the future of the Army. Forgive the length; the subject is too important for a brief telegram.

2. As you know better than I, the administration is attempting to cope with countervailing pressures (some needlessly self-generated) to keep the nation's defenses up and, at the same time, to keep defense spending down. In programmatic terms, these pressures translate themselves into particulars such as DPS 040 and the current consolidated guidance. They direct us to increase our structure "teeth" and to decrease our training base "tail" without any careful thought to the eventual costs of such a course of action.

3. We have been banking for some time on having by about 1985 a newly modernized Army with a significantly higher battlefield competence than the Army it replaced. We have become increasingly aware of the need for total systems development in order to make this expectation become reality. We are in danger today of mortgaging this future if we follow too slavishly the guidance given us and do not speak out clearly for the proposition that, in order to assure future competence, we need to make timely and adequate investment in the training development necessary for such competence.

4. In terms of concrete issues before the SELCOM, this means to me that we must ensure adequate provisioning of the following programs, each of which is now outside the base case:

- Training requirements, to include training development, in support of the new weapon systems which will enter the Army's inventory in the period prior to 1985. As you know, these systems are invariably more effective and more expensive than those they will replace. Almost without exception, they are also more complex. The Army simply cannot fail to provide the training necessary to operate them at or near their design capability. Moreover we must provide this training to soldiers whose abilities are increasingly grouped around and slightly below average. This means we must provide necessary resources for training support for new systems and for the TSM network.
- Quite apart from Ben Harrison's recommendations upon which the Chief is now reflecting, we must train our junior officers to competence in these increasingly complex systems. We must make a systematic determination of what they must know and be able to do. Then we must follow through with training that satisfies the derived requirements. Thus we need to fund the front-end analysis (FEA) for officer positions.
- Finally, we must give our prospective leaders on the battlefield and their units an opportunity to demonstrate that they can "put it all together" under conditions as realistic as we can manage short of actual battle. Only by these means can we counteract the persistent and pervasive pressures to place other activities ahead of training to competence. In short, we need the National Training Center.

5. We have done a lot of work to order our priorities in our PARR submission to feed your POM preparation. While I would be the last to insist that it is a perfect job, the placement of the

above items was the result of long and careful thought and deliberation. They do not represent "nice to have" programs. They are essential to the Army's future competence.

6. We did not build any fat into the programs I have identified above; consequently, there is virtually nothing I can offer you in terms of internal decrements to help in the difficult task you face. As you know, progressive reductions in the training base—many of which we have initiated in order to help support the Army's current and projected structure—leave me in a virtually impossible position to suggest tradeoffs internal to the training base. But if we must choose between fewer new systems adequately supported, on one hand, or more new systems for which adequate training cannot be provided, I submit that the proper choice is both obvious and imperative.

Army Training Study

Message to General Walter T. Kerwin Jr.
Army Vice Chief of Staff
24 April 1978

1. This is an update on Army Training Study (ARTS). SAG membership has kept staff principals aware of developments, but want to ensure you and the Chief also know how much we have sharpened BG Rick Brown's focus in past few months.

2. With 20-20 hindsight, can see clearly that we asked ARTS right set of overall questions, but do not have data to answer most of them. Nor is there time to generate such data during the lifespan of ARTS. Once ARTS developed a good model of interrelationships among resources, training, and readiness, we were faced with problem that Army could not fill in all the blanks. So we looked to see where we ought to dig deeply rather than skim the surface of the whole set of issues.

3. The answer we reached initially surprised some (me included), but believe all are now comfortable with narrowed focus. What we learned was that proper training balance between TRADOC and operating commands cannot be assessed until we know more about what it takes in time and resources for units to train to competence. Data availability forced us to inquire initially into active units.

4. Have now had one SAG on this narrowed focus. Consensus is that recent ARTS work may represent a breakthrough in determining resource/training proficiency requirements for units—hence effect of resource shortfalls. It will take years to refine and develop fully. But it is real world stuff.

5. Narrowed focus also means we will have to proceed with larger issues as a follow-on to ARTS.

Training Ethics

Message to Multiple Addressees
19 May 1978

1. I recently received a study from USAREUR citing statements that female AIT students are allowed to "float" through MOS 64C courses without completing all the required training before graduation. This study also stated that, in some cases, female soldiers are told they will not be required to perform physically demanding tasks in their unit of assignment—maintenance, changing tires, etc.

2. Some of these statements were:

a. The mechanical aspect of MOS 64C (changing tires, checking oil, etc.) would be performed by their male counterparts.

b. Females will be assigned to a car company.

c. Females missed exams, but grades of 92% or higher were given.

3. Take a close look at all courses and, if the aforementioned or similar infractions are occurring, take appropriate corrective action. All AIT graduates, male and female, must be trained to perform all tasks identified for resident training in the MOS.

4. Information provided to students by instructors concerning operations in units in the field has proven to be very valuable. However, giving erroneous information is bad business—it's hard on the field unit, but worse yet it makes us less than credible with our soldiers and with the field. We must ensure that accurate information is provided students, and that the information does not prejudice the resident instruction or the students' understanding of their total MOS responsibilities.

Noncommissioned Officer Training

Letter to Major General Kenneth R. Dirks
Academy of Health Sciences
19 May 1978

Thanks for your note about "Sergeants' Business." It's the forerunner of some new initiatives I'm starting to try and help that all-important first line supervisor, his platoon and first sergeants in doing their business. We're fairly well along with soldier's manuals for individuals, and ARTEPs for units, but we've not done much for the NCOs except to provide them soldier's manuals for their individual skill levels. We must do better than that, and we hope to do so. You'll see some new work in the months ahead. If "Sergeants' Business" struck a responsive chord, I believe you'll like what we propose to do next.

Highly Effective Forces

Memorandum for Lieutenant General John R. Thurman and Major General William F. Hixon Jr.
Fort Leavenworth, Kansas
8 June 1978

1. Many times over the past few years we have come round to the idea that technology plays second fiddle to training as a means of increasing combat performance. Recently I've been using numbers about like the following to represent relative combat power potential of the several contributing factors:

Technology: ≅ + 3 - 5%
High Performance Crews: ≅ +12 - 15%
High Performance Crews in Well-Trained Units: ≅ + 25%

Preciseness of the numbers is not important—their relative values and relationships are. We know enough about high performance and low performance crews, for example, to substantiate that relativeness. We can draw from the Wehrmacht, at its best, and from the IDF at its finest, substantive data to support the unit performance delta—indeed the number I use is conservative; considering the wide variance in data available, I elected conservatism. The technology estimate derives from comparing like systems. There is no question that some technical breakthrough which offers improvement in subsystems of an existing system, or which opens an opportunity for a new system, could make a big difference. However, should such a technical opportunity present itself to us, we would lose it in the fenlands of our materiel development cycle; the enemy would field it as soon as, or before, we could. The real danger is that he discovers something new—he makes the breakthrough; here lassitude and conservatism in our intelligence system would aggravate the already encumbered materiel development cycle.

2. In any event the message I'm trying to draw out of those numbers has to do with the effectiveness of units. For it is quite clear to me that, unless we have an Army in which most units are somewhere in the effectiveness range represented by the "well-trained crews in well-trained units" delta, we haven't a prayer in a battle in Central Europe for sure, and probably not much of one against the larger Soviet-trained and equipped armies in the Middle East. Unit effectiveness derives from a combination of factors—good equipment, sound organization, good tactics which everyone understands and can use, high performance crews—sustained at something like their high performance levels, all in highly trained units. Unit commanders and staffs must be proficient, well integrated teams—no fumbles at scrimmage, everyone understands and does his job and part of the next fellow's. Soldiers are motivated to fight—for their fellow soldiers, their outfit, their Army, their country. Soldiers give a damn, and are given a damn about—as they perceive it.

It is certain that what I have described is a series of interdependent organizations—Living Systems in the Miller context—in which we have developed the synergism that can follow from capitalizing on the potential of systems' interdependence. I am more and more convinced that, unless we can somehow explain that idea to the Army and sell it to our leadership, we are indeed foredoomed to defeat in the first battles and so in the war.

3. The problem is how do we style all that? If we want a program to explain, and more importantly to convince, what do we call it? For it is many things. It is combat readiness in

peacetime and combat power in war. Relevant words, shopworn and misused so badly that they probably won't serve. It is truly organizational effectiveness; a relevant phrase, so widely interpreted and misunderstood in the current OE program that it is probably not useful. Nor will it serve to use much of Jim Miller's language—concept yes, for his concept of organization as living systems must indeed underlie all we do conceptually; but the language is not right. At commander and soldier level alike, leadership is an appropriate word, not individual charismatic leadership, but leadership climate that can be developed in well-trained, well-led units. So fixed is our Army on the individual in the leadership equation that the word is probably less than useful. Now elements of many programs are directed at parts of the problem. The real difficulty is that it has no coherent framework, no umbrella, no systematic scheme—only fragments, parts, and no embracing conceptual binder.

4. Therefore, difficult as it might be, I believe we must try to draw together all the disparate elements I've cited, arrange them in a meaningful conceptual frame of reference, explain to the Army what we're about, persuade the Army that we are right, and pursue coherent programs designed to gain for our units all the possible delta advantages before the first battle begins. How to proceed?

5. First I'd like to appoint Mike Malone to gather a group together to set down on paper with me what will eventually, we hope, develop into a field manual describing the concept and programs in pursuit thereof in plain, expository English, using words that people in the Amy can understand and use themselves. Let's call that a task force, and if we can't think of a good name for it, just call it Task Force Delta. I'd like to leave Mike, Bunting, and others associated with it where they are in TD but, together with John Seigle and Neale Cosby, answering directly to me—indeed participating with me in the development. Spaces, but more importantly faces—in front of good heads, will be needed. They should be provided. The Chief will work this out with DCSRM.

6. Second, after some reflection, I believe we should seriously try to tie the program we're after to the Chief of Staff Army's Army goal of force readiness. For it is indeed a program in pursuit of that goal in the fullest sense. That way it's not just another TRADOC pipe dream, but has some coherence in the context of overall Army goals.

7. Next, I'd like to solicit all the smart heads we can find to contribute ideas about how to get this project moving in a relevant way. To that end this memorandum should be passed to the staff, and Mike should brief at least the staff principals on what we're about. This will help expose our dilemma about what to call it. It may also suggest ways in which we might tie work in progress into this overall scheme. The battlefield development plan, although a materiel-related work, has potential as both a technique and a measurement device, and as a way possibly of explaining what we're about. Indeed it could just be just the medium we're looking for to explain the whole thing in a broader context than just a materiel development plan. That should be looked at carefully.

8. The Chief will take necessary steps to set up the Task Force. First product should be a concept paper which tries to describe what we think we're about. That should be followed closely by a draft outline of a concept for a field manual on force readiness or whatever we decide to call it. Since I will be away the rest of this month and most of July as well, we will have to communicate by message. In any event, I'd like to have the concept paper and first draft of an outline for a manual worked out by the end of June. The original milestone chart Mike

gave me will have to be revised somewhat in light of the above. In the interests of keeping it simple, let's not make reference to proposals for physical arrangements related to establishing proponencies and like matters. One step at a time. The first one must be right or there's not much sense in considering subsequent ones.

SQT Preparation

Letter to Major General Glenn K. Otis
1st Armored Division
24 July 1978

Thanks for your 14 July letter about Sergeant's Business. You are of course correct with regard to the need to allow some time for preparation for SQT. It was not my intent to imply that such wouldn't be the case. What I was trying to get at was the situation in which the whole unit stands down for several weeks—like two or three months worth of weeks—just to get ready for SQT. And I've found units doing just that—it says their training program isn't worth much to begin with, and that the sergeants aren't doing their business daily. It is most unfortunate that we have made of the SQT the very thing we were trying to avoid—a club, or perhaps carrot, for promotion points, vice a device to improve the training of the Army. The more we tie SQT and promotion scores together, the less we accomplish the purpose of what we started out to have in the first place.

Army Training Study

Message to General Frederick Kroesen
Army Vice Chief of Staff
10 August 1978

1. Both Bob Shoemaker and I were at the final study advisory group meeting on ARTS, 8 August. Think we both agree that BG Rick Brown and his small band of 12 have made an important contribution to improving the Army's ability to relate resources-training-readiness, and thereby present a more persuasive case on the impact of resource reductions. Much more remains to be done, but they have done a lot—and done it impressively.

2. Although we are beginning now to brief action officers on DA Staff, ARTS data is so varied and issues addressed so broad that it would normally be several months before it would be ready for you and the chief. We have to ingest this huge product and ready some operational recommendations for you; DA Staff needs to digest it, too, and provide staff assessments of whatever we propose.

3. Trouble is that the Training Effectiveness Analysis (TEA) portion of the study—an essential component needed to verify and adjust the Battalion Training Model (BTM) which relates resources to training and training to readiness—contains almost all bad news. It tells us that proficiency in units is almost (not quite) uniformly low, certainly lower than most subjective estimates would have it.

4. The draft study report is exempted from the Freedom of Information Act so long as it is not formally approved. But, as you know, this offers scant assurance that information from it will not turn up in the press, that Congressional staffers will not ask for it (as one already has), or that it will not simply emerge as DA staffers use it as a source of ammunition in ongoing resource battles. In short, you and the Chief may get blind-sided long before we reach you for decisions.

5. In these circumstances, I recommend that you take the two to three hours it requires to hear what is in the study, for information only, and to question the small continuing group now at work producing the final report and continuing development of the Battalion Training Model. The entire bunch is going on bloc leave 14–27 August. We could brief you any time after that at your convenience.

Individual Training and Evaluation

Message to Multiple Addressees
6 September 1978

1. This message reaffirms my request for your views on the above subject by 12 September 1978, restates the alternative courses of action the Army might take on SQT2 for Skill Level 1 (SL1), and poses questions which I believe are most significant with respect to this particular issue. I urge you to instruct me if these are not the central issues and to give me your considered recommendations and reasons on the course of action that will best promote competence in units of the Army. Do not tell me what you may sense I want to hear or, even more important, suggest that I recommend a course of action whose primary effect would be to reduce your workload or simplify the challenges you must meet. The simple criterion we must apply is one of effect on the Army, not on you or me.

2. I take it that there is general agreement on the following points. Tell me if I am wrong:

a. The purpose of individual training in units is to lay the foundation for better units.

b. This foundation of individual competence (skills developed and, above all, skills maintained) has been habitually and persistently weak. This weakness—even including a perception among many that unit commanders have no responsibility for individual training in units—continues to exist today.

c. The primary purpose for evaluation of individual training is to assure competence; the secondary purpose is quality assurance in personnel management.

3. Our dialogue, within TRADOC and with the operating commands of the Army, is thus one of means, not ends. The key question is the effect of Army policies, not their intent. The central issue is whether, on balance, a given course of action (assuming, of course, it is feasible) will be adequate to induce the Army to change its persistent habit of slighting or even ignoring individual training in units—without causing a concurrent misstep in some other activity which contributes to unit and force readiness.

4. The alternative courses of action discussed during our commanders' conference on 1 September 1978 can form a basis for your reply to me. Significant issues are identified with each alternative. You may wish not only to comment on these issues, but to redefine them if you see fit:

a. Alternative 1: Make the present system work effectively. Arguments for this alternative are that the present system is only about halfway developed, that growing pains are inevitable in any undertaking so large and important, that over half of our Army is concentrated among those who take SQT2 at SL1, that this majority cannot be ignored in terms of inducements to train to competence, and that SQT for SL1 acts as such an inducement. The counterarguments stress that units may be induced to train poorly in order to look good on SQT and that they may thereby fail to give adequate attention to collective training or to require NCOs to assume a larger and more active role in individual training. In this sense, the fundamental issues seem to me to be whether, on one hand, units really need the prod of the SQT2 at SL1 in order to take individual training for first termers seriously and, on the other hand, whether the SQT2 for SL1 is so powerful an inducement to do things wrong that it would be unreasonable to expect unit chains of command to train properly for both individual and collective training.

b. Alternative 2: Continue to give SQT2 for SL1, but separate it from any personnel management implications. Commanders would administer SQT2 to SL1 if they chose to do so and would use results (if they administered SQT) as they believed appropriate. This alternative says, in effect, that chains of command in the Army will, on balance, correct the traditional inattention to individual training if they are permitted to do so. Within this approach, the Army could choose either of two subalternatives below or, over time, it could shift from one to the other. But we cannot deliver on the first subalternative below for at least a period of time equal to the development of SQT (currently 18 months) and without the immediate and highly unlikely provision of additional personnel resources. Additionally, we cannot now pursue the second subalternative without additional resources to make SQT for SL2–5 entirely different from SQT2 for SL1 unless we are willing to accept that SL2–5 tests will be compromised in part. If you recommend one of these subalternatives, tell me when you think the Army should implement it, include your estimate of additional resources needed, and differentiate between near term and longer term (e.g., two-year) courses of action.

(1) Alternative 2A: Develop and provide a new SQT2 for SL1 that can be scored locally and quickly in order to inform soldiers what they did right and wrong before they forget what they have done. This approach will permit commanders to administer SQT as frequently as they choose—and are able to support administratively—or not at all. They will use results as they see fit if they choose to administer SQT2 for SL1.

(2) Alternative 2B: Continue to use SQT2 for SL1 in its present form and to score it centrally at ATSC. The differences between this alternative and alternative 2a are that there will be no need to develop a new SQT and grading format—thus there will be no additional requirement beyond resources already needed for SQT development—and there will also be no ability to score SQT locally and return it to the soldier within a very short period of time.

c. Alternative 3: Continue the present system for SQT, but allow commanders to use results as they see fit, without any DA controls. Please note that the only operative DA control at the present time is that individuals who are promoted must rank in the upper half of the CMF in which they have taken an SQT. You are already aware, I am sure, that the perception of most of our soldiers is that the SQT is a much more powerful personnel discriminator. Indeed it may become one if it is continued, but at present it is much more of an implied than real determiner of who gets promoted, selected for schooling, or barred from reenlistment.

d. Alternative 4: Eliminate SQT2 for SL1. This alternative completes the available choices, and is included for that reason. It would save considerable manpower effort within TRADOC and eliminate the majority of administrative burden on units and test control officers (TCOs) for SQT, since it would eliminate over half of the [tests for] soldiers presently tested or who will be tested if the present system is continued to full development. Its adoption would also eliminate substantial feedback. Having said this, please note that it is the alternative most consistent with the view that chains of command will act to correct inadequate attention to individual training if only they are encouraged to do so. If you recommend to me that the Army adopt a variant of alternative 2 or alternative 3 above, tell me why the Army should not simply realize the resource savings inherent in alternative 4 by choosing it.

5. Finally, reflect carefully and tell me if you can hold up your end of the log if the Army chooses either alternative 1 or 3 above. I have already asked for your estimate of additional resources if a variant of alternative 2 is selected, and I can compute the rough savings if alternative 4 is

chosen. I need you to tell me if you can deliver if we continue on our present course, whether we use the SQT2 at SL1 as an attention-getter and very rough quality assurance measure or simply as a tool for decentralized management.

Physical Fitness Training

Letter to General Bernard W. Rogers
Army Chief of Staff
13 September 1978

This letter is to apprise you of the developmental status and of implementation plans for a new Army physical training program.

The TRADOC has been working for two and a half years on a revised physical training program which will more appropriately meet the Army's physical readiness training requirements. The revision is based on a task analysis to determine physical skill/fitness requirements for duty performance in each MOS, validation of these requirements, and the development of appropriate training programs to support these requirements. This approach to determining the Army's physical training requirements has led to a three-part training program as described below:

Baseline Program. The physical requirements for the baseline program are derived from basic soldiering tasks common to all Army personnel. The baseline program satisfies the physical requirements of about 60 percent of all Army MOS (25 percent of the personne1).

MOS Program. The physical requirements for the MOS program are derived from specific job demands of the MOS. Personnel in approximately 40 percent of the Army MOS will be required to maintain a level of physical fitness specified for the MOS program (75 percent of the personnel).

Collective Program. The physical requirements of the collective program are derived from the unit mission and the battlefield environment in which the unit will perform its combat mission. Levels of physical fitness for individual soldiers are not prescribed for this program. Successful accomplishment of unit ARTEP missions demonstrates the required level of physical fitness for the collective program.

The new program encourages the development of physical fitness to the extent of a soldier's potential. In implementation, these programs will differ from the old PT programs in that both men and women serving in the same MOS will train on the same program and meet the same performance standards. Emphasis is on fitness for duty performance, and on good health and appearance, not on sex, age, the installation to which one happens to be assigned, or other criteria used in the past. This approach to physical training recognizes the moral and legal obligation to provide the same training and to prescribe the same standards of performance for all personnel who are otherwise qualified to serve in the various Army MOS.

The baseline program has been extensively field tested in basic training units. The MOS and collective programs will be field tested in CY 1979. Revision of the Army physical training manuals and full implementation of these programs are scheduled for CY 1980.

I am starting a phased implementation of the baseline program within TRADOC for all integrated male and female initial entry training courses of instruction this coming October. I have invited FORSCOM, USAREUR, and Eighth Army to use this training program in selected units. This limited implementation of the baseline program will run concurrently with the field test for the MOS and collective programs. Feedback from this implementation will be used to refine

further the baseline program. All three programs will be finalized and ready for Armywide implementation in CY 1980.

This approach to physical training has been developed in close coordination with DA DCSPER and is believed to support all applicable Army policies and objectives, to include your own personal interest in physical readiness training and soldierly appearance.

Individual Training and Evaluation

Message to Multiple Addressees
28 September 1978

1. I have received your comments in response to our inquiries concerning the Individual Training and Evaluation System. We at TRADOC were seeking an Armywide consensus on the system prior to the DA commander's conference in October. Through your responses and involvement with the individual training system, I think we have arrived at that consensus. This message summarizes my understanding of what it is.

2. Comments were unanimous that the current individual training concept is sound. All of us are in agreement that the Soldier's Manuals, Commander's Manuals, and Skill Qualification Tests are the best individual training products available to the soldier and commander in recent years. Furthermore, all of us are in agreement that the Army cannot afford to allow the individual training system to fail. Accordingly, I believe we agree that the Army must be extremely cautious about any changes that might damage the system.

3. Many of you made substantive suggestions for improvements to the Individual Training System, and TRADOC will be responsive to your needs. Among the suggestions that you have made that we are now working on are:

- Improve quality control.
- Reduce delays in fielding SQTs.
- Relieve SQT admin burden in field units.
- Improve turnaround time of results.
- Develop a long-term strategy to:
  - Find a balance between job and MOS.
  - Develop separate testing strategies for CA/CS/CSS.
  - Develop better RC strategy.
  - Develop flexible test components for special cases.

I say that we are working on these suggestions, but realize that such improvements on a system as complex as the Individual Training and Evaluation System are not easy and will be evolutionary in nature. Furthermore, the system is so new that I do not believe we fully understand the total implication of these changes. Improvement will be gradual.

4. Some of you have questioned TRADOC's ability to deliver the system. I understand your concerns. TRADOC clearly has an enormous task before it. Nonetheless, TRADOC is committed to fielding a workable, understandable system at all skill levels.

5. Some of you have also expressed concerns about the personnel management tie for skill level one soldiers. We at TRADOC have honestly examined your concerns and proposals; however, I firmly believe that some such tie for SL1 soldiers is vital to establishing a measurable criterion of effectiveness among those soldiers who actually fight. As our new weapon systems become increasingly complex and our soldiers are increasingly concentrated in average and below average ability groups, the need for improved individual and collective training becomes more critical. Only the personnel management tie for SL1 will keep the bite in the individual training system for these young soldiers who make up approximately 60 percent of our Army.

6. I expect a full discussion of the Individual Training and Evaluation System, with focus on the SQT, at the commander's conference. Although I believe it would be premature to seek a CSA decision on whether the system should be changed, I will welcome your continued dialogue on the subject at the conference.

Pre-Command Course

Message to Lieutenant General John R. Thurman
Fort Leavenworth, Kansas
10 October 1978

This responds to your LVW 1938: Front-End Analysis of the Pre-Command Course. Your glowing description of all that has been done to task analyze the Pre-Command Course makes it sound so exciting that I've decided to attend personally. Unfortunately I will have to leave Tuesday of the second week to attend the FORSCOM commanders' conference. However by that time I should have been able to observe firsthand all the good work to which your message alludes. Also I will be most interested to observe what it is that's so complex about task analyzing that course that it is expected to take six to nine months to do the job.

NCO Advanced Courses

Message to General Bernard W. Rogers
Army Chief of Staff
20 October 1978

1. Last April I set my Command Sergeant Major, Frank Wren, to work to determine what we should be teaching in the NCO Advanced Courses. As you may recall, it is the only one of the NCOES courses we've started to date whose content we weren't too sure of at the outset. And it is the one about which we get the most consistent criticism. Lacking the time and resources to do a full-scale job task analysis in our training developments empire, I set Wren and the NCOs of the Army to work to do the task analysis. With the help of sergeants major in all major commands, we now have a statistically reliable survey of the NCO corps with regard to what tasks must be taught in the NCO-A Course. There are considerable course variations from combat arms to combat service support skills, and for the moment we have tackled only the higher density skills which will satisfy the needs of most of the population. The survey was personally conducted by Wren and one sturdy henchman, Sergeant First Class Askins, so surveyor bias is not a factor or, if it is, it's the same factor throughout. In any event they've done a superb job, with enough correctly designed and applied modeling and statistical analysis to satisfy even the most discriminating systems analyst. As a result we now have, or will have shortly, redesigned courses of instruction that cover NCO-A Courses for our most dense MOSs.

2. The next step is to send the revised course out to the center commander involved. He will be instructed to sit down with his sergeant major, who in every case helped us with the survey and, with Frank Wren and Sergeant First Class Askins, go over the course side by side with that now being taught, and then come in to me personally with the necessary revisions to bring our courses in line with the NCO corps' assessment of what tasks need be taught in NCO-A. We can probably have the whole thing done and running by next spring sometime.

3. I tell you all this for several reasons. First, you'll probably hear something about it, since it's a bit of a little unorthodox way to go about solving this kind of problem. Second, to tell you that I'm delighted with the work the NCOs did—not just Wren and Askins, but everyone who helped us all over the world. Third, to tell you that the NCO corps as a whole is delighted that they were even asked about such an important part of their professional lives and allowed to participate in drawing up proposals for improvement. Finally, because I intend to give this some publicity. The sergeants have expressed some concern that all this work gets lost in staffing, and that in spite of their good proposals the "system" can't react positively to their suggestions. I want to make it clear that the "system" is reacting, to let them know how it is reacting, and to make it clear that the top command echelons in old TRADOC are not only interested but involved personally.

Initial Entry Training

Message to General Bernard W. Rogers
Army Chief of Staff
23 October 1978

1. You may recall that one of General Bill DePuy's first acts at TRADOC was to cause LTG Orwin Talbott to head a committee to review the way TRADOC was conducting initial entry training. There were several reasons for that, the principal one being that CONARC controlled everything from Fort Monroe—hour by hour specification of the content of all initial entry training was the order of the day. Not only was this stifling in terms of allowing the commander on the scene any initiative at all, but a lot of dumb things were being done in the name of overall standardization. The result of the Talbott Commission study was a system in which the center commanders were allowed considerable latitude to develop their own programs. Out of that opportunity for initiative grew OSUT, OST, and a number of very worthwhile programs which have, in the aggregate, reaped considerable harvest for the Army as a whole.

2. When the Talbott Study was done, all of us involved felt that what we had done would hold for a few years, at which time we should probably stand back a couple of steps, review what we had wrought, and decide which way to go next. For a number of reasons I believe that time has come.

3. Accordingly I've commissioned Bob Hixon to chair a review. We'll do it the same way we did before—using the center commanders and their DCGs or assistant commandants in some cases. This time we will expand the scope to include what happens in reception stations and in drill sergeants' schools. Further we will include on the committee my command sergeant major; his network of sergeants major and NCOs who were so effective in the NCO-A study will help us work this problem. In addition we plan to include some junior officers—a captain or two with troop command experience in both training center and the field.

4. Our purpose this time is to make sure we're providing about the same instruction to the same standards, TRADOC-wide, to improve and standardize procedures in reception stations, to improve and standardize what's presented in drill sergeants' schools, and to decide on and standardize training for officers assigned to the training centers. No intent to go back to TRADOC controlling every hour as before. But in our investigation of circumstances surrounding the rash of trainee abuse cases we've experienced recently, we've discovered what I believe to be some weaknesses in these other areas. And it is to these that we must address ourselves now, along with an evaluation of what's been done since the Talbott Report four years ago.

5. I'm reporting this to you because I intend to give it some publicity, to head off rumors, and to make sure we get the right slant in the press from the outset.

ARTEP Feedback

Message to Major General Thomas Lynch
Fort Knox, Kentucky
6 November 1978

1. This message is prompted by your 27 October letter this subject [ARTEP Feedback].

2. While I applaud your plan to solicit feedback from units in order to be more responsive to perceived needs of the field, I am not confident that course of action will provide us with what we need to really police the ARTEP system and respond to the needs of tactical standardization in the Army. Let me be specific.

3. I've seen several very well done ARTEP critique reports recently. The single big lesson that comes through from a reading is that they're all very situation-dependent. Not just tactical situation-dependent, but theater situation, personnel situation, and several other situations. That's necessary, and we shouldn't ask for it to change—they need a situational evaluation under whatever set of circumstances obtained at the time of the ARTEP. But it begs the larger issues, the doctrinal issues that TRADOC as a whole, and Knox as its armored arm, must seek in the interest of better serving the Army in the field and ensuring some degree of tactical standardization across the whole Army.

4. We should be seeking two things from ARTEP evaluations. One has to do with validation of the tasks, conditions, and standards set forth in the extant ARTEP, and improvement of the statements used to describe those elements, based on feedback from the field and our own evaluations. Your proposed questionnaire, if it's done right, can help with this, but only help. It will probably be necessary for someone who determines what's in the ARTEP in the first place to go and look, then come back and think, and after some rumination decide whether or not things need changing. No formal evaluation, no big team, no bunch of strap hangers, just some senior guy who is smart enough to look, see, and put what he sees in the larger framework of what we need to get on with keeping the ARTEP system alive and vital. That course will be a burden on the time of already busy people, but I submit it is the only way it can be done.

5. The second thing we need from ARTEP evaluation feedback is a sensing of how to improve the tactics themselves. This includes sensings as to when our descriptions of tactical schemes in manuals or ARTEPs are not being followed for some reason, and therefore things are beginning to happen which we never intended. I suppose one might call that detecting "bad habits." I don't use that phrase because many times I find the trouble is that either we didn't make ourselves clear enough in the doctrinal pronouncement or task statement, or we haven't trained people sufficiently in understanding the concept to have them execute it well. Let me give you an example. In watching units try to execute the active defense tasks in ARTEP, I observe there is an increasing tendency to set up and plan battle positions in depth, then lay on elaborate schemes for falling back from one defensive position to another, to the extent that the whole thing becomes as a delaying action would have been described several years ago. Now that wasn't the intent of the active defense. Planning the battle in depth was a technique we emphasized to force commanders to think of what might happen next, [then] do a little preliminary planning and preparation so that, if they indeed had to fight in depth, they didn't discover that fact with open-mouthed astonishment at the last minute. We know that moving small units around at or near the FEBA is a risky and frequently costly business. Therefore we shouldn't do it unless

we have to. It frequently requires more suppression, smoke, and direct firepower to support such a movement than it would have required to stand and fight there in the first place. So we shouldn't design battle schemes that rely heavily on a lot of moving around by engaged units once the battle is joined. What's missing? We haven't got across to them any real idea of how they determine whether or not they can and should fight where they are, or if the situation requires that they fall back and fight on another position. What we should be teaching them to do is set up the battle based on the target servicing requirements of the terrain and enemy—the terrain they are defending and the enemy they can reasonably expect to have come at them. In defending, the commander should always set up in such a way that the combination of terrain and threat geometry, and threat numbers and movement rates, give the defender a reasonable chance of successfully killing the enemy in the battle position. If that cannot be done, then it's not a defense, it is in fact a delay and should be recognized as such from the outset. There will of course be circumstances in which the brigade commander wishes to suck the enemy into some sort of cul-de-sac, killing ground or whatever, to better enable his destruction. In such cases some battalions will indeed deploy from battle position to battle position as the battle is fought in depth. However the putting together of that scheme will require the utmost in battle management by the brigade commander, and will require all the care and coordination that one usually associates with a set piece defense or a deliberate attack. What our commanders and their S3s don't know how to do well is go through the mental arithmetic necessary to determine whether or not they have that "reasonable chance" of success, and how to tailor their units to give them that chance. The V Corps commander's battle book was an attempt to do just that. Some complained that the battle book stereotyped the battle too much. That's a recognized risk. I submit that we have so many who don't know how to figure the thing out in any terms that, for the moment at least, we stand little if any risk of stereotyping. This could change in time, but some time. Now, if all that is right, and I believe it's about right, we need to do something to correct whatever is causing the problem—poorly written ARTEPs, poorly written doctrinal pubs, bad habits, or whatever. So it is in the perceiving of that problem and the determining of how to correct it that I see our biggest problem. You won't likely get that kind of observation from someone out administering ARTEPs. You'll only get it from someone who fully understands what we are trying to and takes the time to go round and look at enough ARTEPs so that the central trends begin to surface in the perception of the observer. In sum, your questionnaire simply won't dig that out.

6. What I've told you is that we need the ARTEP feedback, and that your questionnaire scheme will help you to a limited extent in ARTEP evaluation. But I've also told you that it won't surface the critical issues of how to improve the tactics themselves, how to tell when we haven't been sufficiently clear or precise about what we expect to be done, or where for some other reasons we've fallen into habits that we never intended in the first place. Somehow we've got to figure out how to do that latter business. When you've thought it through, let's talk about that part of it. Meanwhile I subscribe to your questionnaire idea—let's press on with that as first business.

Army Training Study

Letter to General Bernard W. Rogers
Army Chief of Staff
15 November 1978

This letter brings to you the Army Training Study (ARTS). . . . Two principal points need be made at the outset. First, the good news: I believe the ARTS to be a benchmark in our attempts to explain the relationships between resources and training. Second, the less good news: if we are to capitalize on this beginning, it will be at the expense of further development based on work already begun. I believe we must bear that burden.

I've tried to write this letter to spare you wading through a bulky study. So while the letter itself is long, it is written to capture for you principal facts about the ARTS.

ARTS started out to explain requirements for the training base. As we went on, it became more and more obvious that competence of units in the field is the most important test of Army proficiency; therefore, it is the inability of units in the field to conduct all the training necessary that really establishes requirements for the training base. For this reason the SAG directed the ARTS group to focus its limited resources exclusively on requirements for training to proficiency in units of the Army in the field.

ARTS' original charter was aimed at the total Army; limited resources—especially time—caused the SAG to limit the effort to a study of active Army mechanized infantry and tank battalions.

Historically, our Army has never been able to describe very well the quality or quantity of training necessary to bring units to minimum acceptable levels of proficiency and to maintain proficiency. Test and evaluation programs are sometimes designed to answer questions about these matters, but the truth is that if we wait for test and evaluation to provide complete answers, we will wait forever. ARTS found a way to provide initial answers using a technique called magnitude estimation scaling. The study used a large-scale survey of carefully selected and experienced soldiers in leadership positions in USAREUR and CONUS and at the Army War College, the Command and General Staff College, and the Sergeants Major Academy. Survey outcomes tell us that the persons directly responsible for training in the Army generally agree on what is required to reach and maintain individual and collective competence in units. ARTS then figured out how to link resources to training, training to readiness, and readiness to combat effectiveness.

The operative component of the ARTS is the Battalion Training Model (BTM). BTM is a computer simulation of the battalion training environment. With it we should be able to identify areas in which small changes have a large impact on training and readiness—for better or for worse. With a common costing methodology, BTM will allow us to mount a comprehensive effort to justify resources essential to readiness. Alternatively, we will be able to identify training which cannot be performed because of a shortage of resources, stating more precisely than at present the effects of such a reduction. In its present form, BTM is best used as a resource tool; in the future it can also be a resource-related training management tool. However, before we can use it in the training management mode, we need a comprehensive ARTEP feedback mechanism that allows us to accurately assess unit training proficiency.

ARTS Training Effectiveness Analysis (TEA) confirmed subjectively derived data used to build the BTM. TEA 78 encouraged us to develop a long-term plan to generate additional objective data on effectiveness. Unfortunately, portions of TEA data have appeared in press accounts, leading to questions as to whether the Army is as poorly trained as portrayed and, if so, whether the nation is receiving a fair return on its investment.

My personal observations and extensive readings of materials not included in the ARTS report cause me to say that the TEA is a fair portrayal of the status of training in the Army today. TEA findings do not indicate that we are less well trained than at some previous time; they do say that we are not well trained today. In addition, TEA 78 sets forth deficiencies and accomplishments far more objectively than has been the case in the past, and more importantly points out that the problem of gaining and maintaining competence is not solely a function of training.

One fact stands out most clearly in the BTM—that is the critical effect on unit competence of three things: personnel turbulence; lack of present for training strength; and underfill of NCOs and officers in leadership positions. The inescapable picture that emerges is that the US Army today is not operating to maximize readiness; we are trying to do too many things with too few people, under policies that militate strongly against all our efforts to develop the unit cohesiveness that provides the greatest payoff in effectiveness.

For example, the BTM estimates units cannot attain and maintain competence if their quarterly turbulence exceeds 20 percent. In USAREUR turbulence averages 30 to 40 percent a quarter in line battalions. We also found that externally caused personnel turbulence—transfer, separation from service—is usually equaled by internally induced unit turbulence—cross leveling within battalions to accommodate to externally caused changes. Existing turbulence rates are so high that they defeat any attempt to train for and maintain competence; only in the most highly deployable and stabilized units is this maximum allowable rate not exceeded—and exceeded significantly.

The BTM analyzed present for training 1evels under the "XYZ" training concept, concluding that to achieve necessary proficiency, 90 percent of assigned personnel are required to be present for training during X periods—major training—and 80 percent during Y periods—garrison training. Recent surveys in one major field command showed these required percentages are not being even remotely approached during either X or Y periods in today's Army in the field.

From BTM we also know that 15 percent underfill of NCOs and officers represents about the maximum a unit can tolerate and still maintain a high state of readiness. Most of our combat battalions and squadrons exceed the 15 percent underfill figure. Divisions may be near 100 percent strength overall, but at battalion the figures are always at or below the minus 15 percent margin. Since the active Army is not funded to support our requirements in the top six enlisted grades, even with perfect personnel management we will always be operating below the margin.

TRADOC will continue to develop the BTM. Initially we hope to provide DA and the major operating commands a tool to justify resources, state proficiency implications of scarce resources, and adjust training programs to decremented resource levels.

Once we have fully developed the BTM in its present mode, we need to extend it to other kinds of battalions—maneuver, fire support, and CSS. Finally, the BTM must be further developed into a unit training management model. To support BTM developments I intend to move the

residual of the ARTS group onto the TRADOC staff. We estimate two or three years will be required to finish the BTM job.

. . .

A word of caution is in order. The volumes of the ARTS report contain detailed observations which are not, in many cases, conclusive. Taken in context, they suggest areas we need to examine further; taken out of context, they offer potential for great harm. We must try our best to guard against out of context uses of the study.

ARTS wound up a long way from where it started, and much remains to be done; nevertheless ARTS represents a significant step toward answering some vexing questions about resources and training—questions whose answers have eluded us for years. Its continued development is of major importance to the entire Army.

Training Management in Units

US Army Command and General Staff College
Fort Leavenworth, Kansas
29 March 1979

When I agreed to do this several months ago, they said it would just be a little seminar—we'll sit around after the guys are finished their study of the training management problem and just exchange some ideas. This doesn't strike me as a little seminar, but I'll do my best to do what was suggested—top off your perspective, at least, on individual and unit training.

Let me go through some things kind of quickly. What are you training them for? I think we've agreed from the outset that we'll probably have to fight outnumbered and we will probably have to fight on a battlefield on which the enemy has weapons that are at least equal in quality to ours, if not better in some instances.

Now, what it takes to win is some combination of individual and collective training, training of the soldiers and the officers and the noncommissioned officers, training of the whole organization, the whole outfit we'll call it here in just a minute—in tactics, in the use of their equipment, in the care of their equipment, training to use their organization in the right way in battle. And it is the combination of the training of individuals to proficiency, of teams, fire teams, squads, crews, gun crews, aircraft crews, small units, platoons, companies, troops, batteries, the staff—the whole outfit.

Now, let's get down to the problem. The little red schoolhouse, which is TRADOC, only gives the soldier, in initial entry training in terms of his individual skills, about 30 to 40 percent of what he needs to know to be proficient at Skill Level 1. Let me say that another way. In 11B, as I recall, there were 140 some odd skills; we say something like 72 of those skills are critical. We only teach 46 of those skills in the training base. So, if you look at it from the standpoint of the total, we teach about one-third of what he needs to know; if you look at it from the standpoint of the critical skills, we teach about half, a little more than half, of what we think he needs to know. At Skill Level 1!

It's unfortunate that it is that way, and as a matter of fact, we probably shot ourselves in the foot when we designed the skill level progression system several years ago. We weren't smart enough to design it in such a way that we established a requirement to graduate the soldier from initial entry training at Skill Level 1. What happens is that, as the mental qualifications of the force go down, it takes longer to train them to an adequate level of proficiency. But the training base has not been augmented by any more instructors or any more dollars. So what we wind up doing is, if we're teaching infantry 46 of those individual tasks, the number goes down to 40 or 35 or 30.

The management guys will simply say, "Well, that's all right. You weren't bringing them to proficiency at Skill Level 1 anyway, so what difference does it make? Why don't we just pass a few more of those skills on out to the force?" The trouble is that simply adds to the unit training problem.

So you have to start with the realization that unit training goals somehow have to include about 60 or 70 percent of the individual skills that the soldier needs to be proficient at Skill Level 1. That's a very important piece of business. It is a thing that we have not explained well to the generals and colonels and many of the lieutenant colonels of the Army. I hope, by the time you

leave here, you carry away the firm realization that you've got to start from that base in order to design an adequate unit training program.

Now, let's talk about training management. Training Circular 2L-5-7 describes the process of analyzing, providing, conducting, and evaluating training. What I'm going to try to do is take those steps that are in that training circular and sketch in how you convert those to a training program in a real unit. I'm going to use an example. It is not *the* way to do it by any means. I can show you several other ways that are equally good. I happen to know this one a little better than I do some of the others, and so I'll talk about it.

Here are those steps: analyze, provide, conduct, and evaluate. If you look down those lines, you will see the things the training circular stated had to be done in order to execute those steps properly. Decide what you're going to train, how much, how much time is available, tasks, resources, and so on. All that's good, but none of that equips you to really take your little yellow pencil and paper in hand and start laying out a training program for your unit. That's what I'd like to try to do for you.

The first problem is to decide what the goal of training is. Generally speaking, that is provided to you by some higher headquarters. Your problem is to identify what skills have to be taught to achieve those goals. Where do you find that information? You find it in the Soldier's Manuals. If you want to know what the soldier knows when he comes to you, particularly the fellow who is right out of initial entry training, you turn to the Commander's Manual. It tells you how much he's been taught in the training base for each MOS. You then turn to your ARTEP and decide what unit skills need to be practiced. Then the Commander's Manual will help you integrate those unit and individual skills by telling you what individual skills are related to what unit tasks have to be performed. The Commander's Manual doesn't cover it all, but you are smart enough to do that for yourself.

The problem with training in the units goes something like this when you start to identify skills. You go through an annual evaluation—in the old days an ATT, today an ARTEP—and everybody says, "Thank God that's over, now let's get back to stressing the fundamentals." So the commander says to his S-3, "Ace, we're going to have to stress the fundamentals. Our problem out there on the test was that there weren't enough soldiers who knew how to do their job very well, so we need to stress individual skills." So, in the old days, the S-3, old Ace, turned to his Army Training Program and took the individual skills out of that. Thus, everybody tended to start all over again every year at the very bottom left-hand corner of the board, teaching the soldiers things that, for the most part, the soldiers already knew.

Nobody made any attempt to evaluate what they were proficient in to begin with; nobody made any attempt to even evaluate what it would take simply to refresh them or even to test them to see where to start the training program. They started over again from the beginning. What happened to them inevitably was that, before they got very far along, all of the busy things that happened out there in the training world descended on them and they ran out of time. You got about halfway along through an individual training program and it was time to have a test again. So you skipped quickly through team training and crew training and small unit training, and you went right back to a battalion-level test. That is *not*, repeat *not*, a very good way to run a training program, but that's what was going on in the Army and, to some extent, still is today.

Identify the skills, conditions, and standards, but here is the most difficult problem. How often does the average guy in your unit have to repeat whatever the skill is in order to maintain proficiency? I have to tell you that that is the single part of this that we have not yet been able to do very well.

The task lists in the Soldier's Manuals are pretty good. They're getting better. Every time we go through an SQT, they get better. The task lists in the ARTEPs are pretty good; they're not perfect, but every time we go through an ARTEP, and we get feedback from the unit, they get a little better. But the thing we don't know how to do very well is to identify how many times a soldier or a group of soldiers—small unit team, platoon, company, battery, troop, whatever—has to practice any one of those skills in order to maintain some level of proficiency.

What I'm telling you is that it is a matter of judgment, and that judgment has got to be exercised by the friendly S-3. So those of you who are fortunate enough to go out there and be S-3s of brigades and battalions, that's your primary business, particularly at the battalion level. You must decide how many repetitions of each one of those skills is necessary, how to find the time to repeat the skill that many times, and how, hopefully, to dovetail the individual and collective skill training so that you don't have to do individual skills this week and collective skills next week. That's your problem.

Now, you can get some help if you've got some institutional memory in your unit at all. You know about how many times they've done that in times gone by. I know one battalion commander who said to himself, "I'm not smart enough to figure that out, and so I'm just going to take this block of individual skills, and we are going to repeat that every four months for better or for worse." And it was a very effective program.

Now I know other people who have tried to be a little bit more precise about that with each individual skill and integrated them into a training program. Either way gets the job done. How to do it is the challenge that you guys face, particularly if you go out there at the battalion level and try to fumble with this problem.

You'll hear a lot of conversation from people in the field about "not enough training areas. We can't get out and do training in the training areas. The division has a fuel shortage. The training ammunition allocation is not enough." Our studies indicate, and I really believe, that 90 percent of the time the biggest problem and the most scarce resource is time. Ninety percent of the time, you run out of time before you run out of anything else. In some cases, you run out of it because it is intruded upon by higher headquarters. Some cases you run out of time because you simply don't use your time very well. I'll talk about that more as we go along.

I have said that the battalion describes what is to be done and the companies, batteries, and troops then decide how it is to be done. Now, there is a very fine line between spelling out what you want done in some detail and saying how it is to be done. There are those who will tell you that if you spell out in detail what is to be done, you are intruding upon the subordinate commander's prerogatives of telling how it is to be done, so I will try to define that for you as we go along.

As a tactical matter, if you follow that training equation and do it the way I'll describe it, the company never publishes a training schedule. In fact the company, battery, or troop should not publish a training schedule, because the company, battery, or troop does not have an S-3 or an

S-3 sergeant or an S-3 clerk. The company doesn't even have a clerk any more, as some of you well know.

The battalion, therefore, is the lowest level of command at which the resources exist to program training and publish schedules. Now, that isn't to say that the friendly S-3 doesn't publish a tentative schedule and give it to the company, battery, or troop commanders. They can pencil in some things they want to do—add, delete, move around—and give it back to the battalion, where it is published.

In the system that we've got out there today, the company, battery, or troop should never publish a training schedule. They are not equipped to do so; it is not their purpose in life, and there should not be an S-3 section in every company-level unit in the Army. I know you're going to find them; I know they are there. I'm not naïve enough to believe we've been able to stamp that thing out in the last two or three years, but we have to do it because there aren't the resources at that level to do the job. There are the resources at the battalion level. To the extent that the battalion or squadron dumps that load on the company, battery, or troop, the battalion or squadron commander and his friendly staff are not doing their job very well. I'll come back to evaluation in a minute.

I've taken all the things that a battalion needs to do and divided them into these categories. Now, you don't have to agree with the categories; I'm not asking that you do so. This is one way of programming training. A way—not *the* way—a way. There are other ways. I can talk about the others later if you want. This battalion commander divided all of the things that his battalion did into those categories, and he called them by certain names. He had a bunch of things that he said were not related to his mission. It turned out there was some difference of opinion between himself and the division G-3 about what things fit into nonmission-related activities, because most of these were directed by the division G-3. There was some professional split there as they got on with their dialogue. In any event, he broke his training year down that way and here's what he said about it.

Of the 2,000 hours—roughly 2,000 to 2,200, depending on whether you're in the United States or Europe and what kind of a unit you are in—that are in the training year, you draw out of all of these pieces of information enough data to divide your training year into categories. This is gunnery, of course; this is all kinds of things, to include maintenance. You need some prescription like that. Now, in large measure, a lot of this will be boxed in for you. In this particular case, when this battalion started their analysis, they found that something like 36 percent of their time in years gone by had been devoted to things that were not related to the mission.

As I recall, the battalion commander's estimate was that he couldn't affect that very much because a lot of it had been directed by higher headquarters. His initial estimate was that, if he could get it down to 30 percent, he was doing well. After about 18 months in a program like this, they had it down to 15 percent. They had done it by indulging in what I call the selective disobedience of orders. They had simply ignored some of those prescriptions by higher headquarters, and nobody found out about it, because the higher headquarters was notoriously lax in checking and evaluating.

In order to avoid having to tell you that you should indulge in the selective disobedience orders, I have listed that as 21 to 25 percent, which I think is probably reasonable. For example, in the battalion that I am describing, they found that in those days they were working on Saturday

morning, a 44-hour week. They had an inspection every Saturday morning. Now, every Saturday morning times 50 weeks at 4 hours is 200 training hours out of the year. So, they figured out a different way to do the inspections, which saved not all, but most, of the 200 hours. They got rid of it as a nonmission-related activity and turned it to some useful end.

Now, I've talked a little bit about the frequency of repetition. It is governed by all those things. In the end, it is determined by your professional judgment and the professional judgment of the sergeants, particularly with regard to the individual skill training of the soldiers. It is determined by the company, battery, and troop commanders. It is determined by the battalion commander in many cases. But it is something you have to study. I don't think anyone is going to fault you if you have studied it and sit down and make a reasoned judgment about it and say, "Okay, as far as we know, this is about the way we ought to be doing this in terms of numbers of repetitions." I'll show you a pattern for that in a minute.

Conditions and standards are fairly well set out for you in the ARTEPs and the Soldier's Manuals. That is why we wrote the ARTEPs and the Soldier's Manuals the way we did. You will notice that, in most of the Soldier's Manuals, the references are very specific, with a page number and, in some cases, a paragraph number. My training development guys don't like that, because every time you change the manual and change the page number and paragraph number, that means you have to change all the Soldier's Manuals. But it does not suffice to give as guidance for conditions and standards, and indeed for the subject matter itself, simply Field Manual 21-X or whatever it is.

That's a big manual, and that means that the poor guy who sits down to conduct the instruction has to start by reading the whole bloody manual. Well, I don't need to tell you about that. He goes down to the place where they keep all that stuff and, when he finally finds it (which is usually in the bottom right-hand corner under a pile that is that high), he's never really sure whether it is the latest edition of that manual or not. Then he has to sort through it to find out the part that deals with the subject at hand. So, the specificity of the references in the Soldier's Manuals and in the ARTEP manuals is deliberate. It is deliberate because it is an attempt on our part to focus your attention on the part of the manual that deals with that particular skill and the tasks, conditions, and standards that surround its application, in combat as well as in training.

Who provides these resources? Well, mostly the division provides them. You'll be given range areas, training areas, training area time, and you'll be allocated a certain amount of ammunition according to a common table of allowances. But I still say that the most precious resource is time, because if you take all the things that everyone says you ought to do, and all the things that you would like to do, you will have something like 3,500 or 4,000 hours' worth of training in the year. It just doesn't work that way.

You have to start disciplining that someway, somewhere, somehow. As a battalion S-3, you have to allow enough time for the subordinate commanders to have some discretionary training to police up the things they think they need more emphasis on. How much? Well, 30 to 40 percent of the total training year time is probably a good estimate. In the German Army, they leave 40 percent of it to his discretion. In the system that I am about to describe to you, something like 35 percent of it was left to the company commander's discretion. I would have to say that's about right, and it can be done.

Let me give you an example in which we've published training year guidelines. We converted the tasks, conditions, and standards out of the Soldier's Manuals and the ARTEP into something

this particular battalion commander called standard instructional blocks. These were further broken out and subdivided into standard instructional outlines—standard lesson outlines. The result was a system in which the battalion commander specified what he wanted to train and the resources that were provided to the company-level commander to do the training. How to train was left to the discretion of the company-level commander. He could take a terrain walk; he could take his vehicles if he had the fuel; he could have a sandtable exercise; he could show a movie. Obviously, some of those are better training devices than others, but he had the discretion to decide how he was going to do it.

The battalion supervised, assisted, and then evaluated some of that training. The battalion evaluated platoon tests. Now normally you would say we are going to decentralize that at the company level, and that's right. But don't forget, the company commander doesn't have a staff to evaluate anything.

So the battalion, in this case, established the framework of the battalion tests, conducted the tests, and provided standard scoring and standard grading for each platoon that went through the test. The company commander went through the testing procedure with each one of his platoons and then reported back to the battalion commander with his own evaluation of the platoon. Freed from the administrative burden of conducting the tests, the company commander could make a pretty good evaluation of how each one of those platoons was doing relative to all the others and relative to the standards.

The training year guidelines were published according to a derivation of a pie chart and were broken down into categories. There were additional areas of emphasis provided; the resources were provided, drawn largely from the divisional training circular; whatever special requirements were levied by all the intermediate levels of command were laid out; and the proscription was made with regard to the commander's time. As much as possible was left to the discretion of the company-level commander.

Let's discuss some sample standard instructional blocks. One was called the adjustment of artillery fire. Intelligence took 12 hours of time, and it was to be repeated semiannually. That's a collection of intelligence skills—map reading, land navigation, and so on, both individual and units skills combined—that had to be practiced twice a year.

In the case of NBC training, they added up all the nuclear, biological, and chemical training; took the individual skills and the unit skills; and combined them into tasks for which they specified the conditions under which the tasks had to be performed and the standards that they wanted. They added all that up, and they said, "All right, that takes about 20 hours. Now, how often should we do that? Well, we ought to do that about every six months also, according to our best judgment."

Tank gunnery—this happened to be a tank battalion—takes about 80 hours of instruction, less some of the range work, and that's done annually for record. It's done in this particular outfit annually for record and semiannually not for record. It so happens that there was enough time to do it semiannually; there was not enough ammunition to do it semiannually. So ammunition became the governing factor. One battalion commander who used this system was clever enough to go over to the ammunition supply point and police up all the credits that other units turned in. He managed by that technique to get enough ammunition to fire his battalion for record twice a year. There's ammunition out there; it just isn't in the right place.

Tactics. Each one of these categories is broken down in periods and number of hours per period. Now, I don't really like that because that specifies two hours, and the tendency is to stand up and start a lecture. That time allocation is a reflection of the fact that a whole lot of guys—company-level commanders, sergeants, and the S-3 and his staff—sat down and made a judgment about the tasks from the ARTEP and from the Soldier's Manuals. Those numbers—the 42 hours for tactics as a whole, once every quarter—reflect the best judgment of the trainers of that unit, noncommissioned and commissioned, their best judgment as to how long it took to get to the required level of proficiency.

In this particular battalion, the whole training program was laid out in that fashion. A while ago I mentioned a fellow from a different battalion who took out of each one of these things the little individual skill things that he thought the soldiers needed to know. Realizing that roughly 30 percent of the men were new every quarter, he just repeated them every four months. That's another way of doing it. In this case, all of those individual skills are integrated into the practice of a collective skill because the battalion commander and his S-3 felt that was the best way to do it with regard to the economical use of time. In some cases that may not be true, and with some commanders that might not be the way they look at it.

Each one of those periods in that list of things—periods 1, 2, 3, 4, 5, with so many hours and a subject to be covered—is described by a standard lesson outline. What they tried to do with these is list the references that referred to the specific tasks and conditions under which the tasks had to be performed and the teaching points that had to be taught. These are based on the tasks derived out of the Soldier's Manuals and the ARTEPs and what training materials were available in the battalion or in the brigade training aid center.

At the company level, the fellow who had to teach had in front of him a sheet that told him what was to be taught, to what level of proficiency, and what was available for him to teach it with. He could look at that sheet and, in a minute, make an evaluation about, "Well, I'm going to do that on a sandtable." In another case the battalion suggested a terrain exercise, because that happened to be the best way in the view of the S-3 of doing that. In some cases the company commander might come back in and say, "Look, we haven't got the resources to go out and do a terrain exercise. I want to take a tactical walk with these guys or do a sandtable exercise. We'll spend gas and so on to do something else next week on a little bigger exercise."

There is negotiation, but as a general rule, this system standardized what was to be taught during each one of those periods. Think about that a minute. There are a lot of people in this world, probably some of you, who believe that that represents oversupervision—that level of specificity. How many of you think that's oversupervision? Truly some of you do. That's right, and that's a legitimate complaint. I do disagree with you, but you have a valid point, because you could make that out to be oversupervision; you could make that out to be unduly constraining the company commander.

But what this specifies is the battalion commander's minimum acceptable level of training for those subjects. What the battalion commander has said to his company commander in this case is, "Look, I don't care what else you do because I am providing you about 35 percent of the year's time in which to do it, but as a minimum, you will do this. How you do it? I don't care how you do it, but that's what is going to be done." So, like I said in the beginning, there's a very fine line between the what and the how.

That process looks like this, and it has in it the same analyze, provide, and evaluate steps really that are in TC 21-5-7. This particular case just used a different terminology to describe the same exercise. Sort out the tasks, the blocks, and the outlines. They tell the unit what it's going to do and put the resources up against that requirement.

Let me describe for you how the Germans do this, because it's very interesting. They have a plan called the *Gesamtausbildunqsplan* of the Bundeswehr. It's a quarterly training program. It's prepared down to the company level by Herresamt, which is the German equivalent of old TRADOC. The Herresamt specifies what the companies of the Bundeswehr are going to be doing a year in advance. The degree of specificity of what is to be done is even more detailed than the plan I showed you a moment ago. The quarterly training plan for the battalion, the subject distribution plan, and a little set of cards that comes in a box is the whole thing. They issue the box and the cards to every unit in the Army.

It's called the card file. It comes in a drawer, and they give them the drawer and the cards and the whole business. What is on those cards is very much like what was on those standard lesson outlines: What is to be done? What are the conditions under which it is to be done? What are the standards of performance that are required? What is available for use in teaching that training?

Now, the Germans talk about decentralized training and so do we. The difference is they know what they're talking about; we have some confusion. I would suggest to you that the company commander simply doesn't have the resources to program training. He doesn't have a staff and you can't load that guy down; he's already too busy.

Here is the problem. If we're trying to train the outfit, which is sort of what we started with, we've got all of this stuff coming in and these are the outputs. In most outfits, they do all of these things first: housekeeping, accommodating, and satisfying individual needs and unit requirements. When all that is done, the commander goes in to the S-3, and he says, "Ace, why don't we do a little training this week?" It's sort of an afterthought. We've got the inspection out of the way, the nuclear guys have gone, we passed the IG inspection, the maintenance team has come and gone. We're home free; let's do a little training now that all that other stuff is out of the way. You will still find in many, many units of the Army that training is the thing you do after you have taken care of all of those other problems. That's just "bass-ackwards."

What happens when you get into that sort of situation is that the system quickly gets overloaded with administrative requirements. If you use a systematic theory to describe what happens to that unit, it goes like this: as mostly nonessential input increases, output tends to go up, all those inputs and outputs I mentioned earlier. What happens at some point is that output begins to decay, and it decays very rapidly. In fact, it decays to zero. It doesn't go asymptotic. It's the same in any system; it happens with living organisms; it happens with organizations.

The organization begins to do these things either in combination or singly in order to cope with overload. This even happens to people. You begin to forget things. I know none of you are old enough to forget things, but some of us old folks tend to forget things quite rapidly. You make a lot of mistakes. The stuff stacks up on your desk in a queue; that isn't called an in-box pile, that's called a queue. Those are all targets waiting to be serviced, all those papers in that in-box that the staff brings you.

Well, as the queue builds up, the servicing mechanism begins to make mistakes. It omits things; it filters things out. It only does things that it's interested in. It makes guesses about things. It deals with things in chunks, and in many cases they are unrelated pieces of information. Some of it just flies out and escapes.

Here's what happens at the end of all that. The officers are terribly busy. The sergeants are awfully busy. The soldiers are bored stiff. That guy's battalion commander is the busiest guy in the garrison; he's just all over the place doing all kinds of things. That fellow's sergeant is busy; he's down at the supply room, over at the S-4 seeing about this, that, and the other thing. The soldier is bored to death.

There are a lot of guys like that out there in our Army, and your job and mine is to make sure that doesn't happen. The only way to do it is to get our act together so that we don't waste their time. The only way I know of to do that is to become proficient at programming soldiers' time so that you don't waste it. This is what he really ought to be doing. That's called the man-machine interface. That's a good picture. To the extent that he is not doing that and, instead, is sitting around bored, then we are not using his time to good advantage, either as he sees it or as the Army sees it.

You will hear people say, and I'm sure you've had some of them on this platform, that technology is going to win the next war. Technology of precision guided munitions, technology of sensor equipment, technology of one thing and another. That is pure unadulterated baloney. That's not going to happen, because historically I think I can prove to you that there is no war in history where anybody has gotten more than about a 3- to 5-percent advantage over the other guy out of technology. This includes things like snorkeling, submarines, jet airplanes, nerve gas, and all that other stuff.

The fact of the matter is we can prove from the historical data, as well as from some testing that we've done, that those well-trained squads, sections, fire teams, crews, gun sections, and whatever will get you an advantage over the enemy something like 15 percent. We can also prove to you historically that, if you put those well-trained crews, small crews, small groups together in units that are well-led, where there is cohesion and some motivation and some morale, then you can get something on this order of magnitude [25 percent] of an advantage over the enemy.

I can show you some numbers, historical numbers, and quite a lot of them as a matter of fact, where that advantage is as much as 100, 200, or 300 percent, but in order not to be accused of exaggerating this possibility, I've leveled it off at the lowest common denominator, which is about 25 or 30 percent. The goal of unit training is to produce trained soldiers who operate as a member of trained crews, gun sections, teams, flight crews, who in turn operate as functioning members of a team that is well-led where there is a lot of cohesion and a lot of unit togetherness and so on. That's what produces results in battle. Your job as a unit trainer, particularly at the battalion level, is to somehow meld all that together, all those individuals and all those crews together, into functioning teams, crews if you will, and put them together in a functioning unit.

Training Systems Management

Message to Major General Jack Merritt
Fort Sill, Oklahoma
2 April 1979

1. I have just looked at the SQT results of your CMF 13 tests. I am sure those numbers are of great concern to you as the manager of the individual training and evaluation system for the Field Artillery. We should not assume that the low scores are the result of faulty tests. However, if we view the SQT as diagnostic, then it must tell us something about the whole system.

2. Any analysis should not be viewed as a witch hunt; rather it should focus on the weaknesses and our plans to fix the same. Look at each component and ask the appropriate questions. Is the job and task analysis appropriate? Are the tasks, conditions, and standards in the Soldier's Manual correct? Is the training support material sufficient and appropriate to train each task? Is the training at Sill and in the field focused on the task? And, finally, does your SQT properly measure the task? With the task-based training system and a diagnostic SQT, it strikes me that we should be able to do a very comprehensive analysis of our individual training and evaluation system. As the headmaster of a large student body scattered around the world, you have a special obligation as the manager of their training system to find and fix the weaknesses.

3. For 30 years I have considered the Field Artillery to be among the best trained troops in any division. For the last five years the Field Artillery School has led the way in TRADOC. I say this to both blow your horn and to challenge you to a higher order of analysis on the individual training system.

Precommand Course for General Officers

Letter to Major General Walter F. Ulmer Jr.
Office of the Deputy Chief of Staff for Personnel
27 May 1979

This responds to your letter . . . regarding a precommand course for general officers. I've puzzled over this e'er so long, for which I apologize. But for whatever it's worth to you here's where I come out.

First some facts bearing. . . .

We tried this once in TRADOC. It was a DePuy initiative. We had a course for the generals posted to command or to ADC jobs or whatever. It was tailored to individual needs or to the needs of a group. They went first to their appropriate branch schools, depending on what kind of unit they were to command. Then they came in to HQ TRADOC for three days. General DePuy set aside an entire day of his own time for them and spent it with them. On departing he reported to me that it hadn't worked very well because he could never get enough of the generals at one time to make it worthwhile putting such a course on. But we both agreed it was a good idea still. So I tried it once. Twelve were eligible on the basis of a number of GO changes impending in the summer of 1977. I set the course up and set aside two days of my own time to participate in it. One guy showed up. The others could not be spared from the losing or gaining command, or had some other reason for not attending. After raising a lot of hell and not getting much thanks for the effort, I decided to set that one aside for the time being.

With that background let me say several things. First, I still believe it's necessary—in fact more so than ever. We are beginning to get the word across through the school system and precommand courses to the Army up through grade O6. It's the generals who don't know their business now.

Second, it's not worth doing unless we establish at the outset that it will be done—no excuses and no stays of execution by either gaining or losing command.

Third, it will cost us. We already have overdue bills for the precommand course, and are trying to find resources for CAS3 and other essential programs. No way to take this one out of our hide.

Fourth, if we decide to do it and can get the requisite support, my own view is that the generals of TRADOC must be the principal instructors, starting with me. That means we will have to decide well in advance when we are to do it so that all the other demands on our time can be adjusted to fit it all in.

Finally, I'd want to talk at length with you and the Chief about the task list of things we want to impart to the generals in such a course. As you know, my own ideas of what a general needs to know to do his job are considerably at variance with what most of the rest of the generals think they can get away with in their new and exalted position. Before I go charging off being tough with them, Id like to have a meeting of the minds at the top about how tough we collectively want to be.

In sum: we'll do it *IF*. But *IF* we can't resolve the problems that defeated us the last time, we shouldn't tackle it this time. In other words, if we're not ready to pay the price we shouldn't start the program.

Training the Army in the Field

Message for General E. C. Meyer
Army Chief of Staff
11 July 1979

1. We are about to make a very major and significant investment in our capability to train the Army in the field. That investment is in the MILES system; in the aggregate it sums out at over a hundred million.

2. This message is to signal that fact to you, and record my sincere concern that we aren't ready for a system like that, culturally, organizationally, or in the way we address ourselves to training. Recently I had the TRADOC Inspector General survey utilization rates of some of the more expensive simulations and training devices that TRADOC has produced for field use. The return was that if we're lucky we're getting no more than 20 percent return on our investment. REALTRAIN, for example, is being used routinely in only three divisions in the Army. In its day REALTRAIN was a significant investment; it pales in the shadow of what we are about to spend for MILES.

3. What's the problem? It simply is that, no matter what these systems add to the training, all require additional time and effort to set up, conduct, and evaluate the training. REALTRAIN requires a fairly carefully designed tactical scenario. A REALTRAIN-aided exercise requires more people for control and scoring. Evaluation of REALTRAIN-assisted training requires some additional time and effort. I use REALTRAIN as an example—what I say is true of many systems, but most especially the maneuver systems. What units would prefer to do is run out to the training area, dash around for awhile, then come back in, feeling they've done some training. We've both seen it a thousand times. I know PFC Marne didn't do it that way, but he's probably doing it now. The lesson one learns from that is that any good training takes time to prepare, whether or not some device like REALTRAIN or MILES is used. But, time being what it is out there, most people won't take the time to carefully lay out an exercise, conduct it properly, and evaluate the results, regardless of what return might be promised. So I fear that, a few years from now, our successors will find an enormous investment in MILES, and in other systems to follow, will have been largely wasted, and we won't be any better trained than we are now.

4. We have planned an extensive program of orientation with each of these new systems. We did it with REALTRAIN. We plan to do it with MILES. Instruction will be embedded in both NCO and officer courses. Students in many cases will be required to actually set up and run some training using the new training systems. Before fielding each new system there will be seminars and briefings for commanders in the field. In the case of MILES we are planning two TRAINCON exercises, one in CONUS and one in Europe, to demonstrate MILES to commanders in both theaters. A plan to train teams in each division to use MILES is being drawn up. This plan will include a MILES training team from TRADOC which will train a MILES team in each receiving unit, then assist the unit team as it sets up and trains other unit teams. This technique has worked well with the battalion training model system. In short, we have done, or are planning to do, everything in our power to show the Army how to use this stuff and what it can do for them if they do use it. My prediction is that, despite all that, MILES like REALTRAIN will rot on the shelves of the training devices warehouses unless some other measures are taken.

5. What to do? You and I need to talk about this sometime at some length. But in my mind there is a growing perception that, unless we standardize training according to some fairly well-thought-out system which includes minimum standards, scoring, and evaluation, and unless we prescribe that in some way for the whole Army, we will never get much better at training than we are today. Let me give you two examples. In the German Army the Heeresamt—the training establishment, prepares and publishes a document called the *Gesamtausbildungsplan*. It is a training poopsheet that prescribes tasks to be trained by each company of the Bundeswehr and the conditions and standards for those tasks. That document is published a year in advance and covers most of the individual, crew, team, section, and similar level training in their army. We would call that overcentralization, and many American officers speak disparagingly of the *Ausbildungsplan*. But the truth of the matter is that it takes perhaps a third of the company commander's time—less than half of what's left to a US Army company commander after he complies with all the instructions issued by the several headquarters. Our battalion training model system is an attempt to persuade the US Army to use something like the *Ausbildungsplan*. But no one is willing to direct that we use it. Bob Shoemaker would reject the notion that TRADOC should prepare such a plan for implementation in his units—that's his turf. Nor would he himself, I suspect, direct his own units to use such a plan—that's their turf. I'm not picking on Bob; he just very dramatically reflects the prevailing notion about such matters in our Army. And I'm saying that may be totally wrong in the environment of today, with the complexity of equipment and systems growing on us daily, and with new training devices that can do for us things we've never been able to do before. Second example: in the Israeli Army, when a battalion is ready for ARTEP the brigade commander marches it down to the gate of the armor training center—the national training center, and turns it over to the center commander. He in turn runs it through an exercise, evaluates it, critiques it, debriefs the unit, and turns it back over to its brigade commander. They do the same thing with entire brigades and divisions. In our Army I've been carefully skirting that whole issue in the National Training Center development, because every time I get close to it, my friend rises to defend his turf. Unless we can prescribe some external evaluation system for ARTEPs, MILES and other maneuver control systems seldom will be used. Indeed, if we take a brigade into Irwin and leave them to their own devices we'll have another dash around the landscape on our hands. So some form of prescribed standardization of training is necessary if we're to get very much better than we are.

6. I say all that not because I'm old CINC TRADOC, but because I've believed it for a long time. I believe it now more than ever before. One sure way to overcome the effects of turbulence is to standardize things—almost everything. You do that so that the soldiers aren't always having to learn the system in new outfits to which they move all too frequently. Were I the commander in Europe, I'd do it there; in FORSCOM, I'd do it there—just so we could get on with more important things and not always be starting at the bottom left-hand corner of the board. I also say all that realizing what a trauma it would represent for us. But I tell you we will never get much better than we are now if we let things go the way they are. And, as good as we may be now, we aren't yet good enough to beat the Sovs in Europe, or large armored formations in the Middle East. And that's the genesis of my concern.

Treatment of Trainees

Letter to Training Center Cadre
16 July 1979

In the summer of 1978 we experienced a rash of trainee abuse incidents in our training centers. In the most unfortunate of these incidents, two trainees lost their lives as a result of a lack of supervision by the chain of command over the activities of two drill sergeants at Fort Jackson. In a separate series of incidents at Fort Dix, there was a clear case of abuse of several trainees by several drill sergeants in one company.

Now that you've taken up duties as a trainer in TRADOC, you must be acutely aware of this problem. You should thoroughly familiarize yourself with the Jackson and Dix incidents of last summer, and with the ensuing actions taken by the chain of command to bring things under better control and prevent a recurrence.

August 10th last year I sent to each training center commander a letter stating the policy of the command with regard to the training of our young soldiers. The text of that letter takes up the remainder of this letter. I send it to you to give you some institutional memory about this problem, and to sensitize you to the fact that it's probably a problem in some form out in your outfit right now—you just don't happen to know about it.

Quote: As you know, we've had a spate of incidents in the past few months involving trainee abuse in one form or another. We met on the 24th of July to discuss the most serious of those incidents—the deaths of two trainees at Fort Jackson the night of 29–30 June.

As I go 'round, look and listen, I'm more and more convinced that trainee abuse stems from two fundamental causes. First, I still find in our ranks officers and NCOs who believe that what must be done in our initial entry training programs—basic and advanced—is "tear 'em down so we can build 'em up like we want 'em." That's the system used at West Point for many years. It's the system used in many parts of the Army off and on over the years. Those who entered and were forced to undergo that kind of training tend to believe that if it was "okay for me, it's okay for these guys today." Well, that's rubbish. That system was probably never appropriate—and it's less so today than ever before. It's undignified, dehumanizing, and insulting to our young men and women, and to the Army as well. It has no place in the Army I'm in! About that let me say two fundamental things:

a. Our job is to take what we get and build on it. It's ridiculous to believe that we can make over 18 or 19 years of influence by society, school and family in the time we have—even if that were a good idea. Behavior patterns must be modified, to be sure. Obedience, regularity, conformity, and other responses have to be developed in raw material which in many cases hasn't experienced those characteristics before. But that modification can be made—and it can and will be done firmly, quietly, positively and, above all, constructively.

b. The job of the drill sergeant and cadre has two essential parts—to INSIST on high standards, and to ASSIST the soldier in attaining those standards. That's their formula—they can have no other.

Second, I have yet to encounter a case of trainee abuse which did not have as a primary cause the fact that supervision was only superficial. Time and again I'm told that Lieutenant, Captain, Colonel, or Sergeant So-and-So is doing a super job—he's always "out with the troops." That

tells me nothing. What is he *doing* when he's out with the troops—that's what counts! Passing by the PT exercise area to watch a few pushups, or wandering around asking the trainees if everything is going okay, are both next to useless. Effective supervision in training centers requires a great deal of time and energy. It means going to see, staying there much of the time, listening to the trainees, talking to them—frequently and in depth. They usually won't voluntarily criticize the drills and cadre, except in the case of some flagrant abuse, and even then they may not. But they can be drawn out—they must be drawn out—and when they are they'll usually tell it all *just like it is!*

Effective supervision in training centers also involves using the same technique with the NCOs—drills [drill sergeants] and other cadre. In this case senior NCOs and officers are responsible for their juniors—for knowing what the juniors are thinking, and above all what they're doing and not doing, not what they *say* they're doing or not doing—what they *are* and *are not* doing.

Let's be clear about one very important thing: I rely on the chain of command—officer and NCO—to prevent trainee abuse. Trainee abuse is an aberration. We can't afford it—the trainees deserve better—and it's beneath the dignity of our Army.

In the present circumstance, despite the fact that our 24 July meeting should have activated the chain of command, reports of abuse continue. That tells me that the chain of command isn't very effective. It will not suffice for us to tell the colonels to do something about it. For they in turn will tell the lieutenant colonels, and they the captains, and so on. By the time the word reaches the company commanders, first sergeants and drills, there's no telling what it will sound like. So let's go at this problem in the only effective way—by continuous, active, intelligent, sensitive supervision and communication with the officer and enlisted cadre, drill sergeants, and trainees.

You figure out how to pass the word I've set out in this letter to everyone who has anything to do with trainees—officer and enlisted. Check your drill sergeant schools, your NCO academies, your officer training/orientation courses. Pass it out through the NCO chain—much of it is sergeants' business. But get it out! We have got to stop trainee abuse in TRADOC, and we have got to do it in a way that avoids inadvertently causing our drill sergeants to stack arms because "they" won't let them do their job. We must impress on everyone that they must INSIST as well as ASSIST. Effective supervision is the key to this dual challenge. Unquote.

Tank Gunnery Competition

Letter to Dr. Walter B. LaBerge
Under Secretary of the Army
16 July 1979

Word has reached me that you want to talk over the outcome of the recent Canadian Army Trophy tank shoot at Bergen in which the US crews finished next to last.

Not being sure how much you know about how this competition is conducted, I've attached three papers. The first just summarizes outcomes of the shoot since it started in 1963. The second is a detailed accounting of how the selection is made of crews who are to compete. Following that is a paper which describes how the targets are scored. Glancing at those papers should provide you some flavor of how demanding a competition this really is, and of how, relatively, the competing countries have done over the years.

You know of course that the US has competed only in the last two years. Many of us wanted to compete from the very beginning. In 1963 I commanded a tank battalion in USAREUR; we volunteered to go to the competition, even if USAREUR wasn't willing to officially sanction the thing. At the time we were in the throes of a gigantic debate in Europe over who should score crew gunnery—an independent agency, the unit itself, or no one. This problem has a long and sordid history. It stems from our inability to control integrity in the face of competitive pressures, and our unwillingness to admit that there's no way to get an objective scoring system unless someone other than the firing unit does the scoring. We weren't very good, the shooting showed it, and we couldn't figure out what to do about it; so we decentralized everything so people could prevaricate sufficiently to save their careers from foundering on the rocks of poor gunnery. I can discuss this matter for hours if you want—in my mind it reflects a serious problem in the corporate ethic of the command of the Army. It isn't just a problem with tank gunnery—it pervades many other matters as well.

Now why have we done so poorly in the two years we've competed? The answer lies not in technology—not in the equipping of the tanks. Note that the winning tank was a Leo with a stereo rangefinder. It beat out a Leo with a laser rangefinder. The difference was in the training, and to some extent in the command and sustaining support, provided competing units by their respective establishments.

On the training side, the real difference was in the ability of the troop leaders to control and distribute fires. Especially was this true of fires at multiple targets and of fires from moving tanks. This aspect of platoon gunnery is the most difficult thing tank units must learn to do.

In the US Army we have never done it very well; our crews never stay together long enough to train up well as crews, and for sure the small units can't train up very well if they aren't composed of well-trained crews. The crews we sent were not well enough trained to zero and fire their own tanks with precision—reflecting the need for gunner-tank commander teamwork so essential to good gunnery. The troop commanders (platoon leaders) simply weren't well enough trained in controlling and distributing the fires of their units.

While we have made a concerted effort in the past few years to correct the problems I've cited, it obviously hasn't been enough. And that is so because we have no real standardized gunnery practices that are insisted on to a high level of proficiency by every unit in the Army. This reflects our misguided notions of decentralization—everyone does his own thing; no one is

willing to insist on high standards and centralized direction of evaluation—the results might endanger someone's career. I have some pretty strong views on what should be done about this; however, I'm swimming upstream with the general thought processes of my peers, with the possible exception of Shy [Lieutenant General E. C. Meyer, who on 22 July will become Army Chief of Staff]. I intend to try one more time to get this thing on track, but the bloodletting is likely to be severe.

Trainee Abuse

Message to Multiple Addressees
19 July 1979

1. You all know my philosophy of training, which is clearly set forth in my 10 August 1978 letter. For those of you who are new to TRADOC I restated my position in a 16 July 1979 letter. In brief, those letters state that I will not tolerate any abuse of our young men and women who are entrusted to our care. These young people are to be treated as adults and as soldiers the minute they enter the Army.

2. I know you all agree with that approach; however, we continue to have abuse in our training establishment. There are many reasons set forth as excuses. For example, the annual surge which fills our companies to the limit; the hot, humid dog days of summer; the shortage of drill sergeants caused by PCS; the hard, long frustrating hours; and, finally, the back-to-back fills.

3. In spite of the above, which simply adds to your challenge, there is no excuse where abuse is concerned.

4. My message is clear. I don't want our soldiers abused. The responsibility to see that this order is carried out rests with the chain of command—from general to drill sergeant.

Training Key to Success of Force Modernization

Army Magazine
October 1979

The Army is in the throes of modernization. It is perhaps the most dramatic undertaking since early World War II. Today's modernization is made more significant and urgent than previous efforts because for nearly ten years resources and other energies normally applied to force modernization were used to support the war in Vietnam.

Force modernization is not solely the buying of new and more technically advanced equipment to be issued to the force. Rather modernization begins with doctrine—operational concepts about how the Army should conduct its business.

These concepts lead in turn to new tactical schemes for battle fighting, new equipment developments, new organizations in which equipment and tactics are combined, and revised training—the cement that bonds tactics, organizations, equipment, and soldiers into successful battle teams.

In the next six years Army divisions are programmed to add more than 40 new equipment systems to their motor parks, command posts, and training grounds. Some of these systems are new and vastly improved versions of those already in the division—new tanks, for example.

Some systems have no counterpart today and, consequently, provide not only new operational capabilities but new and demanding tactical, organizational, and training challenges. Among the most striking examples are the infantry fighting vehicle and the general support rocket system.

Still other new systems reflect advances in technology which make possible important improvements in our ability to command and control the various functional aspects of battle. Tomorrow's division, with nearly a thousand computers, is typical; ten years ago divisions owned but a few such devices.

In considering all dimensions of force modernization, it is quite clear that the human factor is the most challenging problem the Army faces. In the six *Green Book* articles about TRADOC that have preceded this one, my predecessor and I have submitted reports on improvements in tactics, organization, training, and support for training throughout the Army.

The two most recent of those reports advanced the premise that tactics, organization, equipment, and training must be considered, analyzed and developed as a coherent whole. Understanding that is important, for as technology advances and battle becomes more complex, training soldiers and units to cope with complexity becomes more difficult. And training, I repeat, is the glue that holds it all together.

Today it is increasingly apparent that, while we modernize equipment, organizations, and tactics, our training modernization efforts will show but marginal improvement unless we do something about the environment in which training takes place.

More and more the arena in which training must be conducted in the field is a hostile training environment in which sound training gives way to many higher priority programs; out there, training is something done after the priority tasks have been accomplished.

Reprinted with permission from *Army* Magazine. Copyright © 1979 by the Association of the United States Army.

The purpose of the passages that follow is to set forth the most significant issues with which the Army must deal if we are to train effectively as we modernize dramatically. The most pressing has to do with numbers. It is no secret that the available pool of 17- to 21-year-old males will decrease by more than 15 percent over the next ten years. Considering physical and mental qualifications, prior service, [and] educational and military commitments, only one out of four of today's young men between 17–21 years of age is qualified and eligible for active military duty. The Army must enlist one out of every 16 of these young men. This year the Army will apparently be unable to recruit sufficient numbers. In succeeding years, this situation will likely worsen.

Among suggested solutions, two that occur frequently involve lowering admission standards and returning to the draft. Neither will act to relieve the hostility of the training environment. Selective service has been and would be inequitable, its reinstitution counterproductive. Lowering standards simply aggravates problems which already overload the system: high trainee and early discharge rates and reduced trainability. If we are to find the numbers to fill our ranks with motivated young men and women, the Army must find rational alternatives to the draft and to the lowering of enlistment standards.

How can we attract young people to want to serve? Virtually since the onset of the volunteer force we have treated recruitment as a marketing exercise, and the Army as another marketable commodity—a job. Bonuses, promises of job transferability and "normal" hours have been but marginally successful in filling the ranks of support forces; they have failed to recruit enough fighters for the combat arms—the hardened edge of the Army. Even well-intentioned promises lead to trouble, as post-enlistment depression develops when soldiers learn the Army is not the "job" they had been led to expect. The result is a leadership problem that aggravates the hostile training environment. The Army must decide why it wants young men and women to join. The Army can never join *them*; *they* have to join the Army.

There is considerable discussion about intelligence levels and functional illiteracy among today's soldiers and of the effect these factors have on soldier trainability. There has been an overall decline in military intelligence levels, judging from scores used to indicate intelligence. Again judging from the downward trends in similar type test scores in the civilian community, there is an apparent general decline in intelligence levels in society as a whole. It is no secret that almost 57 percent of 1978's new male soldiers had standard intelligence test scores in mental category IIIB or IV. We know they are trainable; we also know training them takes more time, both because of declining intelligence levels and the increased sophistication of greater numbers of systems soldiers must be able to operate successfully.

We also know that in that hostile training environment time is the most precious resource. Trainability is a variable most easily dealt with in terms of time. Every other Army in the world gives its soldiers more than four times the training given in the same skills by the US Army. That fact suggests that either we know something about training they do not, or their soldiers are much less trainable than ours—neither of which is true.

The most abrasive element in the hostile training environment is personnel turbulence. In today's battalions, the turbulence rate often reaches 30 to 40 percent every quarter. In some units it is much higher. We know that units experiencing turbulence rates of more than 20 percent a quarter have great difficulty doing meaningful training. We also know that about half the turbulence is created by headquarters outside the battalion; the other half is created by

the battalion commander trying to cross-level what is left in a desperate attempt to get the job done.

Turbulence is anathema to developing good teamwork. It has as its genesis the centralized individual replacement system, the result of which is that there are no guaranteed tour lengths for officers or enlisted soldiers anywhere in the Army. Everyone is on the move. It is increasingly clear in crew, team, section, squad, or platoon that unit cohesion is the single distinguishing feature that characterizes good units over poor, winners over losers. Unit cohesion comes in large part from personnel stability. If we cannot get stability with the centralized individual replacement system, then we had better set to work with some urgency to find another way.

Soldier motivation is a root problem in the hostile training environment. Many of today's young soldiers enter service with an already strong attitude of social alienation. Produced by isolation, cynicism, and a sense of meaninglessness, social alienation is completely at odds with what it takes to make an Army.

- Isolation—social, political, emotional—produces introspection and self-induced separation from others, the antithesis of the teamwork cohesion which is the backbone of an Army.
- Cynicism denies the virtues of honesty, integrity, and patriotism. In its grip, soldiers cannot find a moral code to which they can subscribe or leaders in whom they can trust and believe.
- Meaninglessness is believing it senseless to risk your life for your country because nothing—even the country—is worth preserving at that price.

Soldier motivation today is a formidable leadership challenge. To be effective, an Army requires cohesiveness, a sense of community. Liberalizing an Army does not help the soldiers or the Army. Armies, our own more than most, need a unique set of values to be effective. These include discipline, obedience, integrity, a high order of technical excellence in military skills, and dedication to a well-defined purpose—defense of the country. Even if these values be somewhat different from those popular in the society at large, we must state clearly what values our military community demands and make that value system an integral part of the training of our soldiers.

The hostile training environment abounds in challenges to leadership, both noncommissioned and commissioned. It is also true that both NCO and officer leadership have suffered through some trials. The Vietnam War severely damaged the NCO corps of our Army. Only in the last few years has our NCO education and training system begun to bear fruit in new generations of competent NCO leaders. The business of sergeants is a very important matter. It is sergeants who train soldiers and teams; it is sergeants who lead small units when officers are killed or wounded. In large measure our Army's expansion from a 1939 pauper-sized force of less than 200,000 to a fairly effective force of several million in a few short months was made possible by the exceptional professional competence of our NCO corps. Highly trained sergeants are essential if we are to have a successful Army.

The Vietnam War also had a severe effect on the officer corps, the most serious reflecting two things: the decision to expand without mobilization, and the managerial mentality made vogue by the defense managers of the Vietnam years. Thus a young inexperienced officer corps became terribly confused by the conflict between a traditional military goal—winning the war—and a plethora of imprecise and ever-changing managerial objectives.

What happened to the Army in the last months of Vietnam was not that the ethical value system of the officer and NCO corps collapsed, as some have alleged. Rather it was that in redeployment from Vietnam the centralized individual replacement system demanded redeployment of individuals, not units. Those who remained were reassigned to remaining units. As the pace of redeployment quickened, this constant shuffling ensured lack of cohesion in the residual force, [both] in the leadership and among the soldiers.

Careerism there may have been, and may still be, but the root problem was that the sense of community was destroyed; there simply was no cohesion. In that hostile environment, the leadership was overloaded—and it behaved accordingly. In many ways today's hostile training environment is very much akin to that of the last days of Vietnam. If leadership is to be effective, everything must be done to reduce the obstructions that clutter the environment in which leadership must work.

. . .

All too frequently history teaches that we do not learn too well from history. All too quickly the stresses of a hostile environment can be grossly aggravated by the stress of a battle environment—ever more hostile. If we are to modernize our force in the hostile training environment to be effective in the hostile battle environment, then we must defuse the inhibiting factors in the world in which we train for war.

As has been the case in the past, the success or failure of our modernized Army will most likely turn on a few very critical battles whose outcomes depend on what a handful of soldiers are able to do under the most difficult of circumstances: great stress, considerable uncertainty, the pervading presence of fear, and the high challenge of battle.

Somewhere, sometime and once again, the fate of our national policy will rest in the hands of a very few courageous, dedicated, and disciplined men who are trained well in time of peace to fight well in time of war. It is on these men that the full burden of force modernization falls. No matter how good the equipment, how tidy the organization, or how brilliant the tactics, none can be effective if soldiers are not trained to put them all together in battle in such a way that the combination works better than similar combinations in the hands of the enemy.

Officer Training

Message to Major General William J. Hilsman
Fort Gordon, Georgia
12 October 1979

Somehow we should continue to work into our ROTC precommissioning training the requirement for some computer science training—for all officers, not just signaleers. You might want to think on that. Increasingly we need officers trained in hard sciences, ops analysis, and computer sciences. I'm not sure we can afford to continue to take on large numbers of Western Civ majors. So far I've not been able to figure out how to impose my will on the college presidents who would have to acquiesce in my demands. Soon or late the guy in my chair will have to do that, however. So if you've thought up a way to do it, maybe we'll give you the chair too!

Battle Simulations

Letter to Lieutenant Colonel Lee Allen
US Army Materiel Development and Readiness Command
26 October 1979

Thanks for your . . . letter regarding MILES [Multiple Integrated Laser Engagement System] implementation. I need not tell you that what I had in mind is about what you spelled out. Nor do I need tell you that there will be many who will regard those "canned" exercises as intruding on the sacred prerogatives of the commander. While I'm going to try and squelch the nay sayers, it will not be easy. The comment that "he doesn't do well in battle simulations" will be regarded as the kiss of death—and well it should be. But apparently we would prefer to let them screw up in battle rather than face the hard facts of life in training. To my mind that is just exactly backwards. I believe I have the Chief on my side. But not many others!!

Basic Training

Message to Multiple Addressees
22 November 1979

1. Recently there has been considerable discussion between the Office of Management and Budget and the Office of the Secretary of Defense on reduction of the length of time spent training new recruits. This discussion has centered not only on the length of time it takes to in-process trainees, but also on what we teach them. Analysis of this question at different headquarters can lead to a variety of conclusions on how best to conduct basic training. The intent of this message is to bring everyone up to date and on line with the TRADOC position on recruit training. I have written to the Chief of Staff of the Army expressing my belief that basic training cannot be reduced below its current seven-week cycle (not including processing time). A reduction will seriously degrade our ability to successfully transform civilians into soldiers prior to arrival at their units and could hamper our One Station Unit Training (OSUT) conversion efforts.

2. The Basic Initial Entry Training (BIET) test demonstrated our ability to train both males and females under the same course of instruction. Since the completion of that test a new basic training COI has been developed by the USAIS and will be distributed to the field in the near future. Every aspect of the basic training process was considered to determine the proper mix of common skills and information objectives needed to facilitate the trainee's transformation from civilian to soldier. It was concluded that 308 hours of scheduled training, in addition to time spent in reception station and training company in-processing, is required to present these skills and information objectives. I am aware that drill sergeants and other members of the cadre spend many additional hours in reinforcement training and counseling to instill in the trainee those intangible qualities that make a soldier. For these reasons, I am convinced that reducing basic training will not allow sufficient time to produce the soldier the Army needs.

3. At the same time, I am committed to making the training base more efficient while retaining the quality of our product. This emphasis on efficiency is not new, but a continuation of a process that all of you have been involved in for several years. My immediate goal in these efforts is to convert as many skills as possible to One Station Unit Training (OSUT) or a variant such as Self-Paced One Station Training (SPOT). These promise significant student man-year savings. Your interest and emphasis in this conversion program will ensure the end result is a coherent and effective initial entry training system, made up of basic training, AIT, and OSUT.

4. Finally, the attack on the training base requires us to refine our ability to explain why we do what we do, and how we do it, in terms of effectiveness and efficiency. The key ingredient, however, in all our endeavors must remain the pursuit of quality in the soldiers we train for units in the field.

Training Development Products

Message to Multiple Addressees
19 June 1980

1. During the last several years we have made significant strides in implementing the Army Training System. Our enthusiasm has resulted in quantum progress in the way we train. However, the huge training system that we have created must be refined and disciplined.

2. We are faced with some particularly difficult problems. It appears that we have overloaded the field with training support materials and failed to provide sufficient guidance on their use. At the same time, we have dedicated too few resources to the development and refinement of doctrine. It is time to alter this flow and sort out these problems.

3. Careful analysis of the Battlefield Development Plan provides us with the wherewithal to sharpen our focus logically and coherently. The BDP is the key to the direction of TRADOC as it identifies the concepts for operating on the battlefield that our training, doctrinal, and materiel developments must support. It is imperative, then, that our development and production processes be geared primarily to fulfill these needs. This shift in direction is urgent and must be addressed now.

4. I have previously indicated the requirement for increased emphasis on doctrine development. We must now look at the quantity and quality of the training support materials we have already sent and are planning to send to the field. We must look to eliminating redundancy, a luxury we can afford no longer. I suspect that an intelligent and thorough scrubbing process could reduce the number of your products to the field by as much as one-half. I solicit your thoughts on how to reduce the inventory as you continue to support individual and collective training in the field.

5. While examining this situation take into consideration that we are faced with serious manpower reductions. We must ensure that those resources available to us find their way to the most "vital" training and doctrine initiatives.

6. What we are addressing here is a matter of the highest priority. You may want to propose a limited training development moratorium until you get a handle on this problem. If so, you decide what the priorities are to be. The input I receive from you will be instrumental in what I have to say to the Chief of Staff during our next meeting. I have asked the DCST to provide you with additional guidance on what must be done. His guidance will include reporting requirements as well as a target date for you to submit your input to us. I reiterate, this is an issue with great urgency that will have a most distinct effect on the future course of TRADOC.

Interservice Training

Message to General E. C. Meyer
Army Chief of Staff
28 July 1980

1. The Interservice Training Review Organization met 22–25 July at Randolph. Bennie Davis, Ken Shugart, and I as the executive committee met 25 July. The purpose of this is to tell you a little of what we've decided to do, just so you'll know it's going on. If you want more or have suggestions we can talk.

2. You know we've been searching for something to justify our existence for about a year. That may not be precisely the right way to say it, but what has concerned us is that we remain visible and look productive to those in OSD whose criticism, ill-directed program directions, and interference in service matters were driving us to dumb actions and reactions. While there are still some good ITRO things going on, most are not directly related to course consolidations or single service proponency for common training, both of which were the proximate cause for our creation.

3. Realizing that, we decided to move out in a couple of new directions. The first has to do with demographic estimates of future years—perhaps out to 2000 AD, and to draw up therefrom a statement of our manpower requirements in terms of numbers, minorities, and so on. Long discussion about the study you've seen which says that in the year 2000 the Russians will have to learn Spanish if they want to rule the United States. From this sort of analysis we hope to be able to make a better statement of the military necessity of such programs as ESL. It will take some time, but it should be worthwhile if we can do it right. Secondly we have set our R&D committee to work looking at the communicative media necessary to establish a better training connection between the soldiers, sailors, airpersons, and marines we have to train and those of us who are supposed to be training them. We have looked already at computer-assisted instruction: it is a mixed bag, with pretty limited application in its present forms. Our concern is that we don't know enough about how young people today have learned to learn. Therefore we intend to try and find out about that and do something constructive in the long term to help our mutual problems in this regard.

4. In addition we will begin some work to head off Bob Stone and Al Tucker, who are now off on trying to do a comparison of the effectiveness of service OJT programs. Our belief is that's our business, not theirs, and our design is to develop the rationale to show we know what we're doing and have sufficient evaluation internally to obviate the need for a lot of assistance from them.

5. Believe that will keep us moving in profitable directions, demonstrate some utility for the organization, and address head-on some of the ongoing and constantly changing attitudes in OSD which tend to get them so deeply into our knickers from time to time.

TRADOC Commanders Video Conference

Message to Multiple Addressees
24 November 1980

1. The next TRADOC commanders conference will be a video teleconference via satellite and is targeted for late March 1981. Exact date may change; conference may be spread over two days, depending on availability of satellite time. The overall subject of the conference is training technology. The purpose is to discuss ways and means to apply modern technology to our training challenges.

2. One clear challenge facing all of us is how to move the information to the soldier and thus avoid the expense and time of moving the soldier. We will demonstrate this by letting you stay at home. We will meet via video conference. We plan to have one-way TV and two-way audio. This will require support from each of you in establishing the appropriate communications and conference facilities.

3. The agenda is being designed to demonstrate uses of technology such as computers, videodisc, voice recognition, graphics and simulation techniques. We are all aware of the rising cost of energy, ammo, parts, etc., [and] thus the reduction in the amount of training that can occur on the actual equipment. As the developers of the Army's training system, we must continually search for ways to supplement and/or substitute for training on actual systems, and that's what I want to focus on in this conference.

National Training Center

Message to Multiple Addressees
16 December 1980

1. We have reached a point in the development of the National Training Center that a SITREP is appropriate.

2. Components are starting to take shape at Irwin. The OPFOR vehicle fleet is at Anniston; 97 of 330 M551s have started through the modification program. Visual modification kits (VISMODs) have been designed for the BMP, T-72, SP howitzer (M1974), ZSU 23–4 and BRDM. Those working with mockups are happy with all but the BMP—it's just very difficult to make a Sheridan look like a BMP, even with a fiberglass overcoat. The VISMOD kits and 551s will be married up at Irwin next September.

3. The live fire range is on track, with company team validation scheduled for February and battalion task force in August.

4. Expect MILES to be delivered in January for blue forces. The modified MILES to be used on OPFOR vehicles will be installed as 551s and VISMODs are assembled at NTC.

5. Nucleus of the operations group has been identified; some are already at work on scenarios at Irwin.

6. This means that units going to Irwin in the summer 1981 rotation will be in one of the best training environments we have been able to put together thus far. However the instrumentation necessary to make NTC a reality needs to be discussed in more detail.

a. First, the decision by the SBA to put this contract under an 8(a) set-aside has cost us about three months thus far in initiating work on the ground. While other components of the NTC system are pretty much on track, the contractor will have to have a year from contract award to put the initial 125 player system in the field. This means December 1981/January 1982 is the earliest instrumentation IOC.

b. Second, in order to go to contract, TRADOC will probably have to certify availability of $26.7 million to cover deliverable product of the first 12 months' effort. While this figure is higher than our program for 80/81 by $12.7 million ($5 million OPA and $7.7 million OMA), it is fairly close to the recently developed government cost estimate. The priority of this program merits support of these figures through DA reprogramming. Should it not be possible to support this amount in FY 81 we could defer some costs to early FY 82. While not an unacceptable alternative, this could be pursued as a last resort. It could increase total contract costs and delay the time when we could commence serious work. . . . Cost negotiations are understood to be proceeding well at MICOM and, if supported with the full amount, we could be in a position to award a contract about Christmas. Should less than the full amount be available, it will take an additional month to renegotiate the deferrals outlined above. We thus need rapid resolution of our FY 81 funding shortfall, else we risk further delay. TRADOC staff will be in contact with DAMO staffers to provide further detail if required.

7. Because of the increased costs over program estimate, there may be some who would favor tossing this instrumentation contract back to the SBA and going competitive. We believe competition at this point would do little to reduce costs. What it would do, however,

is substantially delay the initiation of supporting instrumentation. Given the urgency to get moving on instrumentation, we are doing what we can to make an awkward situation work. In the interim we will continue development of first class live fire and engagement simulation exercises for troop use until the instrumentation.

Battle Drills

Message to Multiple Addressees
9 January 1981

Ed Burba, who commands 1st Bde 4 Mech, has developed a set of training exercises he calls battle drills. They combine individual and collective tasks in a set of super training drills that exercise soldiers, leaders, and units, using tasks we've already identified in SQT and ARTEP. It's the next step in training system development, standardization, and a host of other exciting possibilities. Howard and Bob, I'd like you to come out to see Ed as soon as it's convenient, look at what he's doing, then we need to talk about what we do next. John Hudachek has no objection; I've sent Cdr FORSCOM a message to square it away with him as well.

TRADOC Commanders Video Teleconference

Message to Multiple Addressees
5 February 1981

1. I would like to invite you to observe the TRADOC Commanders Video Teleconference (VTC) which will be held during the period 31 March–1 April 1981. I think you will find this conference to be particularly interesting and useful.

2. First, the conference theme will be "Technology in Army Training" and the emphasis, through use of specific examples, will be on how technologies such as computers, hand-held electronic games, videodiscs, robotics, and similar developments can be usefully employed in solving Army training problems and improving trainee achievement.

3. In addition, we are experimenting, for the first time, with the use of satellite TV communications for presenting this theme and conference to TRADOC commanders. As presently planned, the TV system will permit me to communicate with TRADOC personnel by means of a two-way audio and a one-way video system. The one-way video system means that TRADOC personnel will see me and whatever materials I plan to present during the two-day conference. I cannot see them, but we can talk to each other.

4. In any event, I think you will agree that the challenging theme of "Technology in Army Training," presented in the unique fashion I just described, should make for an interesting conference.

ROTC Expansion

Letter to Lieutenant General Robert G. Yerks
Deputy Chief of Staff for Personnel
9 February 1981

Max Thurman and virtually everybody else in the accessions business agree that now is the time to continue our expansion into communities across the nation. After a decrease of 8 percent from the 1974 high, Junior ROTC enrollment has taken an upswing and increased by 4 percent this year to over 109,000 cadets. Plus we have the potential to increase that number by 26,000 provided we move forward with an expansion of the Junior ROTC program. This would translate into over 700 additional Senior ROTC cadets and 500 Army enlistees per year.

. . .

Cost is estimated at $1.3 million for the first 40 units and a high of $4.1 million in the fourth year of implementation. Cost to sustain the 160 new units will be about $3.7 million beginning in the fifth year. These funds will be well spent when we consider that a survey of over 8,000 graduating Junior ROTC cadets in 1980 showed that 46 percent indicated an intent to become affiliated with a military service, an academy, or the Senior ROTC program.

Presently we have 43 schools on the waiting list and no vacancies. Since unit vacancies in the past have resulted primarily from low enrollments, the present upswing will stabilize the program. In fact the recent legislation, which gives the Secretary the option of retaining units with less than 100 cadets if the enrollment represents at least 10 percent of the student body who are 14 years old or older, will probably reduce this year's unit disestablishments to zero.

I strongly urge your support of this Junior ROTC unit expansion. In fact, if additional funds could be made available now, we could begin limited implementation in SY 1981–1982. We are limited only because the waiting schools' budget cycles are not in sync with our cycle. However, if resourced, there would be no problem in beginning implementation of this requested expansion in SY 1982–1983.

TRADOC Videoteleconference

Message to General E. C. Meyer
Army Chief of Staff
3 April 1981

1. All things considered, TRADOC's first videoteleconference, originated live from Fort Eustis on 31 March and 1 April 1981, went rather well. Let me give you a brief wrap-up.

2. The video technique was appropriate to the conference theme ("Technology in Army Training") and emphasized the objective, which was to demonstrate some of the latest developments in technology and to stimulate some thoughts about ways of applying them to training. We reached a large audience—bounced a one-way video off a satellite to 26 receiving sites across the country. The audio was two-way between the originating site and the 26 stations, and the principal conferees were able to talk to each other in real time. Those conferees included a number of folks outside TRADOC, among them Bob Shoemaker and, watching from the Belvoir station, several representatives from your staff. The technique allowed a diverse audience (e.g., CGSC students) to observe a high-level conference, an opportunity that seldom comes along for most younger officers.

3. There were a few technical problems, as we figured there would be—an occasional video breakdown, some garbled audio transmissions. Lack of familiarity with the use of the medium was evident. Neither the technical nor the nontechnical problems were of the type that experience can't eliminate, however; and overall I was quite pleased with both aspects of the proceedings.

4. We've asked all the participants to provide us their critique of the medium and the message. Early response is generally favorable, with comments that indicate this is the way to go if we want to save time, effort, and money. Key people were also pleased that their staffs and straphangers were able to observe the exchange. In one case that I know of, an Army recreation center carried the program and a handful of soldiers wandered in, sat down, and watched it with interest.

5. This first video effort was, of course, a fledgling, and we have a long way to go. It will take a while to evaluate fully the cost and effectiveness; even longer to establish our own permanent network, should that prove the smart thing to do. But it convinced us that we have the capability to effect a meaningful exchange among a great number of players who are long distances apart—without bringing them together geographically. That was a pretty exciting discovery for all of us. It's one that we will continue to exploit.

Training Techniques

NCO Training Conference
Fort Monroe, Virginia
27 April 1981

There are really two main points I want to highlight this afternoon. One has to do more with the methods we use now and should use in the future to train soldiers, and the second point emphasizes the importance of your job, that of training the trainers.

For many years now, man has depended on speech and writing for communication. That's the way he passed information, and that's the way he recorded it—on tablets, in books, and drawings. Today, when it comes to teaching and training, we're essentially still doing it the same way, but we're doing it in an environment that's completely different from anything we've known before.

In an era that has seen fantastic technological achievements, such as manned space flight, how is it that our soldiers are still sitting in classrooms, still listening to lectures, still depending on books or other paper reading materials, when possibly new and better means for training have been available for many years?

Let's look at some problems that have evolved from overdependence on these old ways. One of the most serious is soaring costs. We all tend to blame the high rate of inflation, but there's also another reason for high costs, and that's inefficient, time-consuming training methods that don't get the job done. It's getting harder and harder to do things the old way today. It's just too expensive. Yet that's exactly what we're trying to do in too many of our classrooms right now—with books, manuals, and other paper-based training methods. To make matters worse, the cost of paper went up 30 percent last year alone. That's serious when you consider how much paper we use in our business.

Our efforts to improve readability and training effectiveness of printed materials, plus increasing complexity of equipment, have resulted in an even greater increase in the amount of paper we demand. The Air Force has some figures on the requirements for a printed manual on aircraft maintenance that highlight this dramatically.

In 1939, the manual for one aircraft had 525 pages. Thirty-nine years later, in 1978, another aircraft required 400,000 pages. I'm sure the Army has examples of comparable proportions. I noted the other day that the 1941 Field Service Regulation 100-5, *Operations*, had 280 pages. The latest draft of the revised FM 100-5 has 416 pages, and we augment it by publishing separate manuals on some subjects that were included in the 1941 version. So we're not very clever either.

When you think about it, paper isn't that good a medium anyway. It's heavy. It takes up a lot of space. Once things are printed, particularly in book form, they're hard to change. Changes are costly and take time. What's more, paper-based materials aren't that easy to read. Nor are they in every case all that effective for training. Remember, the soldiers we're trying to reach have been conditioned to learn in a different manner.

Here's another example: Four years ago, we allocated 220 training rounds per tank per year. Now, we're down to about 140 and can expect that number to continue downward. Since we depend on practice to develop and maintain skills, this reduction is obviously a serious one. It'll

be harder and harder to get soldiers more ammunition or more fuel for vehicles, so we just must look for new ways to give them the practice and experience they need.

Here's where imagination and ingenuity come in, where we can begin to make use of techniques such as substitution, simulation, and miniaturization. When these techniques are combined with today's technology, we can do virtually anything we want. But it seems all we've accomplished thus far is to use technology to turn out more and more of the traditional material at a faster and faster rate. We've not made much progress toward finding new ways to teach the increasing numbers of soldiers' tasks in the same or less training time. More money would help, but it definitely would not buy us the additional time we need.

Another problem is how today's soldiers can be motivated to learn through lectures and books when they come from a different world—a world of TV, electronic toys and games, computers, and a host of other electronic devices. They belong to a TV and technology generation. Yes, I'm talking about noncommissioned officers too. Take a hard look at the ages of those attending PNOC and even BNOC these days and you'll realize many of them also come from the TV generation.

Now, I realize the PNOC/BNOC courses and many of the NCO Academies are not resourced to revamp their facilities to take full advantage of modern simulation technologies. To be sure TRADOC, as a whole, is having a hard time getting the resources necessary to modernize its instructional plants and upgrade the technology used. But there are some devices and technological improvements that can be made applicable to every level of training. Your job, our job, is to determine what they are and get about the business of making training appropriate, challenging, and interesting to the soldier.

Now, before closing, just a few remarks about the importance of your jobs. General "Shy" Meyer has been hammering home the point that training is what the Army is all about, that it should be first among many priorities on the commander's list. I've been preaching for some time that it's training that cements, binds together, the men, materiel, and tactics in our Army. But I'm sorry to report that, relative to the potential opportunities, there are but a few good examples of meaningful training going on in this Army of ours.

Most examples I could cite pertain to training that is conducted in units, but those of you from the service schools and academies shouldn't feel smug. I'm sure if I had the time to visit the innards of your establishments I'd find examples of training techniques that are outdated and material that is not germane to what the soldier needs. And that's the key—what the soldier needs.

The first question that must be answered in any training program or establishment is, "What am I training these soldiers for?" In units, that answer should be a general defense plan-related mission or task, and in functional or skill development courses it must coincide with what's expected of the soldier upon his return to his unit. More often than not, that includes giving him skills and techniques so he can return to train others. Training the trainer is important business.

We owe American soldiers the finest leadership and training possible. Sergeants are that first link—the first persons the soldier sees—in the leader/trainer chain. No other member of that chain has greater day-to-day influence in the soldier's life. More than anyone else, sergeants influence soldiers to learn critical skills. Sergeants develop credibility with their soldiers by

conducting training personally and demonstrating that they know their business. This credibility makes their other leadership tasks easier and becomes a foundation for trust and confidence.

As soldiers learn their individual and team skills, other trainers in the chain of command begin to influence their training. Early on, therefore, training becomes the responsibility of the whole chain of command. Too often, this chain of command has too many weak links. Those within it either do not fully realize their roles and responsibilities, or they do and just fail to live up to them.

The chain of command must back up the first-line trainer. That can be done in many ways—sheltering trainers from diversions, providing resources and clear guidance based on a logical plan, and creating an environment supportive to good training. They must reward initiative in diagnosing and solving problems, must support creative approaches, make efficient use of time and other resources, and continue the aggressive search for training opportunities.

At every opportunity, soldiers must be able to see clearly that there is nothing more important and, if we do it right, nothing more interesting than training.

The chain of command must also encourage tolerance. Some mistakes are inevitable during training. The responsibility is to evaluate and analyze, to provide constructive advice. Supporting this responsibility, the chain must encourage an environment where trainers have the freedom to make mistakes, correct them, and improve.

Equally important, the chain of command must develop the training and leadership skills of those leaders who actually conduct training. Quite often that means building on the skills and techniques that they have acquired at one of your academies, a PNOC, BNOC, or ANOC course.

We need to recognize that the responsibilities I've just mentioned describe the Army's training system, and there is but one system. We cannot afford differing approaches based on personalities of the time. It includes both individual and collective training; it works from division through squad and from service school through NCO academies. Establishing and operating that system is a critical command responsibility, but all members of the organization—whether we're talking units or schools—must work together to accomplish that end.

When the system is running as it should, trainers can get on with the challenge of training and using the most imaginative, interesting, and effective training methods. Those in the management end of the system can get on with providing a supportive environment and a program matched to the individual's or unit's needs with clear, timely guidance to trainers.

I urge you to spend some time during this conference thinking about how relevant the training that you're responsible for is. Can you make it more relevant, more interesting, and more fun by altering the approach through the use of simulation and other technological advancements? If so, get on with it. Time is short, the stakes are high, and we owe it to our soldiers to prepare them in the best way we know how.

Officer Advanced Courses

Message to General Glenn Otis
US Army Training and Doctrine Command
12 April 1982

As he visited Gallant Eagle 82 in the desert last week, Shy [General E.C. Meyer, Army Chief of Staff] hit me again with the idea of closing down the officer advanced courses. He does this periodically, just to keep the debate going, but it is a bone of contention between us. I'm not sure I reported to you in full on this issue; long dissertation not necessary, but here are some grim facts:

- As the Carter budget cuts bore in on us and we faced up to full resourcing of CAS3, I decided in 1979 that we simply had to cut the advanced courses in order to get CAS3 started and live with our continuing manpower reductions. That combination of circumstances led to the 1980 eval by the school commandants of our ability to go ahead with the advanced course/functional course phase of RETO.
- To a man, the school commandants banded together to convince me the time was not yet, and that somehow we should pay the CAS3 startup costs and keep the advanced courses as well.
- Although I started off on the opposite track, I then changed course and went to Shy with our proposal to hold in abeyance the decision to phase down the advanced courses. He agreed.
- We did not agree as to how long to hold things in abeyance. My judgment at the time was that we should defer indefinitely. Several reasons for that, primary among them was the conviction that the Army Shy favors as one in which the advanced courses are not needed is a long, long way off. While I don't necessarily disagree with his perception of how it ought to be, I do believe him to be much too sanguine about ever bringing it into being in a short period of time.
- Nothing significant has happened in the year plus since we reached that agreement to change the circumstances which brought it about. It's still right for the moment.
- I don't know that you're being pushed on this. It may be he just wanted to gouge me once more. In any event, I felt I owed you this brief.

20. Uniforms

Page

Berets I 854

Berets II 855

Combat Vehicles Crewman's Uniform (Multiple Addressees) 856

Combat Vehicles Crewman's Uniform (Kerwin) 858

Uniform Items 859

Tanker's Uniform 860

Army Uniform Board 861

Berets III 863

Athletic Uniform 865

Berets IV 866

Chemical Protective Overgarment 867

Uniform Woes 869

Berets I

Letter to Dr. Frederick P. Todd
Cornwall-on-Hudson, New York
13 November 1973

Thank you for thinking of us and sending along a copy of your letter to Major Haney on the black beret. Berets of all colors are the vogue in military headgear these days, and not the least noteworthy is the adoption of the black beret by large numbers of US Armor units. In fact, it appears that only where the inherent conservatism of some senior person intervenes is the beret not being adopted. While none of us are really too eager to tackle the imposing task of amending uniform regulations, we have achieved a de facto sort of uniform change without all the attendant troublesome formalities. And I view this as a good sign—a sort of quiet revolution has taken place, and considerable enhancement of esprit has been the predictable result. Let's hope we can just let it alone and not indulge in the bitter acrimonious dialogues that have historically plagued Army headgear—especially Armor headgear—ever since I have been commissioned.

Berets II

Letter to Colonel David Doyle
3d Armored Cavalry Regiment
13 November 1973

As you no doubt know, I appeared here wearing a black beret. To date there are no written instructions on it at Fort Knox. To those who worry more about uniform regulations than I do, I respond that I really don't care what they wear. I refuse to let anyone pass a law that all *have* to wear it unless it's voluntary, or the unit has the money to buy them. I will not entertain a motion to send forward a request to change the uniform regulations—General Abrams will turn it down, not because he's against black berets, but because of the trauma to the soldier of changing the costume all the time. General Abe has seen Fort Knox in black berets and made no comment. And further proponent sayeth not.

Combat Vehicle Crewman's Uniform

Message to Multiple Addressees
12 April 1978

1. TRADOC is still working the problem of providing adequate protection for armored vehicle crewmen. Our studies and the IDF experience in the Yom Kippur War show conclusively that crewmen have about four to six times better chance of surviving when their vehicle is hit if they are NOMEX clad. The evidence is quite clear. Unfortunately previous TRADOC attempts to get something done about this have foundered on the shoals of parochialism and the unwillingness of field commanders to have their armored vehicle crewmen dressed out in anything but the standard army field uniform—one designed essentially for foot infantry. Even in the armor community I've had one long acrimonious debate between the one-piece guys and the two-piece guys, between the drop-seat guys and the no drop-seat guys.

2. The time has come to stop the debate and get a uniform in the field. We had signed an LOA with DARCOM before my arrival. Under the terms of this LOA we were embarked on a long, terribly expensive program with an open end and eventual outfitting dates in the late 1980s. I have withdrawn that LOA. If we can't do this quickly, then we'd better give up. But to do it quickly will require three things. First, someone will have to ride herd on Natick to prevent them from generating the kind of long-term expensive program which is their forte. Second, we will have to stop arguing about drop seats and pencil pockets and find something that's available and good enough. Third, there must be a consensus amongst the field commanders of the Army that we will outfit our armor crewmen in the NOMEX equipment, and that there will therefore be a part of their commands that will not look exactly like all the rest—certainly not like the dismounted infantry soldier with his field kit. This may sound ridiculous to you. But not long ago I found a division in which the tank soldiers were required to wear full field kit—load-bearing harness, all that stuff around the waist, and so on—while inside or outside their tanks. The explanation given me for this was that this was the Army field uniform, by God, and everyone would wear it, come what may.

3. Now I will undertake to ride herd on Natick—to their discomfort, I'm sure. But the other problems are larger ones. I've spent now about five years trying to get NOMEX uniforms on combat vehicle crewmen, only to be turned away at one point or another by the kind of small-minded issues and directives I've cited above. We have developed a minimum cost program; it's realistic; it's possible; and I'm willing to try it if you are. However, I am not repeat not willing to go ahead if we can't stop debating one versus two-piece outfits and drop-seats versus no drop-seats, and if commanders in the field are not willing to outfit their crewmen in the result. If the division commanders of the Army would rather have their vehicle crews in load-bearing harness and suffer four times the casualties, then I suggest to you we have a serious leadership problem on our hands. I've laid out a program for the Army Staff and we will work it. I've repeated that message in the following part of this message and would appreciate your personal reaction to it. I've got to have your support. Note that I have proposed to fund the initial issue at DA level. We may or may not be able to pull that off, but we should try. This will avoid your having to trade off out of the current kit, or worse yet having to find the money out of pocket to accomplish initial issue. Here's my message to the DA Staff:

Quote

1. We are working to rapidly field a CVC uniform which will offer substantial improvement over uniform components currently available. This new CVC uniform will give us substantial survivability improvements for crewmen. Improved flame resistance, ballistics protection, environmental protection through climatic zone VI and compatibility with vehicle fighting compartments are prime targets for our effort.

2. We propose to field the uniform in two phases. In the first phase we'll field basic components already developed which require only minor spec changes to adapt them for combat vehicle crew use. These components include: (1) a one-piece NOMEX coverall developed in 1969, but never fielded; (2) the current issue Army aviator's cold weather flight jacket; (3) hot and cold weather NOMEX gloves. The cold weather NOMEX gloves are new, but only limited development will be required to field them with other Phase I components. The current DA-approved ROC calls for a one-piece coverall. We are reworking the ROC to include the other Phase I items. We hope to have these items ready for fielding in 3QFY80. That's not my idea of "rapid fielding," but is apparently the best we can do.

3. In Phase II we'll include items requiring further development and test. These will include: (1) a ballistic vest; (2) ballistic helmet shell; (3) boots; additional layers of NOMEX clothing to improve flame and cold weather protection—specifically a NOMEX coverall liner and a pair of NOMEX bib overall-type coveralls for outside wear in cold weather. We are preparing a new ROC which will withdraw these items from an existing LOA. We should complete development in 4QFY80 and have the items ready for fielding in 2QFY82.

4. My staff [is] prepared to brief you and other key members of the DA Staff in detail, showing prototypes of each item prior to submission of the two ROC for your approval.

5. To permit us to proceed with this schedule, we must immediately identify the necessary Phase I OMA funds for FY80. In order to equip 25,000 crewmen in Europe with three coveralls, a jacket and gloves (Phase I), we estimate the cost to be $13.2 million. I believe the DA should fund this initial issue to avoid the dilemma of forcing the field commander to trade off something he already has in order to buy the NOMEX. The limited developmental funds required to update technical data and prove the cold weather glove, estimated at $26 thousand, are available in the existing ROC. We are putting our official request on the wire this week to this effect.

6. Funds for FY78 and FY79 developmental effort on Phase II items will have to be made available through reprogramming. My staff is working on that problem now. OMA funds for FY81 can follow next year's funding cycle.

7. Obviously this program is ambitious; it will require special emphasis to keep it on track. With your assistance, we can fill a large void in crew protection that will pay big dividends on the battlefield.

Unquote.

Combat Vehicle Crewman's Uniform

Message to General Walter T. Kerwin Jr.
Army Vice Chief of Staff
15 May 1978

1. DARCOM has funded Natick for FY78 to get the R&D effort started and is working on the unfunded RDT&E requirement for FY79. The new ROC is out for staffing with the major commands, and we will have it to DA for approval by end of June. We have briefed the DCSOPS and other key DA staff members on the details of the program and believe it enjoys unanimous support at that level. USAREUR is strongly behind us and Fritz Kroesen has also voiced support. So much for the good news.

2. The funding aspect of the program is still a concern. The select committee approved the funds required for the initial fielding of the uniform in USAREUR for inclusion in the enhanced level of the POM. The ODCSRDA prognosis of OSD funding approval is very low. If we cannot provide the funds, we will again wind up with a procurement package gathering dust somewhere in Philadelphia. The CVC uniform is not just a distinctive battle dress. It is a functional necessity to provide our soldiers with four to six times greater levels of survivability. I find it perplexing that the Israeli Army can equip its combat vehicle crewmen (tankers, mech crewmen, and SP artillery crews) with NOMEX to train in peacetime, and we cannot find the funds to provide uniforms for even our forward deployed forces.

3. I ask your assistance in pressing for at least the $13.2 million needed to field the basic uniform in USAREUR. This would ensure that the work on the human component of the system receives no less emphasis than our program to improve the fire survivability of combat vehicles.

Uniform Items

Letter to Major General George S. Patton
Headquarters, VII Corps
25 July 1978

I'm reopening the tanker's badge issue to give it one more try. Although it will not be so well received in many circles, I'm also going in for the black beret. I'll let you know if we need help—at least on the badge.

Tanker's Uniform

Letter to James H. Leach
Arlington, Virginia
6 November 1978

After nearly six years of personal frustration, I believe we *may* get a decent tanker's uniform. Coveralls, jacket and bib overalls for cold, gloves. All NOMEX. It appears we've lost the beret to the Chief's sweep on hats. We'll wait him out and try again. The jacket will have a collar—I too prefer the knit, but in order to prevent further delays I took the standard aviator's jacket which has a collar. The clothing guys wanted two years and a million bucks to R&D a knit collar. I threw up! The jacket will have a holster built in. Frankly I hadn't thought of pouches for the shoulder holster—but you're right—we'll see what can be done.

Army Uniform Board

Message to Lieutenant General Robert Yerks
Deputy Chief of Staff for Personnel
27 August 1979

1. On 17 July you signed out a letter addressed to my DCSPER, among others, proposing changes to the composition of the Uniform Board. With the changes in membership were some changes in voting rights. These essentially excluded the major commands from voting, on the premise that there would somehow be more time thereby for the major commands to input to the board deliberations. To your letter my DCSPER has responded appropriately. However his response didn't hit at the root of the Uniform Board problem. Since you raised the issue, it might be well to consider at this time other factors which bear on the matter.

2. I've never been able to understand why the Uniform Board exists at all. We develop everything else for the Army on the basis of user requirements, and the major commands of the Army have a major voice in those deliberations. In olden times CDC did this, and in recent years TRADOC has picked up that responsibility, and indeed TRADOC's role as the surrogate user and spokesman for the rest of the user community has expanded. I have taken the view that I didn't talk about user requirements unless I have at least tried to develop a consensus amongst the major commanders of the Army. While one might say this is not TRADOC's business, it needs to be done, and there was no one doing it, and so I've more or less assumed it as a mission with the tacit approval of everyone concerned.

3. What I just said applies to everything but the development of uniforms. TRADOC seems to have a larger voice about field uniforms than with regard to other uniforms, but even that responsibility is cloudy. And it too is subject to the deliberations of the Uniform Board.

4. The diversity of opinion represented by the membership of the Uniform Board is one of the reasons for the difficulty of achieving a consensus in its ranks. It is also one of the reasons that it frequently does not return what most of us believe are reasonable recommendations. Further, it is one of the reasons why, in the previous administration at least, its recommendations were so often ignored by the Chief of Staff. It is also true that its ranks are distended with people from various staff elements whose cumulative votes tend to drown out the user, even if the user is represented. Clearly some more rational process is required for the Army to arrive at decisions regarding the uniforms for its soldiers.

5. Related to this problem is the fact that the Natick Laboratories, which develop uniforms for the Army, is probably the least well run and certainly the least responsive of the DARCOM labs. If they produce anything resembling what the Army needs, it is usually quite by accident. The primary reason for this is that no user is riding their saddle. They respond to the changing views of the Uniform Board with additional developments. These always require more money, always take more time, and inevitably result in an inferior product. Witness the trouble we've had getting the new shirt.

6. All things considered, I'd recommend elimination of the Uniform Board with its peculiar composition and its unique staff aura. The development of requirements for uniforms for the Army should follow a development cycle similar to that laid down for other items of equipage. TRADOC should be the user surrogate and the spokesman for the user community. Whatever we are able to develop by way of a consensus can then be submitted to the normal staff review

process in the Pentagon, then go into the budget deliberations, just as do weapons systems and other items to be procured for the Army. If the staff, or its chief, want to veto the programmatic recommendations brought in in the course of this system, that can be done, as indeed it is done with other systems.

7. I know that last paragraph will cause howls of anguish amongst staff elements who feel that uniform matters can only be decided upon by those privy to the especial wisdom that accrues from circulating in the sacred environs of rings A through E on floors one through three. But it just is possible that the rest of the Army might have some useful things to say about the uniforms—after all, most of the uniforms are worn by people not on rings A through E and floors one through three. However you view that recommendation, I would say that at the very least you must have voting membership of the major commands on your Uniform Board. If it needs to be reduced in size, and I agree that it does, then cut out some of the fringe interest groups who always seem to cloud up its deliberations.

Berets III

Message to General E. C. Meyer
Army Chief of Staff
19 October 1979

1. As the spokesman for all the "users" out here, I've been petitioned to approach you one more time to reopen the twin issues of berets and pullover sweaters. Volney Warner related to me his sensing that you are willing to discuss the issue again at the commanders' conference. If that be the case, may I suggest the following:

a. That we seek a policy which will put the whole Army in berets. For enlisted, it would be their only headgear, except for those who own dress blues, and with that uniform we'd keep the dress blue dress cap. For officers the beret would replace all headgear except the green dress cap and the blue dress cap. Thus we'd have an Army which would wear berets with its fatigue uniforms, battle dress, class "B" uniform—shirt and trousers, and with its green uniform when the blouse is worn. Officer wear of the green dress cap optional for ceremonial wear or under local policy.

b. That we prescribe no more than four colors for those berets. The German color scheme suggests one way of doing this. They wear:

- Dark Green—combat troops—infantry and others.
- Black—armored, recon, and antitank.
- Dark Red—all others except airborne and aviation.
- Maroon—airborne and aviation.

In the German scheme, a badge on the beret signifies branch; national colors are on the flash behind the badge. Were we to go this route, I think we'd want to discuss the colors somewhat more, but that gives an idea for openers.

c. That we buy the berets commercially based on bids from manufacturers; we would not, repeat not, let Natick get their hands on this.

d. That berets for enlisted men be clothing bag issue; that two be issued—one for field wear, one for garrison wear; that the two berets be issued as substitutes for fatigue caps, overseas caps, and for the nonfunctional helmet liner version of the bunny cap currently provided.

2. I'm prepared to come to the commanders' conference with samples and a proposal for consideration of the assembled body.

3. Pullovers. The consensus seems to be that, for wear with class "B" uniform—shirt and trousers, we adopt the olive drab British-style pullover, as the USMC has done. Believe we should do this also as clothing bag issue. It is also especially utilitarian for wear under battle dress jackets. I am also prepared to bring samples and a proposal to the commanders' conference.

4. To date I have only told my petitioners that I would approach you with this proposal. I have not communicated with them other than to issue that assurance. If you are willing to open the issue in the conference, I would like to send them a warning order, laying out generally what the proposal will be so that they may have time to consider the problem as they fly and motor in for the meeting.

5. I am aware that this action seems to bypass the Army Uniform Board. No intent to do that. However, one of that Board's continuing problems is that it frequently is not responsive to the field consensus and is too responsive to special or isolated interest groups. In any event the Board can become active with regard to whatever is decided at the conference.

6. Just have someone signal me yea or nay and I will proceed or desist as you wish.

Athletic Uniform

Letter to Lieutenant General Glenn K. Otis
Deputy Chief of Staff for Operations and Plans
5 November 1979

TRADOC has recently completed an intensive study of the content of Basic Training and the Initial Entry Training process. One focus of this study was the physical training program being conducted throughout Initial Entry Training (IET).

Currently, physical training during IET is conducted with the trainee wearing combat boots and the fatigue uniform. While this practice may acclimate new enlistees to physical exertion while wearing military clothing, the primary purpose of physical training during IET is to increase general physical condition. The wearing of combat boots, necessitating a limitation on the rate of physical stress applied to trainees to allow their feet to become accustomed to boots, is counterproductive to this goal.

An athletic ensemble, consisting of a warm-up suit, shorts, shirt and running shoes, is now authorized for issue to service members in units conducting unit-level physical training. Recommend this ensemble be included in the Clothing Monetary Allowance System (CMAS) and issued to all service members in their initial (clothing bag) issue. The athletic shoes included in the ensemble will alleviate many of the foot/leg injuries now being experienced, as they are specifically designed to absorb the impact of running and support the foot during physical training.

Berets IV

Message to Multiple Addressees
3 July 1980

1. Your friendly agent is still representing your views with regard to berets. We asked Shy to consider the matter once again at the conference on unit cohesion, 11–12 July. He asked that we come back and describe what should be worn on the beret by way of insignia of rank, flashes, branch, and so on.

2. Here is what I propose to tell him:

a. Clothing bag issue—two berets per soldier.

b. Three colors: green for special forces, maroon for airborne, black for everyone else.

c. No flashes.

d. Officers and EM alike wear insignia of rank, subdued or color as prescribed by major command commander.

e. Alternative to d above would be to create a series of branch badges such as those worn by the Bundeswehr. There are 20 in their system; each is a wreath surrounding a device indicating the branch—lightning bolt for signal, retorts for chemical, and so on. They are metal, bronze in color. These would have to be designed and made, but the cost is estimated as not too great, and the design is believed to be not that difficult.

f. For enlisted this would replace issue of the garrison and utility caps. For officers it would replace overseas caps. Officers would also wear the service caps as appropriate. With dress uniforms—blues and whites, headgear of those uniforms would be worn by all ranks.

g. The cost savings for 160,000 new accessions annually is estimated to be nearly $1.6 million.

3. If you could give me your reaction to this scheme, I'll go once more and beard the lion in his den.

Chemical Protective Overgarment

Message to Multiple Addressees
25 June 1981

1. This message advises of a serious deficiency in the currently fielded chemical protective overgarment and seeks assistance in protecting sensitive information with respect to public/media inquiry which might arise. In this regard, request that dissemination of this information be limited to only those on your staffs with an essential need to know. Further dissemination is unauthorized.

2. Recent laboratory tests have shown that thickened nerve agent (GD)—the likely primary Soviet persistent nerve agent—as well as other G and V agents, will penetrate through the US chemical protective overgarments when followed by water/rain. The adverse impact of this deficiency, which is referred to as "wet-thru," on our NBC defense posture is obvious. Although the mechanism is not fully understood, it is believed that "wet-thru" is due to a property of the nerve agent which alters the water repellency of the overgarment.

3. The US Army Materiel Development and Readiness Command (DARCOM) has initiated an intensive test and evaluation program. Initial tests have confirmed that significant amounts of agent—up to 80 percent—will be carried through the overgarment under conditions equal to a two-inch rainfall per hour. Ongoing efforts are designed to identify the failure mechanism which promotes "wet-thru" as well as to develop short-term/long-term changes for future procurements. Since the results of these tests should be available by end of August 1981, the planned April and May procurements were deferred. This decision considered fully the OPSEC implications, the current fill and inventory of overgarments—over four million sets, as well as the desirability of pursuing an interim solution in future procurements.

4. For your information and use, should the need arise, the following is an extract of the information provided to the Defense Personnel Support Center, the procuring activity, for use in responding to inquiries from contractors:

Quote

> a. The current chemical protective overgarment consists of a jacket and trousers of a charcoal-impregnated urethane foam with a nylon-cotton outer layer. It is designed to be worn over a soldier's normal combat uniform to provide protection from known chemical warfare agents.
>
> b. Since development of this overgarment began in the late 1960s and is representative of the then-existing technology, the Army has had a continuous development program underway to field a more effective and improved garment. This program is not only aimed at improving protective qualities and packaging, but also enhancing shelf life and extending wear life in order to minimize the required stockage levels and reduce the logistical burden of resupply during combat. A key objective of the program has been the development of new fibers and materials that would reduce the garment's weight and minimize heat stress. A high priority also has been given to improving the flame-retardant qualities of those garments used by aviators and combat vehicle crewmen.
>
> c. A near-term requirement, although not a quantum advancement of technology, includes the incorporation of an overprinted camouflage pattern that

> complies with the Army's recent adoption of the new camouflaged battledress. The Army is considering a specification change that would incorporate some of these more desirable characteristics to include the new camouflage overprint.

End of quote.

5. There is, of course, a critical necessity to pursue with utmost urgency a solution to this problem for the long term as well as proper modifications to the current inventory of overgarments. As soon as DARCOM has determined what is feasible/desirable as a result of the ongoing investigation, and it has been approved by DA, I will provide you the information.

Uniform Woes

Message to General E. C. Meyer
Army Chief of Staff
4 January 1982

1. In your 7 December conference call there was much ado about the shrinking uniforms provided by the famous Natick Labs. Four bits from the past come to mind.

2. Apparently at the beginning of War Two the CSA faced the problem of outfitting more people than we could produce uniforms for. Frustrated by the foot dragging lab—Natick's predecessor, he summoned equipment outfitters in the US to put on a display. They laid out their gear on the floor of a warehouse at Cameron Station, which I am told is the commissary building now. Then the CSA and his QMG walked up and down the line through Sears, Wards, Penney's, L.L. Bean, all the others and bought several millions of dollars of stuff. Much of it went to equip the Chinese Army, but nonetheless it was all done in two or three days. The QMG was beside himself—we couldn't support an Army like that. How would we account for it all? What about replacement gear? All in all, it seems to have been a great exercise. That done, General Marshall got himself a new Quartermaster General.

3. One day in 1959 the QMG of the Army came to Leavenworth to speak to the class. To make himself popular he brought along guidons which he issued to each section. Some irreverent soul stood up; after congratulating the QMG on the splendid guidons, he asked why the Army couldn't make a fatigue hat as nice as those guidons. Moment of silence; QMG responded—"That's your problem—you guys are the users—put in your requirements." So you remember we got a lot of people to sign a document describing the hat we wanted. I even furnished a real New York Yankees baseball hat given me by Ralph Hauck to use as a sample. Quick response—three years later, as a brigade S3 in USAREUR, I was responsible for conducting part of the greasy hatband test of the "new fatigue hat." That was the one which required the wearer to have a pointed head and forehead-protruding horns to prevent the brim from flopping in his eyes. So now, twenty years later, we finally have an about right baseball hat, just as we decide to abandon it for battle dress?

4. During the Vietnam War the Army Staff was beset with reports about inadequate individual equipment; the soldiers were overburdened with too much stuff and stuff that wasn't any good. You could buy better from outfitters, and many people did. The CSA, having heard of the World War Two incident above, decided to find out what the real problem might be and solve it in like fashion. He hired a fellow whose name escapes me—a professional uranium and oil prospector; served with OSS in War Two—provided data to many outfitting companies as he went about his post-war prospecting business. In the winter of 1967–1968 this gent went to Vietnam, spent two months and came back with three duffel bags. Two were crammed full, one about three-quarters full. The bags held identical categories of gear from Vietnam in the two bags full and from War Two in the partly filled bag. The first message was obvious—things had got bulkier and heavier over time. In February of 1968 our investigator returned to Washington to report. He had a super three-hour presentation during which he compared, item by item, the War II stuff with the Vietnam stuff. In every case the Vietnam-era gear came off second best. By the time he was into his second hour, the CSA was livid, so he decided to stage one of those events at Cameron Station. He did. I don't remember what he bought, but most of what he tried to do was thwarted by the AMC system. Couldn't be made here anymore; no material

like that; no machinery like that. The CSA's ire over the findings of the investigator paled to a shadow as he reacted to the recounting of why it couldn't be done any more. Some minor things were bought, but not to amount to anything. The wool guys won out over the down guys, even though the national stockpile of goose feathers stood at like a million tons at the time, and so on.

5. In 1973, having taken command at Knox, I ventured to beard the Natick lion in its den. Subject: tankers uniform and other matters. I took along my German tanker's outfit, a War II tanker's jacket and pants, a British tanker's kit, and my L.L. Bean and Eddie Bauer catalogues. It went on all day. Finally I threw my catalogues down and asked why we couldn't just buy from these guys. That's when I learned the story about General Marshall—the same guys were still there doing the same thing. A small note—I asked if we could make the collar on the tanker's jackets knit, like in War II. Well, okay, but it would take about three years of development and cost several millions. So I told them to leave it as was. Shortly after Jack Marsh took office he visited me and admired my new tanker's jacket—seven years after my Natick trip we finally had it. So I gave him one. His horse holder called to say Jack wanted to know why it didn't have a knit collar. I referred them to the collar guy at the lab; haven't heard the outcome—notice jackets are still being made with that unsat flopdown collar.

6. Well, enough, that lab is at the pinnacle of highly developed incompetence, more than any of the DARCOM labs, and they are all somewhat the same. It wallows in irrelevance. When I visited they had twelve PL 313s running things—no wonder nothing ever gets done. It needs a good objective management review by some disinterested agency. The outcome would not be hard to predict. However, in all fairness, the old user is not completely without blame. A big part of the problem is with the Army Uniform Board, the part of the uniform it controls directly and the influence it has on the parts it controls indirectly. Several times in the last few years I've recommended to anyone who would listen that we give off all uniform responsibilities to TRADOC. Your predecessor accused me of trying to usurp his sacred prerogatives. Your former DCSPER choked to a croaking whisper when I responded to his request for a recommendation about this matter with a proposal to give it all to TRADOC. That wouldn't fix the lab, but it might clean up the user's act a little. Meantime, the stories can just collect—forty years from now someone can do me at least four better.

7. Smile.

21. Values

Page

Nature of Military Service 872
Officer Trust 874
Mickey Mouse 875
Advice for Lieutenants 876
Army Values 880
Battlefield Values 881
Alternatives to Duty, Honor, Country 883
Soldier Support Center Ethics 884
Values 885
Dealing with the General Accounting Office 888
In Pursuit of an Ethic 889
Military Ethics 893
Really Good Outfits 895

Nature of Military Service

Message to Major General William J. Livsey
Fort Benning, Georgia
18 October 1977

1. The purpose of this message is to supplement the guidance . . . covering the Benning visit by the President's Commission on Military Compensation. Benning is a stop on the last of the Commission's four field trips. These trips are to allow the Commission to hear the opinions of all interested individuals and groups . . . concerning military compensation in its totality.

. . .

5. The Army's exposure is . . . limited to the exploratory visit to Eustis in September, the visit to operational troops in the field at Hood in October, and the visit to Benning in December (the Commission's final field visit). HQDA understandably expects the visit to Hood to drive home most forcefully the unique aspects of the military profession. However, it is quite likely that the Hood visit may be too early for maximum impact; for that reason, the Benning visit may take on extraordinary import in imparting the Army story. Pending feedback from Hood, Benning should be prepared to assume a major burden of presenting the Army situation in its proper perspective.

6. Commissioners are . . . experienced, successful executives, in both private and government organizations, who understand the ins and outs of recruiting good people, keeping them, and treating them fairly. These members have apexed their professions and are credible experts to assess the military profession.

. . .

8. The key to a productive visit is a keenly orchestrated and well-rehearsed itinerary designed to allow the commissioners to carry away the unarticulated premise that—

- Military service is a unique profession (legally required to fight, can be worked as long and as hard as need be, little choice as to risks involved, shrinking dimension of lead time).
- Military service cannot be compared with civilian life (risks, relocations, work environment, overtime, separations, selective hiring and firing, no right to quit, nature of responsibilities in peace and war, and demands for sacrifice).
- Military service is not a job; it is a way of life.

. . .

15. The commissioners are concerned that they absorb the true impression of the military environment rather than a bureaucracy-dictated party line. For that reason, it is imperative that spontaneity prevail in group interviews. On the other hand, participants must be completely familiar with the purpose for the Commission's visit, the importance of the Commission and the distinguished personages on it, and the fundamental issues concerning military compensation. Perhaps the proper balance is that personnel with whom the commissioners come in contact should be informed but not indoctrinated.

. . .

18. . . . this year's "Total Army Goals" is an excellent text for use as a springboard for preparatory discussion among troops. The human goals sections contain some excellent thoughts on the need for quality, dedicated soldiers.

. . .

21. I have the uneasy feeling that the Commission's agenda allows insufficient time for the enormity of the tasks facing it. Were I to have the opportunity to channel their efforts, I think I would nudge them thusly:

a. The Commission must restore some semblance of order to the incredible disconnect between total costs of housing (rent payments, utilities, insurance, maintenance, moving expenses, etc.) and allowances therefor, particularly for those forced to reside off-post. This irrelevance casts doubt upon the credibility of the entire compensation system. Simply stated, the BAQ plus other allowances coincident to moving must meet the costs incurred. Further, the Commission must recognize the need for a variable housing allowance to adjust to geographic variations in the continental United States.

b. The Commission must square off against erosion of dependent medical benefits and must recommend a responsive, economical alternative to the current situation. The Commission must establish credibility by recognizing that what used to be free and timely is now costly and unresponsive—and this constitutes erosion. The Commission must fix that as a prime order of business.

c. Next the issue on contributory retirement must surface. Such a plan has many advantages, among them being a premium for longer service and provision for vested annuities for those leaving sooner than 20 years.

d. Finally, the Commission must recommend some minor fixes:

(1) To reconcile BAS for officers/EM to the cost of food.

(2) To reconcile travel and transportation allowances to actual costs.

(3) To stabilize the commissary/exchange/recreation benefits.

(4) To place the retiree/survivor systems in better perspective to the purposes they serve.

Officer Trust

Letter to General Walter T. Kerwin Jr.
Army Vice Chief of Staff
22 February 1978

We have been informed that the six-month Army DCSLOG test of new procedures for officers cashing checks in commissaries has been terminated ahead of schedule.

TRADOC has been committed to the ideal and process of eliminating those policies which deny our officers the presumption of integrity. We remain committed to this task and support the recommendations of the Special Officer Trust review group convened by the Chief of Staff last fall. Officers within TRADOC overwhelmingly supported the efforts of this group and saw implementation of their recommendations as an important step toward restoring meaning to the words "special trust and confidence" as they relate to the officer corps.

The decision to discontinue this test runs the risk of being viewed by the officer corps as a retrenchment from the implied commitment made by the Chief of Staff. The dissatisfaction caused by exclusion of warrant officers, noncommissioned officers, and retired members from this test is acknowledged. However, initiatives affecting these groups should be considered separately and not impede the accomplishment of our original goal.

If these test procedures are not reinstituted Armywide, I would favor a policy that would allow discretionary authority for installation commanders to continue revised check cashing procedures.

Mickey Mouse

Message to Multiple Addressees
6 April 1978

1. Recently I became aware that at several of our installations troops are being required to remove their boots before entering the barracks. I am told the purpose of this is to keep the barracks floors in their spit-shined condition.

2. Whatever the reason for its being, this practice is patently ridiculous. It amounts to the kind of harassment we decided to stamp out of our Army in VOLAR days. Then we called it Mickey Mouse. I thought we were rid of it, but apparently not.

3. Each of you will take the necessary steps to stop the practice immediately if indeed it exists in your command. Further, each of you check very thoroughly to make sure it is not taking place in your command. Don't just assume it isn't because you don't know about it. It's apparently been going on for some time and I just recently became aware of it—quite by accident. You may be in the same situation.

4. With regard to the spit-shined floors, there shouldn't be any in TRADOC. Clean, neat, orderly, well cared for barracks are essential. But for every spit-shined floor I find I'll bet you I can find a host of things that need fixing more than the floors need to be spit shined. Let's get our priorities straight.

5. Someone will be around to check on this, so don't be surprised. Get it straight the first time. We've a whole bunch of important things to teach our soldiers, and we haven't much time in which to do it. Spit shining floors and removing boots before entering barracks are tasks that are not on my list of important things they have to learn in TRADOC.

Advice for Lieutenants

Trinity University ROTC Detachment
San Antonio, Texas
20 October 1978

I thought I'd reminisce a little and share some thoughts on the Army from a perspective of a new lieutenant. Perhaps the following story will give you a hint of what I mean. Some newly minted lieutenants were undergoing an oral examination from a hard-bitten colonel. Up and down the line he went, saying to each one in turn, "You are going to have to pitch a tent. What is your first order?" Under the colonel's frosty eye, lieutenant after lieutenant shriveled and fell mute. One attempted to answer, "Break out tent equipment," but was cut off at once.

And then finally the colonel reached the class goof-off and low scorer in all things military, "Well, Lieutenant," said the colonel, "if you were going to pitch a tent, what would be your first order?" The lieutenant snapped to rigid attention and barked, "Sir, my first order would be my only order. It would be 'Sergeant, pitch a tent.'"

Now that young officer understood much more about the Army than he realized, and it focuses on the problem that faces every new officer when he enters the Army—how do you lead, deal with, handle, get along with your subordinate noncommissioned officers and enlisted men?

When I joined the Army and reported to my first unit as a second lieutenant, about 29 years ago, I was young, fresh, and slightly apprehensive. Most of all, I was bothered by the problem of acceptance by some very grizzled veterans of World War II, my noncommissioned officers.

The first platoon sergeant I ever owned, or to whom I belonged, as a second lieutenant, was an old gent named Leonard Lucas. He was a crusty old fellow, and he said to me as I walked in and reported to him, "Well, I see I have another lieutenant to train." He issued me a tool box, made me inventory the tools and identify them, and made me sign for it. And then he said, "Okay, Lieutenant, I know you've been to West Point. I know you've been to Fort Riley to school. I know you've been to Fort Knox to school, and all that was very useful, but now what we are going to do is make that practical. I'm going to do that, and the maintenance instruction begins in the motor park tonight at 1930. Please be on time. Bring your tool box."

So I thought about that and said, "Well, who is in charge of this mess?" But I figured maybe I'd better keep my mouth shut and listen for awhile and see what happens. I went to the motor park, and it was an unfortunate thing. He made me so proficient as a mechanic that I had to later do a tour as a battalion motor officer, which is not always the finest job in the world.

He did a good job all-around. The first time we went to the field and pulled into a bivouac area, Sergeant Lucas came up to my tank and said, "Now if the Lieutenant would be so kind as to go over and sit down under that tree, I will put the platoon in position. I will report back to the Lieutenant when we are ready for inspection." I thought, "Well, now, I really should, as the platoon leader, be doing something besides sitting under that bloody tree."

But I did as he said. So there I was, sitting under a tree, reading my manual for lieutenants, trying to decide what I ought to be learning out of that. I also watched him as he went around. He made them go into position; he made them put up camouflage; he made them make out range cards. He had a kind of a check of crew duties. He had a little inspection, and he checked to see if they had been doing their maintenance. Then he came over to me and reported, "Sir,

the platoon is ready for inspection. If the Lieutenant would please accompany me, we will inspect the platoon. Here's what I want you to look for in tank 31, 32, 33." Then he told me some things, because he knew the sergeants and the crews better than I did and he knew where they were weak. He knew the things he wanted to emphasize with them, and we did just exactly that.

When we got all through, he said, "That's fine, sir. Thank you very much. You did what I asked you to do, but you weren't tough enough. Now that may be for two reasons: one is you are inclined to be too easy on the soldiers and we can correct that. I'll tell you how to do that. The second reason is you don't know enough about the skills, the things that we're checking on, the little tasks that I want them to do. You don't know enough about that yourself in order to ask questions and you may be a little nervous about that, so we'll fix that. We're going to improve that because we are going to have classes for you and I'm the instructor."

Now he was always very respectful about all this, but it was clear to me that his job as he saw it was to train that platoon leader, and he was not alone. We had a battalion of those sergeants. This was 1949. They had all fought World War II, every one of them. Some of them had been officers in World War II and reverted to enlisted rank or had gotten out and come back in, a whole combination of things. They had gone through some pretty rigorous training getting ready for that war. They had all fought the war, and most of them had done very, very well at it. Every tank commander in the first platoon that I commanded had been a tank platoon sergeant in that war. They were super sergeants. Every platoon sergeant in that battalion took the attitude that it was his job to make sure that his lieutenant was the best platoon leader in the battalion. There was a competition among the platoon sergeants as to who had the most proficient lieutenant.

Let me tell you that the raw officer material that I provided Sergeant Lucas to work with was not the best. Somehow or other, Sergeant Lucas got me started, and as my closest noncommissioned advisor, he exemplified the sergeants that we call the backbone of the Army. That statement is still true today; the sergeants are still the backbone of Army, just as the officers are the heart of the Army. But the relationship has changed a little.

We don't have grizzled veterans in the Army any more. The noncommissioned officers today are more often than not young, skilled persons, both men and women, with a specialized knowledge of their jobs. More than ever before they are going to look to you, as new officers, to provide a complementary knowledge. The sergeants provide the framework, the continuity in the unit, but they look to you to provide the heart—the high ideals, the central direction. Don't misunderstand. The sergeants have these things too, but they look for them *especially* in the officers.

Now what does that mean to you? It means that, first of all, you've got to be very knowledgeable about your job when you join your unit. You can't afford to sit back and wait for professional skills to come to you by osmosis. It won't happen. Oh, the sergeants will be glad to brush you up on some fine details, but they expect you to have learned most of the skills before you arrive. Not only those that are equipment oriented—gunnery, maintenance, tactics, procedures—but also the important skills that provide that heart I spoke about—loyalty, integrity, honesty, judgment. These latter ones are what you must bring with you from the start. It's too late to learn them when you join your first unit.

The thing that can make a 30-year-old platoon sergeant and a 38-year-old first sergeant and a 45-year-old sergeant major—grizzled, tough, and strong—look up to, receive instructions from, and obey the orders of a young 21-year-old, sometimes fuzzy-cheeked second lieutenant is not altogether what that lieutenant is, but what he stands for.

Call those things duty, honor, country if you want; call them intestinal fortitude; describe them as intangibles. No matter how you label them, they are the heart of the Army. In the final analysis, they are what separate the Army from a lot of other jobs and occupations and, in fact, make being an officer more than just a job.

When those sergeants see you coming, they see beyond the fresh young officer to the potential company, battalion, and brigade commander, and maybe even to a potential Chief of Staff of the Army. If the young officer has those intangible qualities I described and the tangible ones of professional skill, the noncommissioned officer is eager and proud to help him prepare for higher levels. It may surprise you to know that those sergeants keep on watching you throughout your service, whether you serve for a career or just during your required obligation. They are proud, sometimes jealously so, of your achievements, and if you are successful, you'll hear from them, whether to wish you well or to remonstrate when they think you're wrong. I know, for I still get letters.

It may be unnerving at first, when you join the Army, to see your sergeants doing some things that you haven't learned yet. "How on earth can I learn as much as them so they'll respect me?" Even more unnerving is the experience when your sergeant slips up behind you and says, "If I was the Lieutenant, I'd. . . ." Now there you are in a dilemma. Your ears are flapping, waiting for his guidance, and at the same time you're wondering who's running this lash-up.

Well, the best advice I can give you is to listen, but listen carefully, to what the sergeant says. Weigh it, temper it with what you've been taught, then make a decision. You learn from experience, both your own and that of those who have been that way before—your sergeants. You're foolish to ignore it. As General of the Army Omar Bradley said, "Good judgment is based on experience, and experience is based on bad judgment."

Remember your job as an officer is to command a unit. Your sergeants run it. The distinction is a fine line. You make the decisions—that's your job. The sergeants carry them out—that's their job. You decide—he runs. Don't overdo it, don't take the sergeant's responsibilities away from him, and above all don't try to run the whole show yourself. It can't be done; a lot of fine but unsuccessful officers have tried and failed.

There is an angle to this business of command that you should know from the start. There is a corner of the Army titled "Sergeants' Business," and officers have to help guard that corner—mostly from officers—to make sure only the sergeants do it. It is all too easy to get into sergeants' business and lash around like a bull in a china shop and destroy your noncommissioned officers. Ultimately you destroy the unit and the officers.

The sergeants' business I'm talking about is the care, maintenance, and training of the individual soldier. That's the noncommissioned officer's primary responsibility, and your job as an officer is to support him in that effort, not to supplant him.

Now how do you do that? Well, the most important preparation is to be professionally skilled—know your own job, whether weapons or office procedures or maintenance or whatever, so well that you can teach him, support him, and answer his questions. You can't wait, like I

did, for him to train you too. There isn't enough time, and you'll detract from his primary responsibility—the training of the men.

Your job is to train the trainer to train the men. If that means acting as problem-solver or front man to see that he has the tools or time or resources to do it, then that's what you do. You decide the standards and conditions and check to make sure his training measures up. But in between you are to be supportive.

Does that mean you're "second fiddle" on the team? Of course not. He'll know you aren't, you'll know you aren't, and most of all the men will know you aren't. Your role as a training leader is primarily at the unit or collective training level, getting the squads, crews, and sections to act together as a team, whether it's a platoon or battery or administrative office. The reason is obvious. The sergeants are the first-line supervisors, and they're with the men most of the time. There are more of them. There is only one of you, and you can't be everywhere. So you must rely on them to do the individual training. You concentrate on the unit tasks.

Now let me tell you something we've learned from some studies that backs this up. Our studies indicate that technology—improved weapons, systems, etc.—add about 3 percent to winning a battle. We found that well-trained crews, the result of good individual training by sergeants, add about 15 percent. That's fine, but the real shocker is that well-trained crews in well-trained units—the lieutenant's job—adds up to 25 percent. Some hypothesize even greater than that.

That last is officers' business, and that's what comes from making sure that sergeants do sergeants' business and officers do theirs. That's what will get you the quickest respect from your noncommissioned officers, when they see that you recognize where that fine line is between their business and yours. Remember, be supportive of their efforts, prescribe standards, and check to make sure they achieve them, but give them the responsibility and the backing to achieve the standards in their own way.

One note of caution: recognizing where the line is does not mean abdication of command of a unit into two separate fiefdoms. You are still the commander, and if you approach the sergeants as I noted previously, they will understand it. Most of all, remember that the administration of discipline is in your hands and *must* remain there if you want to command. If you give up any of it, then you lose command.

I'm not talking about the sergeant correcting a recruit or chiding a man for some uniform violation or weapon misuse. That's part of the sergeant's responsibility as a noncommissioned officer. What is real discipline is deciding who is restricted or if extra hikes are needed or anything extra. The man who makes those decisions is commanding, and it must be you. If you don't, the men will quickly realize who is deciding and, when they do, you'll be left in the cold. Discipline is indivisible from command and you must administer it.

Now everything I've told you is no secret. It's part of the lore of the Army, and when you get to where I am, you'll see how easy it is to look back and say, "Yes, that's right. That's how it's done." Unfortunately, I suspect some of you will have to learn the hard way through experience and bad judgments that will prove that General Bradley was right.

I hope, for those of you who will soon be commissioned, this advice is helpful. For those of you considering the Army as a profession, maybe these insights will help you decide.

Army Values

Message to Dr. Walter LaBerge
Under Secretary of the Army
21 June 1979

The question we face is: If the Army holds a different value system than the society as a whole, then what is that value system, and how do we inculcate it into our soldiers, young and old, in order that we may be an effective institution? We cannot be effective as a military force if we simply accept, and so adopt, the liberal trends in society as a whole. Our problem is we can't even articulate the necessary Army value system for ourselves, let alone lay it out in a convincing coherent way for the soldiers, NCOs, and officers of our Army. This we must do. We've been studying this and related matters for some time, and I'm about to try to bring things to a head. You'll see that attempt in print and elsewhere fairly soon I'd judge.

Battlefield Values

Georgia Military College ROTC Detachment
Milledgeville, Georgia
24 January 1980

What I want to share with you are four important things that all soldiers, no matter what rank, have in common. I guess high-blown sociologists would call them values and do a lot of fancy hand-wringing about them. So, for our purposes, let's define my important things as values, but let's call them battlefield values so we remember that they belong to soldiers.

Now you can find lists of values by almost anyone and covering almost everything. It just depends on what book you read or philosopher you hear. Some of them are phony, some have no relation to real people, some are given lip service, and some are good. But soldiers on a battlefield have a way of quickly weeding out all that's worthless and getting down to basics. On the battlefield there are only four important values—candor, commitment, courage, and competence.

These aren't in any particular order of rank, so let's just take them as I listed them. *Candor* is not a very strong word. In fact, it's not used very often. Too bad, for it means more than honesty. It's also openness and it's simplicity. It is the primary rule governing battlefield communication between soldiers. It ensures the most understandable transfer of meaning. The stakes are too high and time is too short on the battlefield to deal with anything less than truth, honesty, openness, and simplicity. It is no place to deal with "I'm okay, you're okay," status games, hidden meanings, subtle overtones, and conducting "what did he mean when he said . . .?" type analysis.

Communication between soldiers concerns facts and effects. They must be clean, whole, and accurate. Candor is what causes units to become great units. The candor of the battlefield is why lies told there are punished not with gossip but with action. Make no mistake about it, the battlefield is the most honest place in the world.

Commitment is another word not used very often. In fact, we seem to be moving toward a society that is more and more reluctant to make a commitment. It means a sharing, an exchange of your beliefs for someone else's and vice versa. Soldiers make only a few commitments, because their world is small—first to their buddies, then to their crew or squad, and then maybe a little to their platoon. After that, their commitment to big units and to their nation is much less. There's nothing wrong with that; that's how it's always been. Their buddy and their squad or crew, that's what's important.

How does commitment start and grow? With candor—honesty, simplicity, and openness. That's what all soldiers look for in a buddy and in a leader. When they find it, they make a commitment. This builds trust, which in turn builds security. Isn't security what soldiering is about? Commitment is what's written all through the citations for the Congressional Medal of Honor. You made a commitment when you came here—to your parents, to yourself, and to your buddies. Throughout our lives we are all asked for commitments, but the strongest commitment made is on the battlefield to buddies, to crews, to squads. The commitment there is backed by a life. There's no higher sacrifice.

Courage is a very much talked about value. So let's get something clear about courage right off. It's not the absence of fear. Everyone has fears, all the time, every day. On the battlefield,

they become right sharp. Courage is the controlling of your fear and taking a risk, even though the choice not to do so is open. Risk is the daily environment of soldiers, yet they alone decide how much risk they can endure. When they make that choice, they control their fear even to the point of total risk.

Now why do they do that? Because they've made a commitment based on candor. Courage grows because of the growth of the other two values. Courage makes things happen and courage sees the actions through to the finish. Courage is the simplest display of candor and commitment. Courage is contagious and spreads rapidly. That's why soldiers will follow leaders into impossible situations. They recognize the courage of their leaders, and it awakens their own courage, built on candor and commitment.

The last value, *competence*, is the oldest value on the battlefield. It's a central value that anchors all the others. In simple terms, it means the ability to do your job. On the battlefield candor serves to explain the soldier's changing degree of competence. Courage flows from trust and belief in your own competence, your buddies, and your leaders. That courage, built on their competence, makes a commitment.

The funny thing about competence on the battlefield is that you can't just talk about it. You've got to show it. On the battlefield actions speak louder than words. Competence establishes who the leaders are and who the phonies are. On the battlefield the leaders and the led respect competence more than any other value—except courage.

Now, having said all that, what does it mean to us? Well, if we agree that these are the prime values of a soldier on the battlefield, why do we change these values in peacetime? Think about that now. In times of peace, all these values lose their clarity and importance among all the other so-called "important" values. We agree that our Army must prepare in peace to do what we must in war. Doesn't it follow that we ought to use the same values?

How do we make a shift in war to these values? What button do we push? What program do we start? What book do we read? The answer is plain—unless we practice and live these values today, they won't be in operation on the battlefield.

If you think about these values, don't they make sense for all of us, no matter whether we're civilians or soldiers or cadets or sons or daughters or whatever category we're in? In peacetime, we practice tactics, strategy, weapons firing. We must do the same with our values. We must develop the candor to display the courage to make a commitment to real competence, now, today. We can afford to do no less, for the time is short and the stakes are high.

Alternatives to Duty, Honor, Country

Message to Major General David L. Grange
Fort Benning, Georgia
4 February 1980

1. I intercepted a copy of your 281850Z Jan, this subject [Alternatives to Duty, Honor, Country], to [Forts] Ben Harrison, Sill, Knox, Bliss, and Leavenworth (front channel message).

2. If I read between the lines correctly, I presume this comes from my conversation with your people who were trying to write the leadership manual. If that be the case—and even if it isn't—I am afraid I have failed to make myself clear with regard to the problem with that motto.

3. There is nothing wrong with Duty, Honor, Country; like every other such motto, it has a contextual place, and is useful in that context. It is not very useful as a means of describing to sergeants, lieutenants, captains, and perhaps many others of us what may be the leadership traits and values most useful to us as officers/NCOs and leaders.

4. Before you waste a lot of time threshing around with this, I would like to convene whatever group in your place generated that message and talk this out with them. The problem is not one of finding alternatives to Duty, Honor, Country; rather it is finding some value system, set of character traits, or whatever that is relevant to the world in which leadership must be laid down and become operative for the NCOs and officer corps of our Army.

5. While we are getting this meeting together, I'd like for you to withdraw that message. It will come to naught in any event, and will simply generate a lot of unnecessary work for someone who has all too little time to spend on it anyway.

Soldier Support Center Ethics

Message to Multiple Addressees
10 October 1980

Before you get too far along we need to get together and decide what we are trying to do with this program. Never having confronted a real live ethic head to head, I have some trouble visualizing what kind of bear we are trying to wrestle to the ground. We should establish that—at least to my satisfaction, before we find ourselves in another jungle like that generated by studies of staff organization and leadership activities.

Values

Association of the United States Army
Seattle, Washington
5 February 1981

I'd like to take a few moments tonight to speak about values. Now, I know that's not a very controversial topic. Surely we all have some kind of values. We'd not be very human if we didn't. But in my remarks tonight, while they'll recognize the fact that we all still have values, I'd challenge just whether they are the right ones this nation, state, and community need to build on for the 1980s.

My point, in a nutshell, is that for the past 20 years or so it seems we, as a nation, have been borrowing against our country's past, almost as one would borrow against an insurance policy without building for the future. We haven't been working at fostering our nation's values. There is every appearance that, in the great comfort of our extraordinary affluence, we've come to believe that lives of men and nations are largely cost free.

The evidence abounds. First, we've all but lost the habit of thrift. The national savings rate confirms that, and because of this we should all be concerned about where the capital formation required to maintain the future's productive industrial base will come from.

Individual productivity seems to have also declined in almost every sector of our life. Management itself has become so focused on the short-term bottom line, the current quarter's results, that longer term vitality has been neglected.

Our schools persist in using 19th-century curricula to educate our children for a life that, in the 21st century, will be vastly more complicated. In my business, we've already seen the results of this. In spite of the fact that in the last 10 years the percentage of combined As and Bs to Cs given high school seniors has risen by more than 15 percent, the scores achieved by that same group on one of the college entrance examinations, the Scholastic Aptitude Test (SAT) have fallen dramatically during the same period. College grade point averages during the same period have risen almost 20 percent. It could be said that the education system of our country has for 10 years or more been giving better and better grades to a population that is, by their SAT scores at least, dumber and dumber.

We can see further evidence of the cost-free attitude in our country's preparedness. I've heard it characterized that we have been in something called a defense depression. That's not a bad description. The circumstances in which we now find ourselves are the result of nearly 10 years of what has amounted to unilateral disarmament. It isn't what the last administration did. They just came along to ice a cake that had already been pretty well eaten up. So you can see that there is no one administration, no one party, to blame. The hard fact is that we are all responsible. Nobody wanted to pay the bill.

My final point concerning what we've done to bankrupt ourselves concerns leadership. It's quite popular to lament the absence of national leaders, but look at what's been done over the past 10 to 20 years to foster leaders. Not much! In fact, it's become fashionable to declare open season on leaders. I don't need to remind you that some have literally been assassinated. All potential leaders are subject to a kind of microscopic, daily review of minor sins and major presumed flaws. I suggest few of us here tonight could stand that kind of scrutiny. Societies don't develop leaders in those conditions, not in business, in public life, or in the military.

Again, we're all responsible for the absence of leadership, if for no other reason than that we condone the excesses directed against those who aspire to lead.

Well, you say, "That's quite a commentary on what's bad. What can be done to right the situation?" It must begin with us as individuals. The question is whether we're willing, as individuals, men and women, to adhere to some basic values of decency and worth. Without a solid ideological base, no fresh start will take hold.

I'm not proposing that we all need adhere to the same specific values, but I am saying there are some very basic values that, regardless of our calling, we should consider. General Meyer, our Chief of Staff, has articulated his set of values for the Army. They are cohesion within small units, loyalty to the Army, personal responsibility, and selfless service. You can consider those for your own circumstances. I think they'd fit if you merely substitute the word Army for your own business, group, or family.

I've been fostering a similar set that I think are particularly applicable to the armed services. Remember as you listen to them that soldiers' values must be basically different from society's. That's natural, since a soldier's orientation is toward a battlefield where he may have to make the ultimate sacrifice—his life. But, unique as they are, I submit they do have some applicability to society as a whole. Consider then, as I talk about them, whether there are not some aspects of these values that could be useful to us all.

The first is professional *competence*. Competence includes a superior sense of disciplined professional responsibility; it acknowledges willingness to sacrifice. It means the ability to do a job as a member of a team. Competence is not talked about, it must be demonstrated. Competence establishes who the leaders are; it can't be faked; it quickly singles out the phonies. Professional competence is what makes XM-1 tanks work perfectly, no matter how many or how few diplomas the crew has.

Commitment is the second important value. Any profession represents a commitment, an obligation. Commitment is a word not often used in our society. We seem more and more reluctant to make a commitment. Commitment means sharing hardships. Soldiers make few commitments—their world is small. If we train them properly, their first commitment is to their buddies, then to their crew or squad, then perhaps to their platoon or company. Soldier commitment to larger units or to the nation is always much less than their commitment to Company B or to the Bandit Battalion. There's nothing wrong with that. In the good armies, it's always been that way; commitment builds on competence—one cannot exist without the other. Commitment on the battlefield is backed by a shared danger in which life is the stake. There is no higher bond.

Third among our values is *candor*—truthfulness. Characteristic of today's changing society is the way in which the language is used to diffuse the truth. It may be we don't tell the truth very much anymore because it's most often unpleasant. It may be that it's just harder to discern truth because today's issues are so complex. In any case, the military profession must hold in high merit the value of candor, the willingness and ability to discern and tell the objective truth. The candor of the battlefield is why lies told there are punished not with gossip but with action. In battle, it is always necessary to tell the truth. Someone's life usually depends on it.

Finally, there is *courage*—the courage necessary to tell the unpleasant truth, the courage to make a commitment to something larger than self, the courage to insist on that higher order

of values essential to a successful military profession, and the courage to understand and articulate convincingly the extent to which military force has utility in the pursuit of national objectives.

Courage is a very much talked about value. In the young soldier's world, courage is not the absence of fear. Everyone has fears, all the time, every day. On the battlefield, they become all too real. Courage is the willingness to admit and the ability to control fear. Courage grows on the other three values. Courage makes things happen. Courage sees actions through to the finish. Courage is the simplest display of competence, candor, and commitment.

Our experience is that successful leaders and soldiers at all levels do hold fast to these values. They are the Army's "bottom line," "where we're coming from."

I implied at the beginning that our country might be losing its grasp on the very values upon which it was founded. Arnold J. Toynbee, the noted British historian, concluded after his long and exhaustive *Study of History* that characteristically all of the fallen civilizations of the past, such as ancient Egypt, Rome, Babylon, Greece, and Syria, began to decline, and some actually fell, during their most economically prosperous period and when they could also boast of the largest and best equipped armies in their history.

Why, then, did these economically and militarily strong civilizations decline, fall, and eventually disappear as viable forces in history? Toynbee suggests an answer: they somehow allowed their youth, their young leaders, to become defiled. They failed to pass on to their young leaders the basic values, the fundamental knowledge, the nobility of purpose, and the necessary faith in the perfectibility of the social order which, in the first place, brought their civilizations to greatness.

The central lesson of history seems to be this: Our country, like countries of the past, will decline in strength and could eventually fall unless we take care to prepare young leaders to acquire competence, develop the commitment, practice the candor, and have the courage to continue this nation's efforts to fulfill its inherent goals.

I do not subscribe to the thesis that we are foredoomed. This country has enormous recuperative powers. Most important, the average American is intelligent, possessed of remarkable common sense, believes in his or her country, and is generally disposed to do the right thing.

If you think about these values, don't they make sense for all of us, no matter whether we're civilians or soldiers, sons or daughters, or whatever category we're in? In peacetime, the Army practices tactics, strategy, weapons firing. We must do the same with our values. The civilian community must do the same. It's our charge as military, business, community, and family leaders to continually create an environment in which we can apply some of these basic values and thereby contribute to our nation's progress. We must develop the candor to display the courage to make a commitment to real competence, now, today. We can afford to do no less, for the time is short and the stakes are high.

Dealing with the General Accounting Office

Message to Brigadier General Benjamin E. Doty
Fort Ord, California
19 March 1981

I've alerted the Chief to what might be uncovered should the GAO probe deep enough [into a Scientific Support Laboratory contract]. We play it straight and let the chips fall as they may.

In Pursuit of an Ethic

***Army* Magazine**
September 1981

The subject of ethics has of late received more than a fair share of attention. No wonder! The trauma of Watergate yet haunts our social conscience; Koreagate is close behind; "Abscam" is recent front-page stuff. A Pulitzer Prize is awarded for a gigantic prevarication published by one of the pillars of the prestige press. There is a spate of media commentary and books decrying ethical decline in our military profession, especially in the officer corps.

So the root question is: Does our Army have an ethics problem? While one could argue yea or nay, it is apparent that many, both inside and outside the Army, perceive we do have a problem.

Recently a corps commander sent to each officer in his corps a letter expressing concern about increases in reported incidents of officer misconduct. His concern stemmed from perceived flaws in the value system—the ethics of his officers' behavior. A brigade commander trying to work the problem signaled alarm when three of four of his officers affirmed to him they thought it necessary to "lie, cheat and steal to get ahead in this man's Army." Examples abound—more than enough to make the case.

While much has been said about our ethical ills, we've apparently made not enough progress at curing them, and even less at creating the perception anyone is doing anything about it. Col. D.M. (Mike) Malone's recent *Army* article ("The Trailwatcher," May) was a welcome exception, but even he expressed concern that if we "organized" or "institutionalized" what he described as an on-going "self-generated effort to restore its (the Army's) system of corporate values" it might wither on the vine. Maybe. Maybe not.

We don't think so—what we do think is that no one has yet defined very clearly what is being talked so much about. What has declined? What is in disarray? And, more importantly, if things are all that bad, what need be done to set them aright?

To most people ethics have something to do with values. If that be true, then what we're searching for is a set of values to provide a frame of reference for military professionals. To be useful, such a value set must reflect the fundamental values of the nation; at the same time it must clearly satisfy the unique needs of the nation's professional soldiers. It must be relevant; it must be green—Army green.

If we can set forth that set of values, then perhaps we can examine more closely how badly frayed they may be, then decide how best to knit up our raveled sleeve. Where might we look for a set of values? In a recent discussion of this matter more than 50 ideas were put forth; the list commenced with the Boy Scout oath and concluded with "Duty, Honor, Country." All good, all relevant, some not too green; but realistically we probably can't cope with more than half a dozen, so some combining is in order.

Army Chief of Staff Gen. Edward C. ("Shy") Meyer in the 1980 *Army Green Book* did more than passing fair at bringing that larger list into focus when he listed *loyalty to institution,*

Reprinted with permission from *Army* Magazine. Copyright © 1981 by the Association of the United States Army.

loyalty to unit, personal responsibility and *selfless service* as fundamental Army values. So let's begin there:

▪ *Loyalty to the institution* is loyalty to the Army in its fundamental role of service to the nation. It is, first of all, obedience to the fullest to the spirit and letter of lawful orders. But it is more than that. It is a commitment by soldiers as individuals to something larger than themselves.

Today's professional soldier is essentially the one who has elected to do what the many are not willing to do. It is this commitment—the necessary awareness to recognize and embrace it at the outset and to uphold the idea as a military professional—that sets the soldier apart from his nonmilitary peers.

While a soldier's commitment, in its broadest sense, represents a willingness to lay down his life in the service of his country, the focus of commitment varies in degree and scope as soldiers advance in tenure, rank and responsibility. For generals serving at the highest levels, commitment translates into a day-to-day concern for the broadest national goals, military aims, and strategies. Soldiers of lower ranks, on the other hand, most often focus their immediate commitment on the unit to which they belong: platoon, company, battery or troop, battalion or squadron.

▪ And so the second value—*loyalty to the unit*—a two-way commitment between those who lead and those who are led. While the broader aspects of loyalty to the institution may evade the soldier at squad level, he'll fight like hell for old Co. B or the 2nd Squadron. He'll fight for his own survival and for that of his buddies in war; fight equally fiercely to outdo the opposing unit in peacetime competition.

It's the "US" of "U.S. Army," the teamwork without which, in battle, fire and maneuver will surely fail. The effectiveness of a unit's combined effort is in the strength of mutual commitment among and between its soldiers and their leaders, and in how well they've trained together toward a common purpose.

▪ Essential to the proper expression of loyalty to institution and to unit is a deep sense of *personal responsibility,* the third fundamental element of the Army ethic. Personal responsibility is the individual soldier's obligation not only to do well fundamental tasks, but to do well skills the soldier must perform as part of a team, the unit. The soldier must also do well—personal advancement, pay, rank, standing with peers, indeed life, may depend on it. The soldier must also do well whatever must be done in concert with other soldiers—team tasks; for unit success, well-being, indeed survival, may depend on it.

▪ Perhaps the most important element of the Army ethic is that of *selfless service*—to the nation, more especially to the Army, most especially those with whom we serve. A profession in which life itself is ultimately at stake cannot tolerate among its members the motivations of self-interest and personal gain. Service in the professional Army requires teamwork; in the most literal and ultimate sense the word means "selfless" service.

In another part of the October 1980 *Green Book* I attempted to set forth some qualities—values essential to our country's military profession today. Those qualities or values are: *competence, commitment, candor* and *courage.*

▪ The first is *professional competence.* For a soldier, competence includes a superior sense of disciplined, professional responsibility; it acknowledges willingness to sacrifice. It involves,

among all other details of a soldier's job, developing the ability to live by and to train with the requisite values. It means the soldier's ability to do a job as a member of a team. Soldier competence is not talked about, it must be demonstrated.

Competence establishes who the leaders are. It cannot be faked; it quickly singles out the phonies. Professional competence is what makes XM1 Abrams tanks work perfectly, no matter how many or how few diplomas the crew members have. Competence makes radios work; it causes squads and companies to maneuver properly, no matter what may be their collective average ASVAB or SAT scores. Without the professional competence of all ranks, effective military organization—large or small—is not possible.

- *Commitment* is the second important value. The profession of arms represents a commitment, an obligation, a word not often used in our society. We seem more and more reluctant to make a commitment, for it means sharing hardships. Soldiers make few commitments; their world is small. If we train them properly, their first commitment is to their buddies, then to their crew or squad, then perhaps to their platoon or company.

Soldier commitment to larger units or to the nation is always much less than to Co. B or to the "Bandit Battalion." There is nothing wrong with that; in good armies it has always been thus. Commitment builds on competence; one cannot exist without the other. Commitment on the battlefield is backed by a shared danger in which life is the stake; there is no higher bond. It is a pledge to something larger than self; there is no room for careerism, "What's in it for me?" "Look out for old number one."

- Third among our soldier values is *candor*—truthfulness. Characteristic of today's changing society is the way in which the language is used to diffuse the truth. It may be we do not tell the truth very much any more because it is often unpleasant. It may be that it is harder today to discern truth because modern issues are so complex. In any case, the military profession must hold in high merit the value of candor, the willingness and ability to discern and tell the objective truth.

In politico-military deliberations, candor, with regard to the capabilities and limitations of military force in pursuit of political objectives, is essential. Had we more of it, perhaps the legacies of Korea, the Bay of Pigs, and Vietnam would not today be so burdensome. A willingness to tell the unvarnished truth is similarly an essential ingredient of soldier and unit life on a battlefield.

The candor of the battlefield is why lies told there are punished not with gossip but with action. In battle it is always necessary to tell the truth; someone's life usually depends on it.

- Finally, there is *courage*—the courage necessary to tell the unpleasant truth, to make a commitment to something larger than self, to insist on that higher order of values essential to a successful military profession, and to understand and articulate convincingly the extent to which military force has utility in the pursuit of national objectives.

Courage is a very much talked about value. In the young soldier's world, courage is not the absence of fear, for everyone has fears, all the time, every day. On the battlefield, they become all too real. Courage is the willingness to admit and the ability to control fear. Risk is the daily environment of soldiers, yet they alone decide how much risk they can endure. When they make the choice, they control their fear even to the point of total risk.

Courage is the embodiment of the other three values. Courage makes things happen and sees actions through to the finish. Courage is the most simple display of competence, candor and commitment. Courage is contagious and spreads rapidly. That is why soldiers will follow leaders into impossible situations. They recognize the courage of their leaders and it awakens their own, built on candor and commitment and competence.

The crosswalk between these two value sets is obvious, for they strive at the same issues: loyalty, both to institution and unit, is commitment. Personal responsibility is competence, commitment, candor and courage—all four. Selfless service is commitment, candor, courage.

Today's soldiers come to military service from a society in which many if not most of those values and qualities are at best diffuse, at worst nonexistent. Family, school, media, and peer group have combined to frame for them a different value set. Now they are to be soldiers; in the process of that becoming they undergo what one student of the problem has styled a "significant emotional event." Basic military training is indeed a significant emotional event. It always has been; it was intended to be.

Further, suggests Dr. Morris Massey, author of the significant emotional event idea, the process changes the value set of those who are exposed to it. That being the case, and given that basic military training is such an event, then we must build into our military training from the onset the operative values we want our soldiers to live by. Not an easy task.

It can't be done with a pocket-size card given each soldier for display at inspection time, but must be built into the system. It begins on the drill field, on the rifle range, in the motor park, on the flight line, in the maintenance shack, in the ammo dump, in the barracks. It extends to crew drills, squad exercises, tank gunnery, aerial gunnery, and platoon, company and battalion ARTEPs.

It winds up in marble corridors where strategy, tactics, readiness, forces, and budgets are measured, weighed, and meted out; in witness chairs before committees of Congress; in public statements before a variety of audiences. It pervades our Army because all believe it's important—because it begins at the beginning with values that last to the end.

The Army's task is a complex one. It must serve the nation, but in so doing it must serve its soldiers as well. It is ever a value-centered institution which must constantly strive to embrace, practice, and demonstrate the values and qualities it must bring to and employ on that most difficult and ultimate testing ground, the field of battle.

For the challenge our Army faces today is that ultimate challenge of battle. So it is that somewhere, sometime, once again the fate of the nation's aims, goals, programs, ambitions, and perhaps even survival will rest on the determined actions of a few good soldiers, a few good leaders and a few good units trained well in time of peace in order that they might be ready to fight well in time of war.

It is those soldiers and leaders whose competence, commitment, candor, and courage, whose loyalty, personal responsibility, and selfless service will produce the results their country's service demands of them. The professional Army must stand ready, able, and willing to meet that challenge.

Military Ethics

Letter to Major William F. Diehl
Armed Forces Staff College
5 May 1983

The gap between the contemporary ethic of our free society and that required of its military establishment is one that will continue to exist. Therefore, the problem is to define what military ethic we should embrace in order that we might be as nearly in tune with our democratic ideals as possible, yet still provide an effective military force to preserve, protect, and defend our democracy.

Not that it represents the last word on the subject, but the ethic laid out in FM 100-1, which I reported on in *Army* in September 1981, is, in the view of many, about as close as we've come to defining an ethic for ourselves in recent years.

Assume for the moment that our FM 100-1 description is about right. It exists in an authoritative document approved by the hierarchy. Now the question is how to implant that ethic in the institution. I believe you'll find that a much more difficult task than defining such an ethic at the outset. Recognizing that fact, with our FM 100-1 definition in hand, we set about in TRADOC to begin at the grass roots—with our entry-leve1 officers and soldiers. Thus the changes we implemented in the ROTC curriculum and in initial entry training programs in the 1979–1981 years. That too was just a beginning. It takes constant attention and refocusing over a period of years to accomplish something so subtle as infusing ideas like courage, candor, commitment and competence, or whatever one calls them, into an organization as large as our Army.

And, in the end, the fact that some official—a general, even a president, asserts that such and such an ethic is "it" in no way makes "it" true. The institution must demonstrate to its members the tangible evidence that these are the values it embraces; that adherence to them and demonstration of their correctness brings rewards and benefits; that turning away from them brings punishment—or at least lack of reward and benefit. We may decry careerism all we want, and indeed I do, but the facts are that the system is set up today to promote and reward careerism. Therefore the institution is signaling that it rewards service to self over service to the institution. The value cited in our ethic as "commitment" is therefore less than credible. There are many other examples—you can draw them as well as can I.

So there are two essential features to the ethics problem. First is the ethical code by which we live and operate as individuals in the context of our service as members of our country's military forces. Second is the ethical bias of the institution as evidenced by the way it acts as an organization. One is individual, the other organizational. Without the correct blending of the two, and without the same fundamental bias demonstrated in the actions of the two, we'll surely not move ethics, of any kind, ahead very much. As an institution, we all too frequently and all too quickly embrace whatever new and very acceptable fad comes along. "Management," as reflected in the econometric ethic of the McNamara regime, is a good example. It was the new wave; we all embraced it with vigor. Few, if any, voices were raised even in caution at what that portended for whatever ethic we thought we were seized with before the managers came along.

Gabriel and Savage have asserted that what happened to the Army near the end in Vietnam was that the ethic of the officer corps came unglued. Some speciously reasoned, but typically

econometric, analyses of sketchy data were cited in order to support their preconceived findings. The fact is that what happened to us in Vietnam was caused by the disintegration of unit cohesion, brought on by the way we elected to redeploy troops. The personnel managers, seized with the "equality" ethic, insisted that we redeploy people as individuals, not units, and that we redeploy first those with the longest time in country. As that happened, we had to then shift people around to put all the shorter-time people in the remaining units. The end result was that leaders were required to go off to fight in the morning with units in which there were few if any familiar faces—the men didn't know one another, the leaders didn't know their men, the men didn't know their leaders. No formula more fraught with disaster could possibly have been devised. The institution did that—to itself. The rabble that existed at the end was created by institutional policies that demonstrated little if any understanding of what the policy was doing to the Army. Worse yet, the institutional policy ignored nearly two hundred years of experience in which the same sort of thing had happened to the American Army in some measure at least several times over. We not only ignored some fundamental notions of our organizational ethic, we elected to ignore the vivid lessons of our own experience.

One could make a case for the idea that the confusion about, and perhaps dilution of, our ethic began with the Korean War, in whose aftermath we issued a Code of Conduct. Now, we already had a code of conduct. It was pretty well spelled out by the Uniform Code of Military Justice, and by other regulations. Imperfect in implementation it may have been, but at least it was. Once we began tinkering with it, the tinkering had no end. And we've never sought after the fundamental causes, we have just patched here and there.

Really Good Outfits

US Armor Association
Fort Knox, Kentucky
11 May 1983

The other day we were out at Fort Carson, sitting around some maps talking about soldiering and tactics and other important things. At the end, someone said, "I hear you are going to retire. How about summing up some lessons from your 40 years of service?" So we talked a bit about that, and afterward several people suggested it might be fun to do a little bit of that tonight, so I'll try.

General Bill Richardson talked this morning about change. I believe it was Douglas MacArthur who said something to the effect that "the world has turned over many times since I took the oath on the Plain." I can't make my voice quaver the way he did, but you remember the line. Well, that's true, the world has turned over many times in 40 years. On the other hand, a host of things are not too different today than they were 40 years ago, and some are likely to remain the same for the next 40 years—during your active service. In many ways what is likely not to change is every bit as important, perhaps more so, as what can be expected to change. So let's begin with a perspective on what's likely not to change all that much, then turn to change itself and what it likely portends.

To set the stage, let me describe for you the world into which I was commissioned 35 years ago. In that world of 1948, our country had just finished a war, one which, for better or for worse, had forever changed the world in which all of us had grown up. We thought we might have inflation about under control, but weren't really certain. Unemployment was high. There were labor troubles in some basic industries. In the heartland of Europe, the collective czardom in Moscow was gathering strength; in fact, it seemed ever stronger daily and almost everywhere successful. There were some indications signaling the breakdown of colonial empires, particularly in Africa and south Asia. We were beginning to see the militarization of conflict in the Third World as Israel fought for its independence and the North Koreans girded up for their attack south, yet two years away. We were on the threshold of a time of growing resource interdependence. It was either that year or shortly thereafter that the United States became a net importer of oil for the first time. Finally there was uncertainty about the nuclear weapons we had unleashed on the battlefields of World War II and their role in wars of the future.

Now where have you heard all that before? You see, the world may have turned over many times in those 35 years, but many of today's problems are extensions of those I just recounted. In fact, most are aggravated versions of the old problems. So it was against that background that I began my active commissioned service, and it is against that same backdrop that my active service ends. Not only are the larger—the world—problems likely to continue, there are many other things that will likely stay much the same. Thirty-four years ago this fall, I reported to a unit in Grafenwoehr, Germany. I went over to the BOQ. Down the hall hurried Lieutenant George Patton. He said, "That damned Haszard has locked me out of my room. I gave him the keys to go in there and change his clothes and he's gone off with the keys." Tonight I walked into this very hall and I met Major General (retired) George Patton hurrying down the hall. He said to me, "That damned Haszard has locked me out of my room. I gave him the keys to go in there and change his clothes and he's gone off with the keys." There are just some things that never change.

To set your mind at ease, I'm not going to recount 35 years one year at a time. But let me sum up, in a few words, what might be meaningful out of that experience. In those 35 years I've been in two good outfits, two really good outfits. I've been in some that weren't quite that good, good maybe, but not quite that good. Let me tell you about those two outfits and why they were good. The reasons they were good have formed the basis for much we have tried to do with the Armored Force and, indeed, the rest of the Army in the last 5 or 10 years. They are the basis of some very important things that don't change much with time.

The first of those good units was a tank battalion in an infantry division in Germany in the early 1950s. The 63d Tank Battalion—some of you served in it. Lieutenant Colonel Creighton Abrams was the battalion commander. It was a good outfit. I'll tell you why in a minute. The other good outfit I served in, early in the 1960s, again it was a tank battalion, this time in the 3d Armored Division, again in Germany. I was first its XO and then its battalion commander. It wasn't good because I was the battalion commander; it was good for a lot of other reasons that I'll talk about in a minute.

During both of those times, our Army was a volunteer Army. In the first instance, we had stopped the draft; it didn't begin again until 1950 when the Korean War started. And, strangely enough in 1961, the 3d Armored Division consisted of 93 percent volunteers—for reasons I have never understood. General Abrams, then the division commander, used to like to talk about that because he believed we had a real volunteer Army in that division. What happened in those two outfits went something like this.

In the 63d Tank Battalion, when the Korean War started we sent out a cadre for units mobilizing in the United States, then we were stabilized. For the cadre, we naturally sent our best men. I remember Lieutenants Patton, Starry, and Haszard trying to pick those men. In any event, we got them on their way and settled down to business. The battalion had been created about a year previously, from cadre offerings from regimental tank companies of our division. They, too, had sent their best men over to the new battalion. In the month of August 1949, when I reported for duty, we sent home, out of the company that George Patton and I were in, 72 men on a 368 or 369—that was somewhere between a Chapter 10 and a Chapter 13 today—72 men out of one company. We were cleaning house! The Korean War cadre finished our house cleaning and we stabilized. When I left that battalion in 1953, there were still tank commanders and platoon sergeants who had been tank commanders or gunners when I arrived. We were all together there for a long, long time, in some cases more than three years.

Then one day we went down to the railhead to welcome our new battalion commander, Lieutenant Colonel Abrams. In he walked, that ever-present cigar stuck in his mouth and a great reputation for doing fierce things. That started an experience I'm sure none of us will ever forget.

Colonel Abrams had some absolute standards. They went something like this: captains sometimes turned in an acceptable performance; first lieutenants never; second lieutenants were the dregs of the earth; the noncommissioned officers could do no wrong. I distinctly remember one Sunday morning. My company commander, Lieutenant Patton, had decided we should rise early on Sunday and go out to our little subcaliber range with all the subcaliber soldiers to shoot subcaliber. Soon we were to fire for record, and we didn't want the dummies to screw it up—remedial training. We started at 3:30 in the morning because we didn't want the battalion commander to find us out there. I remember the company commander saying, "God

help us if he comes out here. Because they are really terrible." They were, in fact, awful! But there we were, banging away; daylight hove to over the horizon. As luck would have it, a staff car drove up and out came the colonel. My distinguished company commander had absented himself from the scene with the onset of the staff car and so there I was. I went up all soldierly, reported, said exactly what we were doing: "We've got the nonqualifiers here, sir, and we are going to qualify them." He had been out somewhere most of the previous evening. He grunted, stuck his cigar in his mouth, walked around and munched on all of us. The errant company commander peeked his head around the corner and got snagged by the battalion commander. I remember his parting words: "There's not a Goddamn soul on this range that knows what he is doing, and that starts with you two."

So we reassessed what we were doing. After a lot of soul searching, we finally decided that we were doing about the right thing—we just weren't doing it fast enough, and we had gotten caught at a bad time. One of us suggested wishfully that after the colonel had been to church things might be better. He was indeed back after church. We stood on the line quaking. He got out of the car, walked up and down, talked to the sergeants—didn't talk to us—talked to the sergeants, watched what they were doing, lay down on the ground with a couple of the soldiers, and fired a few rounds. By this time, it was about 11:00 in the morning; things were much improved from the wee hours. Finally he turned to the two of us and said, "That's okay—keep on doing what you're doing." He got in his car and drove off.

Now, I don't know what his motive was, but what was certain was that there was no grading on the curve. He never graded company against company or platoon against platoon. He graded everything against a standard. His standard was so high that it was very tough to meet it.

We went through a long period of individual training. We tried it with battalion committees. That didn't work too well. Next year we turned it over to the platoon leaders. When it was time to test, Colonel Abrams would come test you. His instructions went something like this: "Go to grid coordinates so and so. Here is a list of the things I want you to be able to do. Call me when you think you are ready for an examination." You had a frequency to call if you wanted ammunition, another if you wanted fuel or maintenance. You could stay there as long as you wanted; when you thought your platoon was ready for test, you called him. He was the examiner. When he was done, you knew you had been examined. Along with every soldier in your platoon, every gun had been checked, and maintenance was checked. He knew how to do all those things; he did them himself. He scored you, the platoon, the platoon sergeant, the tank commanders, the gunners, the loaders—he was that good at it. Literally, none of us knew more about it than he did. That was the battalion commander's job as he saw it.

Then it was time to move on from individual training, so we went to the British ranges at Bergen-Belsen for platoon live fire. Most of us had never even seen a platoon live fire before. I'll never forget the first afternoon we went down range. Lieutenant Patton's platoon went first; I followed along behind. We blazed away merrily and got about a third of the way down the range before the ammunition was gone and the targets were still popping up. We were summoned to meet at the control tower with the battalion commander. He said, "That wasn't very good. We are going to do it again." I said to my platoon sergeant, Sergeant Lucas, "What do we do about this?" "Well, Lieutenant," he said, "we are firing too much ammunition out of the main armament." "That's right," said I, "but how do we correct it?" "Well, if the Lieutenant will follow me, we will go over to that grove of trees and figure this thing out," said he. We

worked for a couple of hours, then reported back to the battalion commander. Down range we went again. Meanwhile, my distinguished friend, Lieutenant Patton, had managed to do it over again and somehow successfully complete the course. We did it again. This time, we got through the course and used up all the ammunition. Unfortunately, there were some targets that hadn't been hit. Once again, we met at the tower, where the man with the cigar said, "Do it again." We went through that thing four times before we were able to get done with the course, have half a load of ammunition left and hit all the targets. At that point, the Colonel said, "That's okay." We'd met the standard.

Now that just says what we all know—you are not going to do it right the first time. That's why we train. We went over and over and over and over that range, just as the folks are doing out at the National Training Center. Someone told me some time ago that of the first 30 battalions through the National Training Center, only one did it right the first time. There was great hand wringing over that. Remembering that earlier time, I said, "I think that's great; that's exactly why we built that center. That's how units and soldiers learn."

Next our Colonel said, "It's time to do companies. What we are going to do is shoot at one another with live ammunition. Now we can't shoot the big bullets, so we are going to use the little bullets." So, we took our machinegun ammunition and dipped the bullet ends in paint. Each company had a different color. Then, we loaded up, went out and had a big company live-fire exercise with the coax, counted hits, and scored according to the telltale paint scars on our tanks. Granted, we shot off some phone boxes, blew off some antennas, and some vision blocks had chips in them, but it was just great sport. I can still hear Lieutenant Haszard's voice ringing in my ears, as his B Company came up behind Lieutenant Patton's C Company, screaming, "We've got them in the rear! Attack, attack, attack!" Sure enough, we lost all the phone boxes and some antennas. As we had our agonizing reappraisal, the battalion commander turned to the C Company commander and said, "Well, George, you got your ass shot off, and that's what you get for not watching behind you."

Someone once asked Colonel Abrams to compare our battalion and the 37th Tank Battalion, his World War II battalion. He said, "I don't know, really, because we can't take them both to battle. But I'll tell you what—this outfit can do more things better than the 37th. The 37th trained for one mission and, as the war went on, they got less and less good at that mission." He told a story about how much more ammunition it took to kill a tank toward the end of the war as opposed to how much it took at the beginning. Jimmie Leach knows that story well. He told that story frequently, saying that it reflected our inability to train soldiers adequately in the training base, before they joined their unit, and it reflected our inability, in units, to put people together in crews and train them as crews, teams, and platoons before we put them on the battlefield.

The important lessons I think most of us bear from that experience are these: First of all, there was an enormous leadership lesson. It was an individual leadership lesson, and yet it was an organizational leadership lesson as well. The example was set by the leader. He was first to do everything. He was first down range to fire his tank. He was first to make a long road march with his tank after we insisted that ours broke down too frequently for us to take long marches. So he took his tank out, marched it from Baumholder all the way to Mannheim, and it didn't break down. Now how he did it, none of us, to this day, can figure out. But he did it. He expected the rest of us to be that good at everything we did. In addition to his example, and his

insistence on leader competence in us all, the battalion provided organizational leadership for the people in it, leadership largely by virtue of the fact that we had been together so long. We had a combination of what we have called in the literature the professional "competence" that it takes to make good soldiers and good outfits and "commitment" to our unit. We'd fight like hell for old C Company or old Company B and for the 63d Tank Battalion. The division was another matter, one that we could debate around the bar, but there was no question about that battalion or the companies or the platoons in it. In terms of the "candor" that we have used recently as an ethical value, we couldn't lie to one another. We knew each other too well. About what was going on, we told the truth, good or bad. And we did have some less than good things go on from time to time. Bad things will happen; we had the courage to tell the truth about them.

Courage was part of our leadership education. The supply system in those years was very bad. At one point we couldn't field more than two platoons out of the whole battalion. So the battalion commander got in his sedan, drove down to Heidelberg, walked into the theater army commander's office, and reported to General Handy, the theater commander: "Sir, the only tank battalion in your theater is deadlined this morning." Now I don't know what the General said to him, but the end result was that the depots opened up with a flood of parts. All of a sudden we were mobile again. It took a lot of guts to do that. I'm sure he didn't know when he walked in the door whether or not he was going to get thrown out—of the door, the Army, or both—but he had the courage to go do it. He didn't send a staff officer. He didn't write a letter. He went to confront the boss with the problem. That took courage of the highest order.

The second good outfit I've served in, the one in the early 1960s, was a product of many of the same circumstances. It was the time of the wall crisis in Berlin. We didn't cadre; we stabilized the people. I spent four years in one brigade, and three of them in one battalion. When I left that battalion in 1964, having commanded it for a couple of years, there were still tank commanders, platoon sergeants, gunners, mechanics, motor sergeants, and others who had been there when I arrived. The circumstances were quite similar to those of a decade earlier. The battalion was the 32d Tank Battalion—later 1/32 of the 3d Armored Division. The division commander was Major General Creighton Abrams.

In August 1960 I reported for duty as brigade S3 at Friedberg. It was a Wednesday afternoon. Thursday, the assistant S3 said, "We have to get ready for the Friday parade; we have a parade every Friday. We've got the practice parade group lined up on the parade ground if you want to come and look at them." We went out. There were people lined up all the way around the parade ground. No battalions, just folks in little groups. The assistant S3 said, "Now over here we have combat command football team; this is the combat command soccer team; this is the combat command drum and bugle corps. Over here is the combat command squash team, and these people are the cross-country team." We got all the way around the parade ground—there were hundreds of people out there—and I said to him, "What is left to march in the battalions?" "Well," he said, "they are kind of small when they come out."

What we had at that time was an enormous sports program fostered by a corps commander who shall remain nameless. But that's all they did—sports. There was no soldiering going on. They were all out there playing games. In fact, the corps commander had a rule that every soldier had to play a different sport every quarter, different than the one he had played the previous quarter. There were large groups in orderly rooms just keeping track of that.

Then, in September or October, General Abrams came to command the division. Fortunately, General Rick Brown's dad moved from our division to be corps commander. General Brown canceled all those programs. We got a four-word message from General Abrams that said, "Get back to work." That's what we did. We started with the individuals and worked up to the units. When we were done, nearly four years later, we had a good outfit. We all stayed together for a long, long time. And the longer I worked at the training/leadership equation, the more I found myself applying the lessons we all learned in that earlier battalion. For example, General Abrams' numbers were always about right. The amount of time to spend in the motor pool every week was a judgmental factor, but his judgments were always about right. Ten years and two or three tank fleets later, my 10-year-old notes were still good—in every aspect of our operations!

The division commander would come round to talk about your training program. He always walked in unannounced. He'd say, "I've come to talk about your annual training program. I'd like to know what you think you are going to do, what your goals are, how long you think it is going to take to get it done, and what it's going to cost." You could talk about your training program for an hour, or half a day, or at least to the point that he became convinced that you either did or did not know what you were talking about.

If he decided you hadn't thought it through very well, he would walk out, usually saying, "Colonel, when you figure out what you are doing here, call me. I will come back and see you." Once he was satisfied you had a good program, he would pull out some 3x5 cards, make some notes, and go away. About a week later, you'd get a memo that would say, "You have been assigned so much ammunition, so much fuel, and so much money for spare parts, and here are the training goals we agreed to." His memo always ended with the admonition: "That's all I have; don't run out. Sincerely yours." The first year we did that, a couple of my distinguished colleagues in another brigade called me one afternoon and said, "We are going down to see the division commander and ask for some more fuel. We've run out." I reminded them of the line that said, "I don't have any more—don't run out." They responded that they had read that, but that they had been doing a lot of good training. So, without my company, two of them went to see him with their marvelous briefing charts and a tale of all the good training they'd done. When they were through, he picked up a single sheet of paper from his desk and said, "Now, I understand what you are telling me, but did you not get this piece of paper that said, 'I don't have any more. Don't use it all up too soon'?" "Right, we got that." "You understand that?" he asked. "Right," they said. "Okay," he said, "I believe I can find enough in my resources around here and there to permit your successors to finish the year out." The next year, nobody had any problems like that. It was a marvelous system. It was a super lesson in leader competence.

For some time before General Abe returned to the division, there had been a big debate about whether or not battalion and company commanders fired their tanks. Somebody asked him about it one day. He said, "On the TO&E you're carried as a tank commander, are you not?" "Yes sir," was the response. He turned and walked away. That was the end of the controversy.

Now, why did I say earlier that some of those other units were good, but not quite that good? Primarily, it was because there was a lack of personnel stability. That's the main thing. There was also a lack of experienced leadership. There was insufficient individual training and insufficient unit training to permit development of the right kind of organizational leadership.

As much as I loved the outfit, I have to say that even about the Blackhorse in Vietnam. It was good, but it just wasn't quite that good. We didn't have the stability; we had inexperienced leadership, and we hadn't the time to train the people, either as individuals or together as a unit.

Now I'm sure those are lessons to which all of you can relate. So why hasn't the Army learned them better? Interestingly enough, several distinguished soldiers have commented on that very problem. General Marshall, for example, in his book about his experiences in World War I, discussed the problem of the amount of training the American Expeditionary Force had to give its units after arrival in France. Those units trained in and deployed from the United States, but the job wasn't done well enough, and General Pershing was not willing to commit them to combat without more training as units. General Abrams' commentary about the 37th Tank Battalion highlights the same problem in World War II. General Collins, then Chief of Staff of the Army, testifying before the House Armed Services Committee shortly after the Korean War, made the same comment about the Korean War. Those of you who have read T.R. Fehrenbach's super book about the Korean War, *This Kind of War*, remember his statement that, by the early summer of 1951, the American Army in Korea was about as good as it was ever going to get because of the one year rotation policy. It simply couldn't get any better because of the turbulence created by the combination of rotation, combat, and noncombat losses.

Recently Savage and Gabriel have asserted that the American Army came apart toward the end of the Vietnam War because, somehow, the ethic of the officer corps went to hell. That is not true. Let me tell you what really happened to that Army, because I, with a little group of iron majors, wrote the plan to Vietnamize the war, and we saw it all happen. It all started in the fall of 1968 with a proposal to withdraw one American division. By January 1969, that had become a proposal to withdraw two divisions. By March of that year, we were trying to identify the division. For many reasons we decided to redeploy the 9th Division out of Dong Tam. In April General Abrams summoned me one morning and handed me a message from General Westmoreland, the Chief of Staff. It said we can't redeploy a division as a division. Our proposal had been to lift the whole division out, lock, stock and barrel, and send it home. We wanted to march it down the streets of Seattle, Washington, or some other large city, flags flying, bands playing, bugles blaring, and soldiers marching with their heads up and proud in the sunshine. There were a lot of obvious reasons for wanting to do that. Well, the personnel managers got hold of that. The equality folks got hold of that. They said, "You can't do that, because in that outfit you have some people who have been there 2 or 3 months and some who have been there 8 or 10 months. The 8- or 10-month folks deserve to go home, but these other people haven't paid their dues. They have got to stay. What we should do is take the short-term people from this outfit, replace them with some long-term people from other outfits. Then, we'll put all the new folks over in the other outfit. We'll just send the long-term folks home as individuals, not as a unit." Well, you follow what was going on. General Abrams argued back and forth with General Westmoreland by message for about two weeks; finally he was overruled. With tears in his eyes, he said to me, "We'll suffer for this. The Army will suffer for this in the end, and I don't know how badly." Little did either of us know that it would turn out to be that process that ruined the Army in Vietnam.

When we had over 540,000 people in Vietnam, there was no problem. But, as we wound down to the last few thousand, we had the spectacle of officers standing up in the morning in

front of squads, platoons, and soldiers whom they didn't know and who didn't know them or know one another. The officers didn't know the soldiers, the soldiers didn't know the officers, and they were supposed to go out and fight a battle that morning. They were indeed—not very successfully! What happened had nothing to do with the ethic of the officer corps. The institution did that to itself. We did it to accommodate the personnel managers.

Throughout this, I have tried to convince you that things don't change much. I'm sure that one of you standing here some years from now will be telling a story somewhat like mine. But things do change, and there has been a revolution in progress. General Richardson was quite right this morning when he said that. Change is a phenomenon of the last 35 years, even though some of the backdrop I tried to paint for you in the beginning is pretty much the same. If my conclusions about what does make the good units good, and the not-so-good units, are right, how do we extrapolate those lessons to the future? Remember now, we have been slow to do this in times gone by and even slower to understand the changing world to which those lessons have to be applied.

Think back a minute to the 1950s. For the first time in history, white collar workers outnumbered blue collar workers; computers were born; Sputnik went up; mass circulation magazines began to die out; jet airplanes came on strong; the pill liberated some parts of the society. That era ended in the Berkeley riots and the death of John Kennedy. Those were all manifestations of change in many arenas—energy, its supply and demand; production of goods; social structure, even the family; corporate structures; management techniques within the structures; the communications world began to explode. All these, and more, Alvin Toffler described in his book *The Third Wave*. In his latest book, *Previews and Premises*, he puts all this in perspective. I don't know if I believe everything in *The Third Wave*, but after reading it the first time, we sat down and began to write what we now call "AirLand 2000." We called Alvin Toffler and said, "You don't have anything about how change will affect our military in your book." He agreed to meet and talk about that. He and I have become friends and meet occasionally just to talk about this very problem.

In Toffler's words, we've got a second wave army. It is a mass consumption army, a mass conscript army, a factory system army. This [Fort Knox] is a factory. General Brown runs a factory. He runs a people factory. He runs a training factory. Some of the rest of you work in tank factories or in airplane factories. The theory is that the materiel factories and the people factories do their thing independently, and someplace out there their products come together and go to war. How are they going to do that? We all know they can't unless they have the competence, the cohesion, and the individual and organizational leadership that I've alluded to as being the secret to good units.

Change will continue. In fact, Toffler argues that the changes I've outlined will eventually transform both Marxist and capitalist societies. I don't know about that; maybe they will and maybe they won't. But whatever happens, we will continue to live in a world in which we find the Soviet menace growing on the horizon, just as it was 35 years ago. We'll see further militarization and modernization of conflict in the Third World. The nuclear dilemma is—will be—with us in spades. The growing resource interdependency of the world foretells conflict along the seams in the economic interdependencies, the areas where the interdependencies conflict. Now, how does this affect us? Well, whatever happens in that world, however it

changes, the basic ingredients that make good outfits are likely to remain the same. We have to continue to search for ways to build and nurture those values of competence, commitment, courage, and candor, of leadership, individual and organizational. We know they work. We must contrive some way to make them relevant to the United States' role in that third wave world. AirLand Battle is an attempt to do the Army's part of that. AirLand 2000 is an attempt to carry it through the next step.

Let me finish with a couple of quotes. One is from the Greek, Xenophon. He wrote, "There is small risk that a leader will be regarded with contempt by those he leads if, whatever he may have to preach, he first shows himself best able to perform."

The second one was written by Colonel Jim Morrison in a review of Randy Steffen's book on *The Horse Soldier* in *Air University Review* about a year ago. He said, "The Cavalry . . . a combat arm which in the face of starvation budgets, and the unending hostility of its sister branches, established and maintained standards of professional excellence that are still unmatched . . . the Cavalry . . . the story of once progressive leaders who eventually turned reactionary and condemned their branch to oblivion by attempting to defy change. The Cavalry had been a way of life, transcending the bow-legged colonels and hayburners. It had uniquely personified the spirit of mounted warfare, a way of thinking, and fighting, which though born of the Cavalry was independent of the means of transport. The spirit was what counted."

It is that spirit—the leader spirit, the soldier spirit, the unit spirit, that is the heart and soul of our profession. That will never change.

22. Varied Topics

Page

Open Dialogue 906
Community Life Program 907
Air Assault Division Capabilities 909
West Point 910
Graduation Address 916
Games and Simulations 919
Proposed Army Trial Defense Service 920
Patriot Employment and Deployment Concepts 921
Foreign Army Contacts 922
Closure of Fort Monroe 923
Trip Report 924
Operations Research 925
White House Fellows 929
Telling the Army Story 930
Communications Security 931
Most Influential Book 932
Relations with Israel 933
Boy Scouting 935
TRADOC Organization and Rationale 936
JCS System Reform 938
Nuclear Freeze Proposals 942
Situations in Germany and Israel 945

Open Dialogue

Message to General William E. DePuy
Commanding General, US Army Training and Doctrine Command
4 November 1974

It has been reported to me that my remarks with regard to CLGP at the Artillery Systems Review are being widely misinterpreted to mean that the Armor Community is anti-CLGP. The purpose of this message is to set that record straight. Some time ago Bob McAlister sent us all a message in which he pointed out that General Weyand would like to hear more discussion at the Systems Reviews. Later Mac followed with another message assigning us all individual responsibility for starting the discussion going about specific systems after the Systems Review presentations had been made. I was assigned CLGP. To that end I studied the CLGP a bit and, in order to get a discussion going, elected to challenge the need. Given what had gone before, I assumed everyone understood what was going on. Apparently that is not the case. So I would like to make it clear that nothing I said can or should be taken as the Armor Community position on CLGP. I haven't been asked to take a position, and if asked I couldn't tell you right now what I'd say. My apologies are due and tendered if I screwed up the Review in any way; may I suggest in the future, if we seek a real dialogue, that it be made clear to everyone present that there is a requirement to stimulate discussion pro and con, and that what follows should be taken in that vein.

Community Life Program

Letter to General George S. Blanchard
Commander in Chief, US Army, Europe
1 September 1976

This responds to your note of the 24th of August inquiring about transplanting the Fort Knox Community Life Program to a USAREUR community.

We started the Community Life Program at Knox for two reasons. One to open up channels of communication between me and my management staff at installation level and the householders who occupied Fort Knox's 4400 sets of family quarters. Community Life's other goal was to involve the people in the management of their own community—this in an effort to make them bear some share of the responsibility for the way things go or don't go, and to suppress some of the continual griping about the "establishment" that has become so much a part of our contemporary existence.

We divided the post's 13 housing groups into two, later three, communities, and in each the people elected a mayor. The mayor then appointed a city council from volunteers living in his or her mayoral area. The composition of the council was determined by the mayor, since each of our community areas had unique problems stemming from age, grade, and children in the population, and many other factors. I appointed a military coordinator to work with the mayors and provided a noncommissioned officer to each community as an office manager for the City Hall and as a link between the mayors and the installation services establishments. In addition we plowed over 40 million dollars into family housing during my tenure in an attempt to correct the worst of a 15-year accumulation of neglect. The mayors were instrumental in helping us establish priorities for work to be done and in working with the contractors to ensure that the right work was done and done correctly. The mayors were part of our budget development process and participated in formulation of the installation facilities plan for the longer term. They were, in short, real operating managers. They responded directly to me; I met with them at least biweekly. Although when we started there were male and female mayors, when I left all the mayors were women. Many on the installation staff resisted and resented the program from the outset. When I left they tried their best to kill it. John McEnery looked it over and decided that it deserved his support too, and so it continues and thrives.

Now I would be the first to admit that, at least in part, the program enjoyed success because of the 40 million bucks we were able to put into family housing. From griping about the condition of things and why someone didn't do something when we started, they were complaining about too many contractors all trying to work in their areas at one time when I left. Secondly, I must say that in great measure the program succeeded because of three women who convinced me that it had to be done and pushed me to put aside some reluctance I had to start with.

Several posts in the States have programs with similar titles; many make great claims for what they are doing. Looking closely at a couple convinced me they were eyewash and of little substance. In one case the program had become the purview of the post chaplaincy, and as such was just another chaplain's program. I was therefore convinced that I had to get into it personally—it had to be a businesslike affair and run like a big business. With assurances from my ad hoc female advisory council—headed, I might add, by Letty Starry, we started.

The point is that it is a comprehensive program; the mayors and at least some of their council persons must be willing to work at it almost full time; it has to be integrated with everything else the post is doing by way of management and improving life style as well. Staffs of installations will always resist a program run as was this one simply because it exposes to public view and censure all the bureaucratic constipation that tends to grow up over the years on a large post. Therefore it must have the active participation of the commander. If let alone, the bureaucrats will give the mayors and their city councils the run-around, just as they have done to individual householders all these years. And some people on the installation staff will have to be fired for their unwillingness or inability to respond to this new challenge.

Can it be transplanted in some form to our situation here? Yes, I believe it can. I've not done anything about it yet for several reasons. First, I am leary of moving in and trying to transplant programs that worked at old Camp Swampy in a new environment without first ensuring that they will in fact take in the new soil. I inherited a whole host of such programs and, as you know, had to cancel most of them one by one. With that going on it seemed not propitious to be too quick to start something else new. Secondly, it quickly became apparent to me that the Frankfurt Community staff was simply not up to starting something like this. A terribly weak staff, headed by a Deputy Community Commander whose capabilities were yet to be demonstrated to me, seemed a poor risk. While things have improved somewhat in that arena [since] last I spoke with you about the problem, they are yet less than satisfactory. There is some more deadwood to be cleaned out.

John Ballantyne will come as the Deputy Community Commander very shortly; we have had a very satisfactory experience with the election of our Dependent Schools Advisory Councils; we are well along in planning for one-stop processing for people reporting for duty anywhere in the Frankfurt Community area; we will shortly have the community operating under the Corps Contract program for financial management—after they clean up the year-end mess. All these things are having a salutary effect—people are beginning to think that we are serious about making this a better place to live, getting them involved in the management of the place, and providing them better quality services. With that background it seems to me that we are nearly ready to take the next step and move into some version of the Community Life Program.

Air Assault Division Capabilities

Message to Brigadier General John W. Woodmansee Jr.
3 March 1977

1. This responds your MRO 0482.

2. The air assault division in its present configuration, especially with its antitank and infantry elements organized as they are, cannot fight successfully in the main part of a battle on the modern armor battlefield here or in the Middle East.

3. In REFORGER last fall the V Corps concept was to use airmobile antitank units to beef up existing antiarmor forces already defending, using airmobility to move quickly to provide acceptable force ratios against developing enemy breakthrough attacks. The concept was never tested. The division elected to put down two brigades abreast astride the best tank terrain in sector, directly in front of a main enemy attack then abuilding, moving aside armor units then defending in battle positions in the area. As a result the enemy attack gained momentum and passed through the airmobile division like a sieve.

4. I still believe our original tactical concept is sound, that airmobile antitank forces can be used in this environment so long as we use them in the right place, at the right time, for the right purpose. Brigade-size forces made up of a reorganized and revitalized antitank infantry integrated with heavy air cavalry and antitank helicopter forces can be used in this environment for a much wider variety of missions than can the airmobile division as presently configured. In my suggested configuration I would employ such forces by brigade only, never by division. Nor do I believe that an airmobile division, in any configuration, can be expected to hold a portion of a FEBA in Europe or the Middle East, with or without significant attachments. . . .

5. A brigade configured as I suggest should have two attack squadrons—three companies of 21 snakes [gunships] and about 20 scouts each, with provisions for varying snake ordnance loads for pure attack, pure cavalry, or mixed missions. Three antitank infantry battalions would provide the ground antitank force. These should be airmobile in a single battalion lift of not more than 40 slicks [troop carriers], with enough slicks to lift two battalions simultaneously. A squadron of sixteen hooks [cargo ships] should be provided for medium lift. There should be two such brigades in the Army. They should be called air cavalry brigades. They would replace the ACCB and 101 as presently configured. . . .

6. The brigades should have 155mm artillery. The 105mm is virtually useless—they'd be better off with good mortars. We should consider providing such a force with air-transported multiple rocket launchers vice cannon artillery. We do not have, and would not have even with TPFDL deployments, enough cannon artillery to provide support. We now have deployed five cannon battalions per division; believe we need twelve. Our artillery allocation rules are all wrong.

7. Be happy to talk with you anytime on the subject. Obviously there are others who might not be as happy about that as I.

West Point

SHAPE Founders Day Remarks
19 March 1977

We meet here to renew old school ties at an interesting time, some might even say a difficult time, for it appears West Point is in trouble—its Honor System rent asunder, curricular and military programs under fire, its historic *raison d'etre* shattered.

So what should we say about it tonight? It is tempting to be humorous, turn away from the instant unpleasantness, harken back to olden times, and with selective whimsy suggest nostalgically that things aren't what they used to be. I'd like very much to do that. I am dissuaded from it for two reasons. First, my wife reminds me frequently I'm not a born humorist—yea, not even a moderately accomplished one. Second, it does appear appropriate that all concerned persons devote some sober attention to the matter of whither West Point. For, if we believe the place is necessary, then a real purpose must be articulated for it in the contemporary setting of the last quarter of our century. Presuming that all here are concerned to one degree or another, a few serious thoughts might be appropriate.

Presuming most of you may not yet have read the Borman Commission report, may I summarize a few personal impressions of its substantive findings in order to find a beginning for our discussion. First, the Honor System was found to be grossly inadequate. Although the reasons for this finding are not crystal clear, the principal problem seems to be that the Honor Code is now used more to enforce regulations than as a code of ethical and moral conduct.

Second, the Commission found among cadets considerable reluctance to place duty to community over personal loyalty to friends. This was manifest in several areas, but in none so strongly as in its effect on the Honor Code itself.

Third, the Commission underscored a serious disagreement over the proper role of education in the mission of the institution. The Commission report itself reflects confusion if not disagreement among the Commission over that role.

Finally, extracurricular programs, especially athletic and other programs essential to cadet development for an Army career, are strong competitors for cadet time. While the complaint was specifically that there was insufficient time for contemplation, the complaint was one among many that just added to the general confusion about priorities which is the strongest thread running through the Commission report.

One might conclude from that that the place is a shambles. While I think this is probably not the case, there is nonetheless serious trouble to be dealt with here. For, while the Borman Commission did not directly address itself to the situation in these words, the basic problem that rears up from its pages is the absence of an underlying consensus about the purpose of the institution. In all the scrutiny of what went wrong with the Honor System, there is no clear perception of why an Honor Code is necessary in the first place; therefore it was not at all clear what forms it might appropriately take, and no assurance that suggested reforms would really solve the problem. Something was wrong—that much was certain. But what would have been right, and within what bounds should it have been tolerable for the System to operate, based on the ultimate and underlying purpose of the System?

While other misperceptions may appear to each of us reading that report, I seize on that one—the fundamental purpose of the institution—because it seems to me so fundamental; and, in

my judgment at least, it is a problem of long standing—it did not just begin with the present circumstances.

So let me begin by suggesting what I believe West Point is *not*. Having done that, perhaps it will be possible to suggest something that it might and possibly must be as we stumble ahead toward the year 2000.

Several years ago a distinguished speaker at an occasion such as this referred to West Point as "the conscience of the nation." His thesis was that somehow the Duty, Honor, Country ideal was all that could hold the country together. Now the facts really don't support anything quite that pretentious. West Point is not, cannot be, and never has been the conscience of the nation. It does not affect the nation consistently and pervasively enough to be its conscience. The nation provides its own conscience, or lack thereof, for better or worse, and one of West Point's perennial problems is how to cope with that changing conscience in the attitudes of its young men.

The fact is that the conscience of the nation has changed dramatically, and we have never seriously addressed ourselves to deciding how that changing conscience might affect the moral and ethical code drawn up for our cadets—drawn up, incidentally, in a time long gone when that Code was far more consistent with contemporary moral and ethical values than it is today.

Once a distinguished graduate put forth the view that West Point was, and should continue to be, a prime source of intellectual talent for business and industry. This is the engineer syndrome. No question that for a time it was the only engineering school in the country, that for even longer it continued among the best such schools, that it had at one point—as Samuel Huntington once observed—produced more railroad presidents than Army generals. So the myth persists, persists despite the fact that for many years—perhaps a hundred—there have been colleges and universities whose academic excellence at least equaled that which once was West Point's alone.

The myth persists despite the fact that in the last 20 years it has become virtually impossible for any undergraduate to sally forth from any school equipped to practice his trade. The knowledge explosion since World War II has brought us to a situation in which it is necessary for any baccalaureate degree holder to go for more education if he wants to become a practitioner, and especially is this the case with the hard disciplines, the sciences. The problem is that, for any number of reasons, we've not recognized all that and seriously addressed ourselves to redefining the real purpose of the academic side of the West Point experience. In its first pages the Borman report reflects that lack of definition.

There are some who point with pride to the great names in our great wars as the great names of West Point. Here again the facts do not confirm the myth. It is true that some great names in America's great wars came from rosters of the Long Gray Line. So did some of the ungreat! But many others equally great and ungreat did not come from that Gray Line. We should note candidly that during the War between the States some ept and other inept graduates perpetrated some deeds of towering heroism but many more acts of singularly monumental stupidity, and in the end they all managed to be key actors in a drama that killed more Americans than any other single event, before or since.

In any event, since at least the turn of the century the ability to do things that made for military greatness, especially in World War II, came not from [a] West Point upbringing, but from

the disciplined academic excellence of Leavenworth and the War College and the growing influence of the Army school system on the officer corps.

Finally, there is that most self-fulfilling of all prophecies, once voiced by General Maxwell Taylor, who declaimed to the effect that West Point's hope for success in the future lay in its ability to graduate men of character capable of leading other men to victory in battle. Stirring thought—but it has probably never been true and is certainly less true today than ever before. The facts are that many of West Point's graduates have neither sought nor been assigned to lead other men to victory in battle, and it is on that fact that West Point's detractors have made their strongest case against the place. Even with that reality becoming more evident in recent years, we never set out to redefine the purpose of the institution for ourselves, let alone as an intelligent and persuasive answer to those who were quick to single out the anomalies in our argument.

Taken in their fullest context, these four "what it is not's" could be cited as evidence the US Army doesn't need a West Point today. We can do the same job, better, at far less expense in the colleges and universities. And, to an alarming, perhaps even dangerous, degree, I'm afraid that may be all too true.

But we've got it—it's with us. Unless we could sell it to the State of New York, and they might not want it, we appear to be stuck with defining a role for it as the Army and the country move to the year 2000. Besides, if we can put aside, or at least step around, some ancient shibboleths, perhaps we can find a role for the institution, one that reaches deep to the roots that have given the institution some of its finest moments and now some of its severest problems.

First a few words about the setting. We live in a changing, a changed, world, a very different world than the one in which West Point was created. The Duty, Honor, Country trinity is an essential reflection. The original trinity reflects man's long-ago perception of his world as one in which moral principles were guideposts on the pathway to reconciliation with God. As moral principles Duty, Honor, Country were premises for correct action. They intimately wedded morality and rationality in human action. In the society from whence they sprang man did not always do right, but he did have a well-developed sense of sin supported by a strong spirit of reality.

Therefore Duty, Honor, Country in the social context of their creation were the Father, Son, and Holy Ghost reincarnate in reality, noble sentiments translated into an action code by which soldiers might live quite in tune with the noblest moral sentiments of society's Judeo-Christian ethic. For many reasons modern society rejects the Father, Son, Holy Ghost trinity, replacing it with a new trinity—cultural progress, personal genius, and control of nature.

Philosophically there is no action counterpart to this new trinity. Duty, Honor, Country are anachronisms—the framework of an ethic now without substance in the society from which we recruit cadets. And so we find the Borman report decrying the absence of a sense of duty to community, observing the absence of a moral compunction for honorable conduct, and noting confusion between an older perception of a moral code and operative rules regulating institutional behavior.

And so what's the purpose of the place, anyway? Its mission statement is clear: "To instruct and train the Corps of Cadets so that each graduate will have the qualities and attributes essential

to his progressive and continual development throughout a career as an officer of the Regular Army."

However West Point's mission, even if one adds the word *educate* to the words *instruct and train*, is something accomplished by hundreds of colleges and universities in ROTC programs leading to RA commissions. Add to that other benefits that accrue from attendance at a college or university, but which are denied in the West Point environment, and then you build a pretty good case for doing away with the place in favor of letting the ROTC system produce all the officers for our Army. So we still have the problem of adding some uniqueness to execution of that mission, something that can't be had anywhere else, something that lends an especial quality to its product.

Let me back into an answer to the question of West Point's purpose by describing some things it can and must do, first because it has a unique capability to do them and secondly because they are things I'm suggesting must be done if the place has a unique purpose and product. First it must have an integrated program of academics, extracurricular, and military activities, the purpose of which is to develop the "qualities and attributes essential to progressive and continued development as an officer in the Regular Army."

Whatever is done must be done in a military environment, a realistic military environment which reflects as much as possible the unique conditions under which the education and training must be applied when the graduates take places before platoons.

Cadets must learn to work under pressure. They cannot enjoy a contemplative environment. As Army officers they will never live in a contemplative environment. They must think fast, accurately; if they're successful, they will be pushed all their lives. They will always have difficulty budgeting time; therefore they should learn early how to cope with this.

The education and training should develop in cadets the ability to recognize key issues—to identify problems before, not after, the fact, if that be possible, and to act quickly, reasonably, and rationally with courses of action designed to solve or obviate problems. They must be action oriented. They are problem solvers—doers; to be good at that they must be effective thinkers in whom we have developed to a fairly high degree the art of problem recognition, definition, and solution.

Academically their education should contain enough of the hard disciplines to teach cadets to think logically about difficult problems, the purpose being not to produce engineer officers, as in times past, but to teach the fundamental thought processes which are part of the scientific problem-solving method. At the same time, most of their lives they will be required to be leaders—to get things done through people. Therefore there is a requirement for heavy doses of behavioral psychology, sociology, counseling, and related subjects in which they learn to relate the preciseness of the scientific problem-solving process to the less precise spectrum of people-related problems which are what they will spend most of their lives solving.

The education must be both difficult enough and comprehensive enough to allow graduates to pursue graduate studies without extensive makeup work, in humanities as well as in sciences, for the variety of specialties now identified in officer career specialist patterns.

Graduates must be trained and instructed as platoon leaders. Pressures on the Army school system to reduce the length of all courses of instruction can only become more acute. Therefore, as

much as possible, the military part of West Point's curriculum must prepare the young graduate to take up duties as a platoon leader. The purpose of the place is not to produce generals. That is done at Leavenworth and the War Colleges, based on foundations laid down by West Point and other colleges and universities. To the maximum extent possible, the "common subjects" part of the officers' basic courses should be a prerequisite to graduation. Branch school is just that, a school to develop unique aspects of leading tank, mechanized infantry, and other type platoons.

In fact, it would be most fortuitous if some of that branch training could be included in the last year of tactical instruction at West Point. I know this goes back to the scheme of an older day, but it may have been a mistake to eliminate that part of their training in the first place and I'm suggesting that we go back to that.

Extracurricular programs must emphasize athletics, and as well should encourage pursuit of a rounded program which includes development of interest and proficiency in a variety of sports, hobbies, and other activities which supplement curricular subjects, but which also equip the graduates with hobby interests as well as preparing them to develop off-duty programs for their soldiers.

All three programs—academic, extracurricular, and military—must have closely interwoven instruction in and insistence on personal and professional integrity, high standards of performance of duty, a code of honor, the ethical and moral standards that develop a sense of obligation to something larger than self—God, country, Army. The point is that it is not only the Honor Code that does this. There's a larger code, a sense of obligation to ideals, and even to institutions, of which a code of honor is only part. These young people have apparently elected to devote their lives to the service of their country.

I'm not too sure that a 17-year-old is capable of making irrevocably a decision of that import, but many do. For the most part those who don't will leave. But we must make it clear to them from the outset what our purpose is and how we hope to go about accomplishing that purpose. This will require lots of curricular coverage, extracurricular coverage, and lots of military coverage, especially in the practical aspects of leadership.

Finally, in the Army it is particularly important that we develop in our young leaders a sense of obligation to our soldiers, for the Army is soldiers, the Army gets things done with soldiers, the Army succeeds through soldiers. To do what we must do the soldiers must be well led.

A longstanding problem with West Point lieutenants is that they don't understand soldiers too well. They shouldn't be expected to. They [have] just spent four years isolated from the very age groups they are now expected to lead effectively. In many cases their inability to relate makes of them less effective leaders. Most recover from that with time, but all too many do not. Therefore their education and training must include study of this very important part of the problems they will face very soon after graduation.

Some of those men of character who lead others to victory in battle will undoubtedly come from West Point. Many others will not. This is to be expected. There's no way of telling beforehand who will do what when the shooting starts or pressure is on. Therefore no one knows what kind of training, education, or anything else will produce the moral fiber that makes people face fear honestly and overcome it. So we must continue to take our chances.

If all those key elements can produce a unique product, how should we redefine the purpose of West Point? What apparently we must now seek is to graduate men and women of character and integrity capable of leading people in the accomplishment of the Army's tasks, whatever those may be, graduates whose education and training have prepared them to think logically, act practically, seek solutions; whose intellectual development permits them to successfully pursue further educational development in a variety of disciplines; whose military development equips them to become effective leaders of small Army units almost immediately upon graduation; whose social development has brought them a highly developed sense of how to get things done through people; and whose moral and ethical development has created in them a strong fundamental sense of duty to God and country, a personal integrity that brooks no compromise of standards of honorable conduct, and a firm and fully developed dedication to the Army's basic and most precious resource—its soldiers.

Graduation Address

Frankfurt American High School
Frankfurt, Germany
10 June 1977

I thought perhaps we could spend these few minutes considering several things that seem to me to trouble your generation. You might not put them in the order that I do, you might not label them the way I do, but I think you'll recognize them for what they are. I'll call them peace, truth, God, and you.

Peace because a lot is being said about it, and a lot of things are being done in its name, but it is and will remain an elusive vision through your lifetime. And so a perspective about peace is important to you.

Truth because no one seems to be telling it much any more. There is loss of confidence in the truthfulness of our government, in the integrity of elected officials, which is having an effect on our society; it will continue to do so throughout your lifetime. So a perspective on truth is important to you.

God, because although the liberals tried to bury God several years ago, the basic values of our society are still those of our Christian heritage. You will live the problem of the decline of these values through your lifetime, and so a perspective on God is important to you.

And you because this is your day, a day to pause a moment to consider who you are, where you are heading, and what you might carry along with you. So here we go.

Peace is an illusion. The absence of peace in the world is, always has been, and always will be a fact of life. Conflict of some kind is a natural state of man—not so much war as competition, competitiveness—in economics, in foreign affairs, in the quest by governments for goals for the governed. Conflict reflects the imperfectness of man in his world and the perfectness of God in His universe. There will probably be war in your lifetime. The Soviets will continue to encourage and help their Arab friends try to eliminate the state of Israel. Our country may not be willing to go to war over this, but to turn our backs on Israel would be very difficult, and to allow Soviet control of the oil resources of the Middle East would be almost impossible.

The more critical the situation becomes, the more likely we are to respond with violence. In your lifetime the Soviets will fight the Chinese, possibly simply continuing their 10-year-old border conflict, but more probably in a major war. Difficult as it may be to see the United States becoming involved in such a war, it is likely we would do so once it became apparent that one or the other of the antagonists was about to win and gain absolute control over the bulk of the Eurasian land mass.

On the other side of the conflict spectrum, intranational war—that is, war within the borders of a country—will be more likely, as both the Soviets and the Chinese continue to export their brand of revolution. The question of how to intervene in such situations without violating the national sovereignty of smaller states, when and how to meddle in what is essentially someone else's business, is not one easy to answer.

More nations will have nuclear weapons—just as India has recently. This just increases the chance that a deliberate or irresponsible act by some small nation could trigger a war between larger nations. Could a nuclear attack on Los Angeles arranged by the Communist government

of Ethiopia be distinguished from a Soviet attack in time to prevent the United States from launching a retaliatory attack on the Soviet Union? No one knows.

And so true peace will not come in your time. The only peace you can expect, and the only peace of any value to you, is peace of mind, peace that comes with understanding the imperfections of mankind and of having figured out how to cope with this imperfectness. It is a peace that puts you as much at ease as you can expect to be with your fellow man and the imperfections of the world you live in. Ultimately the price of that peace of mind is a willingness to sacrifice something for it, for it is still true that nothing worth having can be had for nothing.

Truth is a fragile commodity. The true state of things is frequently unpleasant. That's why we don't tell the truth more often—to ourselves or to others. It is more convenient not to. Instead we rationalize our own imperfections and those of the world around us. If we work hard enough at those rationalizations, we soon believe them ourselves, and when we do our grasp of the truth is a little less sure than before.

Like peace, truth is perfection; its distortion in our world is a measure of the imperfectness of that world, and of the perfectness of God. For us there is no absolute truth; there are versions of what is, bound up in the bias of those who observe and report. In your lifetime the truth will be harder to learn than ever before. The liberal press has adopted the adversary doctrine. They are not interested in the truth, only in the 5 percent or so of the news that deviates from the norm, which in an imperfect world is the only truth there is. Presumably they would be willing to muckrake around every public administration just to see it fall, without concern for the consequences to the country or to the quality of public administration.

By someone's standards we are all less than perfect. If one wants to make an issue of imperfections, some reason can be made to attack every man who has held or could hold public office. The ensuing turmoil simply feeds into the hands of those who claim our form of government is not viable anyway, being skeptical is necessary, seeking after all the facts you can get is essential in order to make reasonable judgments about what's going on around you and what you should do about it. The price of truth is a willingness to ask difficult questions, knowing all the while that if the truth really comes in response the answers will be equally difficult.

Several years ago the liberals buried God. He wasn't important to them. They found their god in a liturgy which denies that anything—peace, truth, God, even life, is worthy of reverence. And because the Christian ethic is the very basis for our culture, Western civilization has been stricken with the cancer of declining morality. Just over a month ago I stood in the Garden of Gethsemane, then walked the long trail across the Valley of the Dead to Golgotha, over the land where seething masses of people have struggled so many thousand years. It struck me that in the time of Christ they had a problem not at all unlike ours. They found peace and destroyed it with war; they found truth and denied it with lies; they found God and hung Him on a cross.

The denial of God will continue in your lifetime; you will be called on to decide about Him, who He is, who you are in relation to Him. Perhaps it's not all that important; many people live their whole lives without solving this problem. But I suggest that your life takes on meaning only as the causes to which you attach yourself have meaning; that the greatest value of a life is to spend it for something that lives after it; that in the end you become what you are through some cause you have made your own. And if you follow that line of reasoning, deciding about the part God plays in your world is important.

And now what about you? This is your life. I've recited some unpleasant realities simply to challenge you to think realistically about some hard questions that face you. Thinking seriously about what I've said could make you want to drop out of society. You can't drop out of society and remain a part of it. Three hundred years ago the *Bounty* mutineers did that and the society they created to replace the one they left came to be filled with all the disillusionments from which they had fled in the first place.

You are young and full of dreams. Your elders say that you'll get older pretty soon. More mature. Then you'll be all right. Well, that's not quite right. Youth is important. It's important that you stay young. Youth is not a time of life, it is a state of mind. Nobody grows old by living years. People grow old by deserting their dreams. Youth is a quality of the imagination, a vigor of emotions, a predominance of courage over timidity, an appetite for adventure opposed to the love of ease.

Whatever your years, keep in your heart your dreams, the urge to challenge events, the unfailing child-like appetite for what's next, and the knowledge that the joy of life is in the living, that when you fail to live it to its fullest you miss all the joy of it. You are as young as your faith, as old as your despair. So long as your heart holds dreams of hope, beauty, courage, so long are you young.

And so tonight you pass this turn in the road of your life, full of hope, full of dreams, full of anticipation for what comes next. I hope you will strive for and achieve great things. But remember, in many ways it's a far higher ideal to live an ordinary life in an extraordinary way, to serve an ideal amid the drab, humdrum surroundings of everyday life and still retain a vision of the common man as a shadow of God.

And so your world goes out on every side, no wider than your heart is wide, and up above the world your sky no higher than your soul is high. May the road ahead rise with you to new heights, may the wind be ever at your back, and may God carry you always in the palm of His hand.

Games and Simulations

Message to Lieutenant General Edward C. Meyer
Deputy Chief of Staff for Operations and Plans
3 October 1977

1. It has become apparent to me that TRADOC needs to establish some rules with regard to games and simulations used either for instructional or training purposes or for analytical work such as SCORES evaluations. Specifically such rules must apply to the correctness of scenarios as being representative of currently approved tactics, and the correctness of methodologies as incorporators of an appropriate battle calculus.

2. Therefore henceforth the following rules apply:

a. All games and simulations used in or disseminated by TRADOC centers, schools, and other activities for instructional, training, or analytical purposes must be:

First: Validated by the Combined Arms Center as to the correctness of the tactics employed as they relate to currently published or approved doctrine.

Second: Validated by TRASANA as to the correctness of the methodology and the calculus used to conduct the game or simulation and to describe outcomes.

b. Prior to development of new games and simulations by TRADOC centers, schools, and activities, coordination with the Combined Arms Center should be accomplished to ensure that current, or adaptations of current, games and simulations are utilized to the maximum extent possible.

c. Development of alternative tactics for use in simulations for cost and operational effectiveness analyses presents a particular problem. Frequently these analyses deal with systems so early in their life cycle that appropriate tactical schemes will not be found in the existing tactical lexicon of TRADOC. Therefore, because of the key role TRASANA plays in planning and conducting COEA, development of such alternative tactical schemes is a TRASANA responsibility. CAC will provide the necessary advice and counsel in developing and applying such tactical schemes during the course of the COEA process.

3. It is not my intent to stifle initiative or inventiveness with these rules. We must encourage our people to develop new things, especially in the game and simulation business. It is an attractive, popular, and very useful medium. But at the same time we must be careful that we don't let students, trainees, or analysts leave the game board with mistaken notions about what went on and how it turned out. With CAC as the tactical overseer and TRASANA as the methodology overseer, we should be able to ensure the correctness of both tactics and calculus.

Proposed Army Trial Defense Service

Message to General Bernard W. Rogers
Army Chief of Staff
14 March 1978

1. Some of our problems related to defense counsels and their performance today are fairly set forth in . . . your message. However, for the most part, those problems relate to perceptions of those outside the Army or of those who are defended by military counsel under the present system. They are people who are understandably critics of the system. There's another side to the coin which I believe you should consider before deciding what to do. The other side has to do with perceptions of commanders who see persons against whom charges have been preferred go through today's military justice system defended by young military lawyers whose sole motivation when defending a serviceperson is to get their client off, regardless of what means are necessary to do that. I can't fault the lawyers too much for that; it's common practice in our litigious society, and was no doubt taught them at the law schools from which they were graduated. To those of us who see today's defense counsels in that light, creation of a stovepipe Trial Defense Service will be perceived as just another step in the same and wrong direction.

2. However, if the necessary safeguards are established and operated by TJAG, no question that a Trial Defense Service could mitigate some of the criticism so frequently leveled at us from outside the establishment. Such safeguards in my judgment should include:

a. Operation of some kind of ethics council or committee by Will Persons and Larry Williams, either/or. The purpose of such a committee would be to ferret out the unethical, to call to account counsels who for whatever reason seek to get their man off regardless of how it is done, and to get those who don't meet the minimum standards out of the Army JAG business.

b. Whomever is appointed to head the Trial Defense Service had better be a tough cookie, not welded to his swivel chair, willing to go see, willing to listen to field commanders.

c. My personal judgment is that the proposed Trial Defense Service will work only so long as Will Persons and Larry Williams are in their respective jobs. The minute one or the other of them leaves we'd better have a very close look at the whole setup once again.

3. In sum, I understand the need for the Trial Defense Service; it will be viewed by many of us in the field as another stovepipe—this time dedicated to getting all accused off the hook, regardless; might work with appropriate safeguards—I've suggested three.

[On 21 March 1978 the Army Chief of Staff approved establishment of the US Army Trial Defense Service for a one-year test period, designating TRADOC as the major command for the program test.]

Patriot Employment and Deployment Concepts

Message to Major General John T. Koehler Jr.
Fort Bliss, Texas
2 June 1978

Much conversation in Europe concerning subject. Their perception is that there's a wide gap between you, the PM, and 32d on both subjects. Three things I need to say about this. First of all, the operational employment of the system is a decision that rests with the theater commander pursuant to his requirements to support NATO under the NATO system. We can help, support, advise, do studies, make evaluations and recommendations, but in the end we have to support what he decides. Neither you nor the PM should be travelling around over there telling them how to do their business.

Secondly, it serves no useful purpose for you and the PM to be running around telling different stories about employment or deployment. Both of these are our business and not the PM's. If you can't reach agreement with him, then I'll take it to court in DARCOM. I will not be pushed around by some equipment developer, but at the same time we should not air our differences so widely for public viewing. Get together with him, lay out your differences of opinion, then I want to hear what the two of you have to say and if necessary we'll resolve it at the Baer-Guthrie-Starry level.

Finally, one of your prime responsibilities in my mind is to somehow get the air defense community on the same game plan and get the open bickering reduced to manageable levels. With Fye out of the net you should have a better chance with 32d and USAREUR. Now get the PM lined up per the above. Let's get this thing ironed out before I have to start knocking missiles and missileers together.

Foreign Army Contacts

Message to Lieutenant General E. C. Meyer
Deputy Chief of Staff for Operations
26 February 1979

1. This responds to your 9 February 1979 letter on this subject [Increasing US-Yugoslav Army Contacts]. While I agree with the laudatory objectives of expanded bilateral activities with the Yugoslav Army, I cannot support the proposal.

2. The resource requirements for our bilateral programs with Germany and the UK are already heavy and are expanding rapidly. Each meeting with these key allies results in more areas for cooperation and more resource requirements. Additionally, we are only weeks away from formalizing the French/US bilateral staff talks.

3. Our plate is already overfull.

4. Thank you for your interest in military affairs.

Closure of Fort Monroe

Message to General Frederick Kroesen
Army Vice Chief of Staff
27 February 1979

1. Recently we presented the outcome of the study concerning the closure of Monroe, concluding with the recommendation that we keep the place open.

2. I am now told that, despite my recommendation, the Army Staff will recommend closure. If that's true I object.

3. As you full well know, any small base can be displayed as a good candidate for closure based on per capita cost of operation (always high) and amortization period (always relatively low). Indeed, if the place if fairly efficiently run, both these measures tend to favor closure even more than if the place is overstaffed and overfunded.

4. The correct perspective is that this place operates at about $10 million a year and that's less than 1 percent of TRADOC's operating budget. In addition, its historic and tradition value to the Army make of it a place we just don't believe it wise, advisable, or even necessary to close.

5. Soon or late we should stop making our own judgments based solely on dollar cost figures and techniques of analysis contrived to make us look bad from the beginning. Put another way, we should stand up to the Bud Rogners of the world.

6. I would also hope that one day we could arrive at a situation in which the considered recommendations of a major Army commander cannot be arbitrarily overridden by the Army Staff, a practice which incites to riot my already inflamed ulcer. In addition it makes difficult, if not impossible, the job of explaining to local officials and the Virginia delegation why the Army acts dumb as they see it, and why I don't have more influence with my masters in Washington. The local trauma over the Saratoga rebuild contract is indeed acute. If we ignore that and bumble on with a proposal to close this place we'll get yet another shiner.

Trip Report

Message to Major General James H. Merryman
Fort Rucker, Alabama
4 October 1979

1. This morning I had the opportunity to take full advantage of all the fine training we're giving aircrews and traffic controllers in your great school. This is a brief report on that exercise.

2. Launching from Langley at zero dark thirty in my trusty Charles twelve, we sailed on towards Davison and Washington. Things were going well as we applied flaps, lowered gear, and let down into the morning fog overhanging. In a somewhat hesitant voice, tower reported three thousand and three. From my rear window I could identify oak leaves on the trees just below the wing. It struck me immediately that perhaps our friend in the tower hadn't glanced out of his greenhouse, but was relying on the word from his trusty air weatherman. Gliding on, we broke from the fog at about two hundred feet, wrenched quickly around to line up, and managed to get ourselves safely on the ground.

3. With that feat of airmanship behind us, we transferred to a helicopter in order to hop over to Fort Myer. Some delay as the bird flopped over from across the active, but at last it's waiting on the pad. Out leap pilot and crew chief. Now here come the travelers—me, Don Rosenblum, and George Crocker. All have baggage—poor little Rosie has two bags under one arm and a hangup bag over a shoulder. We help him struggle aboard. The crew chief is at attention at his station by the right door, saluting smartly. They all do that—apparently that's what we teach them to do. And so for the eleven thousandth time I observe how smartly military the crew chief works, but how totally useless he is in terms of helping get the baggage and passengers aboard, stowed and ready to fly.

4. Soon we're strapped in and ready to fly. But, as we sit at flight idle, the pilot, from his greenhouse window, wisely judges ceilings at minimum and decides to file IFR instead of VFR for which he'd filed earlier. Our friend in the tower finally gets that straight and, after some delay, tower says we're cleared IFR. As he reads the clearance off, however, it's clear that he's using a new form, or perhaps he's spilled his morning coffee on the old one. If he passed his ACT test, it must have been by a very narrow margin under the bleary eye of a very benevolent instructor. However we finally get it straight, up comes pitch, we line up on the active and, after some further garbling by old tower, we lurch into the foggy dawn.

5. Now we're airborne in the tender hands of Washington Center. Copilot is flipping radios around and adjusting things. Pilot gets all that stopped, admonishing that we can't change freqs until controller says okay. Copilot obviously a new guy—no doubt a well-trained pilot, but a new guy. As you know, I don't really like to be a training aid for new pilots—especially so on a foggy morning, JFK, in the Washington Control Zone.

6. Up towards Fort Myer the fog clears and pilot talks copilot through procedures for cancelling IFR, going VFR, and getting set up with the controller for a letdown onto Fort Myer.

7. And so we settle to the ground at Myer, greeted by the first really reassuring sight of the morning—the crash and fire trucks waiting around the pad. The crew chief leaps aground, at attention by the door, saluting, as we all unlimber the baggage and tote it toward the waiting cars. After a couple of cups of coffee at the club—the bar isn't open yet, so we can't do better, we are ready to face the day's business.

8. Just wanted you to know the "users" appreciate all your good work with TWA.

Operations Research

Military Operations Research Symposium
Annapolis, Maryland
3 June 1980

I promise you I won't be blandly universal in what I've got to say. A gathering like this deserves some candid opinions, since operations research and systems analysis in conventional warfare has had such an important and weighty influence on the weapons, doctrine, organizations, and training of the US Army.

Some would say that the influence has been disproportionate, even sinister, a la Dr. Strangelove. Others feel that not enough has yet been done. There is some truth to both sides, so I'd like to share with you some thoughts on this from the perspective of the user's requirements.

The US Army Training and Doctrine Command—TRADOC—is tasked in the Army to be the user representative in the development of analysis for conventional warfare. As such, TRADOC deals with a variety of analytical activities. TRASANA [TRADOC Systems Analysis Agency], TCATA [TRADOC Combined Arms Test Activity], and CAC [Combined Arms Center] are all examples of alphabet agencies we control internally to assist in this effort. In addition, all the TRADOC schools and centers have elements specifically dedicated to analysis. In fact, everywhere you turn in TRADOC someone is trying to quantify something or prove some other thing by numbers.

There is indeed a developing mind-set that says if you can't measure, gauge, or quantify something, it probably isn't important. We strive for continuously bigger and better numbers, data, and analyses, hoping that eventually decisions can be clearly made on a black-and-white basis. The more we strive, the more unattainable the goal appears to be. In fact, it really appears that "we aren't going to get there from here" but, like hamsters in a revolving wheel, we keep running.

As a result, the process of weapon systems acquisition, organizational development, and even doctrine development has become more important than the product. So fascinating is the process that there is an institutional bias toward prolonging it. Just a little more analysis, a little more manipulation, a little more data, and then the answer will pop out. The spinoff is that, in the end game, our potential enemies are producing while we are analyzing. They are continuously turning inside our ponderous, analytically oriented, decision cycle.

Examples of this are legion. The tank program provides an outstanding one. For 20 years we've been trying to develop a new tank. It's now being produced, not yet in quantity, and the Soviets are starting to produce their fifth new tank during that same period. Their newest version will be a good match for our newest, but theirs is being fielded, and in quantity.

Now this shouldn't imply that analysis and operations research must shoulder all the blame for delays. There is plenty of room, and more than a few nominees, to share that burden. But OR has earned some of the credit. We spend a lot of time with complex, prolonged, and expensive analysis on some very simple decisions, choices that are often patently obvious. We safe side, delay, and make the decisionmaker's world overly sophisticated.

So the biggest challenge of the 1980s that must be faced by the OR community is "how much is enough?" Time, resources, and talent can only be spread so far. We should use time- consuming, complex, and expensive analyses only when very tough choices confront us, choices that are

not obvious on simple inspection or by eighth-grade arithmetic. The OR community could do a big service to everyone, including themselves, if they learned how to politely say, "No, you don't need analysis." It's becoming a crutch for decisions, one we can ill afford.

Related to this is the problem of replowing old ground, a symptom quite often of the not-invented-here syndrome. Every time someone with a bare modicum of influence gets an idea, we rush off to reanalyze an old problem. In the OR community, there is no organized method for collecting and distilling institutional memory with regard to systems performance data. As a result, we tend to start anew each time—wasting time and money—developing information that is already available if we could but find it. More serious, as is occasionally the case, we know of similar studies but reject the conclusions because the study wasn't done in-house or its results upset a preconceived notion.

Recently the entire DOD analytical community has geared up to conduct a test on something called ARMVAL—Advanced Antiarmor Vehicle Evaluation. Yet we know enough now, or soon will as the result of ongoing tests and analyses, to make an intelligent decision about relationships between survivability, agility, and mobility. The trouble seems to be that we can't get anyone's attention. So we press on, replowing the ground and delaying our decision cycle.

Our models and modeling techniques are really, from the user viewpoint, rudimentary and incomplete. The most powerful of our models are driven by weapons count or firepower scores. More critically, there is no general consensus about whether or not the relative weighting of those factors is about right or completely wrong. There are models where direct-fire weapons are weighted on a range of values of 1 to 100, one being a rifle and 100 being a tank. That says in the aggregate that the 15,000 or so rifles in an infantry division are the equivalent of 150 tanks. Don't try to sell that to the soldiers who must face those tanks, even if the soldiers can use their bayonets.

Some of the factors are even obsolete, but so buried is the data, we can't recognize it. Division force equivalents—DFE—a favorite comparison tool for analysis—is based on equipment profiles that we don't even have in the system any more. The current DFE reflects a division of the mid-1960s, so of course when we compare a future-oriented organization having newer weapons than the DFE, it shows a radical improvement. The improvement is much less significant, or may be a minus, when we use a DFE structured to reflect today's world. Yet we press on, happy in our results.

We can't model night, weather, poor visibility or, worse yet, human performance in battle. Yet everyone in the Army agrees that "people are the Army." This statement by General Abrams somehow stops at the boundary of operations research and analysis. A modeling analysis of the Battle of Bastogne or Thermopylae would probably have changed the course of history. Luckily, it was never done before the fight. Since we can't model these factors, we don't measure them. They are nonfactors.

Interestingly, with all our models that tote up all kinds of results, we can't come up with one that will reflect a human loss ratio that is reliable. On any given day, depending on the whimsy of any number of variables, you can get a spreadsheet of losses from the same given scenario from various models that only shows how much we don't know. Yet our most precious resource—soldiers—and their recruitment, training, and replacement are a function of their loss in combat. It would appear that, for as long as we've been in existence, we ought to have a handle on this, but we don't.

When you look deeper into our models and our analysis, you find that we tend to consider battlefield performance as a series of isolated duels between individual weapons systems. We have yet no really good way to describe analytically the performance of units as something other than the aggregate of their individual system scores. The synergism of trained units interacting is lost in a wealth of firepower-oriented individual scores. No simulation, as yet, can play command, control, and communications in a reasonable, rational, and fairly representative way. Yet we pride ourselves on the very strengths of this system—C3—in interacting with the weapons at hand. Maybe, just maybe, we're relying on it too much to make up for deficiencies it cannot overcome. Are we analytically hiding behind a clear plastic screen?

The individual scores themselves cause one to pause and wonder what is going on when you examine their origin. Many simulations use unrealistic weapons performance parameters as input. We tend simply to take the required operational capability—the ROC—performance parameters and assume that those in truth will be the system performance. Nothing could be further from the truth. We already have training analysis data that tells us that weapons are seldom, if ever, stressed to their full capability by our soldiers, no matter how well-trained.

We know, too, that there is a forgetting curve in training that is harsh on the potential capabilities. It's easy to say, "Well, that applies to all weapons on all sides, so it's a wash." But this forgets that other analyses, particularly logistics, depend on the won-loss rates for the ammunition, fuel, and replacements that are necessary to fight the battle. The investment costs for these latter systems in terms of transportation, people, inventory, and everything else are high. They must be based on realistic forecasts, not the ultimate capability. If you've ever done any force planning, trying to balance combat and support forces, you can appreciate how quickly support requirements based on maximum combat system capability can generate needs for support forces far greater than we can afford. So it's not really a wash. It is interrelated, and saying it's a wash doesn't make the problem go away.

That simple example of interrelationship broaches another drawback to the way we conduct our operations research and analysis business today. We have no good way of considering the play of systems of interest in any investigation in terms of the total battlefield milieu affected by the interaction of other systems with the system of interest.

Examples of this problem are abundant. If the combat system being investigated is a tank, how is its performance affected by the logistical system or the personnel replacement system or the training system or a hundred other subsystems that must interact? We have a tendency to use tunnel vision in our analysis to view the system of interest as a stovepipe. As a result, we quite often approach the battlefield design with the stovepipes still intact. But the battlefield can't cope with a series of constantly overlaid stovepipes. They are much too expensive an investment in terms of men and equipment.

When you look at the efforts to describe the battlefield in specific system analysis, you begin to see the inherent danger of stovepiping. At the very least, it creates dedicated but misled advocates who view their analysis as the final solution. At the worst, it breeds chaos and confusion and unsatisfied and competing requirements, requirements we as a nation can't begin to afford.

There have been few, if any, attempts to describe the outcomes of battles, system engagements, unit conflicts, or whatever in terms of the total system performance—not just with all other systems with which the system of interest must interact, but as well in the context of the humans who man the machines. Analysts with a mathematical and hard science-oriented background

tend to give the back of their hand to the soft science analysts who try to explain battle in terms of the human behavior-weapons system behavior interface. Yet, again, the human element is the key factor in all of our systems. None are fully automatic. There is no push-button electronic battlefield yet. Until we figure out how to explain and analyze the total battle outcome in terms of that interface, we will never get much better than we are now.

White House Fellows

Message to General E. C. Meyer
Army Chief of Staff
18 November 1980

1. Need to report to you that we entertained the White House Fellows at Knox 6–8 November at the request of Percy Pierre. They arrived the 6th, had dinner, Lou Wagner and I went through what TRADOC is, what we do, and Knox's part of that. Then answered questions for an hour or more on a range of questions about the volunteer Army.

2. On the 7th they toured the OSUT brigade training facility, rode in M60A1 and A3 and Abrams tanks, watched the Abrams fire, saw soldiers on an assault range, and had lunch with soldiers there. For lunch we paired the Fellows with soldiers from their home state, or in some cases from their home town. I gave a version of the integrated battlefield briefing; another round of questioning—more than an hour, ensued on strategy, nuclears, chemicals, armies, governments, the big, big world in which we live. That night we showed them the full panoply of night sighting equipment, from scopes for infantry to Abrams' impressive night sight.

3. Saturday the 8th Max Thurman came and told the recruiting story, followed by more than an hour of questions about quality, market, and the big big world in which we live. Well done, as always.

4. Believe we may have made a dent. Hard to say. Terribly naïve. With about four exceptions, level of ignorance about realities of today's world very, very high; about military and strategy matters in that world, ignorance near total. With exceptions all had most academic credentials, but almost all have been using their obvious talents in affirmative actions, hiring discrimination, human rights, women's lib/rights, behavioral science and so on. In other words with few exceptions they are for the most part a bunch of flaming liberals. Frightening! One young lady with academic credentials as long as your arm asked why we didn't buy more deterrent weapons instead of all these tanks, artillery pieces and aeroplanes. My aide commented it's the first time he's heard the word integrated battlefield at the fifth grade level. Whole experience disconcerting considering where these people work and the enormous potential for mischief they represent!

Telling the Army Story

Message to Multiple Addressees
21 November 1980

1. During a 10 November conference call with his major commanders, the CSA called for command emphasis on telling the Army story.

. . .

4. Sensitivity to articulating our strength as well as our weaknesses in order to secure the resources to do the job is our goal. I ask each of you to be alert to opportunities and to pursue initiatives with regard to these and other programs and how they benefit the entire Army, not just TRADOC.

Communications Security

Message to Multiple Addressees
23 April 1981

1. During a recent TRADOC Systems Program Review, attended by a large number of senior officers and civilians, a communications security (COMSEC) monitoring mission was conducted to determine whether sound COMSEC procedures were being practiced during telephone conversations. I am not satisfied with the results. Although attendees were advised that COMSEC monitoring was being performed and security reminders were prominently posted on and near telephones, the monitoring report revealed that unsecure telephones were used to discuss sensitive and classified information. Topics monitored included problems we are experiencing with some of our major weapons systems, details of the specific potential enemy air threat, details of our C3, discussions about foreign governments concerning their interest in acquiring our weapons systems, and recommendations by senior officers which will be a major factor in selecting future weapons systems. In one case a telephone conversation was monitored which revealed plans to deploy a training team to a foreign country. That same information is contained in a recent confidential message.

2. Today's technology makes monitoring microwave-transmitted AUTOVON calls relatively simple. Discussing classified and sensitive unclassified information over an unsecure telephone is the same as negligently losing a classified document. Both result in a compromise prejudicial to our nation's security. If a doubt exists over whether a particular subject should be discussed over the telephone, then the matter should be discussed over secure means.

3. I expect a concerted effort within TRADOC to concentrate on communications security, especially when using telephones. Each TRADOC installation/activity commander and each director and supervisor must take an active role in eliminating this security hazard.

Most Influential Book

Letter to Ms. Donna Parrino
Tampa, Florida
21 September 1981

This responds to your letter . . . asking what book made the greatest difference in influencing my life. The obvious choice is, of course, the Bible.

While I've a lot of favorite books, none other has the Bible's impressive and comprehensive sweep of human endeavor. It is religion, history, philosophy, literature, poetry, scholarship, storytelling; above all, it is the inspired written record of our Judeo-Christian civilization, culture, ethic. It is the legacy from our past.

It is not possible for us to understand from whence we came—who we are—without knowledge of the accounting of our journey that is set forth in the Bible. Nor is it possible for us to comprehend what we are today—our religious, cultural, social, philosophical circumstances, without comprehending the Biblical accounting of the framework in which we have grown to this point in our civilization. Neither is it rational to try and chart for ourselves a course into the future without reference to the course which has brought us to where we are—for although we, many times, perceive our problems as new ones, it is usually true that someone has trod this path before; a willingness to draw from others' experiences is most often useful.

You asked what difference the book of my choice has made in my life. That's hard to say. I first read the Bible cover to cover at the age of twelve; it was then, and still is, fascinating and inspiring—a constant source of so many things I find most useful in my professional and personal life. To what extent that has made me different from what I otherwise might have been, there's no telling. However, it's safe to say I'd have been hard put for sources for the human commentary, history, literature, poetry, perspective and sheer inspiration, which are the Bible's legacy—gift to us.

Relations with Israel

Letter to Secretary of State Alexander M. Haig Jr.
28 September 1981

Last week Raful Eitan, the Chief of Staff of the Israeli Defense Force, visited me. Some of what we talked about is of interest to you. Although I've reported on it officially through other channels, that report will not reach you; even if it does it'll be waffled so that the salient points will be lost.

I feel it necessary to report this to you firsthand for two reasons. First is that, despite our problems with Begin, and some obvious need for steering a true course in our dealings with Israel, it is true that country is the only solid and really dependable friend we've got in that very vital part of the world. Second, because it has been but three years now since Harold Brown went over there and signed with them a very open-ended memorandum of agreement. It was heralded as the beginning of a new era of cooperation with the Israeli, and great things were predicted for its future. Not a single thing came of it. What Harold thought he was signing I know not, but he certainly led the Israeli to believe that he was in earnest. Then we became enamored with our newfound relationship with the Egyptians and the administration promptly turned its back on Israel, despite Harold's memorandum. Some of us tried with some urgency to open new initiatives in the military equipment development and training areas, but found it impossible to even hold onto what we had begun in the years following the Yom Kippur War.

Almost no one in Washington now remembers that series of events. The Israeli remember it. They were seriously concerned then; they are now equally concerned that something like that might happen again. They reported to me that a "team" is coming over from Washington in November to talk over what might be done under the umbrella of their new relationship with Washington. I don't know whose team that is, but presume it will at least include, if not be headed by, someone from the State Department. Whomever goes needs to be armed with the knowledge of what has gone before, and of the Israeli attitude toward that last series of events.

In brief, Raful made the following suggestions to me. I'm certain he has made them elsewhere, probably to you or someone on your staff, so I'm sure they don't plow new ground with you, but here they are as he laid them out for me.

- Israeli Air Force can provide air cover for US aerial deployments of forces into the Middle East if such deployments come to pass.
- Israeli Defense Force can provide MEDEVAC and air cover for it, from whatever area we may be operating in, to hospitals in Israel—theirs or ours.
- IDF can provide ammo resupply of items common to weapons of both armies, should we be operating in the Middle East with less than a full capability to sustain ourselves. In addition they now have factory output of many types of ammo, output which could be increased to accommodate our requirements while operating in the area. Particularly useful in the case of 105mm tank gun ammo.
- The IDF could provide us equipment—tanks, armored vehicles, weapons from their own stocks and stores for our operations in the Middle East. Especially would this be useful for items common to both forces—M60 series tanks, M113s, M109 howitzers and so on. As you know, the bulk of their ground force equipment is in dry-clad storage and can be made ready literally within hours—in division sets. We would have only to fly the troops there.

- The Israeli could make available to us communications systems through Israel to other parts of the Middle East for our operations. This might include military, as well as their national communications systems, both of which are quite good.
- Supplies, fuel, water, spares, medical supplies—a range of supply activities in other words, could be made available from their stocks in Israel. Particularly useful in situations in which we have limited capacity to supply ourselves—water for example, or those in which we'll have trouble with competing demands for enough lift to get bulk supplies there in timely fashion.

I'll not comment on any of those. My purpose is to report this to you firsthand, not to take a position. Some of those clearly represent useful opportunities; others have obvious political or other implications that might inhibit their adoption. All of which you understand much better than do I.

As you may know I've been very close to the IDF since shortly after the Yom Kippur War when Bill DePuy opened up a professional dialogue with them, a dialogue which eventually I inherited as I succeeded him at TRADOC. All too often it has been my experience that those who go from Washington to talk with the Israeli about any subject go without any perspective about what has gone before, particularly about the Israeli attitude toward that experience. Always then we seem to be ill prepared for what we're doing. They remember. They are not ill prepared. They're a tough people. They want our help—need it. We need theirs, especially in that troubled region. Surely we can reach some accommodation without upsetting all the applecarts in this country. I'm convinced that it can be done. But if it is to be done we'll have to field much more knowledgeable teams of negotiators than has been the case in times gone by.

Boy Scouting

Letter to Joseph Kover
Flushing, New York
7 December 1981

Thank you for your letter . . . asking about my participation in Scouting. I was a Scout myself—a member of Troop 4, Kaw Council in Kansas City, Kansas, where I lived, for several years, attaining the rank of Star Scout.

Later on when my two sons entered Scouting as Cubs, I became a Scout Leader—serving as Committeeman, Packmaster, and Webelos Den Leader for several years in the late 1950s and early 1960s. Following that, I became a Scoutmaster in the North Atlantic Council for several years in the 1960s. I am still a strong supporter of Boy Scouting, although my official duties and travel schedule in recent years have not permitted me to be as active as I would like to be.

I think anyone who has been in Scouting, as a Scout or as a leader, must come away with a feeling of great accomplishment. As Scouts, we accomplish things ourselves with the help of our leaders, and that's the great success story of Scouting—the leader-led relationship. As a Scout leader the tremendous challenge of helping young men become achievers is among the great satisfactions of my life. Scouting trains leaders—that's its great contribution to our society. For, know it or not, Scouts learn leadership by watching and working with Scout leaders. That's why good Scout leaders are very important people. They set the example.

To this day I can remember the men and older boys who were the Scout leaders in Troop 4, my first Scout unit. They were superb people and good leaders. I am a better leader because of what they taught me. I hope that somewhere there are other men who can look back on their Scouting experience with me as their leader and say the same thing. That's the challenge and reward of Scouting as I see it.

TRADOC Organization and Rationale

Letter to Lieutenant General Sir Robin Carnegie
5 February 1982

There are . . . one or two principles represented in the TRADOC organization which are at the heart of the advantages that it offers to us, or to any army wishing to adopt a relevant version of our concept. First is that operational concepts must drive the development of tactics, organization, equipment, training. You may recall that before TRADOC we had an organization known as the Combat Developments Command. Separate, and commanded by a lieutenant general, it was the keeper of everything but training—tactics, organization, equipment requirements. In order to ensure input from the arms and branches, it had a cell collocated at each of our schools up to the Leavenworth level. Cell commanders at the school level, loyal to their boss in the CDC far away, were less than responsive, loyal, helpful associates of the fellow at whose school they were in residence.

Among the major commands, war lordism prevented the CD Command from seriously influencing either training or equipment development. Both these commands' four-star fellows' disdain for their three-star CD friend was made manifest in the way in which they ignored his attempts to bring it all together. The result was a system in which the CD Command, over the years, was forced to look more and more into the future with less and less relevance to the present and less and less of a clear notion of how one might get from present to future. It was that situation, above all others, that TRADOC was designed to overcome.

We concluded, after long and frustrating experience, that one command and its boss had to be in charge of the doctrine and all that flowed therefrom. Bill DePuy began TRADOC concentrating on the near term—how to fight today and tomorrow. He was chary of looking more than five years ahead. In my tenure I tried to keep his emphasis on the near world, but stretch our vision ahead. The mechanism we elected for that was the Battlefield Development Plan—a road map from today to tomorrow to ten years or more in the future. While Bill DePuy still, I believe, would register reservations about looking too far ahead, he would also admit, I believe, that we have accommodated the very real need to keep a large part of our attention focused on today and tomorrow.

Thus the second principle, which came in the process of trying to implement the first—whomever is in charge, there must be some mechanism that ties present, near term, and future together in a coherent, relevant audit train from now to then. Obviously I would argue that mechanism, however it might be styled, is better drawn up and kept current if under the charge of a single command(er). It is, however, possible that it might be the product of coordination between several staffs, although war lordism at the top would surely militate against truly successful and timely coordination.

In the [British] Army Board, an institution which we do not have in any form, you might have the mechanism to drive through successful coordination amongst the warlords. Much would depend on the personalities involved. With the current set of warlords I suspect you might have a better chance at it than with perhaps another stable. But a frangible circumstance; one would like to build an institution relatively insensitive to the human frailties of its managerial incumbents. Probably too idealistic!

In any event, the key fellow is the one who says how the war is to be fought. But that's just the beginning, for whatever he says must be translated into tactical schemes, organizational needs, equipment requirements, and the training system if it is to successfully steer an army on course. However the jurisdictional lines may be drawn, some consensus building will always be necessary; the more fragmented the responsibilities for the several functions, the more consensus building will be required. John Stanier's judgment that your organization is evolutionary is probably correct. I would caution, however, that, as the people with the central vision move on to retirement or elsewhere, things always seem to get off track. Whatever success TRADOC may lay claim to, and I believe there's been some, in large measure reflects the fact that in its ninth year now it has only just begun on its third boss, and that Bill DePuy and I saw the world we were trying to create in remarkably the same way. It is indeed unique in our Army to find two senior people with so closely matching a vision of what they're about. No back scratching intended, just to emphasize the importance of a consistent view over time of what is important to get done.

JCS System Reform

Testimony Before the Survey and Investigations Subcommittee
House Armed Services Committee
16 June 1982

You have asked me to provide you my views concerning proposals for reform of the Joint Chiefs of Staff (JCS) system. First off, I support the need for some reform. While one could argue the relative merits of the several sets of recent recommendations about reforming the Joint Chiefs of Staff system, two of the several recommendations are key among those recurring each time the question of JCS reform has been raised over the past 35 or so years. Those two have to do with strengthening the role of the Chairman and reducing service Chief and staff involvement in joint matters. No doubt changes in other areas such as broadening training, experience, and rewards for joint duty might help improve the Joint Staff process, but the fact remains that the visceral issues here have to do with the role of the Chairman and the role of the Chiefs. It is also true that no proposal for reform can ignore the roles of the service secretaries and their secretariats, the role of the assistant secretaries of defense and their staffs, and the roles of the several commanders in chief. May I just sum up briefly my own perspective on the key problems with the JCS system today and how those problems relate to the issues of the role of the Chairman, that of the service chiefs, that of the service secretaries and secretariats, that of the assistant secretaries of defense, and that of the unified and specified command commanders. For it is those key problems that must be clearly described and agreed upon before it can be determined whether or not the system needs changing.

The most glaring deficiency in the Joint Chiefs of Staff system today, in my judgment, is the inability or unwillingness of the JCS as a corporate body to set forth relevant military missions designed to support national political goals. This is the responsibility of the JCS; it is not being done adequately today and from time to time in the history of the JCS system has been at the root of much of the criticism of the system.

The problem reflects the need for a relevant dialogue between the JCS and the National Command Authorities—the President and the Secretary of Defense, designed to translate political goals into military missions and to agree on appropriate military courses of action to support the national aims.

As part of the front-end guidance process, military courses of action seen as relevant to national political aims must be set forth and adequately explained by the Joint Chiefs of Staff. The political authorities must understand what can be undertaken militarily to accomplish their goals. Since military force is always employed for political aims, there must be a fairly clear understanding between civilians and military at the outset as to what is to be done and why. Some military courses of action may not be acceptable to those who make political pronouncements. Therefore military courses of action and possible outcomes therefrom must be thoroughly defined and understood at the outset. Not to say that political aims cannot or will not change as a course of action unfolds; however, the need for change should be minimized if the process is begun in a system that strives for a military-political dialogue up front. It will likely be required that such a dialogue be iterative, an "if-then'' process. "'If' this is what is desired politically, then here is what can be done." If the "then" proves unacceptable for some reason, then alternatives must be proffered until resolution is achieved.

The second most glaring deficiency in the JCS system stems from the fact that the JCS as a body are not key players in the budget process. That is why whatever the JCS do is so frequently viewed by people in the Pentagon and outside it as irrelevant. It will continue to be so viewed unless the JCS participate somehow in the resource allocation process—at the front end, as part of the guidance and dialogue process suggested above. Ideally, alternative military courses of action drawn up to describe what might be done militarily to support national political goals should include a general statement of relevant costs—the relative affordability of each course of action. Further, in the general front-end guidance process that begins each budget year, the JCS must participate with the Secretary and others in the general framing of resource allocations as between the services. Unless this is done the JCS will always be acting after the fact—after they have, as service chiefs, struggled mightily to develop Program Objective Memorandums (POMs) consistent with the Defense Guidance. No Chief can participate in a meaningful, objective dialogue in his corporate role *after* having gone through the soul-wrenching process of POM development inside his own service.

Some would say the Chiefs cannot be expected to participate objectively in developing front-end resource allocation guidance. But history tells us that if the Chiefs do not, the assistant secretaries of defense (ASDs) will forever be doing it, and the Joint Strategic Planning Documents of the JCS will continue to be considered irrelevant. This is not to suggest the JCS become involved in the item level of budget detail that characterizes POM development. It is to say that they must participate in developing constraining guidelines with regard to forces, civilian and military manpower, research and development budgets, procurement programs, and operations and maintenance budgets—considered all in the context of political strategy and military courses of action developed as I've suggested.

It is difficult to understand how increasing the authority of the Chairman, creating a super advisory body to the Secretary and/or the President, or adopting a single Chief of Staff system, all of which have been suggested reforms, will help toward solving this problem. The authority provided the Chairman and the Chiefs under the present law is, I believe, sufficient. The perceived need for unanimity in JCS voting has effectively militated against that authority being used as the enactors of the law intended it to be used. It is this self-imposed unanimity rule that must be changed. In fact, I would argue that, where there are disagreements, especially disagreements on fundamental problems, the JCS are providing an essential service to the Secretary and the President by drawing up and displaying alternative courses of action, fully documenting the costs, burdens, feasibility, advantages, and disadvantages of each such course of action.

Further, I would argue that the very best way of providing balanced military advice to the civilian leadership is by using the unique talents, broad and varied experience, and perspectives of the service chiefs. This ensures the requisite checks and balances necessary to moderate extreme views. It is a system characteristic of our democratic process. Obviously, I am strongly opposed to a single overly strong Chairman, or an all-purpose Chief of Staff, or an advisory committee functioning as an all-purpose Chief of Staff. There is in my view sufficient authority in the present system, it just needs to be used as it was intended to be used.

It is equally difficult to understand how separating the service chiefs from their JCS role of strategy and planning will help correct the fundamental problems I've outlined. Indeed, quite the opposite would be the case. For, in this time of rapidly changing operational and technical

circumstances, relevant courses of action must be drawn up and assessed by men intimately knowledgeable of the weapons, forces, organizations, and total capabilities of their respective services. To relegate the service chiefs to a support role would deprive us of this essential element of military advice and counsel. I would, therefore, categorically reject any reform that separates the service chiefs from the strategy-planning-resource arena. I would, however, add to that duo the requirement for a strategy-planning-resource troika in the responsibilities of the JCS. My own judgment is that the present law provides the necessary authority for this; however, closer inspection may indicate a need for some further statutory provision to ensure its happening.

Finally a few words about the Joint Staff. One reason the Joint Staff appears overloaded, as has been alleged in some reform proposals, stems from the tendency to involve the Joint Staff in too much minutia, which could properly and more efficiently be handed off to someone else. The JCS and their staff must devote their primary energies to the guidance-courses of action-affordability dialogue outlined above. The details of force packaging, force employment, deployment, and sustainment should be left to the operating commands. Some central direction is needed for development and promulgation of doctrine for joint force employment, joint training, joint exercises, war gaming and simulation of plans for employment of joint forces, deployment planning and execution, and sustainment of deployed joint forces. None of this work, except for the broad general policies related thereto, needs to be done by the Joint Staff. Indeed, within the Unified Command system as it exists today, the means are present to do all that and do it outside the Joint Staff. Whatever other changes might be made to improve the quality of staff work, rewards and incentives for Joint Staff duty, and preparation for Joint Staff duty are all matters regarding which the JCS have full and necessary authority to act. No statutory changes are appropriate or even necessary.

It is sufficient to say, after what I've already said, that unless the JCS develop a strong, consistent, well-articulated framework of military courses of action, and affordability estimates related thereto, they (the JCS) will always be at the mercy of one or more of the ASDs. For years the de facto national strategy has been determined by systems analysts working in the Office of the ASD Systems Analysis, or more recently in the Office of Program Analysis and Evaluation (PA&E). While this method was in vogue, what could be done was what was affordable with the budget, not necessarily what the political authorities or the JCS said they wanted done. With the downgrading of PA&E, power has shifted into the hands of other ASDs. To the systems analysts in PA&E, operators in these new power loci are frequently viewed as about as relevant as the JCS in setting forth affordable strategies. Everyone is a strategist at heart; few, if any, can relate strategy to affordable courses of action. The budget process always cuts all amateur and most professional strategists down to size. Obviously I believe the real power of the ASDs should be curtailed; however, that cannot be done unless some other body is prepared to step into the vacuum. The JCS is my candidate for that body—supported, of course, by the Joint Staff. With relevant courses of action having been weighed out and assessed as I've suggested, the need for constant tinkering at every ASD staff level is no longer appropriate or required. Indeed, it should be precluded, either by regulation or statute.

History tells us that service secretaries and their secretariats have taken whatever role the incumbents have been comfortable with, ranging from [word unreadable] reform to hard-nosed resource management. History also suggests the most effective of the lot have been the business managers. If that be the case, and that be the logical role, statutory or regulatory provisions

should spell that out for all to see, and the energies of the secretaries and their secretariats channeled toward that end. Service Chiefs need help from their secretaries and secretariats in the Chiefs' roles as service POM developers and defenders. This can only be provided with the secretaries and their organizations dedicated to the role of business managers.

In their statutory role as executors of the national military strategy the CINCs of our unified and specified commands should have a stronger voice in front-end guidance process, especially in that part relating to development of feasible military courses of action—courses of action that are feasible and affordable within the force and manpower constraints of the share of the nation's defense resources for which they are responsible.

All too often CINCs either mirror-image the position of the service from which they themselves come or espouse military courses of action that neither they nor the JCS can say for certain are feasible, affordable, and relevant to the national political goals. The Defense Resource Board deliberations, which include the several CINCs, commenced by Secretary Weinberger, are a large step in the right direction. I would urge increased dialogue in this vein.

The history of the Joint Chiefs system is replete with suggested reforms. Some of the most interesting are in President Eisenhower's diaries. However, I refuse to believe that the JCS are not individually and collectively big enough to step back, look objectively at what we're required to do for our country, and produce under the aegis of the present laws, which I judge to be generally adequate, the necessary initiatives to solve the problems I set forth at the outset. There's far more at stake here than the protection of traditional fiefdoms; we must be prescient enough to understand that and courageous enough to do something about it.

Nuclear Freeze Proposals

AUSA Luncheon
Birmingham, Alabama
10 November 1982

What I am going to ask of you only requires taking the time to think through some complex issues relating to our nuclear deterrent, both strategic and theater, and communicating your conclusions to others. Proposals and demonstrations supporting a nuclear freeze or a no-first-use policy have been grabbing a lot of headlines over the past year. A lot of honest, loyal, and intelligent people are impressed by the surface appeal of such proposals because they are concerned, as I am, about the danger and destructiveness of a nuclear war. But dealing with the realities of nuclear weapons is a very complex business. And, as H.L. Mencken said, "There is always an easy solution to every human problem—neat, plausible, and wrong."

In the recent elections, 10 states and the District of Columbia had some kind of nuclear freeze referendum on the ballot.

- To the extent that these resolutions were an expression of concern and desire to achieve progress on arms control, they are most welcome.
- The resolutions were all advisory in nature, and most were ambiguous.
- They did not give voters a real choice between a freeze and *reductions* in nuclear arsenals.

Some of those who call for such solutions have not really thought through the problem or considered how we have gotten to where we are today. They act as if the world has just discovered the problem of nuclear weapons and that we can magically put the genie back in the bottle by unilaterally trying to wish away nuclear weapons. They tend to focus on a visible symptom rather than the underlying cause of the nuclear situation and thereby often miss the real point.

Those who advocate a nuclear freeze do so out of the hope that a freeze will reduce the risk of a nuclear war. Freeze advocates sometimes act as if those who are against a freeze are for nuclear war. Nothing could be further from the truth. We do not want any war, particularly a nuclear war. The sad fact of the matter is that a freeze of any kind at this point is more likely to increase, not decrease, the chances of war by undermining the foundation of deterrence.

Deterrence depends upon a potential aggressor realizing that the losses he would suffer from our retaliation would clearly outweigh any advantage he might gain by attacking us. We built a nuclear capability in the 1950s to deter Soviet aggression because we and our allies were unwilling or unable to match the vast conventional forces that the Soviets maintained on the borders of Western Europe and elsewhere. That conventional threat, now much improved by modern weaponry, is still there and is now reinforced by a massive nuclear capability as well. We cannot wish the threat away. We must continue to deter both the nuclear threat and conventional aggression that could escalate to nuclear war.

The Soviets have not hesitated to use military force when they thought the risks were low, and they have become more adventuresome in the past few years. They have invaded Afghanistan and have threatened to use force to contain the situation in Poland. Why have they been less hesitant to use force in the past few years? It is safe to say that they have done so because they have perceived a shift in the military balance of power. The Soviets have matched and

in some measures exceeded our nuclear capabilities. They feel less constrained in their use of conventional force because we have lost our one significant advantage.

In the past 10 years we have deployed no new land-based intercontinental ballistic missiles while the Soviets have introduced two modifications to their older systems and three technologically advanced and larger ICBMs. Today the increase in warheads, yield and accuracy of the Soviet ICBM force presents a threat to the survivability of our older ICBM force.

As the Soviet missile threat grew, for awhile we could offset emerging Soviet advantages with another leg of our nuclear triad, our strategic bomber force. But our B-52s are aging, their ability to penetrate Soviet airspace is being threatened by major improvements in Soviet air defenses, and the Soviets have developed and deployed 250 Backfire bombers that have the capability of nuclear attacks on the United States.

Now I don't like to engage in a detailed numbers game with strategic nuclear forces, because it is the overall capability and the *perception* of advantages that count in maintaining deterrence. Suffice it to say that we have lost our past advantage and that the Soviets could have reason to believe that they might have advantages that could affect their calculation of the costs and gains of a nuclear exchange in a confrontation with the United States.

It is no coincidence that the Soviets have called for a nuclear freeze under these circumstances. A nuclear freeze would prevent us from implementing our strategic modernization program—the B-1 and advanced technology bombers, air-launched cruise missiles, Trident submarines and MX missiles. It would lock in Soviet advantages; they've just modernized their force. What's more, it would not guarantee that the Soviets would not continue to build on those advantages by clandestine programs or by technological improvements that are particularly difficult to verify. And it would not prevent improvements in passive and active defense measures that could further degrade our retaliatory capabilities. Improved missile accuracy and warhead yields could make our ICBM force even more vulnerable. The Soviets could continue to improve their civil defense measures. They could continue to improve their air defenses and thus further degrade the effectiveness of our B-52s. And they could attempt to develop an effective antisubmarine capability to threaten our sea-launched ballistic missile capability, the third leg of our triad. Such advantages would compound the current nuclear imbalance, undermine deterrence, and certainly not make nuclear war less likely than it is today.

A nuclear freeze would also almost surely end any hopes of a nuclear arms reduction agreement. If we know anything about the Soviets, we know that they are tough negotiators, that they prefer to negotiate from strength and always seek agreements that they see as clearly advantageous to them. What gives us hope that we can achieve significant, equitable, and verifiable reductions, both in arms reductions and in the intermediate nuclear force negotiations, is that the Soviets fear that we can offset their advantages through our modernization programs, and may therefore see reductions as the lesser of evils. The best way to bring them to that point is to show firm resolve in our plans to deploy Pershing II and ground-launched cruise missiles in Europe to offset the already deployed Soviet SS-20s as well as to modernize our strategic nuclear force. A nuclear freeze would stop those programs dead in their tracks and the Soviets would have no need, no incentive, to negotiate seriously.

The proposal that we and our NATO allies adopt a declaratory policy that we would not be the first to use nuclear weapons in defending against a Soviet attack in Europe is similarly flawed. Again, those who argue against such a policy are characterized as too willing to fight a nuclear

war. But our whole point is that we do *not* want a war, nuclear *or* conventional. For that reason we *do* have a no-first-use policy, one that is far more comprehensive and far more effective in maintaining the peace. It was restated by President Reagan last November and recently reaffirmed by the NATO ministerial council. "No NATO weapons, conventional *or* nuclear, will ever be used in Europe except in response to an attack."

The most prominent advocates of a no-first-use policy argue that the NATO deterrent, which has preserved the peace in Europe for 37 years, could be maintained by a massive buildup in conventional forces to offset the considerable Soviet advantages. Certainly increased conventional forces would strengthen our deterrent, but we have to start from where we are now. We want to prevent war but, if we don't, we know that we'll face a massive attack by modern forces equipped with nuclear weapons. Soviet doctrine clearly calls for the use of such weapons if needed. If NATO's forces, including our own, ever have to march out to face a Soviet attack, the Soviets need to know that they don't get a free ride by being able to mass their numerically superior conventional forces immune from the danger of nuclear attack, just as they need to know that they can't use their own nuclear weapons immune from our retaliation.

If there is a way for us to maintain liberty for us and our posterity without sending American forces into battle, I am for pursuing it. On the other hand, I know that in today's world maintaining our liberty is unfortunately tied to our demonstrated ability and willingness to fight for it. God forbid that we should have to send our people into battle again but, if we do, I am unalterably opposed to sending them out with the self-inflicted handicap of "no first use" of nuclear weapons when we have already handicapped them with numerically inferior conventional forces.

So my conclusion about the no-first-use proposal is similar to that about a nuclear freeze: not only would it not decrease the chances of a nuclear war, but it would *increase* the likelihood of all kinds of war! And my reading of public opinion is that the American people agree with these reservations. When polls or referendums show that a majority favor such proposals, they have invariably been stated in general terms with the explicit or implicit assumption that the dangers of nuclear war will be decreased. But when the questions include caveats such as, "Should we trust the Soviets to comply?" or "Should we freeze first and expect the Soviets to follow suit?" the answer is always an overwhelming "no," always by at least two to one and sometimes by as much as four to one.

Our government's policy of increasing our defense capabilities while at the same time attempting to negotiate substantial and verifiable nuclear arms *reduction* agreements is very much in step with those opinions. The President's initiatives to revitalize our nuclear and conventional forces are balanced by proposals for deep reductions in deployed ballistic missiles, a one-third cut in the nuclear warheads carried by those missiles, and the elimination of a whole class of intermediate-range nuclear missiles in Europe. Our commitment is to do far better than a nuclear freeze or a no-first-use policy pertaining to a part of our military capability, but to do so while maintaining our interests and our security. I think that is what the overwhelming majority of the American people and all mankind want too. You would do your country another great service if you could spread the word that our policy of peace and security through strength is the surest path to preventing war, any kind of war—particularly nuclear war.

Situations in Germany and Israel

Message to General E. C. Meyer
Army Chief of Staff
30 November 1982

1. Just back from ten days in Europe and five in Israel. Lots to digest and send you and Jack reports on—two need signaling at this time.

2. Spent a day with Deide Von Senger talking AirLand Battle and related matters. He is very down on the AAFCE organization; as you know, he claims the air forces in Europe can't do their job. He may exaggerate a bit, but I fear not too much. Particularly unhappy with Billy Minter—"He really works for me and I have to go find him to learn what he thinks he's doing." If you are to see him he will surely bring this up.

3. Raful asked me to intercede with you to come visit Israel. I promised to convey his request. Andy Marshall and several folk were there trying to hammer out an MOU. Apparently I was the first military guy from "our side" to visit and talk about the war. Many, many lessons which I'll convey in detail in due course. However this initial fumbling around is so alarmingly reminiscent of our 1974 fumbling while trying to get lined up to learn about the Yom Kippur War. It was not until we sent the team from Leavenworth headed by Morris Brady that we began to get a coherent picture of what we really wanted to know. I fear we are about to repeat that experience. Therefore the sooner someone senior can go there, set the stage, and lay down for ourselves what our priority efforts should be, the better. Whatever you yourself decide to do in response to Raful's request, I would urge that Glenn go, or better yet that we send whomever is to replace Glenn, if we can decide on that and get it cleared in reasonable time. Fred Ikle would not approve my going to Lebanon at all. So I fear our chances of seeing the battlegrounds firsthand are fading rapidly. Raful was good enough to bring back all the division commanders, the air guys and the intel folks from the forces in Lebanon and we spent a very, very useful day together. Unfortunately I had no staff with me, so there was but one pair of tanker's ears trying to take in all that information. There are some things we need to get started on as soon as possible, mostly in the equipment world, but doctrinally as well. It would in my judgment be most useful if Glenn or his successor could go and absorb as much as possible while the stuff is still fairly fresh. Detailed eval can follow in due course; what we need now is the big lumps.

23. Vietnam War

Page

Vietnam 948

Go or No Go in Vietnam 955

Improved Organization and Equipment for Vietnam 962

Armor in an Area War 968

Dedication of Vietnam War Memorial 974

Mounted Combat in Vietnam Monograph 975

Impact of Vietnam War 976

Vietnam Observations 977

Mounted Combat in Vietnam 978

Vietnam

West Springfield High School
Springfield, Virginia
January 1967

Your principal has invited me here to talk about Vietnam. I propose to try to put the Vietnam War in a little better perspective for you than may have been done by the press and television, or by what you hear from the demonstrators. First I will cover some historical data, then talk a little about our national objectives in Vietnam. Then I will show a film that lasts about 20 minutes and that will set the tone for some final remarks about our recent progress in Vietnam.

First, the history:

A. Following a very minor role during the period 1950–1956, the involvement of the United States Army in the Republic of Vietnam's struggle for its survival has developed in three distinct phases that I will briefly outline.

B. The first phase, which lasted from April 1956, when the French Expeditionary Corps left the Republic of Vietnam, to February 1962, was characterized by US effort oriented to military reorganization and training of RVN forces for conventional warfare. Although Vietnamese Communist aggression was renewed early in 1960, the US military effort remained under 1,000 advisors. As a result of the increase in VC activities and rapid deterioration of the GVN's position, President Kennedy in November 1961 decided to increase substantially the US effort to support RVN. US commitment moved into a new phase.

C. The second phase commenced in February 1962 with a sizable increase in advisory personnel and a large-scale operational support role and logistics mission. With the overthrow of the Diem regime and the short-lived governments that followed, the effectiveness of the Republic of Vietnam armed forces, along with their morale, reached rock bottom, as did the people's faith and confidence in the government. The Viet Cong, on the other hand, took advantage of the situation. The stage was set for the third and final phase of the so-called war of liberation, the phase in which conventional forces would be committed to quickly defeat the government forces. The North Vietnamese Army commenced its movement south. At the end of this phase in March 1965 there were approximately 15,000 US Army advisors and operational support personnel in South Vietnam.

D. The third phase, from March 1965 to the present, is set off by the introduction of American and other free world ground combat forces. These forces have not only offset the buildup of North Vietnamese Army units in South Vietnam but, through their presence, have provided a steadying influence to the Government of Vietnam and have given the badly battered armed forces of the Republic of Vietnam a chance to catch their breath.

E. Throughout these phases of involvement, the United States has maintained the supporting role. The conflict is still one which, in the final analysis, must be decided by the Vietnamese. The government of Vietnam, using its military arm in conjunction with its other agencies, must convince the people of this war-ravaged land to support that government. The United States and other free world governments have provided varying degrees of assistance, advice, and support; however, the overriding authority and responsibility rightfully rests in the hands of the Government of Vietnam.

The overall objective in South Vietnam is to assist that country in creating an atmosphere suitable to the establishment of a stable, independent, and viable non-Communist society. This is a clear and simple statement that does not threaten the survival of the North Vietnamese nor require their unconditional surrender. Our purpose in Vietnam was particularly well phrased by Secretary Rusk in open testimony before the Senate Committee on Foreign Relations on 18 February 1966. I quote:

> A. We are in Vietnam because the issues posed there are deeply intertwined with our own security and because the outcome of the struggle can profoundly affect the nature of the world in which our children will live. Our response to the Hanoi aggression has been limited.
>
> B. What we are seeking to achieve in Vietnam is part of a process that has continued for a long time—a process of preventing the expansion and extension of communist domination by the use of force against the weaker nations on the perimeter of communist power. Unquote.

To support our overall objective, we in the military are doing three things. This we call our military strategy.

First, in North Vietnam, we are taking the war to the enemy by unremitting but selective use of United States air and naval power. Here we are making North Vietnam's support of the Viet Cong insurgency as difficult and costly as possible.

The second thing we are doing is seeking out and destroying communist forces and their underground government in South Vietnam.

The third thing is the support of the South Vietnamese government's program to extend the secure areas of South Vietnam.

With this short historical summary and statement of our national and military objectives as background, let's look at a film on the Army and Vietnam that was shown to Congress during recent hearings. Although it is primarily devoted to the Vietnam War, it does address other Army missions, both in this country and in the other overseas commands.

[Unclassified Version of FY 66 Posture Film]

I will now cover some operational aspects and statements of progress that hopefully will place my early remarks, together with the film you have just seen, in the proper perspective.

Our response to the Hanoi aggression has been limited. We are attempting to convince that government that aggression cannot succeed. This requires control and restraint. Here is how our operations are put into motion.

The government of Vietnam is accomplishing, with our help, three separate but mutually supporting programs. They are:

- First, the military offensive.
- Second, a program to get the people in the countryside to support the Saigon government. The Vietnamese call this program Revolutionary Development.
- And third, nation building.

These three programs take place at the same time. In areas where there is government control, nation building is in progress. In other areas Revolutionary Development is underway, while

in less secure areas the military offensive is being carried out. In the military offensive, we are first trying to destroy the enemy forces in the heavily populated and food-rich areas.

There are two parts of the military offensive. [US forces] focus on enemy main forces and base areas, while Vietnamese forces generally support Revolutionary Development. This delineation is not rigid, however.

Since a lot of people do not understand what Revolutionary Development means, I'll define it. It is: "Those military, political, economic, social and psychological programs which are designed to liberate the people from Viet Cong control, maintain public security, and win the support of the people to the government."

It is here that the total effort is directed. Through this program, the government attempts to secure the willing cooperation and loyalty of the people in the hamlets and villages. The aim is, of course, to permit the construction of a nation immune to any reemergence of subversion and insurrection.

The military and civil actions that make up the RD program are conducted in three successive phases: clearing, securing, and development. We conduct clearing operations by saturating an area with forces for extended periods. We emphasize small unit patrolling, offensive ambushes, and quick reaction by larger units when we get good information about the enemy.

The securing phase consists of civil, military, and police activities to establish an area under firm government control, free of Communist influence.

Vietnamese and US/FWMAF conduct operations near and within the area to provide security for the accomplishment of these activities.

As the security is established, 59-man Revolutionary Development teams are introduced to initiate simple economic and social development projects to win the confidence and loyalty of the people. Actions and intentions of the government are explained, and the people are given a chance to tell their problems, and something is done about them.

When an area is secure, the development phase begins. Vietnamese police replace military units in the area. From this you can see that the entire military effort is keyed to developing a secure area in which RD operations can take place.

The primary responsibility for the Revolutionary Development effort must rest with the Vietnamese, and our mission is to assist the Vietnamese in winning the allegiance of the people to the Vietnamese government, not the United States. Hence the combat role of our forces provides the shield that permits much of the Vietnamese Army to shift its weight to the tasks involved in winning the people.

As these Revolutionary Development efforts produce areas for return to government control, nation building begins. Activities in this phase are designed to solidify support of the people for the government and demonstrate to the people in nonsecure areas the benefits that go with peace and lawful rule. This phase has no end.

I must emphasize here that US military advisors are located in all 44 provinces and more than 200 of the 236 districts. These advisors provide the greatest emphasis to the US support of the Revolutionary Development program. We also have advisors at all levels of the Vietnamese armed forces.

Let's turn now to the battlefield. As you saw in the film, the weather and terrain in which we must fight the enemy are some of the most difficult in the world. Roads are poorly developed or nonexistent. Dense jungle, mountainous areas, swamps, and rice paddies hinder movement by both vehicles and foot. The heat and high humidity are depressing and require careful maintenance of weapons and equipment. Insects and a high incidence of disease cause physical discomfort and, on top of all this, it rains six months straight out of each year.

In Vietnam the enemy is everywhere. He does not attempt to hold or fight for specific areas. He fights only when he is certain of victory, when surprised, or when his base area is threatened. He is elusive and, after initial contact, will attempt to break off as quickly as possible. He is difficult to pin down. The result is that most combat actions seldom last more than an hour.

An example of the type of operations conducted by our forces in Vietnam is Operation Cedar Falls, which took place last January and included about 10,000 US troops and more than 2,000 troops of the South Vietnamese Army. The primary purpose of this operation was base denial of the "Iron Triangle" area northwest of Saigon. This base has existed for 20 years as a main headquarters area. Large enemy forces were reported there. In addition to resettling more than 6,000 refugees, we killed 720 enemy troops and captured 213 while suffering light casualties. A large number of the VC avoided contact, but were forced to leave most of their supplies and equipment behind. As an example, the enemy lost enough rice to feed more than 10,000 combat troops for a full year. His facilities and fortifications were destroyed. The top secret enemy documents seized, along with other supplies, have helped us in subsequent operations.

But how are we doing in Vietnam? Are we at a stalemate or are we actually winning? I am happy to say that there has been a degree of progress in the last 18 months. My remarks, however, can only be viewed with cautious optimism. The road ahead is still a long and tough one, but we do see evidences of progress now that we frankly would not have thought possible a year and a half ago.

Let's look into three areas where progress can be seen: the economic, the political, and the military. As to the economic—Vietnam is a land of great natural wealth, sometimes referred to as the rice bowl of Southeast Asia. It can do well economically. No one need go hungry in Vietnam—life is easy. Given peace and enlightened leadership, Vietnam could be a good place to live. War, as always, however, disrupts the scene and causes inflationary pressures.

But we can take heart in some of the economic progress that has been made. The Vietnamese government recently took a very bold step—the devaluation of its money. Since then, wholesale prices have been kept under control, although there is some "creeping" of prices. With some leveling off of our military buildup, and the current measures that have been taken to influence the basic economy, we know now that the economic situation can be controlled. Given internal stability and protection from external aggression, Vietnam can develop economically.

In looking at the political area, we must first understand that the Vietnamese political structure is very frail. However, considerable progress in the development of a political institution has taken place since the election of a Constitutional Assembly last September. An environment of order, stability, and security for this young republic must be provided by the military. Only through the military capability to provide security can this nation achieve progress toward economic and political stability.

Let's see what progress we've made toward military success. Infiltration of North Vietnamese Army forces and supplies during 1966 was at a record rate, though it appears to have leveled off during the past few months of this year. While our air campaign has hindered this infiltration, it is still significant.

Strikes against military targets in North Vietnam have caused damage, but the enemy has been able to replace his losses at least to a level that he can meet his requirements. There continues to be no indication that we have imposed a real change in the determination of the government of North Vietnam to control and support the war.

Our major military contribution lies in assisting the government of South Vietnam to defeat the enemy forces. In this respect, battlefield losses appear to be a major factor, with friendly forces maintaining a favorable four-to-one kill ratio. Additionally, enemy large-scale attacks have decreased. This is due primarily to our combat operations in South Vietnam.

These combined operations have kept the enemy off balance. Captured documents and prisoners indicate that, although morale problems exist, they are not yet severe enough to cause mass desertions. The enemy continues to fight well and the infiltration from North Vietnam continues. We are not yet at the much talked about crossover point where we are eliminating enemy forces quicker than they can be replaced.

I have been talking about the combat in this war, but we do much more than fight the enemy. Our total military effort focuses on many activities.

It is a brigade that guards a valley while the local farmers harvest 30,000 tons of rice. It is a Special Forces medic who holds sick call for women and children who have not seen a doctor for months—even years.

It is an Army nurse who, when off duty, conducts hygiene and child care classes for the people of a village. Or it is an engineer battalion erecting a school or constructing a sewage disposal area. Finally, it was a sergeant killed on Christmas day of whom his wife said, "He was as devoted to his nation's cause as he was to us as a husband and father." These are other aspects of the military that are sometimes lost in the confusion of this war.

Now let me talk about the troops—the ground combat soldier of today. We can say that, since their arrival in Vietnam in mid-1965, the successful pattern of large-scale VC operations has ceased.

The men we have sent to Vietnam are organized into five full divisions and five separate brigade-sized formations, backed up by numerous support-type units such as artillery, engineers, and medical. As the film indicated, our policy is to use every means at our command to ship the best of America's material wealth with the soldier deploying overseas, because he is our most precious commodity.

This has not been easy to do. In addition to the long, seaborne supply line, we have had to contend with the lack of adequate port facilities that required the construction of entire new ports. You saw some examples of these in the film.

To give you some idea of the magnitude of the support effort to Vietnam, during the last six months more than three million tons of cargo were transported by water from the United States. In the last year, we received from civilian life and trained almost half a million men for the active Army.

I emphasize this matter of training because a civilian coming into the Army needs not only to learn the skills of a soldier, but must also be properly conditioned and motivated. We cannot make a soldier face death without, first, preparing him as best we possibly can. Battle is a great leveler, the ultimate in human endeavor. It brings out the man and shows him to himself faster and more effectively than any other activity in life.

We take great pride in the way we are training these men. During the past two years it has been a gratifying experience to watch them progress. They step off the bus at the reception stations, anxious and uncertain—even fearful. By the next formation, the change has already begun. They have been issued uniforms and had their first haircut. They are beginning to be identified with the Army. They quickly acquire an air of assurance, then—as the various training companies go through progressive levels of training, these men seem to grow up before your very eyes.

The payoff has been their performance in combat. Battlefield commanders are unanimous in their praise and, as you recall from our film, so is General Westmoreland.

You are wondering, I am sure, how long we will be in Vietnam. I will not even try to answer that one, but I believe these words from President Johnson give as good an indication as anything we have heard. He said:

> It may be one month, or it may be one year, or it may be several years. No one knows but the men in Hanoi. They hold the passkey to stopping the fight. They hold the passkey to the room where the peace talks can take place. Only they can decide when the objective they seek is no longer worth the cost that it carries.

This morning we have traced some of the history of the US involvement in South Vietnam and highlighted our military contribution. We have met and solved the elementary military problem of massing men and firepower quickly enough to defeat an enemy force. This has been done since the spring of 1965, when the VC/NVA were beginning to ride the crest of a wave of successes.

In addition to aid from the United States, the South Vietnamese are getting materiel support from more than 30 other free nations. Together with those nations we are committed, and our President has stated publicly that we will remain until our objective is realized.

We know that any national irresolution strengthens the enemy cause and all who give it support. Historically, America has never walked away from a fight or left a military job half done, for to do such is to quit, and it is not human nature to support a quitter, whether it be in war, athletics, politics, or any other endeavor.

With your support, your encouragement, and understanding, we will prevail in this most difficult situation which, in the final analysis, involves the preservation of freedom.

This is best summarized by the sentiments of a young wife and mother whose husband had been killed in action in Vietnam. She wrote to the Chief of Staff, US Army: “I now realize that the cost of freedom is truly a terrible one, but I can assure you that one of my deepest beliefs is that freedom must and shall prevail, whatever the cost.”

We are in Vietnam to see that the thoughts of this lady are carried out. They are not new: 191 years ago we fought another war based on those same sentiments. The preservation of

freedom is fundamental to our greatness as a nation, and with the help of God, and a national determination to do that which is necessary, we will achieve success.

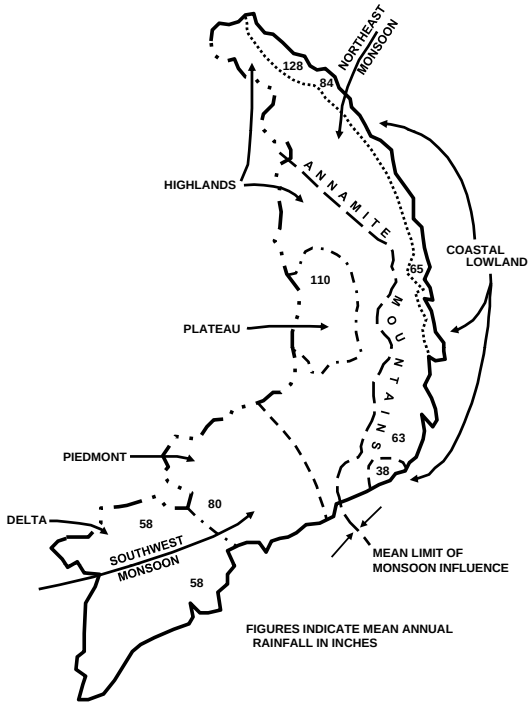
Whether we want it or not, the mantle of free world leadership has fallen upon this nation. It was described most beautifully by President Marcos of the Philippines in a recent address to our Congress: “America, the time has not yet come for you to lay down the heavy burden of leadership. For America, by the inscrutable judgment of destiny, has become the trustee of civilization for all humanity. And America cannot escape this role.”

I believe that you, the leaders of your generation—now and for the next 50 years—understand, perhaps better than I, the meaning of this. And so I feel that this is the best place for me to end my remarks. You have been a wonderful and patient audience. Thank you.

Go or No Go in Vietnam

Armor Magazine
March–April 1968
Co-Authored with Major General Arthur L. West Jr.

Last year, US Army mechanized and armor combat operations in Vietnam were the subject of extensive field evaluation by a group of over seventy field grade officers under the direction of Major General Arthur L. West Jr. Among the tasks assigned the Mechanized and Armor Combat Operations, Vietnam (MACOV) study group by the Department of the Army was a detailed evaluation of doctrine, tactics, techniques, organization, and equipment of mechanized infantry, tank, armored cavalry, and air cavalry units assigned to United States Army, Vietnam (USARV). On the ground the MACOV study group examined operations of mechanized infantry battalions, tank battalions, armored cavalry squadrons (both divisional and those of the 11th Armored Cavalry), the air cavalry squadron of the 1st Cavalry Division (Airmobile), cavalry troops of separate brigades, and the separate airborne brigade tank company. The study group produced a seven volume classified report, a one volume unclassified report, a training film of combat footage taken during the evaluation period, and a training text for air cavalry operations. Indications are that many on the Armor leadership team have not had the opportunity to examine these reports. Therefore Armor *will present a series of articles setting forth highlights of the study considered to be of value to its readers who are, or may be in the future, serving in Vietnam.*—The Editor [of *Armor* Magazine].



The character of the war in Vietnam varies a great deal from region to region, reflecting terrain, weather, enemy, and other factors individually peculiar to each of the four Corps Tactical Zones (CTZ). There are yet some rather widespread misconceptions about the effects of weather, terrain, and the enemy on the utility of mechanized equipment in Vietnam. Hence any study of military operations, especially those involving armor or mechanized units, must begin with a description of the more important factors of the environment which have an effect on the employment of these units.

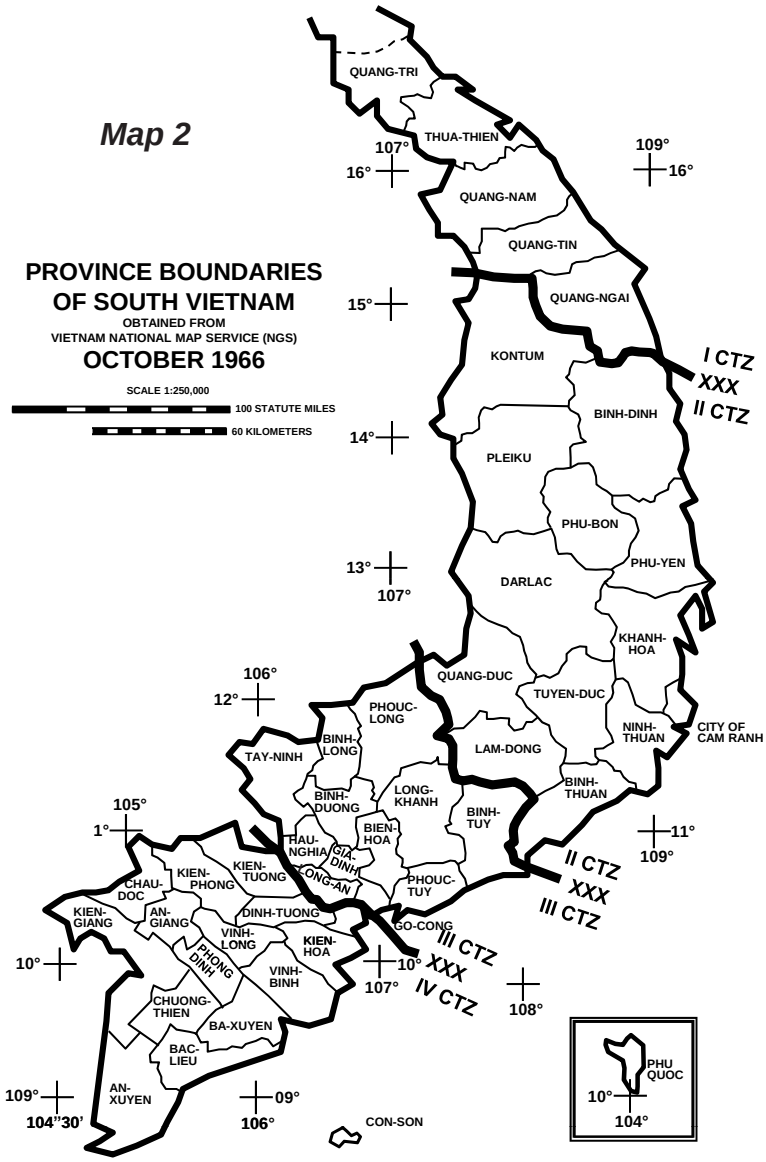
Forty-five miles wide at the 17th parallel, South Vietnam has almost 1,500 miles of South China Sea coastline to the east and about 950 miles of ill-defined border with Laos and Cambodia to

---

Reprinted with permission from *Armor* Magazine.

the west. The first map shows the geomorphic regions of South Vietnam. Also shown are mean annual rainfall figures for some selected areas.

The climate of Vietnam is dominated by two monsoon seasons—the summer or southwest monsoon, and the winter or northeast monsoon, each characterized by prevailing winds from the directions indicated by its title. The Annamite Mountains generally form the dividing line of monsoonal influence. The southwest monsoon, beginning in May, lasts until September, with a transition period as late as December, and brings onshore southwest winds. The warm moisture-laden sea air rises as it moves inland and pushes against the highlands. As it cools its moisture condenses into heavy highland rainfall, with lesser amounts falling to the south and southwest. The northeast monsoon begins in September, is firmly established by November, and tapers off into February after bringing heavy rains to the northeast coast.



Trafficability is influenced by these monsoons, as well as by landforms—delta, paddy, and mountain, and by vegetation patterns. Technically, trafficability in Vietnam presents a bleak picture for vehicular movement which is not borne out by experience. The MACOV study approached trafficability from a standpoint of "going"; that is, where experience shows tracked vehicles have gone and can go with organic support. Trafficability studies tend to be conservative; the more favorable MACOV estimate generally reflects actual capability and the general optimism of commanders who have used tracked equipment with normal engineer and other movement support.

Province boundary outlines and Corps Tactical Zone boundaries are shown on Map 2 as a basis for further discussion of going.

I Corps Tactical Zone

The five provinces of I CTZ include about 17 percent of South Vietnam's land area and 15 percent of the population, most of whom live in a narrow coastal strip of rice-growing land no more than fifteen miles wide. The hinterland of this region is an area of rugged mountains, rocky and precipitous slopes, sharp crests, and deep narrow valleys. Vegetation, some of the densest in the country, is primarily tropical evergreen forest. The lowland coastal plain is an area of sandy beaches and extensive rice fields. Monsoon rains begin in September, peak in October-November, and slacken off into February. February through August are dry months. Soils are porous, and heavy rains do not seriously inhibit going after a few sunny days. Class 20 bridges abound. US Marine Corps units, following Marine Corps doctrine, tactics, and techniques, have concentrated on population stability in this area and on operations along the Demilitarized Zone (DMZ) to counter enemy infiltration from the north.

Maps 3 and 4 outline the MACOV evaluation of going in this area. In the "GO" areas for tanks, movement rates average about 8-10 kilometers per hour (KPH) in the dry season, and drop to 4-5 KPH during the wet season except in the highlands, where tank movement rates seldom exceed 1 KPH in any event, and wet season going is out of the question. In areas marked "GO" for APC, dry season movement rates of 10-12 KPH drop off to 4-5 KPH during the wet season. Although the APC enjoys better going in the highlands during the dry season than does the tank, like the tank movement in the area during the wet season is not possible.

II Corps Tactical Zone

Almost 45 percent of the land area of South Vietnam is in II CTZ, and in its 12 provinces live about 2.5 million of the country's 17 million people, over two-thirds of these in the coastal provinces. II CTZ is a broad area with extreme terrain variations ranging from heavily populated coastal rice plains in the east through the central belt of rugged Annamite Mountains, covering about two-thirds of the zone, to thickly forested highlands in the west.

The coastal lowlands here are traversed by a series of rivers flowing from the Annamite Mountains to the sea, with wide, flat-floored valleys, marshes, and rice fields. The Annamite Mountains form a crescent anchored on Laos in the north and on Cambodia in the south and feature steep boulder-covered slopes, deep narrow river valleys, and dense tropical evergreen forest. The plateau region extending from the mountains west to the Cambodian border is an area of rolling terrain, some cultivated fields, high grass, bamboo, and secondary or scrub forest growth.

Influence of the monsoon in II CTZ is largely determined by the landforms just described. Southwest monsoon rains fall on the plateau and in the western half of the mountains. Its moisture gone, fallen as rain, the air mass rises over the mountains, then descends on the other side, bringing dry air and clear weather to the eastern mountains and coastal lowlands. By a reverse process, northeast monsoon rains fall on the coastal lowlands and eastern mountain slopes, leaving the western part of the zone relatively dry. In addition to the Viet Cong, II CTZ hosts strong North Vietnamese Army (NVA) units which gain access along infiltration routes through Laos and Cambodia. Enemy and terrain combine in this area to present a major requirement for mobility and friendly forces.

Maps 5 and 6 sketch going in this area as seen by MACOV. Dry season movement rates for tanks vary from 10-12 KPH in the lowlands to not more than 1 KPH in the mountains and give way to 15-25 KPH on the plateau. These figures drop to 4-5 KPH for lowland movement, zero in the mountains, and 8-15 KPH on the plateau during the wet season. With minor variations the same conditions generally apply to movement of the M113 in this area.

III Corps Tactical Zone

With eleven provinces, III CTZ encompasses about 18 percent of the land area and about 25 percent of South Vietnam's people, concentrated primarily in and around Saigon, the political heart of the Republic. The land is an extensive piedmont region bounded by a small segment of highland on the north, by coastal lowlands with flat sandy beaches, wide valleys and rice fields on the east and southeast, and by portions of the Mekong Delta on the south. The Rung Sat Special Zone, southeast of Saigon, is a dense, salt water mangrove swamp, inundated year-round, with interior movement generally restricted to watercraft. The main shipping channel to the port at Saigon traverses the Rung Sat.

The wet season in III CTZ begins in May and lasts through November, but going for tracked vehicles does not deteriorate seriously until late July or early August. Maps 7 and 8 show the MACOV going estimate for this area. In the dry season tanks can make 15-20 KPH in the open and 2-4 KPH through jungle. The monsoon reduces this capability to 8-15 KPH in the open and not more than 2 KPH in jungle. M113 movement rates are but slightly better than for tanks, with the exception that the M113 can move about in swamps, most importantly in the wet season. Main force Viet Cong units have here established a complex structure of underground facilities and installations in base areas, and they enjoy a deeply entrenched political infrastructure.

IV Corps Tactical Zone

Almost one-fifth the land area and one-third the population of South Vietnam are in the fifteen provinces of IV CTZ—the famous Mekong Delta. The Delta is an extensive, flat, poorly drained river plain, interlaced by an intricate network of rivers, streams, and canals. Rice paddy, swamp, and marsh predominate, with mangrove swamps along coasts and major streams. Rainfall is not too heavy, the flooded condition of the area resulting more from controlled flooding for rice cultivation than from monsoon floods. The U Minh Forest is a fresh water mangrove swamp in which movement is restricted to watercraft and vehicles with swim capabilities. The Nam Can Forest is a salt water swamp similar in other respects to the U Minh. The Plain of Reeds is a perpetually inundated area blanketed with reeds and grasses up to four meters in height.

Maps 9 and 10 show MACOV evaluations of going in IV CTZ. While tanks can move about during the dry season, such movement as is possible requires extensive engineer support due to the weak bridges and extensive canal network. Wet season movement for tanks is, of course, out of the question. The M113 can move about with relative freedom assisted by ground anchors, capstan kits, push bars, and other field expedients to aid in negotiating paddy dikes and canals. APC movement in this area is generally easier in the wet season when high water levels reduce the obstacle potential of banks and dikes. Clay-base soils on paddy floors provide sufficient tractive base for M113 going under high water conditions at rates of about 4-6 KPH.

IV CTZ has been primarily an area of operations for the Army of the Republic of Vietnam (ARVN), although US units are now entering into a joint effort in the area. The dense population, extensive paddylands from which come the bulk of South Vietnam's rice crop, the heavy

mangrove swamps, and an extremely complex enemy infrastructure make Delta operations uniquely different from those in any other zone.

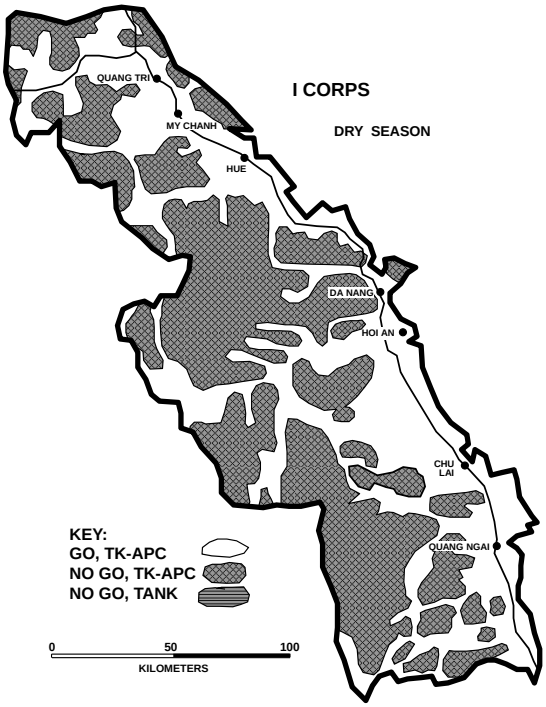
Hints to Keep Going

Red clay soils, common to the Tay Ninh area of III CTZ, on the plateau in II CTZ, and found locally elsewhere, tend to break down when wet, making tracking and sharp turns with tracked vehicles unwise practices. Armor-mechanized unit crews frequently test going in these areas using a push rod (such as the rod found in a box of tank ammunition) to make a few test holes in the ground surface. If standing surface water drains through these holes, clay is usually present beneath.

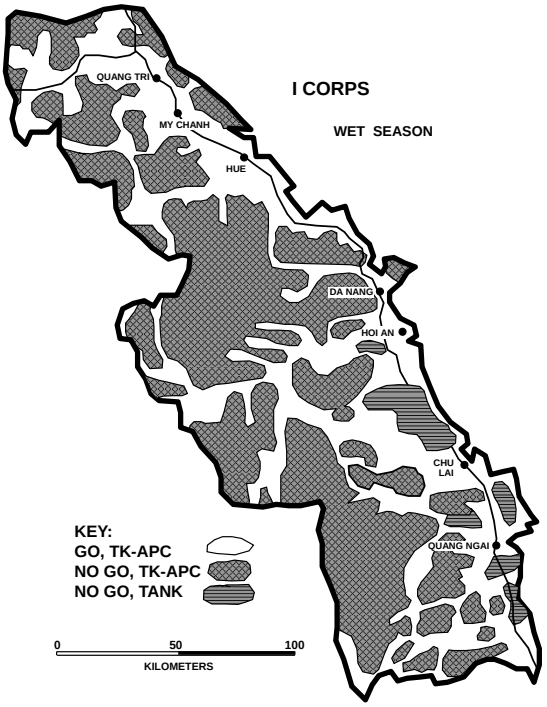
The water buffalo is a good indicator of going; he does not go where he cannot stand on the bottom. Generally, if the bottom will support the buffalo, it will support the M113.

The Verdict—Mostly Go

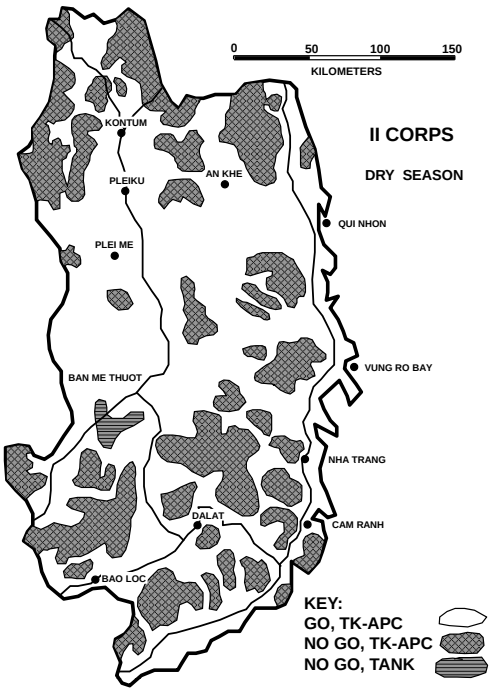
One striking feature of US Army operations in Vietnam is that in a tropical land with high mean annual temperatures, a monsoon climate, extensive inundated areas, and a rice cultivation agriculture, mechanized equipment enjoys a much greater utility than many thought possible at the outset and greater than previously existing weather and terrain data would indicate possible. This fact is highlighted by the MACOV finding that tanks can go with organic support in about 60 percent of South Vietnam during the dry season and 45 percent during the monsoon, while the M113 can go in about 65 percent of the country year-round.



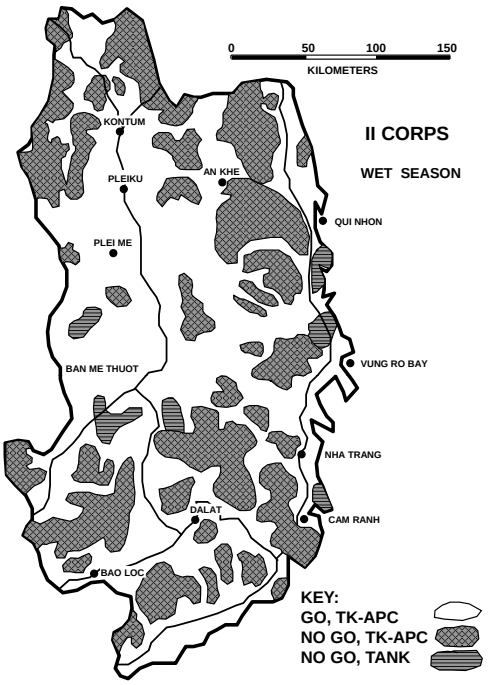
Map 3



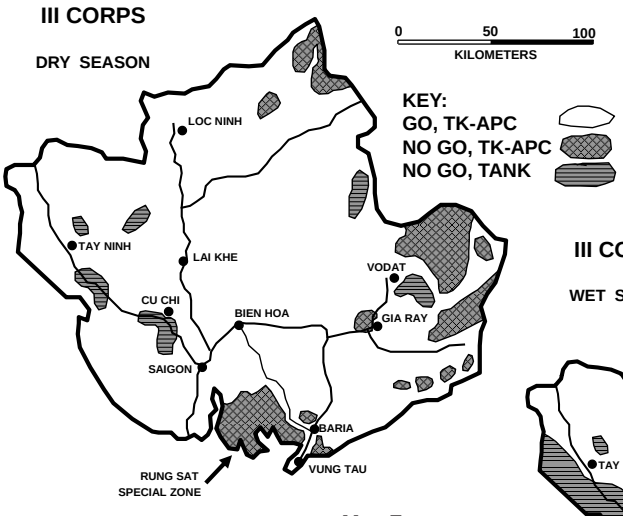
Map 4



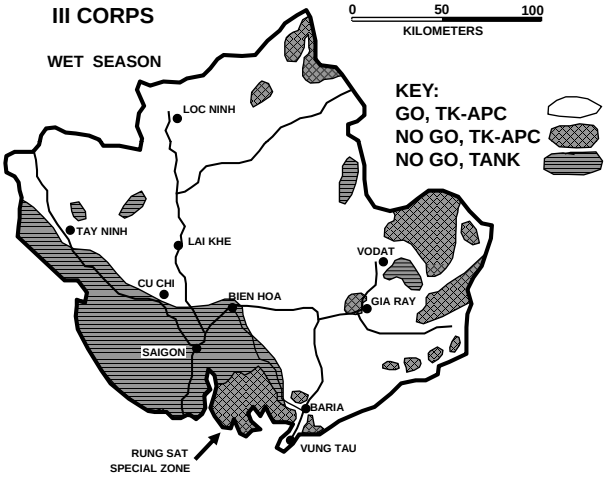
Map 5



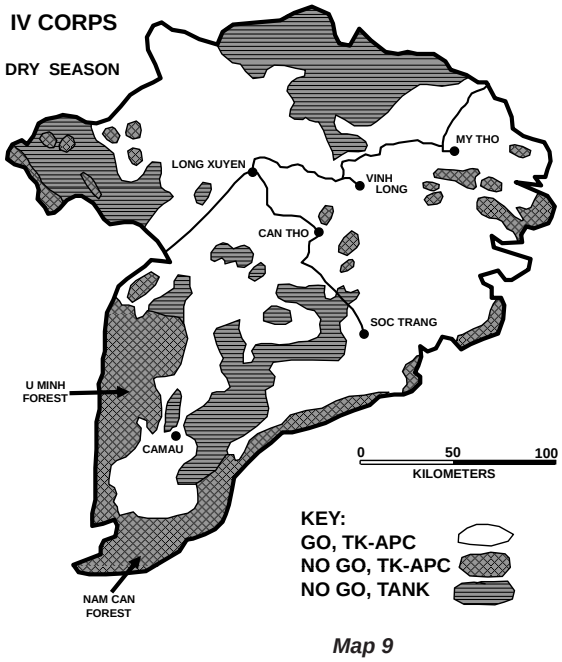
Map 6



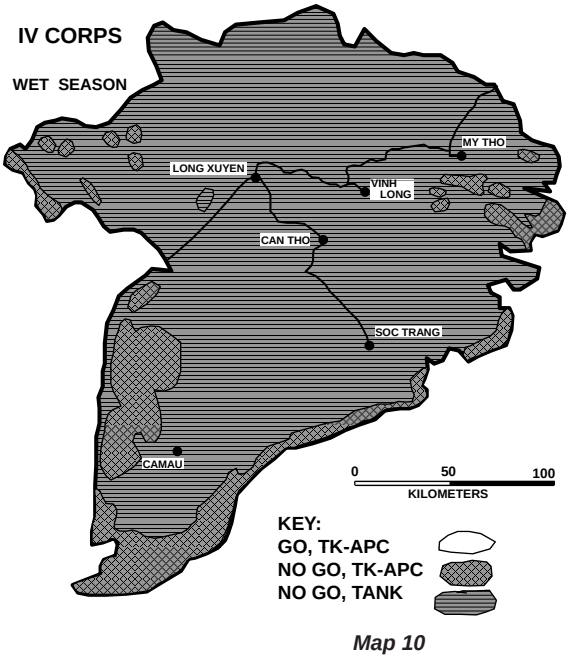
Map 7



Map 8



Map 9



Map 10

Improved Organization and Equipment for Vietnam

***Armor* Magazine**
May–June 1968
Co-Authored with Major General Arthur L. West Jr.

. . . In this article the authors summarize the high points of the MACOV team findings on organization and equipment. ARMOR has learned from the Pentagon that this discussion remains valid today and that many of its recommendations will become realities about the time that this is being published. In addition to those points treated here, armor and mechanized infantry battalions in Vietnam are being reorganized to include separate headquarters and service companies.—Editor [of *Armor* Magazine.]

Organization

Most armor-mechanized units in Vietnam were found to be organized under the "E" series Tables of Organization and Equipment (TOE) as opposed to the later and more up-to-date "G" series. In addition, there were in effect considerable modifications to TOE, either by local command directive for implementation within the command or by the more formal process of application to Department of the Army for a Modified TOE (MTOE). Incumbent armor-mechanized unit commanders, officers, and key noncommissioned officers were asked to participate in the MACOV program to gather all data relating to organization and equipment requirements for operations in Vietnam. The meld of all these factors and considerations produced MACOV recommendations for organization and equipment changes to improve the combat potential of armor-mechanized units in Vietnam. Of course, application of these recommendations to the Army in Vietnam depends on approval by Department of the Army, and application of the recommendations to the Army worldwide must be the subject of further evaluation. Most of the suggested changes reflect a kind of war and a kind of enemy we may encounter again in other emerging areas. Their long-term impact on Army organization and equipment development should therefore be carefully evaluated.

A number of general changes applicable to all, or to several, armor-mechanized units for employment in Vietnam were suggested by the MACOV study:

- Conversion to the more modern "G" series TOE will authorize armor-mechanized units in Vietnam a good number of the personnel and equipment changes already made by local command directive, or by MTOE action, and will in addition standardize these organizations, facilitating implementation of The Army Authorization Documents System (TAADS) prescribed by Army Regulation 310-44 as modified by DA Circular 310-44, 5 November 1967.
- Extensive civic action programs require addition of an S5 (Civil Affairs) section to battalion/squadron and regimental staffs.
- Battalion/squadron staffs require an assistant S2 to permit round-the-clock operation of command posts and operation centers and to coordinate collection of intelligence, which in Vietnam is available from a wide variety of sources.
- Another clerk is required in battalion/squadron S1 sections to handle the administrative workload.

Reprinted with permission from *Armor* Magazine.

- Battalion/squadron supply sections normally perform direct exchange clothing operations and ration breakdown tasks, which require two additional enlisted personnel in S4 sections of these units.
- In units where the M113 has been substituted for the M114 as a scout vehicle, two additional crewmen per vehicle are required to man the weapon kits mounted on the M113 and make the vehicle a fighting track.
- In units using the 5-ton truck as a cargo carrier, half the 5-tons should be replaced by the M548 full-tracked cargo carrier to afford a cross-country resupply capability in forward areas away from base camps.
- Mechanized infantry and armored cavalry units need a lightweight vehicle-launched bridge, preferably M113 mounted. Provision for an AVLB section equipped with such a lightweight launcher should be made in headquarters and headquarters companies/troops of those battalions/squadrons.
- Wheeled wreckers need assigned full-time driver-operators to replace mechanics who now operate those vehicles as an additional duty.
- Communications platoons require additional switchboard operators to permit round-the-clock switchboard operations.
- Ground surveillance radar sections need to be reorganized and reequipped, substituting the AN/PPS-5 radar for both the AN/PPS-4 and AN/TPS-33 sets, each of which has proved less than operationally satisfactory in Vietnam.
- Flamethrower sections, consisting of the M132 (M113-mounted) flamethrower, serviced by tracked service units when these are available, should be included in each battalion/squadron TOE.

Mechanized Infantry Battalions

In mechanized infantry battalions the most pressing requirement is for a fourth maneuver element to provide the organizational flexibility demanded by operations in Vietnam. The composition of this fourth maneuver element became a major MACOV consideration. Two organizations were developed: one with a headquarters and headquarters company and four rifle companies; the other with a headquarters and headquarters company reduced considerably in strength, three rifle companies, and an armored cavalry troop. In the latter organization, the antitank, mortar, and reconnaissance functions normally performed by platoons in the headquarters and headquarters company are all performed by the armored cavalry troop, permitting reduction in headquarters company strength.

The four rifle company battalion has the advantages of: (1) adding more fighting infantry to the present organization without a concomitant increase in command-control strength; (2) adding to the present organization another subordinate unit identical to those already assigned and requiring few if any changes in techniques of employment; (3) keeping the variety of assigned equipment types in the battalion at a minimum; (4) maintaining cross-country mobility, indirect fire support by the heavy mortar platoon, and other attributes of the present battalion. Disadvantages are: (1) tanks, normally required for most operations, must be attached from other units, thus dissipating the limited tank strength of the theater force; (2) insufficient heavy vehicles (tanks) for penetrating jungle too dense for the M113; (3) limiting large caliber direct fire weapons to the 90mm recoilless rifle, which is generally considered cumbersome and somewhat too heavy for dismounted operations of any duration in Vietnam.

The three rifle company and one armored cavalry troop battalion overcomes many shortcomings of the four rifle company battalion and at some saving in personnel resources. Among the advantages of this organization as they were seen by the MACOV study are: (1) improved flexibility in organization for combat afforded by the organic presence of the armored cavalry troop; (2) organic tanks capable of penetrating heavy jungle; (3) an organic large caliber direct fire capability in the tank gun; (4) considerable increase in firepower with 87 fewer personnel; (5) combining under a single command the combat support elements normally found in the headquarters company; (6) organic tank support, obviating the need for tank attachment and permitting greater flexibility in theater employment of tank battalions; (7) providing an organic force ideally suited to line of communication security missions, which is a continuing requirement likely to increase as stability operations progress.

Whatever its composition, the changes already described as being applicable to all armor-mechanized units are suggested for mechanized infantry battalions. In this particular battalion, evaluation of the maintenance function suggests formation of a company maintenance section for the headquarters company, separating that function from the battalion maintenance platoon. In the rifle companies themselves, suggested changes include: (1) deletion of 106mm recoilless rifles from weapons platoons and retaining the M125 81mm mortar; (2) deletion of weapons squads and organization of rifle platoons into four rifle squads—a frequent innovation in many units; (3) retention of one 106mm recoilless rifle per platoon mounted on an M113 for direct fire at longer ranges.

Armor Battalions

Like their infantry counterparts, tank battalions need a fourth maneuver element. In addition, there appears to be a need to separate the headquarters and headquarters company into a headquarters company and a separate service company. In addition to changes common to all battalions/squadrons, the tank battalion in Vietnam requires the following in headquarters and service companies: (1) an additional mortar forward observer team for the fourth line company; (2) an additional welder and welding set, mounted in an M548 for on-site field welding; (3) sufficient armored ambulances to provide one per line company; (4) two additional company mess teams to support the fourth tank company and the service company.

In tank companies the following changes are suggested: (1) a dozer kit for one tank in each platoon—a reflection of the frequent jungle-clearing requirement; (2) addition of an M113 for use as a company command post; (3) a turret mechanic assigned to the company; (4) substitution of the M79 grenade launcher for the caliber .45 submachine gun on each tank.

Divisional Armored Cavalry Squadrons

In headquarters and headquarters troops of divisional armored cavalry squadrons, MACOV evaluation suggested, in addition to changes common to all battalions/squadrons, the addition of one welder with kit mounted in an M548 (as in the tank battalion) for on-site field welding. In armored cavalry troops, mention has already been made of the requirement for two additional crew members in scout vehicles where the M113 replaces the M114. In addition, MACOV evaluation suggests substitution of the 81mm mortar for the 4.2-inch mortar in these units because of the minimum range restrictions of the latter weapon and the fact that the forward firing capability of the M125 81mm mortar carrier makes it a superior performer.

Air cavalry troops in these squadrons are recommended for reorganization under the new "G" series TOE for the air cavalry troop of the air cavalry squadron, airborne division (17-78G). This organization provides an air cavalry antitank rocket platoon rather than the aero-weapons section and eliminates light and heavy scout sections, replacing them with four aero-scout squads. Additional door gunners and avionics personnel are provided. In most cases these are now present by MTOE. Replacement of the two UH1B model helicopters in the supply and maintenance section with the UH1D aircraft is suggested to provide additional airlift when required.

Armored Cavalry Regiment

In the 11th Armored Cavalry M113s have been substituted for M114s in scout sections and tank sections have been replaced by two M113s, forming in fact an additional scout squad. Except in the mortar squads, all M113s are of the ACAV configuration already described. Because of the minimum range restrictions of the 4.2-inch mortar, it is not uncommon to find mortars centralized at troop or squadron level. Because of its more favorable minimum range, the 81mm mortar is suggested to replace the 4.2-inch in these squads.

The regimental headquarters and headquarters troop requires some additional personnel for awards and decorations and casualty reporting functions.

As was the air cavalry troop of the divisional cavalry squadron, the air cavalry troop of the regiment is suggested for reorganization under TOE 17-78G, modified but slightly by addition of a seven-man mess team.

Common changes already suggested for all battalions/squadrons apply to the organic squadrons. Tank companies should be identical to those suggested for tank battalions. Field artillery batteries should be reorganized under the "G" series TOE with the addition of a recovery vehicle and an M113 for use by the battery commander as a command post.

Air Cavalry Squadron, Airmobile Division

A revision of the temporary or "T" series TOE for this squadron to be published as a standard series TOE is based on recommendations of the 1st Cavalry Division, USARV, and USARPAC.

Major changes in the air cavalry troops of this squadron include: (1) addition of a series platoon; (2) deletion of the maintenance section from troop headquarters; (3) organization of antitank and rocket squads; (4) addition of two scout sections to the aero-scout platoon.

MACOV evaluation of the cavalry troop of this squadron developed conflicting requirements for retaining the present wheeled vehicle configuration or for mechanizing the troop by addition of M113. All factors considered, the wisest course of action seemed to be to retain the wheeled equipment and to provide armor-mechanized capability from outside the division when it is required.

Cavalry Troop, Separate Airborne/Light Infantry Brigade

Cavalry troops of separate brigades in Vietnam were found to be organized under one of three different TOE, all with extensive modifications. All troops were wheeled vehicle equipped and experience showed their employment varied considerably from mission to mission. One such troop has seen primary employment as an infantry company, while another has been habitually

employed as an airmobile company. The majority of the data collected indicated a requirement to convert to tracked vehicles in these troops in order to provide the cross-country mobility now lacking and to increase firepower. It is therefore suggested that these troops should be organized as are the troops of the 11th Armored Cavalry—that is, with M113 ACAV replacing the M114 in scout sections and two M113 replacing tanks in tank sections.

Equipment

In these final paragraphs we will highlight only the most significant of a number of minor equipment modifications appearing as requirements to the MACOV study group.

The M1 cupola in this tank is difficult for the tank commander to use. The M2 caliber .50 machinegun in this cupola is hard to load and operate. Since tank commanders' hatches are seldom closed in Vietnam, most units have removed the M2 machinegun from the cupola, mounting it atop the turret forward of the commander's hatch. In most cases this is done by shortening the legs of an M3 mount and welding it in place. This permits easy access to the gun for loading and operating and allows a longer belt of ammunition to be fired without reload. The M19 cupola, housing the M85 machinegun, would afford a significant improvement in the machinegun capability of the M48A3 tank and evaluation suggested replacement would be in order.

Many units in Vietnam have modified one or more tanks by installing a cutting bar, welded from fender to fender across the front of the tank, as an aid to brush cutting when traversing jungle. This cutting bar is usually fashioned from a dozer blade tip. It has proved effective in clearing landing zones, access routes, and trails through dense vegetation. Most tank commanders expressed the view that all tanks except those equipped with the dozer kit should have this modification applied.

Armament for the M113 has been described in the discussion of the ACAV vehicle. Study confirmed a requirement to up-gun the M113, even in its ACAV configuration. As a consequence it is suggested that M2 caliber .50 machineguns on half the combat tracks in Vietnam be replaced by a forward-firing high velocity 40mm grenade launcher or an equivalent weapon system.

Belly armor on the M113 will not sustain detonation of many of the larger antitank mines used by the Viet Cong. Most units line the deck of crew and driver compartments with sandbags to reduce mine damage and personnel casualties. To further reduce mine damage, USARV has initiated installation of titanium armor plate kits beneath driver and crew compartments on the M113. Should this prove a successful expedient, and not seriously degrade the swim capability and agility of the track, it is suggested for wider application.

A boom hoist attached to the front of the M113 has been improvised for removal and replacement of major automotive assemblies and to make possible using the M113 as a recovery vehicle in areas where terrain or going prohibit use of the M578 light recovery vehicle.

The need for a short gap-spanning capability in mechanized infantry battalions suggests a requirement for a vehicle-launched bridge for the M113 rather than to burden mechanized infantry units with the heavier tank chassis-mounted AVLB.

A small, lightweight dozer kit has been applied to the M113 by some units as an aid to traversing paddy dikes and canals. Selected units employed primarily in Delta and paddy areas need to be equipped with this kit. Capstan kits and other expedient devices need to be standardized and

made available for issue to units when missions take them into areas requiring extensive aids to movement.

Sum and Substance

The single most striking feature of the entire survey of armor-mechanized operations in this strange war was that our armor-mechanized units and their equipment enjoy a much greater utility in Vietnam than many thought possible at the outset. This reflects most favorably on the versatility and flexibility of our organizational principles and on our equipment, the more so since neither the organizations nor the equipment were designed primarily for the kind of war which we are fighting. Even more striking, however, is that again in this war the prime factor is the imagination, the inventive genius, and the persistent determination of the American soldier.

Armor in an Area War

***Armor* Magazine**
September–October 1968
Co-Authored with Major General Arthur L. West Jr.

Doctrine

Doctrine is "that which is taught." Given this, one can isolate some highlights from armor-mechanized experience in Vietnam which generally affect what has traditionally been taught about tactics and techniques for armor-mechanized operations. Current doctrine, drawn from World War II and Korean experience, is not defunct. However, it does require some expansive application of proven principles to adapt to this new kind of war we find in Vietnam and which, given the world today, we may face another day on other fields. First, some broader principles, then some minor tactics of more than passing interest.

The war in Vietnam is an area war—the fight is in every direction. Our doctrine normally describes linear battle areas, with fronts, boundaries, lines of contact, places where the enemy is, and others where he is not. For experience in area war the US Army must hark back to the nineteenth century Indian Wars. As a consequence we may have been slow to recognize formally the twentieth century reappearance of area war. . . .

The striking lesson of Vietnam is that our mechanized equipment enjoys far greater utility in fundamentally hostile physical surroundings than many had thought possible. Conservatively drawn terrain estimates, an influence toward overcaution, are in turn offset by imaginative planning and inventive application of field expedients to achieve rather extensive mobility with mechanized gear. The lesson—don't underestimate the potential of mechanized-armor units in underdeveloped areas where the physical landscape appears at first blush to be hostile to their presence.

The enemy contributes his peculiar flavor to the Vietnam War, suggesting some new doctrinal considerations. On the one hand, North Vietnamese Army (NVA) units are an almost conventional enemy, fighting in units and in more readily recognized patterns. The Viet Cong (VC) are another matter. Entire villages may be organized to support with food, clothing, and other supplies one or more main force VC battalions. Villagers are indigenous, fighting personnel are generally outsiders. Finally, there is the guerrilla-farmer or laborer by day, terrorist by night, living off his land and his family. Whether VC or NVA, regular or nonregular, the enemy apparently plans in detail, to include rehearsals. Frequently, however, some rigidity seems to characterize execution. Reserves are often held as a getaway force not committed to a fight. The enemy seldom attacks without sensing victory through numerical disparity or surprise. Hence ambush is his preferred tactic, the night his favorite medium, and the landscape his refuge when confronted by superior forces and fires. With relatively unsophisticated firepower, the foe in Vietnam has made superb use of battlefield debris for fabricating mines and booby traps, of Soviet antitank grenade launchers (RPG2 and RPG7), [and] recoilless rifles and rockets launched from crude but efficient platforms. The doctrinal lesson—don't sell your irregular enemy short by characterizing him as a rude bumpkin. He is in truth a clever fellow

---

Reprinted with permission from *Armor* Magazine.

of considerable resourcefulness. The doctrinal sweep must be broad enough to include him in all his roles—regular and irregular, organized and guerrilla.

Missions assigned US forces in Vietnam contribute to restoration of population and resource control by the government of South Vietnam and the subsequent progress of nation building. In furtherance of this broader goal, US forces in Vietnam conduct offensive operations over wide areas with units from platoon to several divisions in size. Logistical support comes from semipermanent base camps which are in turn supported from logistical base enclaves near deepwater ports. Tactical operations usually target the enemy rather than terrain. Base camps and logistical installations must be secured, normally with combat forces.

Enemy action may come from any direction at almost any time. Units deploy to any sector on short notice. Supporting fires are required all around. Fire bases must be secured, reaction forces set aside for contingencies, and ground lines of communication opened, cleared, and secured.

Area war has enlarged our mission vocabulary. Search and destroy operations find and destroy enemy installations, forces, supplies, and equipment. In classic terms search and destroy is an area reconnaissance, hopefully resulting in a meeting engagement and subsequent generation of sufficient combat power to destroy the enemy. Clear and secure operations are more like classic attacks to secure terrain, clear an area of an enemy, and secure it against his return. Clear and secure operations are of more sustained duration than search and destroy and emphasize security of population and resources.

Security missions—convoy, route, base, and area—receive proportionately more attention in area war since every foray from a base, whatever its purpose, requires security, as does the base itself. Armor-mechanized forces are of course ideally suited for security missions and peculiarly well suited to the reaction force role. This does not say that doctrine must necessarily change, only that what is taught should expand naturally to recognize these lessons.

Doctrine for mechanized infantry currently emphasizes the personnel carrier as a means of transporting infantry to battle. In Vietnam, mechanized infantry units often use the carrier as a vehicle from which the infantry fights, dismounting to rout the enemy from tunnels, bunkers, and holes.

To improve fighting vehicle capabilities, M113s in Vietnam have been equipped with a variety of devices, including gun shields for caliber .50 machineguns, side-firing M60 machinegun kits, [and] sandbags or boiler plate parapets outboard of the cargo hatches so that infantry may fire over the side. Scout section M114s in armored cavalry units have been replaced with M113s, which scout sections and squads use as they would a scout vehicle, that is as a fighting track. Tanks in the armored cavalry platoons of the 11th Armored Cavalry have been replaced with M113s equipped with an armored turret for the commander and two side-firing M60 machineguns.

This armored cavalry assault vehicle (ACAV), well documented in the pages of *Armor*, is similarly a vehicle for mounted combat. This use of the M113 is made possible by an absence of significant enemy antiarmor capability, a pattern we may expect to see repeated in combat in developing areas against a relatively lightly armed enemy. Hence it is only prudent that doctrine include mounted combat for infantry and use of the M113, or its successor, as an assault vehicle.

Armored cavalry squadrons in Vietnam are more frequently employed as combat maneuver battalions than in their doctrinal role as forces for reconnaissance, security, and economy of force. Armored cavalry is an ideal force when rapid reaction, swift movement, high volume firepower, and aggressive pursuit are required. The ready-made combined arms team organization of armored cavalry makes it even more attractive when quick reaction demands limit time available to tailor a task organization for combat. Doctrine for armored cavalry should emphasize that it may be employed as a combat maneuver force at least as often as in more conventional roles. Vietnam experience also suggests another look at the doctrinal basis of assignment for armored cavalry units. Is a troop per brigade, squadron per division, regiment per corps sufficient for operations in developing areas?

One air cavalry squadron has been employed in Vietnam since 1965. Recently two more have been committed there. All have been committed almost continually to combat operations in reconnaissance, security, and economy of force roles, as well as offensive and defensive combat. . . . Doctrine for this new medium is still aborning—that which is taught must come abreast of new developments almost daily.

Doctrine currently favors the use of infantry as a pressure force and armor as an encircling or exploiting force. The helicopter has wrought some change to this principle in Vietnam. There armor moving rapidly on the ground becomes the pressure force, while infantry, airmobile at ninety knots, is an ideal maneuver force. It is recognized that absence of a sophisticated enemy antiair threat makes this possible. However, the facts indicate a need for extensive application of current experience to developing doctrine which recognizes the potential of air cavalry in emerging areas.

Doctrinally, dismounted infantry should lead armored vehicles through wooded areas. The enemy's extensive use of antipersonnel mines and booby traps in Vietnam, and his propensity for jungle ambush, have caused American units to reverse this procedure. Now tanks and personnel carriers lead infantry through the jungle, breaking trail, destroying antipersonnel devices, clearing a path. The infantry follows to destroy enemy installations, equipment, and supplies. Thus there has developed a reversal of traditional roles for armor and infantry, a fact which should again stimulate imaginative expansion of doctrine.

Organization for combat by cross-attachment is widely practiced in Vietnam. Indeed, were it not for the inherent flexibility of the ROAD organization, an inability to readily organize for combat based on mission-enemy-terrain-troops available might have seriously impaired our ability to adapt to Vietnam's unique fighting conditions. Continued emphasis on this aspect of doctrine should make this practice second nature to small unit commanders.

Command, Control, Communications

Absence of landmarks and dense vegetation make accurate position determination and land navigation difficult in Vietnam. Control of unit movement from a helicopter can help. Artillery marking rounds (smoke, air burst, illuminating), vehicular compasses and lensatic compasses in conjunction with dismounted radio sets all have been used to good advantage. A wide variety of methods and material should be taught and developed to help those in the field with this problem.

The helicopter enables the commander to move about rapidly as never before. However, the airborne command post tends to cost the commander his "feel" for the ground war. One squadron commander reported 10 percent of his time spent in his jeep, 40 percent in his command track, and the remainder in the air in a calculated attempt to avoid this problem.

Commanders must resist continually the temptation to oversupervise subordinates from a heliborne CP. There is always a danger that junior leaders could come to depend on receiving detailed guidance and thus lose that initiative which is so essential to successful combat operations. The chain of command must at all times be respected and strengthened.

Intelligence

Accurate, timely intelligence is a major problem in Vietnam. Routinely US units conduct day and night patrols. With characteristic elusiveness the enemy frustrates most routine patrol efforts. Consequently specialized patrol operations have become the rule rather than the exception.

Long-range reconnaissance patrols (LRRP) frequently are used to provide advance information for long-range planning. Saturation patrolling, a sort of area reconnaissance with multiple patrols, is widely practiced. In other situations, checkerboard patrolling involves dividing battalion areas of responsibility into a pattern of smaller areas to which platoons are assigned for operations of several days' duration. On contact the battalion directs adjacent platoons to converge, establish ambushes, or move to blocking positions. Random platoon movement enables a limited force to deny the enemy a reasonably large area. In a battalion operation one company, preferably airmobile, provides an adequate reaction force. Stay-behind patrols are used to trap VC foragers who frequently enter an area after US forces leave.

Finally, local informant nets, police, village officials, and enemy returnees are sources of information exploited to good advantage. In this most difficult informationless sort of war, new ways of seeking and finding the enemy must be sought and taught.

Firepower

Most kills by armor-mechanized units are the result of machinegun and tank gunfire at close ranges. Rarely do fields of fire require or permit use of the long-range capability of tank cannon. Ninety percent of the tank gun ammunition fired is canister. This is used to destroy antipersonnel mines and booby traps and knock down foliage, as well as to kill the enemy. Fire support units in Vietnam must deliver fires on short notice in any direction, positioning guns for direct or indirect fire through 6400 mils. Security of fire support bases by supported units requires combat forces to be held out for the security mission. By positioning reaction forces and command-control elements with the fire support base, the drain on combat forces required for security can be held to a minimum.

Tactical air fires are normally controlled by forward air controllers operating from light observation aircraft. Dense foliage and generally inaccurate position location combine to make air fire control from the ground virtually impossible. The abundance of US fire support makes fire support coordination more important than ever before, and the presence of helicopter gunships adds yet another dimension to the fire support coordination problem. Organic indirect fire support, 4.2-inch mortars of armor-mechanized units, are usually grouped at troop or

battalion/squadron, possibly even division level, since the minimum range of this weapon makes difficult its use directly in front of perimeters in which it is positioned.

Movement

Battle drill and combat formations are important parts of armor-mechanized unit SOP in Vietnam, especially in reacting to ambush. The herringbone formation . . . is used to bring fire on the enemy when forward movement has been stopped and deployment off the road or track is not practicable. Wheeled vehicles trapped in the ambush take refuge inside the formation. In breaking trail through jungle an inverted wedge is preferred since it leaves only the two forward tubes restricted by vegetation. The echelon formation with primary direction of fire reversed to avoid tube traverse restrictions in dense growth is also practiced. Tanks and M113s in Vietnam normally operate with hatches open until contact is made. Crew members wear body armor. Personnel carriers are sometimes buttoned up in areas infested with overhead booby traps, but because of the mine problem crews prefer to ride in open hatches or atop vehicles. Mine blast blows them off or out, reducing the seriousness of injuries they might have sustained had they been buttoned up. Tank commanders sometimes fire the cannon; the gunner rides shotgun with an M79 on top of the turret. At least part of the great utility enjoyed by the M113 in Vietnam is a result of ingenious expedient devices adopted to sustain movement in paddy and swamp. Simple block and tackle, tandem tow cable hookups, push bars, and capstan kits have all been used to advantage.

Service Support

Unit combat trains in Vietnam normally contain only essential personnel, high mortality spares, maintenance and recovery equipment, and some Class I, III, and V supplies. They travel with the unit command post to facilitate security. Unit field trains normally support from a relatively secure base camp. Air resupply, evacuation, and transport are extensively used, since most roads in the theater are not secure enough to permit routine resupply overland. Cross-country wheeled vehicle movement is impossible in most areas, highlighting the need for full-tracked cargo carriers, for which the M113 now serves as a stand-in. Armor-mechanized units carry greater organic supply loads, have greater operational sustainability, and require less resupply than other units.

Other Combat Capabilities

Area war demands greater attention to details of all-round security. Since the enemy's greatest capability is ground attack without extensive fire support, open terrain affords better defensive perimeters against enemy attack than jungle—better fields of fire, better opportunity to use radar, searchlights, wire, mines, flares, listening posts, and patrols. Tighter perimeters are the rule, dispersion the exception.

Increasing incidence of enemy mortar and rocket attack requires facilities to be sandbagged or dug in. Bulldozers or tank dozers dig positions for CPs, vehicles, sleeping tents, and supplies. Whether armor or mechanized infantry, when not moving a unit should dig in.

US forces enjoy a significant technical advantage over the enemy at night, with radar, searchlights, and anti-intrusion detectors, as well as less sophisticated flares, mines, and booby

traps. Enemy preference for night operations suggests that we may not have made the best use of our technological advances.

The doctrine of fire and maneuver is perhaps more difficult to apply in Vietnam than in the past. The enemy avoids being fixed in position, hence coordinating contact, maneuver, and firepower is a difficult problem. Contact in dense jungle is often at point-blank range. This inhibits supporting air and artillery fires. Withdrawal to allow delivery of fire support, even for a short distance, means breaking contact and thus allowing the enemy a chance to escape. Fires across avenues of egress help prevent his escape, but sufficient contact must be maintained to hold him while fire support is being delivered. This requires good timing and is a most difficult trick to master.

Postscript

These brief articles, of which this is the last, have summarized the outcome of extensive field survey of armor-mechanized operations in Vietnam. The findings are neither startling nor revolutionary. Two facts stand out. First, it is most apparent that our mechanized equipment has found a much more utilitarian role in this hostile environment than many had thought possible—testimony to its versatility and adaptability, a lesson for military planners and weapon system designers. Second, and most inspiring, is the ever-present resourcefulness, the dedication, and the remarkable guts of the American soldier.

Dedication of Vietnam War Memorial

Valley Station, Kentucky
May 1975

We have met here to honor the memory of those of our fellow Americans who were killed in action during the time that our armed forces were fighting in Vietnam. The tragic outcome of that involvement, and the continued human suffering that it has and will entail, make it even more important that we pause a moment to remember our comrades who died in that war.

Most of these 40,000 honored dead didn't ask to go to that war, they were told to go. But they went. They went and did what was asked of them, and did it to the best of their ability. They did it honorably and with compassion. They did it bravely and with courage. They were the primary actors on the stage at one of those incandescent moments in history when time seems to get compressed and many problems come together at one time, seeking solutions. They were part of that very small percentage of any group who always seem to do most of the important work.

Thirty-one years ago next week allied forces landed across the Normandy invasion beaches at a turning point of World War II. Five years ago today another allied army was deep in Cambodia destroying North Vietnamese base areas, supplies, and forces. In each case most of the work was done by a few people. Not generals, not colonels, not statesmen, nor politicians, but soldiers—privates, sergeants, lieutenants, and captains, and perhaps an occasional major. For they were the ones who pushed ahead, looked for a ravine they could move through, moved a little, looked some more, moved again, and so made it all go. In the process some men died, for war is a hazardous business. But they went—went where they were told to go, did what they had to do, and did it the best they knew how.

And now we've gathered to honor the memory of those who died trying. It would be a shame if it were all in vain. It would be tragic if, out of their sacrifice, our country could not find some logic, some larger purpose, to explain why they had to die. It would be even more tragic if we didn't learn the lesson that history so clearly tells us time and again—that is, if you're really not sure how serious you are about something, don't send your military forces to deal with it until you are. In words that the men whom we honor here today would understand only too well, don't ever send us again to fight a war you don't really want us to win. For, if you do, the human tragedy which is always a part of war becomes a national tragedy—a tragedy of indecisiveness, invective, and acrimony, all of which dishonor the sacrifice of those brave few who tried to make it all work. They have a right to expect us to honor their sacrifice, and we have an obligation to them to do that, for they've left us a large legacy—larger perhaps than we deserve.

And so let us pray that God may grant them peace; that God may grant that their sacrifice is not in vain; that God may grant us the wisdom to draw strength from their strength and the courage to remember—lest we forget, lest we forget.

Mounted Combat in Vietnam Monograph

Letter to Brigadier General James L. Collins Jr.
Army Chief of Military History
6 July 1976

In accordance with the original 8 November 1973 tasking letter from General Abrams and all our subsequent correspondence and discussions, the revised final draft of the monograph on "Mounted Combat in Vietnam" is enclosed. This revised version has been coordinated and reviewed chapter-by-chapter by Mr. Charles B. MacDonald and LTC William K. Schrage of your office and adheres closely to their guidance.

As you will note in your review of the revised manuscript, the major salient features are a significant reduction in length and an improved organization of the chapters. Your staff has been most helpful in assisting me in these two actions.

The attached document, as before, is complete with footnotes, photographs, and annexes and is not classified. This should materially shorten the time required for review by Department of the Army. If further coordination is needed, LTC George J. Dramis, Jr., my representative, will be at the Army Logistics Management Center at Fort Lee for the next year. Contact with him can quickly solve most minor problems with the monograph.

As we previously discussed, all research materials have been provided to Colonel Agnew's Research Center at Carlisle Barracks. A duplicate collection also exists at the Patton Museum and the Armor School at Fort Knox.

Impact of Vietnam War

Letter to Lieutenant General Willard Pearson
Valley Forge Military Academy
16 July 1976

We're doing fairly well in repairing the ravages of the Vietnam War. Still a way to go yet, but believe we are getting there. Someday a very objective but perceptive military historian should write honestly about the price we paid here and in the rest of the Army for the way we supported the war in Vietnam. I was part of this corps in the early 1960s and now I find myself trying desperately to regain some semblance of the excellence we enjoyed in 1963–1964 before Vietnam beset us. We took a terrible risk over here—I'm really surprised the Soviets didn't try to take advantage of it.

Vietnam Observations

Memorandum for Colonel Dandridge M. Malone
28 November 1977

. . . My judgment is that units were not effective in Vietnam because the soldiers were not sufficiently well trained that they had confidence in themselves as individuals. Neither had they been sufficiently well trained as units to have confidence in their unit—partly a lack of unit training and partly a mirror image of their uncertainty about themselves reflected in an uncertainty about their buddy's ability to perform under the stress of fear.

Because in all too many cases senior leaders didn't lead, soldiers lacked confidence in the leadership. In short, whatever confidence we tried to build in them in training was swept away by the environment of fear in which they found themselves once in Vietnam. And so we had the spectacle of soldiers not confident of themselves, of their buddies, of their units, of their leadership, of their Army. And that, in anybody's book, is the making of a disaster. I saw it many times, especially in airmobile infantry units. I saw it much less in armor and cavalry units who stayed out on the line and grew confident enough of their ability to survive and win that they overcame their fear. There's nothing wrong with being afraid—the worst thing is being afraid to admit it. Soldiers and leaders alike can be expected to be afraid—of death perhaps, but more than that—just afraid of the unknown. In Vietnam, leaders had the added pressure of fear of failure. The success of orientation of the officer corps made fear of failure, and fear of not looking good, almost a paranoia with us. To some extent it still is. We will never recover completely from it.

Mounted Combat in Vietnam

Letter to Michael J. Donahue
Houston, Texas
10 October 1979

Thanks so much for your letter . . . about "Mounted Combat in Vietnam." I did in fact write it—with a lot of help from some very dedicated guys, all of whom were as determined as I to tell an objective story. I hope we succeeded.

Your comment that in some cases we got into too much detail about this action or that is well taken. Each of those actions was chosen for a specific reason—or reasons. First, there were lots of guys who served—many will read that book looking only to see if some action of his outfit is there recorded. Hopefully, too, there will be others who seek after the larger lessons of the war; we tried to carefully present these through the medium of those combat stories, and without preaching to the choir have the reader realize there is indeed something worth learning from the whole experience. And finally, that whole episode in our history was characterized in my mind by a lot of good hard work, considerable sacrifice, and some dying by a lot of young and not so young men who went and did what was asked of them, even though at times it did seem the direction of things was not too clear. Their story is worth telling.

As a professional skeptic, which I suppose most Army officers turn out to be in the end, I doubt seriously that our country will heed the lessons of Vietnam. We certainly didn't heed the lessons of Korea, and so were destined to repeat many of them in Vietnam. Don't forget that Vietnam really started just as Korea was ending. One would think, therefore, that someone smart enough to do so would have figured out what we learned in Korea, then had it engraved on the walls of the Oval Office for Presidents to read and heed. But it was not to be so.

Like you I am proud to have served, and angry at the way we let it all turn out. Most angry am I if once again we fail to heed the lessons of history, for which the nation pays so dearly in the treasure it can least afford to waste away—the lives of its young men. That indeed would be the ultimate tragedy.

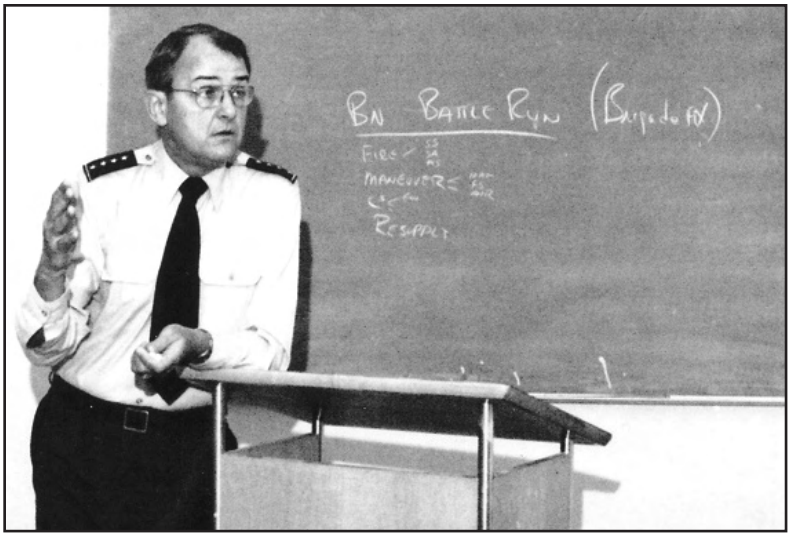
General Donn A. Starry

Donn and Letty Starry during the TRADOC years. They were married for nearly 60 years, 35 of them in shared service to the nation, and were universally known and admired as a great Army "team." *Starry Family Collection*

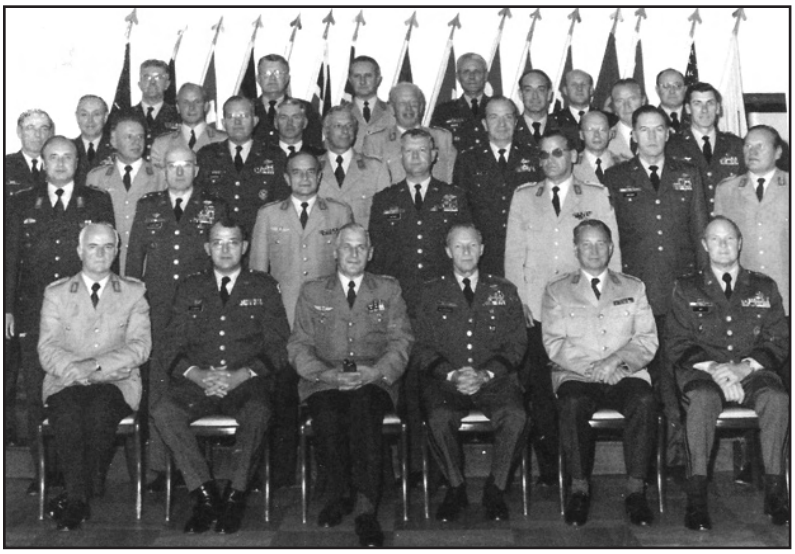
Photo Collection

While Starry commanded Fort Knox Donna Herndon (left), Starry, his wife Letty (right), and several other talented ladies "invented" what became Army Community Services to provide greater support to Army families. *Starry Family Collection*

Commanding V Corps in Germany during 1976–1977, Starry walked the terrain and discussed battle plans with every battalion commander in the corps. Here he talks with Lieutenant Colonel Tom Foley, commander of a tank battalion in the 3d Armored Division. *Starry Family Collection*

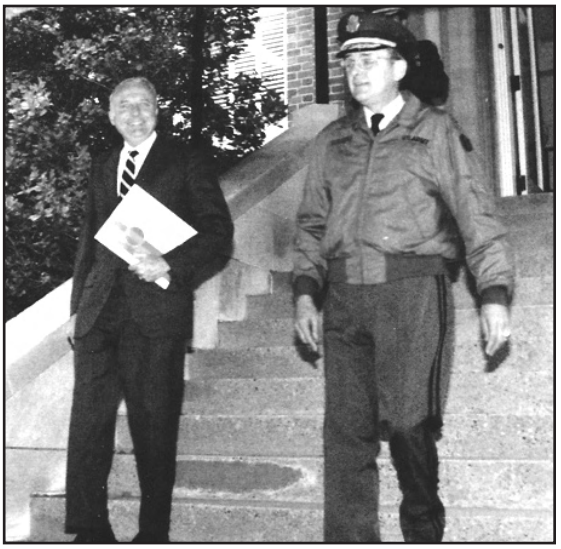


Starry, while TRADOC Commander, in one of his favorite roles as teacher discusses aspects of a battalion in combat with Army students at the Naval Postgraduate School in Monterey. *Starry Family Collection*



Pictured here (front row, second from left) at a Central Army Group Commanders Conference in Mannheim, Federal Republic of Germany, in October 1976, Starry greatly advanced development of NATO doctrine through close personal and professional relations with senior German and other allied leaders. *US Army Military History Institute*

Starry grins into the camera at the opening of the first-ever TRADOC Commanders Conference conducted by video. *Starry Family Collection*



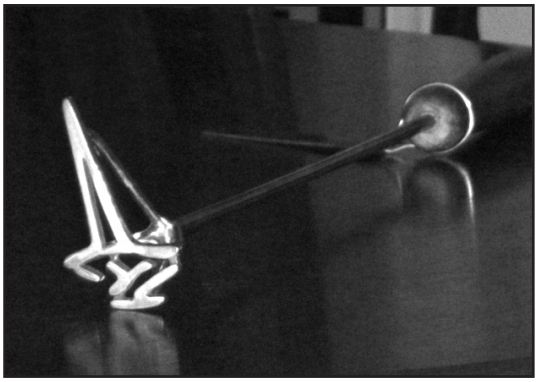
Starry with Secretary of the Army Jack Marsh, who shared his passion for military history, at TRADOC in 1981. *Starry Family Collection*

In retirement Starry continued close contact with the Israeli Defense Forces, as on this 1985 visit, a relationship that over many years greatly influenced his views on doctrine, tactics, and organization. *Starry Family Collection*

Serving after retirement as Honorary Colonel of the 11th Armored Cavalry, Starry observes the regiment's OPFOR maneuver against a "blue" brigade at Fort Irwin, California, in February 2000. *Starry Family Collection*

Wearing the uniform of the OPFOR at Fort Irwin, Starry communes with a member of the 11th Armored Cavalry Regiment's ceremonial platoon during a 2001 visit. *Starry Family Collection*

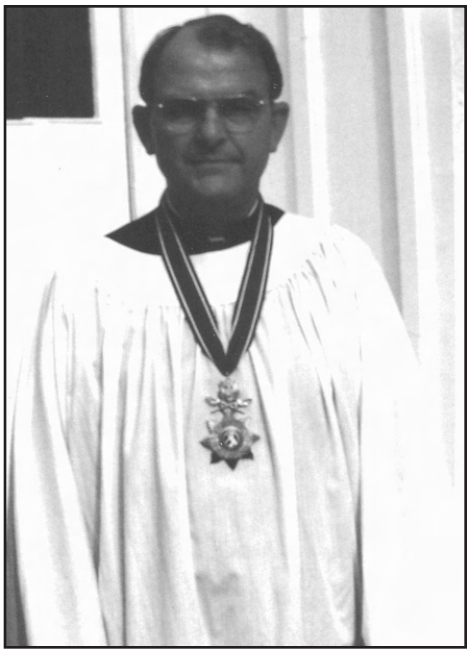
Starry frequently signed correspondence using this star plus Y design, often under an admonition such as “Press On!” *US Army Military History Institute*



When Starry departed Fort Knox in 1976 his colleagues presented him with this branding iron bearing his “personal brand,” which they told him had touched every aspect of Armor during his tenure in command. *Melissa Starry*

In retirement Starry kept up an active exchange of ideas with other soldiers. Here he is shown with Generals Jack Galvin, Glenn Otis, and Max Thurman reviewing the most recent defense against proposals to close Fort Monroe. *Starry Family Collection*

Donn and Letty Starry with their children Mike and Paul, Melanie and Melissa, at their first retirement home—Cavalry Hill in Fairfax Station, Virginia—in 2001. *Starry Family Collection*



A deeply committed church layman, Starry was awarded the Episcopal Order of Aaron and Hur in recognition of his service. *Starry Family Collection*

Starry, a master craftsman, fashioned this elegant *prie dieu* for Fort Monroe's Chapel of the Centurion, dedicating it to the memory of a child and a grandchild who perished in infancy. *Chaplain David Scharff*

Lieutenant General Joe DeFrancisco, President of the West Point Society of DC, presented the Society's Castle Award to Starry for exemplifying the ideals of West Point. Founders Day, 16 March 2009. *West Point Society of DC*

At West Point in May 2009 Starry was honored as a Distinguished Graduate of the United States Military Academy. *Lewis Sorley*

Oral History Interviews

Page

1. Life and Career of General Donn A. Starry.....980
2. Reminiscences of General Creighton Abrams.....1171
3. Experiences as a Commander..... 1196
4. *Soldiers* Magazine Interview "This Is a Tough Business . . ." 1218
5. Desert Storm Lessons Learned..... 1223
6. Development of Doctrine 1256
7. Air Force: AirLand Battle..... 1274

1. Life and Career of General Donn A. Starry

US Army War College/US Army Military History Institute
Senior Officer Oral History Program
Interviews Conducted by
Lieutenant Colonel Matthias A. Spruill and Lieutenant Colonel Edwin T. Vernon
15 February 1986, 16 February 1986, 17 February 1986, and 18 February 1986

INTERVIEWER: Sir, we'd like to ask you to relate to us where you were born and grew up and bring us up to the time that you came in the Army.

STARRY: Okay. I was born in New York City. My dad was employed by what's now Kraft Cheese, Kraft Foods. They moved from New York when I was, I guess, six months old and went back to Kansas where my mother had been born and raised. According to my dad—in his later years—because he didn't want to raise a kid in New York City. So they went back to my mother's home. My father was born and raised in Iowa, in a little town near Cedar Rapids, and he was an orphan. His mother died when he was two, and his dad died when he was six. Mrs. Starry adopted him. She was a widowed lady who had lost a daughter when the daughter was about 19. So there she was, without a family of her own, and the Lacock family, of which my father was a part, was now without a mother and father. So the townsfolk, as was the custom in country farm communities in those days, took in the kids. Some of them were old enough to fend for themselves, like 15 or 16. The younger ones they just took in and raised as members of their own family. Turns out my dad was the only one who was formally adopted by the people with whom he stayed. So Mrs. Starry adopted him, and his name was changed. There was nothing for him to go back to; there was no place to go home.

In World War I he served in the Tank Corps. When he came back from World War I, he went back to Iowa and spent—he was a graduate of Cornell College—a year or so teaching school in a town in Iowa. I guess he decided that wasn't for him and was lured off to Boston by a Tank Corps buddy named Bill Helms, who was the son of an elder Helms, the founder of Goodwill Industries of America. The idea was that my dad and Bill Helms—who had been buddies during the war—were going to go to work in Goodwill Industries of America, which Dr. Helms was just starting. My dad went to Kansas City and married my mother, whom he had met in college, and took her off to the east coast with him. Eventually he decided he didn't want to stick with the Helms organization and went to work, first for Marshall Fields, then as the export manager for Kraft. In spite of the fact that he should have stayed with Kraft—it would have been a good job in years to come—after I was born, they decided to go back to Kansas.

I think he always regretted, really, that he never either stayed in the Army or accepted a commission during World War I, because he had an affinity for the military. So he joined the Kansas National Guard in about 1926, whenever it was they got back to Kansas City. He became a company commander in the Guard until they mobilized in 1940. He went to World War II with the 35th Division in 1940. As the division mobilized, most of its officers, considered too old, were reassigned someplace else. The division that went to war in Europe had in it few of the people who had grown up with the division. Some of them stayed, but a lot of them went on. He wound up serving in Washington for much of the war.

I guess my desire to be a soldier started with my affiliation with Headquarters Company, 2d Battalion, 137th Infantry, which my father commanded for years, as long as I can remember, between the wars. And, as kids will, I was the company mascot, went to summer camp with them, and went on their weekend marches with them. I suppose that was what started my interest and whetted my appetite for military service. Somewhere along the line somebody described West Point to me. I decided I wanted to go there. I grew up with that notion, and about the time I was a freshman in high school, I started taking the Civil Service Commission examinations that members of the Congress could use to select appointees to West Point. There were no SAT scores in those days. There were no college entrance exams to use as a standard, so the Civil Service Commission created these exams and then Congressmen—a lot of them just to avoid the image of political favoritism—would give the examination, and then allege, of course, that they were giving the appointments out on the basis of who did best on the exams. They were tough and comprehensive examinations, and if you didn't have some experience in taking that kind of exam, you were apt not to do well. So most of us who competed in those days went and took them several times before we actually took them for record. I wasn't even old enough to go to West Point when I took it the first time, and I think I took it twice before I finally took it to try to get an appointment. Meanwhile, the war came along, and I graduated from high school—in 1943.

The war was going on, and I felt like I was shirking my duty to my country if I didn't join up. So I went down and turned myself in to the draft board and was inducted into the Army. Meanwhile, I spent a couple of months going to one of the preparatory schools in Washington to cram people for the exam. I took the exam and was awarded an appointment by Senator Capper from Kansas. Somebody beat me out for the West Point appointment, but I was the second high man in his scoring list, so he offered me an appointment to Annapolis. I didn't want to go to Annapolis. So I called the guy who had the West Point appointment on the phone and found out that he wanted to go to Annapolis. So the two of us approached Senator Capper and told him, "Have we got a deal for you. I'd like to trade. This gentleman wants to go to Annapolis and I don't, so we would like to trade appointments." So that's what we did. That all happened in a matter of weeks, during which time—shortly after that I guess it was—I went out and turned myself in to the draft board in Kansas City.

I joined the Army at Fort Leavenworth in August 1943, and before we could complete any substantial amount of basic training, it was decided that all of the folks who were going to go to the military academies needed to be sequestered from the Army as a whole. So they organized training units at Lafayette, Cornell, and Amherst so that we could get out of the military training environment and study for the entrance exams, because you still had to take an entrance exam. So I went to Lafayette College in Easton, Pennsylvania, and spent the winter of 1943–1944 there. I took the entrance exams in the spring of 1944 and passed. So I entered in 1944 with the class of 1947—the curriculum was three years long at that point.

Subsequently, when the war was over in 1945, West Point resumed a four-year course, so the class of 1947 was split. At Annapolis, they simply split the class by academic order of merit. They took the top half and graduated them in 1947 and took the bottom half and graduated them in 1948. At West Point, they wanted an even split, but they didn't want to do it as it was done at Annapolis because there would always be that perception of the

"dumb guys of 1948" and what not. That still hangs over that Annapolis class, incidentally. So they offered a lot of inducements—among them flight training, amphibious training, and a lot of academic inducements—to those of us who were willing to stay for the fourth year. By then we had completed, you see, two-thirds of the hundred-and-some-odd number of hours required for graduation, but we were chronologically really only halfway through the curriculum. So the last two years were really, from a lot of standpoints, pretty enjoyable. We did a lot of different things. I had a lot of time to read and do a lot of things that I would never have done otherwise in a curriculum where the workload was spaced out, particularly the third year. I really enjoyed that. And the only problem was that my girlfriend, who is now my wife, was hanging on at that point, and I had to strike a deal with her that it was all right to wait another year. That was the only awkward part of it, but it turned out all right for us.

The flight training was really the fun part of the extended course. They had stopped flight training—that is, the commissioning of people out of West Point into the Air Corps—when the war was over. But they had the instructors, instructor pilots, and airplanes up at Stewart Field, so one of the things they did while they were phasing that training out was take our class—now 1948—and teach us to fly. We spent a whole summer up there in what would have amounted, I suppose, to the equivalent of primary training in the Air Corps. In the end we got a check ride and a flight physical, and those who were eligible on the basis of the flight physical and the check ride for service in the United States Air Force, which was then forming up as a result of congressional legislation that separated the Air Force, were posted on this list. I was among those who were going to graduate and be commissioned in the Air Force. That was two years away from graduation, and in those two years no one thought anything more about the matter. We were eligible, and we all went along with the idea in mind that we were going to be commissioned in the Air Force if we were on that list. So, in the spring of our senior year, they passed out a list asking what branch we wanted to be in. You listed them in order of preference. So I wrote down Air Force in the first three blanks and left the rest of them blank because I was going to be in the Air Force according to the previous work that we had done. I took the flight physical again, and about two weeks before graduation, I received a notice that I had been disqualified for flight training based on a piece of cartilage out of place in my nose—the result of a high school football injury. So we had a squabble between doctors. One doctor said, "It is disqualifying," and the other doctor said, "It is not disqualifying." While the doctors were squabbling, the administration at the Military Academy made out its list about who was going to graduate in what branch, and they'd taken those of us who were foolish enough to do what I had done and just ignored the process and put us in branches to fill the quotas. By the time the doctors got through with their squabbling and said, "Okay, I guess it's all right for him to go in the Air Force," the Adjutant at West Point—a tough lieutenant colonel—had made up his list, and he really said to me, "I'm not going to change my list just for some cadet like you. You're going to graduate in the Transportation Corps."

So I was commissioned as a second lieutenant in the Transportation Corps. They also decided that those who were going to serve in service branches needed some combat arms training, so you spent two years in combat arms, then you reverted to your basic branch, went to that branch school, and served in that branch. But you had to do this two years of combat arms training first. So I said, "Okay, I'll take the cavalry/armor as a two-year

assignment," and then immediately began trying to figure out how I was going to get transferred, because I really didn't want to serve in the Transportation Corps or anyplace else, for that matter, having been somewhat less than happy about my friend, the Adjutant at West Point, deciding that he wasn't going to listen to my entreaties about the Air Corps. I decided that dream was gone—there's no sense in me going to fly airplanes now. What I had to do was get a branch of the service that I wanted to serve in and see what I could do with that.

So the first year went by, and everything was fairly smooth, but it was just a little too early to seek a transfer. During the second year, I really started working on how to get transferred to Armor. We sent in several papers, and they all kept coming back indicating that it was too early yet. And then there was a squabble over whether or not you had to serve two years in a combat arms branch, and then two more years in your real branch, before you could transfer branches, or whether you could just do your two years and then transfer.

So by that time, of course, I was in a battalion in Germany in the 1st Division. It was the 63d Tank Battalion, which, at the time, was commanded by Lieutenant Colonel Creighton W. Abrams Jr. George Patton, the younger, was in the same company. George would eventually become the company commander, and I would be his executive officer. So Colonel Abrams is endorsing my great letters about how great it would be to have me in Armor, and we're getting these nonresponsive answers from Washington. Mrs. Patton—George's mother—came over to visit and we had dinner one night and I was telling her my story. So she said, "Well, I think we can do something about that." To this day—I don't know, and George doesn't know, because I asked him—I don't know what she did. I had orders to the 122d Truck Battalion in Nuremberg, Germany, and was on the verge of—I didn't know whether to desert, go AWOL, or both, but I was not going to the 122d Truck Battalion in any way, shape, or form. Well, 10 days before that order became effective, I got a set of orders from the Department of the Army changing my branch and reassigning me to the 63d Tank Battalion. To this day I don't know who did it. Well, I do. Senator Cabot Lodge, whom Mrs. Patton contacted, bore in and got it done. So that began my career in Armor.

INTERVIEWER: Let's go back to high school for just a minute. Did you participate in class government there? You mentioned playing football. How many years did you play?

STARRY: I played football for two years. I swam for three years and lettered in both sports. I was active in class government. I don't remember at the moment what offices I held in the class. I think I was the vice president or maybe the class president, I don't remember now. I played football, not very well, on a team that had some awfully good football players on it, one of which was not me. But they were a good bunch of guys and some of them, several of them, are friends of mine to this day. Good crew, super coach, and a good bunch of guys, but they were out of my class. At that time in our city, some of us had gone to junior high schools, which meant that you really only spent three years in the high school. But there were others, who did not have access to a junior high school, who went four years to the high school. So the big varsity athletes were all the four-year guys who started as freshmen and played their way through. If you came on in your sophomore year, from a junior high school, you were really not looked on as a big contender for the varsity, because they're only going to get maybe three years out of you. But there was no football, for instance, in junior high schools. So they didn't get ready-made football players, which meant that you

spent your sophomore year making your way on the third string and, if you were really good, you might play second string in your junior and senior years. But it was a tough, really a tough row to hoe. So I came out of that junior high school environment and spent my sophomore year off and on the football field trying to decide whether I wanted to hang around the third string or I really wanted to be on varsity. I played varsity my last two years, but I was behind a couple of pretty good guys. I played a little, not as much as I wanted to, but it was quite clear to me that they were a lot better than I was.

INTERVIEWER: After graduation from high school, how long was it before you actually entered West Point?

STARRY: Well, I graduated from high school in June of 1943, spent a couple of months in the cram school, took the exam for West Point, and we went through the appointment business that I described and then I turned myself in to the Army in August. So I was inducted into the Army on something like the 13th of August 1943 and then entered West Point in June 1944, the summer of the following year. Most of that winter I spent at Lafayette, involved in the academic program they had to get you ready to pass the entrance exams. I took the entrance exams in April, as I recall, and in May we knew that we were either going to go or not go. Those of us who did not go because we didn't pass the entrance exams, or for whatever reason, went back to the ranks of the Army, and those of us who had passed the entrance exam were given a couple weeks of leave and then we turned ourselves in at West Point on the first of June.

INTERVIEWER: So, all this time at Lafayette, you were considered to be on active duty?

STARRY: Yes, I was a private in the Army. We took basic training, essentially, there in our spare time, but the bulk of the exercise was to go to class and get yourself ready to pass the entrance exam. We were all ranks. We had some lieutenants in that class who had come in from the field, but because they had an appointment, you see, the Army wanted to get them free from their military duties and let them study to take the entrance exams. The entrance exams were far more difficult than the appointment exams, as a matter of fact, and it's a good thing they let us study because I don't think any of us would have passed had we been doing something else, focused entirely on something else, particularly something as rigorous as military training in those days, getting ready for war. None of us would have passed the entrance exam. It was a real good opportunity.

INTERVIEWER: In those days in 1943, you apparently felt a compulsion to join the Army because of the war going on. What did you feel about not getting into the war? Or was it the general consensus that the war was going to last long enough for you to get through West Point?

STARRY: I don't remember. Someone asked me that question not long ago, and I don't remember ever giving it that much thought. There were some of us who did. One of my good friends, who was a super guy, was a young Jewish fellow from New York who did not have a principal appointment. He had a first alternate and the principal got in—that is, the principal passed his entrance exam. My friend's father went and somehow drummed him up a principal appointment for the next year, for which he did not have to take an exam, and he turned it down because he felt that, being Jewish and with the war going on, he really shouldn't do that. If you hadn't made it the first time around, for whatever reason—whether it was because you didn't pass the exam or because you didn't have a

principal appointment—his view was that he wasn't authorized a second chance. So he went off to war. Unhappily, he was killed the winter of 1944 in the Ardennes Offensive. And there were several people like that, but their reasons were more related to something like, "I'm Jewish, so I can't appear to be shirking," than anything else.

I'm sure you saw it when you got to West Point—there were a lot of people who were there because their parents had gotten them appointments. Not everybody had to take an exam for the appointment. Their parents had gotten them an appointment because they wanted to keep the kids from going to war. The kids themselves, I don't think, ever gave it much thought, and while I never thought of it quite that way, it was not easy to see in 1943 where and when the war was going to end. There was certainly no perception that it was going to end in 1945, and I thought to myself, "You've got to go to some kind of training. This isn't exactly an OCS. It's better than an OCS," and I really wanted to be a career Army officer. So I had the problem of how I was going to be a career Army officer if I didn't go to West Point—which was where all the career Army officers come from, or so I thought at the time. Not all of them, but in those days the perception was that's where they all came from. So how am I going to be a career Army officer without this as a background? And so it seemed to me that, in spite of the fact that I'm probably going to miss some of the war, it was better to do that then than to wait and try to do it later. But, as far as giving serious thought to it, I don't believe any of us really ever sat down and thought about it. Most of us were motivated, I think, a lot of us, by the notion that, "Hey, I want to do this as a profession, not because there's a war on but because I want to be an Army officer." Given that, you then have to weigh it all out. In those days, of course, the perception was, if you didn't go to West Point, you weren't going to have a successful career in the Army. It wasn't true then, and it certainly isn't true now, but that was the perception.

INTERVIEWER: You mentioned that some of the people got into West Point on a political appointment, so they didn't have to take the exam. Did you notice a difference in example, motivation, dedication, attrition rates between the political appointees and the ones who had to work to get in?

STARRY: Those of us who took a competitive exam for appointment had been to some kind of a school, some kind of a preparation course or a cram course. It was a Congressman's choice in those days whether he used the examination system or not. Those who had not been forced to take the exam, of course, hadn't done any training at all, no preparation at all. My perception was, and still is, that those of us who had gone through the agony of that cram training were more highly motivated than the others. There were a lot of people in the ranks of those who just had political appointments who fell into the category of, "Dad got me this thing. I really don't want this. I want to be out doing what I was doing before. I was happy with that. I don't want to go to West Point."

And you saw the effects of that, I think, in the numbers. Not so much in our class, although to some extent, but in classes that followed, when the war was over. There was an exodus. I'm not sure of the statistics. But, if you look at the statistics on those classes that entered during the years when the war was on, I think you'll find a greater number of them, at least during that time period, who left after the minimum amount of service, even after they got a commission, rather than staying on. The thing that struck me most about that whole process, I guess, was that among the people I was with in that training at Lafayette

were some really good guys. But a lot of the good guys didn't go and, by and large, there were—some of the outstanding people, truly outstanding people—guys who did not get in. And that always bothered me, because my childhood image, I guess, as with all of us, was that West Point was where all the good guys go. In any group of guys, if you pick out the best ones, those are the people who are going to get into this place and become the officers for our Army.

I guess that was my first of a long series of continuing disappointments about the place. Subsequently, over the years, I followed the careers of a lot of those people. They're successful lawyers, doctors, businessmen, and what not, and they all did, almost without exception, what everybody expected them to do. They were great successes at what they were doing. They would have been very successful Army officers, and the Army needed that kind of talent. Among people who went, there were some awful good guys in that group too. But there were some, if you compared the lower half, let's say, of the group that got in to the upper half of the group that didn't get in, you would have had to exchange those groups and say, "That's not fair. We ought to put the good guys over there, put all the good guys in that place." Now obviously that's not going to happen.

INTERVIEWER: Of those that got in and graduated with you, do we have any more who achieved what you did?

STARRY: I've forgotten the class numbers. I think we were fairly successful. We wound up being a small class. We were 600 in number when the class was split, so we graduated at 300, 301, as I recall, which is a very small class. I guess I'm the only Army four-star, but we had several Air Force four-stars and three-stars. We had several Army three-stars, one of whom, of course—Willard Scott—is the Superintendent at West Point now, still on active duty. Somebody will have some percentage numbers about that. I guess percentagewise we were fairly successful with regard to the number who made general officer. Why there were more who got to the top in the Air Force than in the Army, I can't say. I don't know.

INTERVIEWER: Over the years, have you seriously regretted not being chosen to go into the Air Force?

STARRY: Not really. It's a different world and, in retrospect, I grew up as a kid with soldiers in my father's National Guard company. They were as dedicated to their job in the National Guard in those days as were soldiers in the Regular Army. As a matter of fact, some of the best soldiers I've ever known were those National Guardsmen, looking back on it. They were really dedicated. My dad and his officers and most of his NCOs would spend their weekends in that armory because they only had one of every piece of equipment needed for training—so it wasn't possible on drill nights to train everybody to use the one or two of everything that they had. They trained with wooden rifles and wooden crates painted to look like radios. They were really a dedicated bunch of people. A lot of them, because of the Depression, joined because of the money. It wasn't much, but it was something, so they joined because of the money, and they stayed with it because of the money, but it was a very professional organization. And they spent an awful lot of their own time working.

I grew up in that environment—with soldiers. In the Air Force, the officers do all the fighting. The airmen are technicians. It's a different world. It's one of things that's hard to explain to the Congress and other people in Washington when you try to explain the

difference between the Army and the Air Force. The soldiers fight in the Army, and the officers lead. The officers fight in the Air Force, and the soldiers support the officers, and it's a totally different environment. I don't think, certainly in retrospect, I would have been nearly as gratified and satisfied with a career in the Air Force, from that standpoint, as I have been with my career in the Army, because I have a feeling of comradeship with the ranks, the soldier ranks and the noncommissioned ranks, of the Army, largely because I grew up with them, I suppose. You can't do that in the Air Force. Different relationship, totally different relationship.

INTERVIEWER: I suppose it was hard to discern this as a second lieutenant, but. . . .

STARRY: No inkling of it as a second lieutenant.

INTERVIEWER: Then the Air Force was just being formed about that time, and probably a person like you could have written your own ticket in there and helped form it the way you wanted to.

STARRY: You know, I loved flying. Flying is really great fun.

INTERVIEWER: Have you done any flying since then?

STARRY: Oh, yes. I've learned to fly helicopters, and I've learned to fly the Army's fixed-wing aircraft. I have a thing about weapons and vehicles and equipment. It sort of goes like this: If I'm going to issue orders to people who operate that equipment, I really have to understand what it is they have to do to obey my orders. Therefore I have to fire it, or drive it, or shoot it, or fly it, or dig with it, or whatever it is that that thing does. So I tried to spend enough time going around just operating equipment so that I understood what the environment was in which those people would have to operate when I issued instructions. In the larger commands that I had, of course, that included such things as—when I had TRADOC [Training and Doctrine Command]—I'd go over to Langley and fly in F-15s. When I had REDCOM [Readiness Command] in Florida, I'd go out in the F-16s every once in a while—didn't have F-16s at Langley when I was there—because the people that I commanded in TAC [Tactical Air Command] as a REDCOM commander were going to fly those things. So I wanted to know what kind of an environment those people were operating in, what the odds were for them and against them, given the instructions I had to issue them as a commander. I think that's essential. So I've had kind of a curiosity about equipment, but the curiosity stems from concern that I really had to feel comfortable, in my own mind, with the fact that the guys and the equipment could do and would do what I told them to do, and that it was fully within their capabilities. And, if there were risks in that, then I understood the risks before I issued the orders.

INTERVIEWER: How did you acquire that philosophy, sir?

STARRY: I don't know.

INTERVIEWER: Did somebody point you in [that] direction when you were a young officer?

STARRY: I really don't know. I always admired the cavalry, the United States cavalry in the years when I was a mascot in my dad's National Guard company. Fort Riley, of course, was the place where they went to summer camp, and while my dad was an infantryman, in an infantry division in the National Guard, Fort Riley was the home of the American

cavalry during all those years. My father had some good friends in the regiments that were stationed at Fort Riley in those years.

The thing that always impressed me about the cavalry was the officers. One is, they always spent more time, at least as much time, taking care of their animals and their weapons as they did taking care of themselves. Most units had a rule that you had to take care of the animals before you could take care of yourself. So the equipment and the weapons and the animals, the mode of transportation, if you will, were always of more concern than the individual soldier. That made a big impression on me as a kid. I couldn't figure out why they were doing it that way, and then some sergeant explained it to me and I said, "Well, that makes a lot of sense."

The other thing that impressed me was the officers took great pride in being best in their unit at whatever it was they did—horsemanship, marksmanship, stablemanship, if that's a good word, at whatever it was. I'm sure this was true in the Regular Army as a whole. I just happened to see it in the cavalry, but subsequently some people pointed out that it was probably more true of the cavalry than elsewhere. I'm not able to say. So they have those long cavalry rides, which were essentially individual officer, horse, weapons, equipment performance tests really, competitions, and stakes, cavalry stakes, plus the officers competed in the horse shows and so on. And I think those two things: one, they took care of their equipment and their animals before they took care of themselves and the fact that the officers always at least aimed at being better at everything the unit did, individuals in the unit did, than the individuals themselves.

I think those were the two things that I can remember impressing me early on, and when you got into the armored force, Lieutenant Colonel Abrams was an absolute nut about that sort of thing. The officer tank commander had to be the best tank commander in his platoon, or his company, or his battalion. When you went down range to fire, he went first, and there was never any argument, there was never any question about it. It was assumed that the officers went first. He went first, the company commanders went first, the platoon leaders went first because the officers were supposed to be out in front doing better than anybody else could do the things that soldiers were supposed to do, setting the example. He did it all the time, and I think that simply reinforced my perceptions as a kid growing up that those are the important things.

INTERVIEWER: Give us your thoughts on the curriculum during your time at West Point and how it may have prepared you to be an officer. Was it adequate? I know it was condensed in those days. Have you looked back in the years since, and is it doing a good job now preparing people?

STARRY: Well, of course the curriculum today bears no resemblance to the curriculum when I went there, which is probably a good thing. It was an engineering school in those days, which was a hangover from the 19th century when somebody said West Point produced more railroad company presidents than it did generals, or words to that effect. The engineering culture continued, and I guess it does to this day to some extent, although in recent years I notice that, academically, the top guys go out in some branch other than Engineers, so it may be that we're getting away from that. But it was strictly an engineering school.

The first liberalization of the curriculum came after World War II, and I guess that's why I enjoyed my last two years there as much as I did—because it was not strictly engineering.

The social sciences got started. The political science department grew under Colonel Herman Beukema, and we were exposed in that third year, when essentially we really had finished the course of instruction the year before. We were exposed to a lot of things that were a lot of fun, that were not in the engineering world, which have continued to grow over the years in the curriculum. West Point's problem, to me then, and has been ever since, is, in a word, relevance. West Point is only useful to the Army if it can be relevant to the Army's problems and to the challenge of providing leaders for the Army. And if it doesn't do that, if it isn't relevant, then you have to wonder why you have the place. And, to the extent that you water that down by letting women into the student body, graduating into branches other than, as in olden times, the hard-core combat arms branches and so on, to the extent that you fragment all that stuff, you lose the general thrust of the thing in the first place.

I've always maintained that, particularly in recent years, a young man who goes to a good college, that has a good curriculum and a good professor of military science—who has been taken in by the college administration as a senior member of the faculty and treated that way—that young man, or woman in today's world, has an awful lot better chance of coping with the world in which he or she finds themselves when they join the Army than does a West Point graduate. And the place has always been isolated. It is even more isolated now, because they took that special regiment away. They don't see soldiers except when they go out in the summertime. Many of them have said to me that they have a hard time relating the world of soldiers that they find in the training centers and units that they go to in the summertime to the world at West Point and the tactics that are taught at West Point and so on. I believe now, and I have believed for the last 15 or 20 years, that the place is in a state of crisis, and the crisis is one of relevance. Should we disband it and abandon it? I don't think so, but at the same time, to the extent that we preserve that isolation, which is so easy to do up there, to the extent that we let the Academic Board and its overbearing influence on the kids' presence up there deprive it of its relevance to the rest of the Army, then we're doing ourselves a great disservice. I've been a critic of the place for years. It's not that I'm critical of West Point or the purpose of it or anything else. I'm critical of the fact that it's lost its relevance, by and large.

INTERVIEWER: How do you feel about the admission of women into the Point?

STARRY: Well, it wasn't breaking tradition so much that bothered me as it was that it just reflected a further deterioration of what the original purpose of the place was to be, whether that was right or wrong—training leaders essentially for the combat arms, and that, of course, was the basic argument against women at West Point. Being a public institution, I doubt that we could have staved off the admitting of women, but to all of those who went around saying, "Well, that's a terrible thing to do, to have to do," I just say, "We did it to ourselves," because over the years, first of all, we started commissioning people in all branches. There was a time when Military Intelligence was a high contender. I have nothing against Military Intelligence, but that just tells you that the warrior image is gone from the perception that the kids have up there—why they're going there, what their goals are. And, if the purpose of the place was to train warrior leaders, which it started out to be, then every time you degrade that image, you've done yourself some harm. Given the social context of the times in which we made that decision, the decision was made, and we had no choice. We had a social revolutionary as the Secretary of the Army [Clifford Alexander],

and that woman in a high position in the OSD [Office of the Secretary of Defense] staff who was a vocal militant gender activist. So you know there was no way to prevent it. If the purpose of the place is what we started out to have, women don't really belong there. But, if you want it to just be another place that trains people and commissions them in any branch, then you've got to let girls in, and you've got to consider the issue of whether or not you want to have it at all.

INTERVIEWER: Would you like to see it go back to just being for the combat arms?

STARRY: No. Having said what I just said, I have to admit that, to do that, you're trying to create an anachronism, and we have to live with it the way it is.

INTERVIEWER: How about women in the combat arms? We have women in Field Artillery in the missile units. In fact, when I was in Pershing, we had women soldiers and women officers. How do you feel about that?

STARRY: It's a tough problem. I really believe that we have not tackled the problem. Women are a resource, a manpower resource that you should use in your Armed Forces, particularly with declining cohorts of 17- and 21-year-old males, which is what we're confronted with now. So you have to figure out some way to use them. Unfortunately, we introduced women into the military in a big way at a time when that was not the driving force at all. The driving force was equality—racial equality, sex equality, and so on, and that is not the proper basis on which to make the decision about how much of your military workforce is going to be women, or anything else for that matter. So it was unfortunate that we had to make the decision at that time because the motivator, the societal motivator behind it was the wrong one.

The Israelis, for example, have women in the Israeli Army; they have a lot of them. The girls are drafted just like the boys. They don't stay in the service quite as long. They have a specific set of jobs laid out for them. As a matter of fact, there are about 10 women in every Israeli battalion, but they do specific jobs, and when the battalion goes to war, the girls go somewhere else. They know exactly where they're going to go and exactly what they're going to do and who's going to supervise them; that's an organized system. They go to a division, essentially. If they're in a division, they go to division headquarters, and there are jobs that they do there that are necessary to have done in time of war. It's a very well organized enterprise. But, if you go to the Israeli training camps, women are not mixed up with the men in the training. Women have a special training environment, specially tailored for the women, run by women, and they're trained to do the things that they do in those units. There are a lot of communications personnel and a lot of administrative people, but no cooks, because the cooks go to war with the men and the Israeli position on the matter is that war is a man's business. The warfighting part of it is a man's business. They've got a much cleaner establishment as a result of it.

I was at Fort Knox when all of this was coming upon us, really. We went through the MOS [military occupational specialty] thing. I never will forget. We had two female generator mechanics in the air cavalry squadron that we had at Knox at the time. They were happy and everybody else was happy because generators, I don't need tell you, are a terrible problem. On a smaller scale, that's the biggest problem the Army has, all of those little field generating kits out there. Both of these ladies were very good at that. In fact, they were

better than any man I had ever seen at maintaining the generators, and there are a lot of generators in the air cavalry squadron. Then someone decided, "Well, we can't have women in these units." We had the argument about being forward of the corps rear, forward of the division rear boundary and the brigade area, and all that argument was going on at the time about where the women could be on the battlefield. So someone decided that those girls should not be in that squadron because it was a category so-and-so unit and was deployed forward of the division rear boundary. So these women couldn't serve in it. They were both sergeants, and they came to see me. They said, "We want out." I counseled and argued with them a lot, and they said, "We want to stay in this unit. We're not combat soldiers, that isn't the problem. The unit isn't really up there where the direct-fire shooting is going on, even though we may be likely to get blown away in the FARRP [forward area rearm and refuel point] someplace. The FARRP is sure to be the point of attack for someone, we understand that, but we do not understand why you Army fellows can't figure this out better." The unit wanted them to stay. People liked them, and they were good soldiers, but we had to take them out of there, so they both quit. And I supported their request to resign from the Army because they were doing something they wanted to do in a place that they thought wasn't involved in combat at all, and the Army couldn't get its act together.

We spent about 5 or 10 years trying to get our act together, and I'm not sure we've got it together yet in that regard. I think the thing that saved us was when this administration got elected. The day after the election, I called my friend General Shy [Edward C.] Meyer on the phone and suggested to him that we begin that reevaluation of how many women we should have and what jobs they should be in, which resulted in the present circumstance. But I'll just tell you, we're only a Democrat away from having that whole situation come back to us again. If the liberal Democrats get back in office, all the things that we have staved off for the last several years, under this administration, will come back.

INTERVIEWER: Most of the opposition to women being in combat arms, other than the lifting requirements and the upper body strength and everything, appears to be a fear of mass casualties of women in combat and you would have demoralized male troops because of this. It appears to me that the chances of mass casualties are very great.

STARRY: You're going to have casualties. . . .

INTERVIEWER: So I'm not sure that we've solved any problem, if that is the problem.

STARRY: No. The real problem, you know, the first girl you put in the body bag is going to be a tear-jerking experience, that's the perception. I'm more concerned about the world of infantry soldiers, and the world of armor soldiers, the world of crewmen, the world of artillery gun sections, the world where the living conditions are miserable and the nights are long and the days are longer, or vice-versa, and you've got problems with simple-minded things like keeping people clean, the disciplines that are necessary to do that in all kinds of weather, you get the latrine problem, the privacy problem. The further forward you put the girls, and the lower down you put them in the echelons of the fighting troops, the more those things become problems. That's a man's world. The girls don't belong out there. There are some girls who could make it out there very well, just as there are some men who don't make it very well out there, but that isn't the general rule, and I just think we've got to keep them out of there. Should they be in brigade headquarters? I doubt it. Should they be in division headquarters? Certainly not in the division TAC [tactical

command post]. Rear/main, okay. Now how you draw the lines on the battlefield to allow that to happen, I'm not quite sure, because, as you quite properly point out, you're going to have some casualties.

It isn't the casualty part of it that bothers me as much as it is the world of the fighting soldiers. The militant gender activists want to put women in fighting crews. I think so many times of the miserable conditions under which those crews have to live in battle. You're going to put girls out there in that world? Not on your life you're not! You just can't handle them. All of the privacy problems, the social problems of people living and working together in that environment, you just can't have the sexes mixed up out there in that world. You just can't.

INTERVIEWER: Do you think women should be in separate units? For example, when they're taking basic training, should we put them in separate companies?

STARRY: Well, I think that was necessary. We went too far, pushed by the social pressures. My complaint about the whole thing is that we never sat down and worked it out on the basis of how many people we needed—in the Army particularly, and the services as a whole. We never examined how many people we needed, what jobs they could do, and how many we ought to take in as a resource problem as opposed to a social problem. The military forces of the nation are not, and should not be used as, a test bed for social reform.

INTERVIEWER: You mentioned the Israeli example. It seems that any time you talk about women in the Army, or the military, the Israeli example always comes up. Unfortunately, the fact that the Israelis draft women in their army is not presented.

STARRY: Well, yes, I would argue that, if we're going to do it at all, we ought to do it like they do it. But you're quite right, what people normally perceive of them doing is not at all what they do. As a matter of fact, I have looked carefully at the Israeli female training program, and it probably lacks a little here and there. My wife was even a little bit upset about it because she knows basic training systems rather well, having lived around them most of her adult life, and she really didn't think they were doing enough for the girls, particularly in the case of simple self-defense kind of training with weapons.

When we were in the old 63d Tank Battalion in Europe in the early 1950s, we were—talk about being outnumbered now, the odds then were enormous. I mean, the Russians didn't have as much good equipment as they've got now, but they had a lot of it, and the odds were, as far as we were concerned, overwhelming. We were the lone tank battalion in that whole European theater of operation. You look across the border and, as I said, the odds were overwhelming. Colonel Abrams got into a big argument with the administration one time about the evacuation of noncombatants. We had plans for that, and in those days we had to have 10 gallons of water and two cases of C rations and a bunch of blankets and whatnot stored in a closet inside the front door. You loaded them out every once in a while, and you went someplace with them. I guess they sort of fell off that during the Vietnam War, but we used to do it all the time. We were over there when the Korean War started, and President Truman made a decision to leave the dependents in place. It was a big thing to move them out. As a matter of fact, we even went so far as to ship home our excess

household goods. We were told to get our belongings out of there because they were liable to have to take us out in the middle of the night.

Once that was done, Colonel Abrams decided that the women and children might not get out of that place. So, if they didn't get out, then some of them might want to fight, and they should be taught to use the weapons. So we took the wives out, and the older kids, those who wanted to, and taught them to be tank drivers, tank gunners, and fire the machineguns. As a matter of fact, for a long time on some models of tanks, my wife was one of the better tank gunners I've ever met. We had plenty of ammunition left over from the war, so we would go out on Sundays and put the wives and those who wanted to—those who didn't, we could give them something else to do—through a training program.

INTERVIEWER: We don't want to belabor the issue, but by the time that we had a substantial number of women in the Army, you were already at least a major general. Do you think that we are, or are we always going to have the same problems?

STARRY: Well, I think we are. What you have said is that the young people will figure out how to make it work somehow, regardless of what us old folks say about it. The young folks, if they're there, will figure out how to make it work, but what you're describing is a situation in which we have said, "Okay, they can serve in these MOSs." It's like my example with the air cavalry squadron. We never sat down and laid out the support train chain to demonstrate to ourselves where that really put them. For example, we awakened one morning when I was the V Corps commander to discover that there were women in the 2d Squadron of the 11th Armored Cavalry Regiment. They were in the DSU, the direct support unit, which, because of the nature of that squadron's mission over there, and the fact that it's in another corps' sector but comes back home to fight the war, had an ordnance direct support unit right with them that had women in it, even though the squadron itself had no women in it. The same thing is true with medics and so on.

You lay that corps support system out on the battlefield—as we tried to do when I was a corps commander—and you've got them up in the battalion field trains, tank battalion field trains, not artillery battalion field trains. So, as you say, the kids will accommodate, but some question is always raised that, when casualties begin and the women get wounded, are the guys going to spend more time worrying about the girls that got hurt than they are about doing the mission? I don't think that's too much of an argument. I think you'll find that same problem with men, particularly in good units where there's a lot of cohesion. Your buddy gets hurt, there's always that tendency to—as a matter of fact, I got wounded in Cambodia, and I was still coherent enough to go around and kick them all in the ass and make sure they were going on with the mission and not worrying about me and the guys that got wounded with me.

INTERVIEWER: Well, I'm sure you're aware that the Israeli study bore out exactly what you are saying.

STARRY: They'll stop the whole thing to take care of the wounded and completely ignore what they were out there to do in the first place. You can't have that. And I don't think that's necessarily an argument about women alone; it's just an argument about military units in general, but it's a problem.

INTERVIEWER: Well, let me pin you down on one aspect of that subject, and then we'll leave the area unless you've got some more questions on it. It appears that you have a problem with the women in the Army. What you've said is that they don't belong with the warriors—the tank crews, the artillery crews, and the infantry. Is that merely tradition speaking, sir, or is there another reason that's much deeper than that?

STARRY: No, I honestly believe we could use a lot more women than we presently have in the Army . . . .

INTERVIEWER: . . . In support crews?

STARRY: In positions and jobs and activities, if we could ever figure out how to draw the dividing line, doing things that women, in some cases, in many cases, do much better than men do.

INTERVIEWER: Why should we have that dividing line? That's my question.

STARRY: Well, they certainly don't belong in the fighting crews and the fighting teams and so on. How far forward you put them, I don't know. I've argued about that with myself, particularly as a corps commander, when we had a lot more women coming in, and I found out the medics were up there, the girls in DSU and all this stuff. Do you want to make them take them out of there? I fought for those two gals in that air cavalry squadron because I believed they should have been left there. There's nothing wrong with that, but the thing I couldn't, and I still can't, figure out is how do you legislate or regulate the dividing line? It's not that clear. It isn't possible. That's why I admire the Israelis' system. They're the only people who have thought it through logically and have said, "Here are the dividing lines." They're sharp, they're cleanly drawn, and everybody understands them.

INTERVIEWER: But you see pictures on TV of the Israeli women with weapons on the front lines or in fighting positions. I don't know whether that's propaganda or not, but you made the statement that women should not be in the fighting crews and, again, why not?

STARRY: Well, again, I will admit that there are women who can do those jobs, probably as well as or better than some men. There are also some men who cannot do those jobs very well, but I think the women who can do those jobs fairly well are in the minority, just as are the men who cannot do those jobs very well. So we're arguing about a minority thing, but the thing in my mind is that it is an experiential thing with people and war and the miserable conditions that war generates, living conditions, for people, and all the living together problems, social living together problems—simple cleanliness, hygiene, latrine problems—that the presence of women in tank crews, for example, or artillery gun crews, cavalry crews, or whatever causes. The second thing is I do not believe that you can establish the same kind of bonds in a unit—that is, a fighting crew that has women in it—that you have to establish to be effective and that are established in good units that stay together for a long time. The bond between men in those circumstances is something in which no woman can be intruded successfully, in my opinion. I could be wrong, but I don't think so.

INTERVIEWER: Could they form that same bond if you had a unit of just women?

STARRY: Probably. I don't know. Somebody ought to experiment with that.

INTERVIEWER: A very interesting subject. As you can probably tell, I'm reluctant to leave this issue. General DePuy says that only 10 percent of the soldiers in combat fire their weapons.

STARRY: He's taking his 10 percent from S.L.A. Marshall, and I think that's true. But at the same time, you know, one of the great battalion commanders in the Korean War was a guy named Gordon Murch, who came back from Korea and ran the leadership battalion of the 3d Armored Division at Knox, where it was then as the training division. Gordon Murch had a theory about units, and were he here to tell the story, I think it might be about the same with women. It goes something like this: If you've got 20-some-odd guys in your platoon, your infantry platoon, there are probably 6 or 8 who are real doers and 6 or 8 who are nondoers. Everybody else is in the middle. The battle turns on whether or not one of the heroes happens to be there where the crisis is, and the guys in the middle see him and do what he is doing, or follow him, or observe him, and go and do that. If none of these guys are there, and one of the six or eight nondoers is there, then the battle falls apart. He used to tell that from the experience of many, many battles in World War II and Korea. It's an observation he made. Whether or not it's borne out by the statistics, I don't know, but there's a lot in S.L.A. Marshall that sort of tells you that.

I think from experience that I could say the same thing, almost. Some guy takes charge of the thing. He could do the wrong thing. I mean, if you sat down to figure out what you ought to do, and said that that's what he ought to do, he may not do that, but he does something. And, as General Patton used to say, "Do something, even if it's wrong, and it will turn out right more often than not." He was right. But, if you do something that's clearly wrong, or you get one of that coward group in charge, you've got a problem. And that goes back to the cohesion problem.

The Israelis have a liturgy that they go through about this. Battle today is a complex activity. The solution to complexity lies in thinking. Thinking out in advance what needs to be done solves complexity. In battle, there is no time to think, and so you must think out ahead of time the most complex situations that you're likely to encounter so that, when the time comes, you will automatically do something, you'll be doing something that's about like something you've already thought of. Whether or not you went through that exact scenario doesn't make any difference, but you're not taken by surprise. And that tends to dampen out what happens with this bunch of nondoers, as Murch called them, and it makes everybody think, "Well, here's something we've thought about before." Not a bad rule.

General Abrams used to do that all the time in our bivouac areas in the old 63d Tank Battalion. We never sat around and chewed the fat. We sat around the map. Company commanders and platoon leaders would get the maintenance going under the sergeants, then they would go and sit around the map. And he, in effect, conducted a tutorial, but he did it by asking questions: "Now, here we are, and here's the disposition and the situation as we know it. What are we going to do if the enemy does this?" And everybody would kick in a little bit and he'd come to a place in the conversation and he'd say, "All right, let me give you a set of orders here. A Company's going to do this, B Company's going to do this, C Company's going to do this. The battalion's got an objective up here, and here's where we're going to do that. Now, I want you to go out, reconnoiter the area, come back

with a tentative plan about how you would do what I just told you to do, and be back here by 1400" or whatever. And we'd go away and do it. Then he'd say, "Okay," and the S-3 would be sitting there writing this down, and we worked out a plan. And, if time permitted, he'd say, "What if they come over here? What if they do this and this happens? What are you going to do? Here's what I want you to do. Go reconnoiter it." We drilled all the time, mentally, and he left time for us to go back and talk it out with the sergeants. We even took some of them with us on reconnaissance, and he did it all the time, to the extent that it almost became second nature with us. We were always thinking about that "What if?"

I did that as a lieutenant in his battalion, and I did it as a lieutenant colonel commanding my own battalion. I did it with the 11th Cavalry when I commanded the regiment in Vietnam. There wasn't as much time to do it, because we were fighting all the time, but at least, the squadron commanders and troop commanders and I were always working "What ifs?" I tried to do it as a corps commander. That's really what terrain walks are—"How are you going to fight the battle, and what happens if the other guy does this?"—to make them think through the problem. I don't think I've ever encountered a situation in battle, certainly not in combat, and tactically anywhere—combat or not, as a battalion commander or whatever—that I hadn't at least given some thought to something like that before. So it wasn't a new situation, and it wasn't a surprise. You didn't have to stop and start at the bottom left-hand corner of the board and build yourself a situation. There's always something you could relate to.

INTERVIEWER: I think you'll be happy to know that the terrain walks are still alive and well in Germany.

STARRY: It's an absolutely marvelous and essential training vehicle.

INTERVIEWER: I agree.

STARRY: And you've got the greatest training aid in the whole world. I mean, the GDP, the General Defense Plan, and the terrain and the whole thing; you're just foolish if you don't take advantage of it.

INTERVIEWER: I think we probably need to regress a little bit. Let's go back to West Point and talk about another controversial subject for a minute. About the time you were graduating, of course, is when the Army was supposed to be fully integrated. West Point had had a number of black candidates prior to that, of course, but that was supposed to open it up more, along with the rest of the integration of the Army. Do you have any thoughts about blacks in West Point?

STARRY: Well, we had a black cadet in the company that I was in, and they treated him like shit, what with the bias and the prejudice. He was a good man and graduated in the Air Force as a fighter pilot. He was later killed in a training accident, but he was a hell of a good man, and they treated him like shit.

INTERVIEWER: The cadre or the cadets?

STARRY: The cadets. I never could figure that out, because he was good guy. They tried to get him in trouble. They accused him one time of a violation of the honor code, which you just knew they ginned up on their own. They were trying to get rid of him. We had a bunch of hard core southerners. You know, it's the old Civil War thing. We had, you know, the

leadership tradition in the South, the military tradition in the South, and so we had a lot of southerners in that company that we were in at West Point, and they just were very bad. I never could understand, first of all, why the other cadets put up with that, the classmates and the cadets in charge.

INTERVIEWER: Did you have sort of a division between those cadets who treated him decently and those who did not?

STARRY: We had a number who treated him decently, but they were passive about it, whereas those who didn't treat him decently were active about it, and I could never understand why the passive ones—who were, in fact, in charge of the organization as cadets—weren't more active in trying to prevent the things that these guys were obviously doing to this fellow. Nor could I ever understand why the administration, his tactical officer, and so on was not more active about it. The blacks should be, if it's possible to do it, afforded absolute equal access to the place. That's not an issue as far as I'm concerned and never has been.

INTERVIEWER: Do you feel that, in those days and shortly thereafter—for the next 5, 6, 8, or 10 years—one of the feelings was that the blacks [who] were not adequately prepared—such as adequate high school preparation and that type of thing—should have, let's say, special treatment to equip them to come into West Point and be a viable candidate there?

STARRY: Well, whether they were afforded equal advantage in terms of their educational background to get in or not, I don't know, but I doubt it, just based on what we know about the way they were treated in the society as a whole. It would be hard to argue that they'd had equal opportunity to prepare themselves for getting in, but of course that's changed dramatically in the last 30 or 40 years. I honestly don't know what the circumstances at West Point are these days. All the things I saw as a cadet, I'm sure, have gone away. But don't forget that we didn't integrate the Army until after I had graduated. In fact, I was a lieutenant in the 63d Tank Battalion when they issued the great integration order and we started breaking up units. We had a couple of mech infantry battalions in Germany, where I was at the time, that were all black, and we split them up. We put the white soldiers over there and brought the black soldiers into the white units.

INTERVIEWER: With regard to earlier attempts at integration, you may have had a regiment, for example, that was integrated, but battalions within that regiment would [be] pure white or pure black.

STARRY: Yes, and I think that's a bad idea.

INTERVIEWER: Well, I think it was an attempt to not fully integrate. The first unit that was really integrated was in Korea when the division commander issued an edict that, when you had casualties or whatever, you would replace losses with whoever came in. And there was to be little attempt to maintain all black or white battalions. Is that the case?

STARRY: Yes. I was in Europe when the Presidential decree came about. We just flat integrated them after that.

INTERVIEWER: Did you experience any turmoil during the integration part of it?

STARRY: No. We had more trouble, in those days, with the Puerto Ricans who came out of the slums of New York and Chicago as a result of the draft starting up again, due to the Korean War, which increased the need for manpower. As a result of the draft, they dragged

them up out of those ghettos down there, and we had a horrible time. Our division got, all at once, an infusion of god knows how many Puerto Ricans, many of whom couldn't speak English. In our battalion we were issued about a company-sized cohort of those guys, a couple of hundred of them, and the battalion commander said, "We have got to train these people. They have been through basic training, but some of the sergeants who speak Spanish and have talked with them don't believe that they're adequately trained."

So we went out and gave them a test, and they were not adequately trained. It turns out the reason they weren't is that they hadn't understood about half of what was said to them in basic training. I mean, there was a total language disconnect. So I was the assistant battalion S-3 at the time, and I was given the task of forming a training cadre to train these guys and make up for their lack of basic training and do some small-unit training—tank crew training, because they hadn't had much of that. I got all the Spanish-speaking sergeants in the battalion together, and we went at it. They came out of that exercise pretty well-trained soldiers, but every once in a while you had to wonder, "Well, if the tank commander doesn't speak Spanish, how is he going to get along with that guy if he is a gunner?" So we had to work on the language problem. The language problem was one of a much longer duration. They made good soldiers; they were good soldiers! The poor guys simply hadn't understood what was being said to them during their initial training.

INTERVIEWER: Was Colonel Abrams still the battalion commander?

STARRY: No. Lieutenant Colonel Francis Fitzpatrick was the battalion commander.

INTERVIEWER: Same battalion?

STARRY: Same battalion.

INTERVIEWER: Let's go back to West Point again and another question. In stating your preferences, you stated Air Force as your first, second, and third preference.

STARRY: Well, you had to list 13 branches, and I just put Air Force in the first three blanks and left the rest of it blank.

INTERVIEWER: Many of us do that kind of thing.

STARRY: Arrogance. Overconfidence.

INTERVIEWER: But, since you didn't get Air Force and you didn't mention Armor in your preferences, it appears to me that you were very fortunate in getting Armor. Was Armor what you wanted if you didn't get Air Force?

STARRY: I never thought it out, honestly. Here was this list, signed by the Commandant of Cadets that said these guys are qualified for flight training—passed the physical, passed the check ride—and I even had wedding invitations printed, "Lieutenant, United States Air Force," calling cards printed. I was gone. I really hadn't spent the first month's flight pay yet, because I didn't know how much it was. That's the only reason. It was a result of that summer training, I think; it was fun to fly, great sport. It was a new branch, a new arm of the service. They'd achieved their independence from the grubby old Army, and there was an air of excitement about it all. Something new was going to be done, and no one knew where it was going to go, but obviously up, so I just never gave any thought to serving in Armor.

As I recollect, subsequent to the Air Force disaster, I was forced to make out the rest of my preference sheet, and I filled out cavalry first. Why, I don't know, really. I'd known my dad was an infantryman in his National Guard service. On the other hand, he was one of the first members of the Tank Corps in World War I. We had a lot of Tank Corps artifacts around the house that I'd grown up with, and I really think I was impressed by the cavalry guys at Fort Riley, the cavalry troops at Fort Riley, and the officers and that whole environment that I described awhile ago. So I put down Armor when I had to choose a branch. Of course, you could not have been a part of Colonel Abrams' tank battalion and not be in love with the armored force. Once you'd done that, you belonged. You had a big investment in it.

INTERVIEWER: You then went to the Ground General School, with which we're not familiar. I don't believe we have anything like that any more. And then you attended the Armor School at Fort Knox. How were those experiences?

STARRY: The rationalization for the existence of the Ground General School went something like this. It was an opportunity to bring together all newly commissioned second lieutenants in the Army for a given year and put them through a common course of schooling, since they had come from a variety of commissioning sources—OCS, West Point, and college ROTC programs. That was the official rationalization. The real reason behind it was that they had the Cavalry School sitting out there at Fort Riley and didn't know what to do with it, because cavalry was a thing of the past. And the Armor School was at Fort Knox. So they backfilled.

They were going to close Fort Riley somewhere in those years, in the late 1940s, but they were able to keep it open by doing two things. First, they put the Combat Intelligence Schools out there; that is, Air Photo Interpretation, Interrogation of Prisoners of War. And don't forget, Aggressor began at Fort Riley. The whole Aggressor idea was ginned up by a couple of colonels out at Fort Riley. And they created the Ground General School, for lieutenants, all on the framework of the Cavalry School. In fact, at the time the assistant commandant there was an officer who had been a life-long friend of my father. He'd been the Regular Army advisor to my dad's National Guard company for a long, long time in the 1930s. He'd been General George Patton's G-2 in World War II. Colonel Oscar Koch, a super guy, was the assistant commandant. It really was a good school.

And that's another thing that impressed me about the cavalry, I guess, going back to what I said before about it. That's one of the best schools for training individuals that I've ever been to, bar none, or that I've ever seen. As a matter of fact, a lot of the things that they did there I tried to clone in training systems in my battalion, in my own units, and when I got to Knox as the commandant. They were extremely good at individual training, using all kinds of little gimmicks—not gimmicks, they weren't gimmicks, but techniques. One of the things they let you do is—and think about this in today's environment—check out weapons from the arms room and take them home. What they did was go through the instruction with you. Pieces were on the board, the names were on the board, they showed you the examination you were going to have to take—with regard to naming the pieces and parts, putting them together, assembling and disassembling them, nomenclature, functioning, you had to describe the functioning in great detail—and the training would end up in a live-firing exercise.

So, for the first part of that, they said, "Since you folks are lieutenants,"—I found out later they did this with everybody except the recruits—"you may check these weapons out and, when you're ready for the examination, come around and we'll give you that part of the examination, everything up to, but not including, live firing." So we had a .50-caliber machinegun on a tripod sitting in the living room of our apartment in Junction City, Kansas, for about two months one time, and our friends would come over—I checked out the gun, took it home because we had a place that was fairly secure, more so than anybody else apparently did—so we gathered in our apartment, had a beer, and we'd go over the weapon. We'd do it blindfolded, and backwards, and all kind of tricks that the younger folks like to do, so that, by the time we got through, we were pretty good at it. So we learned on our own. When you thought you were ready for the exam, you went and turned yourself in and they'd give you the exam. Then they'd take you out and you'd do the live-firing part of it. They were absolutely meticulous in demanding detail, and the officers, that's *officers*, now, the officers had to be better. They would show you the same exam that they gave the sergeants, and the one they gave the enlisted men. The officers' exam was tougher by an order of magnitude.

INTERVIEWER: They had enlisted in the school also?

STARRY: Well, no. This just cut across what had been the Cavalry School as a whole.

INTERVIEWER: This was just for armor or cavalry officers?

STARRY: No, everybody. All second lieutenants, regardless of their source of commission.

INTERVIEWER: Sort of an officer basic training type of course?

STARRY: It was officer basic training, a common officer basic training course, and it was probably the best school like that, at that level, that I've ever seen.

INTERVIEWER: Could we afford to do something like that now, or integrate it, at least, into OBC [Officer Basic Course]?

STARRY: That's an awfully good idea.

INTERVIEWER: Well, I've often felt that our OBC graduates, especially in the last few years—and I saw a lot of them as a battalion commander—were not very well grounded in weapons systems or anything. They were not really trained; they went to the unit to learn that type of thing.

STARRY: Now, you see, we went from the Ground General School—which was just that, basic tactics, basic weapons, basic everything—to a branch unique school that, in those days, was five months long, almost six months. So you had five months of Ground General, and then you had five or six months, five and a half months, whatever it was, of branch specific. This is an officer, now, who goes to a unit with a year of that kind of small-level, low-level, small-unit kind of tactical training behind him. Now you compare that to what our officers have today—our newly commissioned officers only go through branch-unique training today—and you can see how much better prepared we were. I still had a lot of unanswered questions about what went on out there when I got out of the whole course, but we were a lot better trained than today's lieutenants are.

So it's the resource problem with officer training, as well as with enlisted training. The resources are restricted, so we cut back and cut back and cut back. When TRADOC started, we cut the advanced courses back from 39 weeks to 20-some-odd weeks, and there was some talk of cutting them to 19 weeks so it wasn't a permanent change of station. The second thing that happened was that all sorts of other interesting things, some relevant and some nonrelevant, got inserted into that curriculum by people at all levels, starting with the Department of the Army, even the Congress, which further added to the time problem in that course. I really believe that, despite the fact that the young people get a lot of good basic-level information in summer training when they're in West Point, or summer training when they're in the ROTC programs, and so on, that basic training for an officer, particularly in our system, should be something on the order of nine months to a year. It's not at all too much for that, and we probably ought to try to afford that somehow.

INTERVIEWER: When you were TRADOC commander, did you investigate doing this?

STARRY: Oh, yes. When I came to command TRADOC, we had just finished cutting back under General DePuy, for good and sufficient reasons, all those courses, and I started all the moves trying to extend the length of the officer course. We finally wound up in armor and artillery, adding three weeks under my tenure at Monroe, and we held the line on the advanced courses. We had to trade off some things to do it.

One of the ways we paid the price was to go to one-station unit training for the enlisted men and got rid of the distinction between BCT, Basic Combat Training as we called it, and Advanced Individual Training, AIT as we called it. Some of the money saved out of that we put into officer education, as well as revamping the whole NCO education system. The personnel managers will tell you that a year out of an officer's career is not affordable from the manpower standpoint. But there's no substitute for that kind of training for the officers.

Let me just add something to that. Talking about officer training, I think the most valuable training I had, the thing that was of most value to me as an officer, particularly in the first few years of my service, was service as an enlisted man and my association with my dad's National Guard unit. I found that I had a perception of enlisted people, and NCOs in particular, that most of my contemporaries didn't have.

. . .

INTERVIEWER: Is it more expensive to take the time to train an officer in a unit, or is it more expensive to train him in a school environment such as you went through? Can we measure that?

STARRY: I think you've got to give them the basics, and it's a question of how long it takes to do that. There's a certain amount that is valuable to give him in the unit, because in the unit he also learns the people. So you build a little bit of unit cohesion in the process of teaching the lieutenant. But not all lieutenants are teachable by a sergeant and not all sergeants are capable of teaching the lieutenants. In the case of the crusty old soul who was my platoon sergeant, we didn't debate the issue. He just said, "The lieutenant, sir. . . ." very respectfully, "the lieutenant, sir, is going to become proficient at being a platoon leader, and I am the principal instructor," or words to that effect. But not every platoon sergeant can

do that, and not every lieutenant is going to accept it. In fact, that was the exception rather than the rule, I would argue.

INTERVIEWER: I had the same experience, but I think we lost that in the 1973 to 1980 timeframe.

STARRY: We lost it in Vietnam; Vietnam just ate up that level of experience in the NCO corps. I think we're just beginning to get it back now; the tradition of having the sergeants take great pride among them as to whom the best platoon leader was—for the sergeants in the 63d Tank Battalion, a matter of great pride. Platoon leader, not platoon sergeant, because they weren't worried about themselves; it was their platoon that was important. They were concerned about who the best platoon leader was because the excellence of the platoon leader was a reflection on the ability of the sergeants to train the platoon leader, and they were very good at it. They all worked very hard at it.

INTERVIEWER: And, during those post-Vietnam years, I think we found that we didn't have the NCOs who had the training and dedication.

STARRY: The older sergeants got promoted, a lot of them retired, and a lot of them became casualties. I remember that we worked with the 1st Cavalry Division for a large part of my tour as a regimental commander in the 11th Cavalry. The sergeant major and I would land at least every other day or so in one of those rifle companies, and what we saw was appalling. There would be a lieutenant as the company commander. He might be a captain, but if he was a captain he was a two-year captain, and he didn't have a long tour as a lieutenant. Then you had some very junior sergeants. They, too, might be E-5s and E-6s, but they also had been promoted very rapidly. So you really had no experienced sergeants. You had absolutely no experienced leadership, and there they were out there groping with a problem of some enormity. As a regimental (brigade) commander, you just had to look at the situation and say, "What have we done to ourselves? It's not fair." And it wasn't their fault; it was the Army's fault. We did that to ourselves.

INTERVIEWER: Do you think that the noncommissioned officer candidate schools were at fault? Would you lay a lot of the blame on that doorstep, or was there an alternate course of action that we should have taken?

STARRY: I don't know what I would have done if I had to make the decision. You know, there's no substitute for experience, and experience is what we're talking about with regard to those sergeants. In a situation where you're training up the NCOs at the same time you're training up the officers, you still have the unpleasant circumstance of that inexperienced sergeant and inexperienced officer, and it would be hard to say which of the two is least experienced out there trying to put together an operation. We wound up in that war with officers doing a lot of things that sergeants should have been doing. And there were a lot of sergeants not doing things that sergeants should do habitually.

General DePuy tells a story about relieving a couple of sergeants major during his tour as a division commander. That's where I got the ideas for "Sergeants' Business." I asked him one time, "Why did you relieve that sergeant major?" He described for me the things that the sergeant major hadn't done in the unit. The unit hadn't done things that he called sergeant's responsibility. I thought about that for a while, decided that there's really a distinction between sergeants' business and officers' business. While I was in the process

of thinking that through, I was asked to go to the Sergeants Major Academy and talk to the class. I hadn't written this down, but I went there and just said, "I want to talk about sergeants' business, what you are responsible for, and what the officers are responsible for." Out of that emerged the tape "Sergeants' Business." Somebody transcribed it, and eventually I wrote it in an article that was published in *Military Review*. That tape is still around. But that was the genesis of it.

I wish we could be clever enough to structure a course of instruction for the sergeants that would teach sergeants' business in that context and show the same thing to the officers, because there's a lot of overlap. You talk about the excellence of the officer with weapons, you teach that officer to be so good with that weapon, and if he sees that the sergeant is not quite as good as he is, then he's going to take that teaching task over and do it himself. But you have got to hang back on that, which is hard to do. So you're always going to have that dichotomy; if you teach the officer to the level of excellence that, as a cavalryman, I would believe the officer ought to have, then he is probably better qualified than most of his sergeants to do what they're out there doing, but you have to, at the same time, teach him to stand back from that and not do what the sergeants are supposed to do.

INTERVIEWER: I guess we had the same problem in Korea, too, with younger NCOs having to work their way through it.

STARRY: Same problem in Korea, that's right. I'm not able to say it statistically, but my sensing, my intuitive sensing, is that it may have been more difficult in Korea and Vietnam because of the tour length. You see, in World War II you'd put the units in the line—which I think was a mistake, but that's another subject—and leave them there. Then you'd keep feeding in individual replacements, which I also think is a mistake. So what you wound up with were the survivors, the experienced hard core of people who taught the new people what needed to be taught. Don't forget we cadred both the Regular Army and National Guard units to produce the NCOs for those units we created during the war. In the units that were created from whole cloth (that is, not mobilized), I'm told that that was a big problem. I don't know. I observed a couple of them, but I would not be able to say statistically how big the problem was. But tour length definitely affected that in Korea and Vietnam.

INTERVIEWER: It's been my perception, and perhaps you can clarify this for me, but I think that the problem that really hurt us most in officer and NCO professionalism was the length of our involvement in Vietnam and, of course, all of the wrong things that we taught our people in Vietnam. As a result, we lost that corps of hard core professionals, both in the officer and in the NCO ranks. The officers had moved up to where, by the nature of their job, you couldn't associate with the soldiers as much as you could have had you been a company commander or battalion commander. It appeared to me that our NCOs left the Army after Vietnam not in any greater numbers than before, but those NCOs who had grown up in the Army prior to Vietnam, and had become very professional as a teaching NCO, got out either during or after Vietnam. And the people who had become NCOs during Vietnam and remained in did not learn those lessons.

STARRY: They weren't very well trained, that's right.

INTERVIEWER: So you didn't have anyone available for years after Vietnam to do the teaching for either group, officers or NCOs.

STARRY: That's right. That was quite apparent. That's why, following the terrain walks in V Corps when I was corps commander in 1976–1977, I'd go to each battalion commander, after we finished with his terrain walk along his general defensive position, and have him tell me how he was training his battalion to fight the battle that we had just described out there on the ground. He and his sergeant major gave that briefing. He would explain what he was doing with his battalion training program to get ready for the war we described on the ground, and the sergeant major would then say what he was doing to train the NCOs in that battalion. That was the back half of the terrain walks. The front half of it was fun. The back half of it was a little bit nitty-gritty, because we were forcing the sergeant major to lay out a program about how he, the sergeant major, intended to train the NCOs for the leadership job, and forcing the battalion commander to say, "Here's how I'm going to use the resources you're giving me to get ready for the battle I just described for you out there on the ground." That is equally as important as going out on the ground and figuring out how you'll fight the battle.

INTERVIEWER: Well, I don't think we're anywhere near back to where we should be.

STARRY: I'll tell you what, we're a hell of a lot better off than we were 10 years ago.

INTERVIEWER: Yes, sir, we certainly are. Having seen this problem twice in your lifetime, in Korea and again in Vietnam, other than the tour length, what other thoughts do you have on how we might prevent these problems from recurring?

STARRY: I honestly believe that the military system of the United States—the "Military Policy of the United States," as Emory Upton called it, which was later styled "A Proper Military Policy for the United States,"* reflects the period of history through which we were going when it was generated. It's essentially an industrial revolution mentality, and it says that the factories of this great industrial country that we have are going to turn out the tanks and the bombs and the airplanes and the guns in great proliferation. The training factories of the country are going to train up the individual soldiers that we draft out of this great pool of manpower, and someplace out here they're going to get together and go to war.

Now, if you read General Marshall's book, *Memoirs of My Services in the World War, 1917–1918*, he talks about the amount of training that they had to give the soldiers coming out of the training base after they joined their units in the AEF [American Expeditionary Forces] because they didn't have the proper unit training to produce cohesive units to fight the war. So it was a problem from the beginning. However, no one was clever enough to understand that, and so, between the wars, we simply improved on that system, and we went to war in World War II with the same system.

I remember especially the National Guard units that were mobilized in the division in which my father commanded a company—the 35th Division—when they mobilized in World War II. I seriously doubt that in his company there were more than five or six people

---

*Report of the Secretary of War, "Statement of a Proper Military Policy for the United States," Prepared by the War College Division of the General Staff (Washington, DC: Government Printing Office, 1916).

who went to war and fought with the group that had been there in the first place. Where were they? Mostly cadre. The officers and sergeants all got promoted and went away to do something else at higher levels. Who was left in this company? What kind of a company is it? Is it a well-trained company that goes to war with people who know one another, who have been together for 10 years or more in the National Guard, and then trained together after they mobilized? No. It's an ad hoc outfit in which the experienced people have all been siphoned off to do something else, cadre new units or whatever, and all the newly drafted people are there trying to learn all over again from the beginning. So the only thing that was left was the flag and the unit designation.

At the end of the war, General Eisenhower, as Chief of Staff, testified about this before the Congress in rather derogatory terms and suggested that this was not the best way to do it. After Korea, General Collins, who was then Chief of Staff, testified about this before the House Armed Services Committee, saying to the effect, "I hope we never do it again." We have years and years of experience in this thing, and after every major war when we do it, we recognize that it isn't the best way to do it. It has deprived us of the very thing we need the most, which is cohesion in units, had by training them up as units and sending them off to war as units, then bringing them back and refurbishing them, like the Germans did. And yet we continue to do it. Well, it's 70 or 80 years old now, and it's hard to change something that deeply embedded in the culture.

There's a big chapter in this book that talks about that. This is the Savage and Gabriel book on Vietnam [*Crisis in Command*]. However, it's a mediocre attempt to prove something they had already decided upon. With every one of their statistical analyses, one can take the same numbers—their numbers—and prove exactly the opposite if you're a clever statistician. What we deprived ourselves of in Vietnam, and in Korea as well, because of the rotation policy, was any hope of ever having units in which the soldiers had trained together long enough to become really honest-to-god cohesive units. Now battle sharpens up that process, and it speeds up that process by its very nature. You have to do that, but at the same time, the system just doesn't allow for it to happen, because 30 of your people, or 12 percent, are going away every month or something like that, and then there are always the casualties—wounded and so on. The system, the individual replacement system, just deprived us of any hope of ever doing that.

When we started the redeployment from Vietnam, I ran the task force for General Abrams that drew up the plans and redeployed the first 150,000 or so, 200,000, and then I went to command the 11th Cavalry. But, when we started that, we had 549,000 people authorized in Vietnam. We actually had about 538,000 or 539,000 in country, and as we started taking people out—the first increment was 25,000—our proposal was that we take out a whole division. We wanted to take the 9th Division out of the Delta, and our proposal was that we pick the 9th Division up out of Dong Tam and wherever else it was, bring it home, march it down the streets of Seattle or Los Angeles or San Francisco, flags waving, bands playing, welcoming the boys home from war.

The personnel people got hold of that and said, "You can't do that! That's not equitable. Here we have a man who has only been in that unit three months. He owes us another nine months of combat. Here's a soldier who's been in that unit nine months, and he needs to come home, but over here in the next unit is a soldier who's been here nine months, so he

ought to come home too. So we're going to take the new man out of this division, replace him with the old man from this other outfit, and send them home as individuals. All we'll have to do is increase the airplane traffic and so on. We'll send a token detachment home, half a dozen men carrying flags." Well, after half a dozen messages from General Abrams protesting this process to General Westmoreland, who was then Chief of Staff, the Army decided to do it the other way. Now, when you had 540,000 in country, that wasn't so bad, but what you did, you see, was increase the turbulence level in the units that were left. When you had 500,000 it wasn't all that bad. When you got down to about 300,000, it began to tell. What you had then, in addition to your normal turbulence rate, was a situation in which officers were standing up in front of their platoons, and sergeants were standing up in front of their squads every day, and almost none of the men out in front of them had they ever seen before, and none of them had ever seen the leader, and they're going to go off and fight a battle. And they're expected to do it successfully. Well, the history of battle just tells you that that doesn't happen.

So I tackled this at TRADOC [Training and Doctrine Command]. It was the genesis of the proposed regimental system. But we lost—couldn't get the Army to change. I couldn't even get them to consider changing the rotation policy, which is the basis of how often things turn over. When Lieutenant General Frederic J. Brown did a training study for us in TRADOC about the training system, he found essentially that where the turbulence rate exceeded 20 percent a quarter—a new face in the job every quarter—that not much meaningful training got done. Yet most Army units, particularly Pershing units and some of the special-purpose artillery, had turbulence rates that were two and three times that number. Pershing units were particularly bad, as I remember. So it starts with the rotation policy. I couldn't get the Army to change the rotation policy, so we studied how to form up regiments. The original scheme was that there would be regiments and there would be some battalions on active duty, some in the Guard and some in the Reserve. We decided to form a regional recruiting base. We talked with more than half of the state governors about it. They thought it to be a good idea. The proposed regimental system therefore was a system in which we would replace by battalion. We'd essentially send battalions overseas. There they would get down to some level through attrition, just as you would in combat, we'd bring them home with the officers and the NCOs that were left, train them up again, and send them back. And you rotate them through the training system (that is, through the training base in the United States) and, if you had a war, you'd form up new units. But, before you formed up the new units, you mobilized the battalions of that regiment, which had a home, a badge, a cap, whatever.

Well, that was a little bit too rich for the Army's blood, so the COHORT [Cohesion Operational Readiness, and Training] system was introduced at a level that really was inappropriate to rotate units—at platoon/company level. Unit rotation had a bad reputation because of our experience with [Operation] GYROSCOPE in the 1950s; we tried it at too high a level and it didn't work. After a lot of study at TRADOC in the 1970s, we decided the battalion was about the right level for unit rotation. The whole purpose was to reduce the effects of turbulence so that, no matter where the soldier went, he was back in this same general area he was in before, more likely than not in the same unit, so he was always back with some soldiers with whom he had soldiered before. They weren't new faces, and it wasn't a new circumstance or a totally new learning experience for him. So, in the end,

it was a modest attempt to get at this 80-year-long tradition concerning our mobilization system, which I think is an anachronism today. If you read the testimony of the Marshalls, the Eisenhowers, the Collinses, and so on, through all that 80 years of experience, it's been basically dysfunctional. It's just that today the circumstances in the world have made it even more so.

INTERVIEWER: Should we have increased the tour length in Vietnam? It was too late at that point to form a COHORT system or a battalion or a company rotation system, but should a standard tour have been more than a year?

STARRY: Well, I don't know whether it should have been more than a year or not. You see, what I'm against is individual replacements. I'm for unit replacements; I am against individual replacements. Now the answer to your question is, I don't know whether it should have been a year or six months or whatever, but what we should have done was deploy by unit. Let's say that the 26th Infantry Regiment has three battalions in Vietnam, or two battalions; other 26th Infantry battalions are at Fort Riley or elsewhere. So those battalions deploy; we send over a well-trained battalion; it suffers attrition down to some level, either predetermined or made on the basis of judgment, then we redeploy that battalion.

INTERVIEWER: No individual replacements at all?

STARRY: No individual replacements! You send it over there as a unit, and you bring it home as a unit. That's what the Germans did in World War II, although they had some individual replacements. I've forgotten the levels now; it's in the literature someplace, but anyway it was a very low-level thing. They simply let the units attrit. I have some German friends who went to war six times under that system, but every time they brought home whatever was left back to the training base. They went away and got some leave and rested up, then came back, put some replacements in the unit, and then they trained up as a unit and went back to war.

INTERVIEWER: But they're going to be less effective than they should be for some period of time.

STARRY: I would argue they're not going to be any less effective at that level of attrition than they would be if you just kept putting new people in there as individuals.

INTERVIEWER: That could be true.

STARRY: I don't know the thresholds. Somebody needs to study that problem and decide what it is. It may be, as I said, that you just have to put a situational threshold on it and say we're going to make a decision at that time. In the interest of good order, I suppose you should program it at six months or whatever, but I don't know whether or not the right combat time for a battalion is six months. I think that the combat time in that environment for a good battalion commander, a really good one, was probably eight months. At that point, you begin to ask—and it's in this book—how long does he stay that good before I have to bring him out? Don't forget they fought every day. We didn't come back to the base camps and mess around back there; we fought every bloody day.

INTERVIEWER: Was the eighth month the period at which he was the most effective, or was that when he started losing it?

STARRY: He'd reach some kind of a peak, and at that point, you'd begin to see him thinking about things that he shouldn't have been thinking about. The best one whom I knew was Lieutenant Colonel Grail Brookshire, 2d Squadron, 11th Cavalry, 1969–1970. He was probably the best battalion/squadron-level commander I ever saw, particularly in that environment. He came out at eight months and admitted to me, when it was done, that it was time for him to leave. As far as brigade and regimental commanders, some could be effective for nine months, perhaps a year.

INTERVIEWER: How long did it take them to become effective after taking over the job?

STARRY: It depended on whether or not the individual had been there before and whether or not he had been there for some period of time before he took command. I was in command about nine months, and I had been wounded, so it's hard for me to judge. I probably should not have gone back after I was wounded, but I did.

INTERVIEWER: Was there a difference in this effectiveness level, for example, between squadron commanders and regimental commanders?

STARRY: Yes. I think the squadron commander has a shorter stay period than a regimental-level commander and a division commander a longer stay period than a brigade-level commander.

INTERVIEWER: Just as an aside, what happened to Brookshire?

STARRY: He made brigadier general and was the inspector general in the European Command [EUCOM], where the J-1 has that job as a second duty. Then he was the ADC of the division at Fort Carson, where he got crossways of his division commander, who claimed that he was too tough on the brigade commanders. Now I'm not just saying this in his defense—it's not necessary to defend him, because he has a marvelous combat record and a marvelous record beside that. I've known him for a long time, and he's probably the best small-unit commander I've ever seen. He had his hands on everything, but he didn't dabble in everything. He knew what was going on, and yet he didn't try to run everything. Still, he had absolute iron standards, and they were very, very high, and you just did it that way or you didn't do it at all with him. And that's what he was saying to these brigade commanders, "The standards are not high enough, and I maintain that in training you can't have standards that are too high."

INTERVIEWER: Did he translate this to a large unit command?

STARRY: Yes. I think you've got to insist on high standards. Two or three of my favorite people in the whole world are coaches I've had. One was my high school football coach, and two others were my college swimming coaches. They were the meanest, toughest—and General Abrams, he too was a coach, that's really what he was. Lieutenants, for General Abrams—then Colonel Abrams—couldn't do anything right. Nothing! To the best of my knowledge, I never did anything right in his battalion as a lieutenant. But I will also tell you that, with all of those coaches, particularly when we went to play the game, it was a lark, because the preparation for that game had been so miserable that it was fun to go out and play the game. There was nothing to it. The football team I played on in high school won 26 games, then we lost one night in the mud to a bunch of toughies who simply stayed on their feet while we slid all over the ground. But those games were fun because the practice during the week had been so miserable. You went out and, you know, after about the first

three or four plays you thought, "Boy, have we ever got this sucker made." We thought that one too many times, because we were playing under conditions that we had not practiced under and, even though we talked about it a little before the game, the mud was bad and we just laid down.

INTERVIEWER: You didn't practice enough in the mud, I guess.

STARRY: That's right. So they'll do exactly in combat what you let them get away with in training, and that's why, in training, the standards have got to be high. If nobody meets the standards, that's just fine. When we organized the National Training Center—I was the instigator of that, along with General Bill DePuy—we sent the first few battalions out there and everybody fell [down]. They came back to me and said, "They're all flunking the test." Out of the first 20-some-odd battalions we put through there, only one did it right the first time, and that's just exactly right, because that has to be so damn tough that it gets their attention. But the only way it'll get their attention is for you to flunk them the first time.

. . .

INTERVIEWER: I guess we're getting a little ahead of ourselves, but you just mentioned that second lieutenants got another chance. However, it appears that the generals don't get another chance, such as General Brookshire, whom you mentioned earlier. He got sideways with his division commander—and I don't know who that division commander was, and I guess that's not important, but it appears that sometimes one disagreement can ruin the career of a very promising general officer.

STARRY: That's right. Sometimes it's a little thing too.

INTERVIEWER: I don't know where you were at that time. You didn't happen to be at TRADOC, did you?

STARRY: Yes.

INTERVIEWER: Did you try to do anything about the situation?

STARRY: Well, I took him off the hands of his division commander and put him in charge of CDEC, the Combat Developments Experimentation Command, which was part of TRADOC.

INTERVIEWER: Was that too late? Was there nothing else that you could do?

STARRY: I was not on a board at the time when I had a chance to influence it. I tried with a couple of board presidents to influence his selection for major general and so on, but to no avail.

INTERVIEWER: What happened to the division commander involved?

STARRY: He's a three-star general today.

INTERVIEWER: He still is?

STARRY: Yes. He's a good man, has a Distinguished Service Cross. He was doing some testing for us. We decided to test the Bradley when he had the division. I went out to visit him and observe the testing, and it was a disaster. I made a speech out there on top of the hill, now nonaffectionately referred to, even to this day, as the "Sermon on the Mount." They were down there testing the Bradley as a scout vehicle, and the tactics were wrong.

The lieutenants, the captains, the majors, and the lieutenant colonels were all screwed up, yet the division commander was standing up on the hill thinking it was great. Meanwhile, Brookshire was telling him that it was all screwed up and that they ought to be doing something about it. So I had a tutorial for all the generals and the brigade commander right there on the top of the hill about tactics—simple-minded, elementary tactics. I said, "You're supposed to be evaluating the weapons system in the context of a basic set of tactics. You can't evaluate the weapons system because you don't even understand the tactics. How are you going to have a decent evaluation against any sort of a baseline when the baseline obviously isn't even there? You can't tell if you're looking at a dumb lieutenant or a screwed up vehicle. We're never going to sort this out."

And we never did, and part of that's coming back to haunt us in the big controversy about the Bradley today. We can't make a convincing case for it because we didn't test it under circumstances where the baseline was quite clear, all because the people who were doing the testing didn't know their tactics and techniques, and I'm talking about the generals and the colonels. This happened in the great active defense revolution after publishing the 1976 edition of FM 100-5. The problem wasn't with the captains, the lieutenants, and the sergeants, because they had been taught active defense in the courses they'd gone through just recently in the school system.

The problem was with the lieutenant colonels and even more so with the colonels and the generals because, ". . . they didn't do it that way when I was out there." No, that's right, and we're not going to do it that way any more. There's a lot of that in this Fort Carson incident that I just recited. That is always a problem. In this case, I cannot understand a senior officer judging a guy in a position like the one I just described as being too tough on the brigade commanders. My perception, after watching the brigade commander in this exercise, is that General Brookshire wasn't tough enough, and I spoke with him about it afterwards. He said, "Hey, the guy just wrote on my efficiency report that he turned in last month that I was too tough on this guy, the brigade commander."

INTERVIEWER: I'm sure the brigade commanders perceived that they were backed by the division commander, so they didn't bother to listen to the ADC.

STARRY: That's right.

INTERVIEWER: Let's go back in history just a moment. You mentioned earlier that, prior to your entry into West Point, you felt that that was the primary source of officers' commissions and that was the only way to go. During your years as a lieutenant, did you perceive major differences between officers from West Point in contrast to other methods of receiving commissions? And how did your opinions change over the years?

STARRY: The first battalion that I joined had a lot of combat-experienced lieutenants and captains in it, people who'd been platoon leaders and company commanders as lieutenants in World War II and were OCS graduates. I went to that battalion with, I think, eight lieutenants out of the Ground General School training. In fact, we'd been through that whole course together, went from there to Fort Knox, and then went from Knox to this unit in Europe. George Patton was there when we arrived. I think, if I'm not mistaken, he was the only other—except for Colonel Abrams—Military Academy graduate in the battalion. The rest of them were all combat-experienced officers. We took a lot of hits from those guys just because they had a lot of combat experience. One lieutenant used to pull the

"ring-knocker" business on us to the extent that, for a long time, I didn't even wear a ring just to avoid the argument and this guy's obvious bias.

They were good at tactics, they were good at gunnery, and they were good at maintenance at the small-unit level because they had fought a war and they'd survived. That meant that they had to be fairly good at it. Some of them were social derelicts, and some other aspects about them were not all that acceptable. On the other hand, several of them were just very, very good officers and leaders. They stayed in the Army, and they did very well. So it was a mixed bag. Over the years of my service, I really believe that the ROTC system has grown up. We bailed it out of oblivion after the Vietnam War. We almost lost it. But I remember that we almost lost it once before, in the late 1950s after the Korean War, for about the same reasons. So I guess after every war you have to resurrect that system. Its strength has grown due to the fact that, when we started the rejuvenation at TRADOC when I was there, we insisted on putting the good people in as professors of military science (PMSs) and assistant PMSs. Helping us was the fact that society's attitude toward military service turned around in the late 1970s. It really turned around in the mid to late 1970s. So you had college administrators who were glad to have ROTC back on the campus and were willing to give the professors of military science a lot more clout than they had before. Some of the change was on the basis of the money that the ROTC system put into their universities, but at the same time society's attitude had changed.

INTERVIEWER: Back to the source of commission question, sir. When I first came into the Army back in 1963–1964, people told me that the difference in your source of commission was that a West Point officer had to come into a unit and prove that he was bad, whereas an ROTC officer had to come into a unit and prove that he was good. There was a great deal of bias in those days: West Pointers versus other sources of commission and the other sources of commission versus West Point. And, of course, then OCS came in, and in my opinion, in the early years they were by far the best because they had the experience.

STARRY: Well, they had the experience of having been enlisted men.

INTERVIEWER: Right, but they didn't have the social graces, protocol, knowledge, and this type of thing. But, over your years, was there a difference in quality of the officers by source of commission?

STARRY: I really don't think so. I suppose you could argue that, because of the screening process that's necessary to get into West Point, even though I've already commented that some who go there are not what they might be, you tend to eliminate the bottom 5 percent, whatever that bottom 5 percent is, and that isn't necessarily true in the colleges and universities. We have a set of colleges and universities in the ROTC system that traditionally don't produce good products, and when we began to try to revitalize the ROTC system in the late 1970s at TRADOC, we tried to weed out those colleges and universities.

Anyway, I was in the same brigade in Friedberg, Germany, for four years, from 1960–1964. I was the brigade S-3 for almost two years and in the 32d Tank Battalion for the rest of the time, first as the executive officer and then as the battalion commander. How many officers do you put through the system in that period of time? Probably a couple of hundred went through that one battalion, and I can count the bad ones on the fingers of one hand. I would argue that there were as many West Pointers who couldn't make it as the others, even though their numbers were, percentagewise, lower than the others.

I said it before, and I really believe it, that the young fellows or females who come from the good universities—good education system, good PMSs—especially where the PMS has been given some stature with the administration of the college or university as a faculty division head, are a . . . lot better equipped to take their place out there in the Army than the average West Point graduate, and for a whole lot of reasons. Some of them are social; others are just from having had to live in that isolated environment and survive. College is a lot more broadly based education. If anything, I have a bias in favor of the ROTC graduate, particularly the good ones.

INTERVIEWER: Could we make West Point that broadly based and still maintain the inherent discipline and regimentation in West Point that many feel is necessary?

STARRY: The way the place is run now, I don't see why you couldn't do that. I would argue that the way the place was run when I was there, I don't think so. I just didn't think it was appropriate. I had trouble discovering the relevance of the plebe system, or a lot of the other things that went on there, to what I knew went on in the real Army. It was the thing I've always objected to in the drill sergeant system and basic training. The philosophy was that they were going to tear them all down to the common denominator level of dirt and then build them up in their own image. [Wrong!] They go there as human beings, individuals who have backgrounds, cultural biases, perceptions, and good traits and bad traits.

The training experience at a Military Academy or in basic training or whatever initial entry training is called is what Dr. Morris Massey describes as a significant emotional event. The challenge to the training system is to construct that significant emotional event so that whatever goes into it comes out the other end with the values, traits, perceptions, attitudes, and all those other things that you want them to have to become an effective soldier—officer or sergeant. College is a significant emotional event. It isn't as significant as it should be in some cases, but it is an emotional event. Military training is also a significant emotional event. So you've got to construct the training system to produce the output you want. That's why I complain about relevance at West Point. The system is not designed against those criteria, in my opinion, and it never was.

INTERVIEWER: Even now?

STARRY: Even now, and certainly it wasn't when I went there. I just take violent exception to the notion that we're going to tear them all down and build them up in our own image. That's wrong! I tried to change that in the Army training system as the TRADOC commander. As you may remember, the drill sergeants rose up in righteous indignation when I cross-leveled the drill sergeants system over their loud protest. I didn't do it; my Sergeant Major Frank Wren did it. He and I sat down and I said, "What is wrong with this system? There's something wrong out there, philosophically wrong. The bias is wrong." Immediately, he said, "I'll tell you what it is. We've got too many 'tear them down and build them up like me' guys out there." I said, "You're exactly right. Now you tell me how we're going to fix that." So he went away and got all the sergeants major together and they produced a series of recommendations, most of which I approved. So I was guilty by association. I didn't do that; the sergeants major did it, because my sergeant major and most of the drill sergeants who worked with him on the thing fundamentally believed that the idea that you're going

to tear them all down and build them up in your own image is wrong. That began a long time ago with me.

INTERVIEWER: Apparently they're still doing that. For example, one of the theories I've heard often in the Army and about West Point is that in the "tearing down and building up in my image process" it takes four or five years after graduation for a graduate to start to think for himself again because he's been conditioned not to for so long.

STARRY: Right.

INTERVIEWER: It appears to me that it could be a rather simple process to adjust that system, yet there doesn't seem to be much progress going along those lines.

STARRY: I don't know if they've ever focused on it like that. Not everybody believes what I just said. I happen to believe it very strongly, but not everybody believes it. Each one of those people, I don't care who they are or how shaggy their hair is or how grimy they look when they walk in the door, is a resource, an asset. It's something that you can do something with if you can figure out how to do it, the way to do it. By and large, the way not to do it is tear it down and build it up in your own image. It is the excellence of the way you construct the significant emotional event that makes the product in the end, and in doing that, it isn't necessary to tear them down. They're going to go through that significant emotional event, and it's going to change them.

So you look at that event to see if the values are there, and if the institution acts like you want the institution to act, so that when the soldier comes out the other end he has adopted the values of the institution. It changes their value system; that's what Massey says. That's the ideal thing about that whole set of Massey tapes. What he's talking about is changing the value system, and what you're talking about is creating a system that changes the value system of the input product so that the output product, in this case a person, takes on the value system of the experience they have been through. That's what basic training is for officers.

There are a lot of significant events. Battle is a significant emotional event. If the battle is run right, the guy comes out the other end. If he survives, he comes out the other end with a set of values that says, "That's the way it's run right." Now, that's where people like Grail Brookshire come to the idea that the standards can't possibly be too high because that's what keeps people alive in battle.

We had a soldier in our regiment—he was my orderly—who had been wounded, badly wounded, and when they sent him back to duty he didn't complain. Instead, he said, "I want to go back on my track. I'm a gunner, and I want to go back on my track." The surgeon came to me and said, "I don't think we ought to do that. Let me just go over this kid's record with you." So we went over the record. I arranged to talk to the soldier, and I said, "Why don't you come work for me for awhile? You work on some special things where I need help, and when you get back on your feet a little better and get your strength back, then we'll talk about your going back out on a track. But I need to remind you that it's a tough world out there, and you're not as good as you were before you were wounded." "I'll try it," he said.

So he became my orderly. Now we got mortared a couple times, and he bailed some people out of holes and got them doing what they were supposed to be doing. He did go back out on track for the last couple months of his tour. On his way home, he came back to say goodbye to me, and he said, "You know, Colonel, the thing that I would like to do is thank you." I said, "What for?" He said, "For keeping so many of us alive to go home."

When I took command of that regiment, nobody was digging holes. I made them all dig holes. I told them, "I dig in, you dig in, we dig in. We live in the ground because, if we don't, we're going to get blown away when somebody mortars these places." Sergeant Major Horn came around and said, "There's a lot of resistance to digging holes." I said, "What do you think about it?" He said, "We should have been doing it a long time ago." I said, "Fine, keep them digging."

We had . . . a raid on one of Brookshire's firebases one night, involving a hundred-and-some-odd rounds in a matter of a couple hours. Still, because they were all in the ground, we only lost one killed and four wounded. An artillery piece took a direct hit and was on fire. Brookshire had damage squads established; they put the fire out and kept on firing the howitzer without ever losing a stroke. After that, there was no more conversation about digging in or not digging in. But my orderly said to me in our farewell conversation, "I thought you were the 'baddest' guy in the world when you came in here and started making us dig in. After that attack on that firebase, I realized what was going on. Everything you do is that way. Half of us wouldn't be here today if you hadn't come in here when you did and made us start doing things that we should have been doing all along." So the standards can't be too high. It's interesting that that's the thing that should impress that soldier. You could just tell that he'd thought about it.

INTERVIEWER: Do you think that your opinion on the standards and everything came together, more or less, under General Abrams?

STARRY: Yes. It was a discouraging experience. I don't remember how many times I came home and said to my wife, "I got to get out of this Army. There's no way I can meet this guy's standards." It didn't persuade me that I ought to go off to the 122d Truck Battalion, but it did persuade me that I had a . . . a learning problem. I just couldn't do anything right. Sergeants always did things right, according to him. They probably did, and I kept saying to my platoon sergeant, "Sergeant, we've got to do this right." He said, "We're going to do it right." In the end, we'd do it right, and the Colonel would give him a cigar or a bottle of whiskey, and he'd kick [me] all over the kaserne because of something else he had found that was wrong.

INTERVIEWER: He never found the occasion to tell you that you did something right?

STARRY: Nope.

INTERVIEWER: However, it is obvious that you did a great deal right. When did you find out how well you were doing?

STARRY: When he made out your efficiency reports. I didn't read them at the time. You didn't do that in those days. Reading the efficiency reports later on; according to the reports, I did everything right, and better than everybody else, but you sure wouldn't have

known that at the time. I guess the biggest thing I learned out of that was when I was supply officer for our company, and supply in those days was pretty bad. We'd given the surplus equipment we had in Europe at the end of the war to the German government, and they formed a corporation and sold it. I'm talking sleeping bags, clothing, even trucks, to prime the economic pump. When the Korean War started, we bought that stuff back from the Germans. The American government bought it back from the Germans, and then we reissued it. But, up to that time, we really were struggling for parts, clothing, almost anything.

The supply situation was a bloody disaster, and I said so one time, which resulted in the roundest . . . chewing I have ever had from anybody. He took me apart, up one side and down the other. When it was all over, he says, "Let me tell you something, I'm not [upset] at you because you complained about the supply situation. I know it's screwed up. I'd be the first one to tell you that. The trouble with you is you don't have a solution." Well, I went home and thought about that, and I wrote that down for myself. And, ever after that, I made it a point never to criticize something for which I didn't have what I thought was a better solution. It may not have been, but I had at least forced myself to think through, beyond just saying, "I guess there's a problem, and this is a disaster, and this is not right, and so on," to say, "What is right, what would be right, what should be, how could we fix this?"

INTERVIEWER: Did you realize during this period what valuable lessons you were learning from then-Colonel Abrams?

STARRY: I doubt it. He didn't give you time to reflect on things like that. My wife will tell you this more accurately than I, but for the first 24 months that I was in that battalion I was in the field—like Grafenwöhr, Hohenfels, Vilseck, and Baumholder. We would come home just long enough to get our wives pregnant and then take off again. His story was, unless you're out there maintaining the tanks and shooting them, they're not going to work, and you're not going to work, and all this garrison living is for the birds. You learn a lot that way, particularly from a guy who fought a war as successfully as he did.

INTERVIEWER: Who else was in that battalion that we know about?

STARRY: Well, let's see. Actually, we were a fairly successful little organization in terms of what happened to a lot of the people. George Patton was in it as a company commander, and later as the battalion S-3. Ennis Whitehead, who retired as a major general, was in it as a platoon leader and a company commander. A fellow named Don Packard, who was a classmate of Ennis Whitehead's and mine, later became a brigadier general. Hap Haszard, who retired from Fort Knox some years ago as the assistant commandant of the Armor School, was also a company commander. Hap had won a battlefield commission in the 1st Division Reconnaissance Company in World War II. I've never done a statistical count to see how many guys made colonel and whatnot, but it was a fairly successful group of people. That was largely because of the coach. All the guys on the team went on to do good things because the coach was good, and that's the story of good teams.

INTERVIEWER: Did you maintain contact with General Abrams the rest of your career?

STARRY: I was in the 3d Armored Division as a brigade S-3 when he was the division commander, and I commanded a battalion in that division when he was V Corps commander.

And, of course, I commanded the 11th Cavalry when he was COMUSMACV [Commander, United States Military Assistance Command, Vietnam]. He picked the regimental commander. How he did it, I'm not sure, but they went in with a lot of recommendations and there were a lot of people, obviously, who were after the job. He posted me to command Fort Knox after they had given the job to somebody else. The other fellow was on the verge of packing his household goods and moving out there as General DePuy was in the process of forming up the preliminary command structure of TRADOC; apparently, General Abrams and General DePuy—I've never talked to either one of them about it—put their heads together and decided that the officer the DCSPER wanted to send to Fort Knox wasn't one that either DePuy wanted or Abrams wanted. So they scrubbed him and put me in his place.

General Abrams sent for me one time and said, "I want you to tell me what you're going to do at Fort Knox." We sat down in his office, and I sat there for a long time with him; he was quiet for a long period of time. This disturbed a lot of people, as he never said much, and a lot of times, if you tried to overcome the silence by talking, you'd almost always put your foot in your mouth. So I just sat there for awhile. Finally he says, "Are you going to talk first or am I?" "Well," I said, "you sent for me to talk about what I'm going to do at Fort Knox. I assumed you had some instructions." "No . . .," he said, "I want to know what you're going to do." And I said, "Okay, I haven't had long to think about it, but I know some things that ought to be done, so I'll lay them out for you," which is what I did. He lit another cigar and didn't say anything for a while, and then he said, "All right, thanks for coming." I never knew whether the agenda was approved or not. I'm sure it was approved, because he would have said something had it not been.

He sent me to Israel right after the Yom Kippur War. He asked me to go talk to the leaders, look at the tanks, and walk the battlefield, then come back and tell him what I thought about the war and our M1 tank program. It was at this time that we were in the midst of reevaluating requirements for the M1 tank. The Secretary of Defense people were trying to force the German-made 120mm gun on us at the time. So he said, "I want you to go take a look at that." In fact, I was England at the time. I got a phone call from him in the middle of the night. He said, "I'm going to send a courier with a passport and orders for you to go to Israel. Here are your instructions . . . ." So I went to Israel, then came back and reported.

Anyway, I think we had a pretty good relationship. He knew that we all respected him, me and all the others. I suppose it was like the relationship you have with the coach who coached your team. You sometimes idolize those guys. I guess the only way any of us ever had of determining what he thought of us was in the things he did for us.

INTERVIEWER: During the years between the battalion in Germany and the time you took Fort Knox, for example, and those periods in which you didn't work for him, did you often communicate with him?

STARRY: Oh, yes, notes would go back and forth. Something would happen, and he'd send it to you with a "you ought to read this" note. Every time I went to a new job, I'd go call on him just to check in. He had a kind of a network with many of us.

INTERVIEWER: Would you consider General Abrams to have been your mentor?

STARRY: I don't know what a mentor is. I've watched that word with much interest as it's become popular. A mentor, by most definitions, is a guy who kind of teaches you some things and then is responsible for bringing you along to some greater heights of success or whatever. I don't think any of us ever looked on him that way. I like the coaching example better. In the case of the three coaches whom I played or swam for in my athletic years, I would say they were great coaches because they displayed a lot of the traits, attributes, and characteristics of the good military leaders who fit that category. General DePuy is like that; so was General Abrams.

INTERVIEWER: I don't suppose there's a great deal of difference between coaching and mentoring, if you have a good coach. So I suppose the description would fit either one.

STARRY: I don't know what mentoring is. I'm not being facetious; it's just that the coach thing fits better because most people can relate to that. Most people have done some athletic thing sometime. They know what that means.

INTERVIEWER: We'll discuss mentoring a little more at a later time.

STARRY: You'd better give me a definition of it before we do. I was kind of surprised when it came into vogue because it smacks a little bit of some definitions of cronyism. I'm not necessarily against cronyism. The older you get and the more senior you get, the more there's a tendency to surround yourself with people whose qualities you know absolutely.

INTERVIEWER: I guess you'd have to define cronyism to me exactly. I think I know what it means, but I'm not sure.

STARRY: You bring your cronies along with you wherever you go. You march into a new command and you bring a dozen or so people with you. I tried never to do that. On the other hand, I found myself in the 11th Cavalry when I had to relieve commanders, and in V Corps as well, even though the system works, doing something similar to that. Today it doesn't work that way; the system doesn't really allow you to do that. There are some ways around the system, and I always found myself, particularly in combat, falling back on those whose qualities I knew. I used to flush out some lieutenants and captains now and then in the 11th Cavalry. All things considered, I guess I replaced as many people early on in time as General DePuy relieved. I just didn't call it relief. I think if he were sitting here he'd tell you the same story I'm about to tell you. I did it because I was not willing to take a chance with other men's lives by putting a leader in whom I didn't have absolute confidence in command of them.

INTERVIEWER: Well, General DePuy made the statement that he didn't think he relieved an inordinate amount of people.

STARRY: I don't, either.

INTERVIEWER: You don't think that he did or that you did?

STARRY: I don't think that he did.

INTERVIEWER: Well, he said that he might have made a mistake in one case.

STARRY: I found one case where I think he made a mistake.

INTERVIEWER: Of course, I don't know if you and he are referring to the same one.

STARRY: I don't know whether it's the same one, either. I've never talked to him about it. I was in USARV headquarters as a lieutenant colonel, and he was in command of the 1st Division. Now, the Office of Personnel Assignments head was a good friend of mine. One day I walked down the hall and said, "Let's do a little evaluation on this. He's relieved this fellow and he's relieved that fellow, and several of them came to work in the headquarters. Let's do a little evaluation as to why he relieved them." When we got through with our analysis of the 50-some-odd people whom General DePuy had fired, what I had to conclude was that he had replaced those people for reasons that were quite similar to the ones for which General Abrams had replaced commanders in V Corps in Europe when he was in command. When I was in Europe in the 1960s, in the brigade in which I commanded the 32d Tank Battalion, the other two battalion commanders were replaced early.

INTERVIEWER: Did you say company commanders?

STARRY: Battalion commanders. They were released early because they simply couldn't get it all together.

INTERVIEWER: This was when General Abrams commanded the 3d Armored Division in Europe?

STARRY: This was when he was in command. He was the corps commander in V Corps. He, too, had his terrain walks. You probably heard my V Corps story. I claim that, as a result of my evaluation of the battalion commanders in V Corps, all 72 of them, there were 10—and I'm judging from the terrain walks, the training and the sergeant major business that I described earlier—there were 9 or 10 who were clearly so good that it was probably a waste of their time for them to go out on these exercises. It didn't waste my time, because I learned something from every one of them. But, from the standpoint of their excellence at thinking through the battle, they really didn't need to do it. Maybe we did, but looking at it from my standpoint, it wasn't necessary. There were 15 who were clearly so unsatisfactory that, for one reason or another, they simply shouldn't have been posted to command. Everybody else was in the middle. So that says you've got one-seventh of the force at the top of the heap, slightly more than one-seventh of the people who should never have been there in the first place for whatever reason, and everybody else in the middle. It's like that Gordon Murch example I gave you awhile ago with the platoon. The challenge to the leadership, to the corps commander, the division commander, and the brigade commander, is to get everybody in the middle up to a level of excellence like those 9 or 10 guys at the top. We don't have enough battalions in this Army to have average battalions. We can't afford it. You know, if we had 10 times the battalions, you could say, "Well, some of them are average and some of them are below average." But we haven't got that many battalions. Every battalion we have has got to leave the gate running at a level that is somewhere near the top. You've got to know that they're all pretty . . . good, and in most cases, that's a function of the battalion commander. So you ought to get rid of the commanders who are not up to standard. We got rid of the 15 as quickly as we could. I didn't relieve anybody, I just got them out of there, and then we started working on those in the middle.

INTERVIEWER: Did they serve shortened tours?

STARRY: Yes.

INTERVIEWER: Did they progress any further?

STARRY: Some did. Most didn't. You know, the system will keep a guy if it isn't relief for cause. He'll probably still make colonel.

INTERVIEWER: We're getting significantly ahead of ourselves, but this is very interesting. From what I've seen in my career, the corps commander, for example, often does not know how good a battalion commander is. He sees terrain walks and those god-awful statistics that are posted everywhere all the time, but he really doesn't know how good a commander is. How did you know?

STARRY: Well, in my judgment, I followed the disciplinary statistics just because they were recorded all the time. What I was looking for were trouble spots. If you see the same battalion out there with racial incidents in the NCO club once every two or three months, then you know that you'd better go take a look at that battalion. If you note a unit with a rash of vehicle accidents, it may just be that, a rash. They happen that way. But, at the same time, you might want to go look to see for yourself what kind of an outfit it is.

My judgment of them was made on the basis of the terrain walks. I don't know what the terrain walks are like now, but in my own case I had spent a lot of time in that sector. I was a brigade S-3 in that sector. I used to fly in a helicopter in that sector and never used a map. I knew the towns so well that I could tell you the name of the town just by looking at the church steeples. Think of the German towns—that they're all different. The church steeples are also all different, and they're in different places in the towns. If you memorize the V Corps sector, you can go from one place to another without looking at a map, just by memorizing the way those church steeples are situated in those towns. So my questions to those battalion commanders about the terrain and the weapons deployments were based on a considerable depth of knowledge of that particular sector, not just a "generic" sector, but that specific ground, because I'd laid out hundreds of plans on it and had spent most of my years in the 3d Armored Division doing that sort of work. I had a standard list of questions. There weren't any new questions. You know: Where are the weapons? What's your task organization? How are you going to organize for combat? Where are you going to put the weapons? What's the enemy situation? How are you going to fight the battle? Command and control? Logistics? Where are the trains? It was a standard set of just the normal questions involving troop leading procedures that you should go through. You wouldn't believe how many people had never thought about that. I found a tank battalion commander, and I asked him one of the questions. I said, "How do you communicate with your brigade commander?" "Well, I call him on the radio." I said, "How do you get instructions from him? Do you have high-frequency radios?" "Well, yes, but they're over in that RATT rig." I said, "Who do you talk to on those?" He didn't know. The further I probed into it, the more it was apparent that the only thing he knew about was the pork chop mike in his hand. He didn't have any idea as to how his battalion was hooked into the rest of that. He really didn't. He didn't know about the log [logistics] nets. He didn't know about the admin/log [administration/logistics] nets. We did that three times with that one fellow, and on the third attempt, he still was not much better at it than he was the first time around. You just have to make a judgment about someone like that.

We were on the Fulda River one day going through this exercise with a mech battalion. Now there were TOWs over here, TOWs over there, and TOWs were under the bridge, and the Dragons are here, there, and so forth. Well, I said, "Colonel, I don't quite understand

what you've done here, but you obviously have a good reason for it. If you put the TOWs back up on the side of this hill in that little sunken road back up there about 500 meters, where they've got some cover, you could probably get another 1,500 to 2,000 meters of a field of fire. Your field of fire is limited here because of the way you've got them located under the bridge and so forth, plus some of them are out in the open." We're standing on the Fulda River, the banks of the Fulda River, and he looked at me almost in dismay and said, "Why, sir, this is the FEBA [forward edge of the battle area]." He pointed at the river and said, "I'm supposed to defend the FEBA." Now, that's a true story. Now, let me tell you something, that fellow had been the Chief of Staff's aide. He'd been on the Joint Staff and was highly thought of; now he had come out to get himself brushed with the battle dust a little bit so he could get promoted and go on to greater things. The man was incompetent as a warfighter. So you have to make a judgment about him.

Incidentally, those who didn't do well on the ground, with one exception, were the same folks who didn't do well in laying out their training. They were not able to explain how the battle was going to be fought, and they were not able to explain how they were going to train to fight the battle. Nor were their sergeants major, with the battalion commander's guidance, able to explain how they were going to train the sergeants. I made my judgments solely in that way. I didn't look at the statistics except by exception. As I say, if a unit has a rash of vehicle accidents, a rash of rapes, or whatever, then you go look to see what's going on. But I was trying to judge them on the basis of their professional competence to do the things that they were there to do in the first place. This other stuff is housekeeping, which should take care of itself. If you've got a problem, it'll surface and you could go see about it. But the reason we're there is to fight the battle and to train to fight the battle. If they can't do those two things, it doesn't make any difference what they do in other matters.

I had one battalion commander bring me his statistics for the last year that he'd been in command. He said, "Look here, I've got the best of this rate and the best of that. . . ." And I said, "That's not important. Tactics are important. Of course, we've got to keep ourselves clean, orderly, well disciplined, and so on, but the reason you are here is to fight that battle, and if you don't know how you're going to do that and know how you're going to train for it, then how in the world can I keep you in command?"

INTERVIEWER: We'd like to go back a little bit, sir, to your first assignment in Germany. One of the questions we'd like to ask is about when General Patton was then a lieutenant along with you. Did it appear at the time that he had a cross to bear because of his father?

STARRY: Well, I don't know whether it would be fair to call it a cross to bear or not. I think he has always been very conscious, at least my impression of him is that he has always been very conscious, of his father's record. But he has always been determined to make his own way but at the same time concerned that he do at least as well as, if not better than, his Dad did, particularly in the important things like fighting wars. I don't know whether it's fair to call that a cross to bear, but I think he's always been conscious of that, and he couldn't help but be, coming from a family like that, with a father with a record like that. He couldn't help but be conscious of it.

INTERVIEWER: From my association with him, he appeared to emulate his father in mannerisms, conduct, and things like that.

STARRY: To some extent, I suppose. I don't know whether that was conscious or unconscious. He grew up in that environment, and I think when your father's a strong image, you tend to copy him and want to be like him. So, whether it was conscious or not, I'm unable to say.

INTERVIEWER: Have you associated with him very much over the years?

STARRY: Oh, yes. We started out as lieutenants in that company in the 63d Tank Battalion together. We were platoon leaders together, and then he was a company commander and I was his executive officer. We corresponded and saw one another off and on, but we never served together again until we went to Vietnam in 1967 and worked on the Mechanized and Armor Combat Operations Study Group. He was the assistant commandant at the Armor School when I took command at Fort Knox. So we've been friends and served together off and on our entire careers.

INTERVIEWER: He retired as a major general. Did he have other aspirations or did he have a health problem?

STARRY: Oh, I'm sure he had other aspirations, but he apparently got into an awkward situation over conflicts of interests. He was assigned to the headquarters of the Army Materiel Command at a time when there was a great furor over the fact that you couldn't own a nickel's worth of anything in stocks or bonds. Now, his family is wealthy by any standards. I don't know what their holdings are, but in a situation in which there's a witch hunt going on about holding stocks, bonds, securities, or investments in the military-industrial complex of the United States, it's hard for someone like that to hang on. They'll appoint someone as Deputy Secretary of Defense who's holding $20 million worth of X-Y-Z stock, but they run off the Pattons and the Starrys because they have seven shares of this and six shares that. Of course, George had a lot more than that. I commanded TRADOC when he retired, and I offered to put him in command at Knox. Then I offered to give him a couple of other jobs, one in my headquarters. However, he really didn't want to work in a headquarters. I offered the Chief to let him command Fort Knox, but there was, in effect, a witch hunt going on about people who owned a lot of stocks. We had to sell everything we owned. I didn't own anything. My wife inherited some stocks and bonds from her father. Not much, just $20,000 worth of this, that, and the other thing—six shares of Exxon, seven shares of Shell, mostly oil stocks, but then he'd been in the oil business. It was her stock. As the TRADOC commander, I didn't do business with any of those companies or in anything that was related to those companies. Still, we were forced to sell every bit of her holdings—at a significant loss.

INTERVIEWER: You weren't allowed to put them into a blind trust?

STARRY: No. We were forced to sell everything.

INTERVIEWER: All of the civilians seem to be able to put their stocks into a blind trust.

STARRY: Yes. Well, we sold it and took an enormous capital loss. As I recall, on what had been about $20,000 worth of stocks, we took about a $7,000 or $8,000 capital loss. You should talk to my wife about that, but she really won't talk about it to this day.

INTERVIEWER: This occurred while you were at TRADOC?

STARRY: Well, the rule was that if you were a four-star and you wanted to be a commander or whatever, you had to divest yourself of every holding and every association you had with the stock market, bonds, and so on. So we took that money, what was left of it, and put it into utility bonds, municipal utilities; there didn't seem to be any stigma about that. I tell this story because it was symptomatic of what was going on at the time. Jack Guthrie commanded the Materiel Command at the time, and he felt it necessary to go along in enforcing the policy.

INTERVIEWER: Who initiated this witch hunt? Was it the Secretary of the Army?

STARRY: Well, no, it was part of the Carter administration. It was one of the things they brought to office with them. Who in that administration was specifically responsible for putting that kind of pressure on, I really don't know.

INTERVIEWER: Was General Patton given the opportunity to divest himself of his stock?

STARRY: As I understand it, he offered to put it into a blind trust, but I don't have any firsthand knowledge of this at all. He offered to put it into a blind trust or some other arrangement, and for some reason or other, it was decreed that proposal wasn't satisfactory.

INTERVIEWER: In doing some of the reading, and maybe this is an opportune time to discuss this, it appears that Army officers are expected to keep themselves poor for some reason. As you know, you reached the cap at about the major general level. That cap expands a little bit for the cost of living, but that's about it. And yet you talk about not being able to invest and own stocks. What is the solution to that?

STARRY: Well, there are a couple of things that really grate and really get crossways in my grain. One is the fact that they'll trust you with the lives and fortunes of several thousand men, but you're not allowed to own five or six shares of this, that, and the other thing or invest in the great national industrial enterprise. There's something wrong with that. If you're an honest and trustworthy enough fellow to have the kind of command responsibility that we do these days, then why aren't you trustworthy enough to have ownership in part of grass roots America, investing in industry and so on? I just don't understand that.

I don't know what the situation is now, but for some six or seven years, in my case and in the case of Generals Vessey, Kroesen, and some other so-called older folks, we lived under that level 5 ceiling on executive salaries. So, for a time, what you were authorized to draw by the authorization bill and what you could actually draw by the appropriations bill differed by some $16,000 or $17,000 a year. I suppose that's all right; if the Congress wants to impose that kind of a limit, the Congress can do it. At the same time, for example, they give general officers a personal money allowance. For a long time that allowance was not taxed. Then some genius decided that it should be taxed. At the four-star level, it's $2,200 a year, so they immediately take away some part of it. At the time, the tax rates were such that it amounted to almost half of it. The whole thing is just one thing after another.

Since I retired, I guess the thing that's impressed me most about civilian industry is the enormous salaries that we pay people who are no better qualified, in fact not as well qualified in many ways, as the captains and the majors and the lieutenant colonels and the colonels whom I left behind in my military world. You could argue, "Well, it's their choice. The uniformed guys can get out and work in industry and take advantage of that if they want to." That's true, but the differential is so enormous that you have to wonder, and the benefit

packages that we traditionally said were part of the military system are not just part of the military any more. Every industry has "free medical care"—Blue Cross, Blue Shield, John Hancock, or some other kind of a program. The benefits packages in industry today, in the big industries, are in most cases better than those left to us in the military as the Congress and others have eroded them over the years. If I sound a little bit bitter about it, I am. Not just from my standpoint, personally, but what has happened to us, personally, to our family, is indicative of what has happened to Army families historically and is still going on. And, to the extent that benefits erosion continues, it's going to be very, very hard to attract and keep, persuade to stay, the good officers you want to run your military establishment.

So, in terms of what to do about it, I can't answer your question. You've got a legislature in Washington today that does not have many people in it who have had military service. In it are a lot of people who—the younger ones, some of them, anyway—were a part of the generation that avoided Vietnam by going to law school or by going to this school and that school, thus avoiding service. You have to wonder about their motivations. They're certainly not motivated to support the military in the sense that the generation before them was, and as a result, we see an erosion of support for the military establishment in the Congress.

Another thing you see in the Congress, of course, is the enormous growth of the committee staffs. Not the individual Congressmen's staffs, although they have grown too, but the committee staffs. The committee staffs are motivated by who knows what, whatever the senior counsel wants to pursue, and they have no code of ethics. They're not sworn into office. They're an invisible legislature in their own right. They're unelected representatives. A couple of critics have written a book about that. We've got ourselves into a situation that some people describe as a divergent course to disaster. Part of the government is going off in one direction, while the other part is going off in the other direction. Either course leads to disaster. Congress has got to somehow become responsible again. There are 3,500 lines, or something like that, in the Defense Department budget, and they're going to legislate on each one of those individually to the "nth" degree. You wonder what their motivations are.

I'm not blaming it all on the Congress or on the Defense Department. In spite of the clamor about fraud, waste, and abuse under recent administrations, and the Defense Department acting irresponsibly in many cases, I would still argue that the biggest change for the worse in Washington for the last 10 years has been the enormous growth of the congressional committee staffs with each one on its own bent, pursuing its own thing, whatever that might be, and for whatever purpose, without any responsibility for the outcome of what they're doing, and without any need, let alone desire, to cross-level what they're doing and what everybody else is doing so that it makes sense in the end. What you end up with is a hodgepodge of legislation.

INTERVIEWER: We know that, back in about 1968, there was a study conducted to look at salary compatibility between the service and civilian industry. I can't remember the name of that study, but you may remember it. It came out that, for a major general commanding a division, if you considered his level of responsibility compared to a person in industry with the same level of responsibility, we would have to pay him about $250,000 a year. At the time, the end result of all of this was that we just couldn't afford it. Today, I think I

perceive it as you do. It's not a question of whether we can afford it or not, it's simply the fact that we don't have a champion. Likewise, we also have problems in Congress with the committee.

STARRY: The basic question is what level of compensation would be satisfactory—would be adequate, I guess, is a better word—to pay someone to take on that kind of responsibility? The answer is, you can't put a price on that. I don't know whether that's a right number or not. I remember that study, and I thought at the time, "That's kind of foolish, because here you've got a man who's responsible not only for the conduct of the business of the division, particularly if it's a base, but he's also got a certain amount of the money to spend to keep the base running." He's a business manager in that sense, even though he's not responsible for making a profit. In the business world sense, he's responsible for staying within a limited budget. You've always got that problem. On the other hand, like a businessman, you can pay people to do that for you. Part of his responsibility is to get that division ready to go to war and, if war comes, take it out and fight it. So you've got 15,000 or 16,000 soldiers out there whose lives, fortunes, futures, and everything else depend on the decisions that that commander makes. What are you going to pay a fellow for that? I don't know, I really don't know.

So the point is there has to be other compensatory kinds of things in the military that make up for that. Some of that comes in just the association of belonging to the profession. To some of us, that's sufficient satisfaction to hang on in spite of all the barbs that people keep throwing at us. Historically, some of it has been in the benefit package. But, as I pointed out, in the company I work for now, the benefits package for people in my salary grade and below is every bit as good, and better in many cases, than the benefits package you enjoy at your salary grade. You know, it includes hospitalization, life insurance, prescription benefits, and so on. All of that is taken care of somehow. At one time the military led in this. In the beginning we kept the salary levels low, historically, and ostensibly offset low salaries with improved benefits. Today, that's gone; it has reversed itself now. Salaries are a little better than they were. That came about in the late 1960s and early 1970s. Relatively speaking, you are better paid now than I was when I was in your grade, but at the same time the benefits have eroded to the point that I would argue that you probably are not as well compensated now as I was then, all things considered.

I don't know if there's an answer to that. I suspect there is some kind of a practical limit to the attractiveness of the military profession to young people who see their compatriots—the grass on the other side of the fence always looks a little greener—out there doing extremely well in industry at a much faster rate than they're doing in the military. As we all go through that first 10 years of military service, and we look around and see our friends from college out in industry making more than we're making, well the grass does look greener on the other side of the fence and you say to yourself, "Why am I still here?" Those who decide to stay at that point probably will stay for a full career, but an awful lot of them leave, probably too many of them leave. Our oldest son is a major in the Army, and he went through the same sort of soul-searching that I remember going through myself at about the seventh and eighth year of service, when promotions seem a little bit slow, at least in comparison with your ambitions.

INTERVIEWER: You mentioned that you are a little bitter about the pay cap. Now that you've had about three years in civilian industry, would you change anything if you had the opportunity to do it over?

STARRY: Do you mean would I stay on active duty longer or what?

INTERVIEWER: Yes, sir. Or would you have left active duty much sooner had you known what industry was like?

STARRY: No, I don't think so. I knew that vice presidents were making a lot more money than I was making, but that didn't bother me necessarily. However, I didn't realize that down through the ranks, even at the bottom, that the salary differences were quite so great. After I had six or seven years of service, one of my friends came around and offered me a job in a little company that he owned and operated, and I went through that period just like everybody seems to have gone through after about six, seven, or eight years of service. But, after that, it kind of went away. I decided that I was committed to the service, so I should stay.

INTERVIEWER: I think we've covered your period in Germany fairly thoroughly. Do you have any more comments that you'd like to make about that tour, about anyone who was in the unit or anything that happened there? Are there any lessons learned you'd like to discuss?

STARRY: No. One thing I'd like to say about that battalion, the 32d Tank Battalion, 3d Armored Division, in the early 1960s: I include this in a general statement about both the battalion I commanded and the 63d, which I was in from about 1949–1952. I have said several times in talking with people about this that I've been in two really good units in peacetime during my 40 years in the Army. One was the 63d Tank Battalion, and the other was the 32d Tank Battalion, which I later commanded. And the reason I say that is that, in the 63d in the early 1950s when the Korean War started, we cadred once, as I recall, maybe twice, but I think only once, to fill up some units that were forming up in the States, and then they stabilized everybody. When I left that battalion, after more than three years, we still had most of the same tank commanders, platoon sergeants, and first sergeants. They had been there from the beginning. Now some of the sergeants had been promoted over the years, so you may have had a first sergeant who had been a tank commander when I first came aboard as a second lieutenant. But the fact of the matter was that the senior NCOs, from the squad leader/tank commander on up, and most of the officers had been together for more than three years. I guess the secret to our success was that we could do a lot of things and do them all very well.

General Abrams commented on this one time. Somebody asked him the difference between the 63d and the 37th Tank Battalion, which he commanded in World War II, and he said, "The difference between this one and that one is that this one can do a whole lot of things and do them all well. That one could only do a couple of things well because we simply hadn't been together long enough and didn't have time to train. When we went to war and landed in Normandy, it was a top-notch battalion, but the minute the replacements began to come

as individuals, as opposed to crews or platoons, the quality of our performance, outside the initial problems of moving, shooting, and communicating, fell off dramatically."

In the platoon that I commanded, and later the company that I commanded, I never had to look around to see where they were. I knew where they were because we had worked together for so long that I knew they knew what we were going to do. We explained what we were going to do, but once you launched it, you never had to look around to make sure they were doing what you had told them to do. You knew they were there, and you knew they were thinking like you were about what it was we were doing.

This same thing was later true when I commanded the 32d Tank Battalion from 1962-1964 in the 3d Armored Division in Germany, which was at the time just after the erection of the Berlin Wall. As a result, we stabilized the people who were on station in Europe. As I recall, there was an extension to the stabilization, so we may have had a stabilization that amounted to as much as two years in individual cases. When I left that battalion, having been in that brigade for four years, there were still in the tank commander, platoon sergeant, first sergeant, sergeant major ranks almost all familiar faces. Now, commanding that battalion was easy because the troops had been there for so long and had worked together for so long. That's what we now call cohesion. It was all over the place. Now, if you had gone to war with those units, attrition would have taken its toll, and there would have been a decline in performance, particularly in the extra tasks that you'd like to be able to do well over what you needed to fight the war. That's going to happen to you.

In the 11th Cavalry, which I commanded in Vietnam in 1969–1970, there were a lot of things we couldn't do and a lot of things I simply couldn't ask them to do because we hadn't been together long enough and we hadn't trained to do them. As a result, I was not sure that we had the capability to do them. Now, if you're talking about circumstances where people are likely to get killed, you want to make . . . sure that you've got the capability to do what you started out to do. In the 63d Tank Battalion, we had a . . . good battalion commander and, in the beginning, we had a lot of people in the officer ranks as well as in the NCO ranks who had fought in World War II. That meant that we had a lot of combat experience. But the secret was that we just stayed together a long time as a team. That made all the difference in the world in our performance.

INTERVIEWER: One last question—what was the atmosphere in Germany like at that time between the Americans and the Germans? It was only a short time after the war ended. Did that cause any real problems with troops and officers and so forth?

STARRY: No, it didn't cause any problems for us. There was a Communist movement in Germany in the late 1940s and 1950s time period. I don't remember whether the Communist Party actually held any seats in the legislature or not. I believe they did, but I could be wrong about that. But, anyway, there was a substantial Communist influence, particularly in the industrial cities. For awhile our battalion was stationed in Mannheim. There was some Communist influence in Frankfurt and throughout the industrial Ruhr. Fortunately there were no American troops in the Ruhr; that was in the British sector. There were some riots and demonstrations in that area. We had to go out and train ourselves to protect installations against rioting and against what today is called terrorism or terrorist attacks.

People raided our ammo dump, which was out behind the kaserne in a wooded area. It was fenced in, but they'd dig under the fence and tunnel into the bunkers. There were some attempts to blow the place up, but more often than not you'd discover that what they were doing was stealing ammunition. They'd take it out, take it apart, then sell the brass shell cases. It was a survival kind of thing. Still there was enough of a Communist influence there to cause some alarm. But, out in the countryside, particularly in Bavaria, northern and southern Bavaria, you did not find that. That region was dominated by a strong Catholic, right-wing conservative influence. The Communist movement never got into Bavaria at all, to speak of. However, in the Ruhr and the Rhineland, and in the industrial cities, you had a lot of it.

The Germans had been bombed out of most of their homes in the large cities. They were poor. There were still people dying of hunger, even in the early 1950s. They were having a hard time existing in some cases. When we first went over there, we were not allowed to buy food on the German market because it would have meant taking food away from the Germans. Anyway, in the countryside especially, they were glad to have us there. They had no army or any other military force of their own until the late 1950s, and most of them saw us as the only thing standing between them and the Russians. It may have been that they were more afraid of the Russians than they were of us. I don't think that's the case, but they were definitely impressed with the Russians, and we were the only thing that stood between them and the Russians. Now you still find that today, on the border particularly. In that five-kilometer border exclusion zone, you find a lot of very friendly folks.

INTERVIEWER: Okay, sir, let's move on to the time when you went from Germany to Fort Knox. You were aide-de-camp for about a year, I believe. Do you have any revelations about that period?

STARRY: Well, not particularly. I went to Knox to go to the Advanced Course. We got there in the fall of 1952, and I went to the Advanced Course in 1953 and 1954. The 3d Armored Division was there as a training division in those days. All of the training centers had numbered divisions in them. The 3d Armored was at Fort Knox and deployed in the late 1950s to Germany, I guess as part of Operation GYROSCOPE. So I was in kind of a waiting pattern there for a few months, not quite a year. I had been a tank platoon leader and a tank company commander, plus a battalion staff officer, in Lieutenant Colonel Abrams' battalion, so they were happy to have me come to Fort Knox. They sent me down to the 3d Armored Division. They said, "We want you to take command of a tank company," and I thought, "Well, that's fine. I know something about that."

So I went to this company and met the company commander, who was so anxious to leave that he was just about to hand me the key to the orderly room and say, "So long." I said, "Wait a minute. I've got to know something about this company." He replied, "Well, it's big. It has got 60-some-odd tanks in it." I said, "No, I mean the company, not the battalion." He said, "I'm talking about the company. We're in the rent-a-tank business. We rent tanks to the trainees." Then I said, "Well, take me around, will you?" So we went around and looked. Well, in truth, they had 100-and-some-odd tanks in that company; about half of them were static on a range someplace. The other half moved somewhere and, because they couldn't keep track of the equipment—let me remind you that the Korean War was still

going on—they took it all off of the tanks. So the tanks were stripped in the motor pool. Now, if you wanted to teach a gunnery class, you would go to this enormous warehouse and draw the sights and the fire control equipment out of the bins in the warehouse. You would take it out, put it in the tank, and go off and shoot. It may or may not have been the stuff that was on the tank yesterday or the day before. It was just stuff that would plug in the holes. Most of it didn't work very well because the maintenance was sporadic, I guess, is probably the right word. In fact, it was a disaster.

I went around and looked at the tanks, and out of the 60-some-odd that they had in the motor pool, they did well getting 15 or 20 of them running on any given day in order to meet a training commitment. I really never had had any experience like that before. In Lieutenant Colonel Abrams' battalion, if your tanks didn't run, you were standing nose-to-nose with his cigar trying to explain why they were down for something after the time they were supposed to cross the starting line. As I said, I'd never experienced anything like this before. So, when I was sitting around trying to figure out what to do about it, a friend called from the division headquarters and said, "Come up here. We'd like to interview you to be the aide-de-camp to the assistant division commander." So I went up there, and I asked, "First of all, what is an aide-de-camp and what is an assistant division commander?" It wasn't quite that bad, but almost. Well, I met a superb brigadier general named John Tupper Cole, who was one of the Army's great cavalrymen, twice captain of the Olympic equestrian team, and a super guy. I decided that, whatever the general did, it was better than worrying about those 100-some-odd tanks scattered all over the landscape. So I spent a very enjoyable year working for him.

Now, going back to our conversation yesterday, part of my impression of the cavalry, with the excellence of the individual and the officers' ability to do things well, came from my association with him. His method of inspecting the training was to go out on the rifle range and walk up and down the line until he found the soldier who was doing the worst. Every time the guy fired, the red flag would be waving across the target, so the general would lie down in the mud, or the sand, or whatever, next to this soldier and spend whatever time it took coaching him to the point where he was not a bad shot. He was a marvelous shot himself, and he had an uncanny ability to take some quivering 17 year old and, in a matter of a few minutes' time, get the guy shooting through the middle of the target when before he couldn't hit it with both hands. He was really very good at that. You'd go to the machinegun range with him, and he'd do the same thing. You'd go to the tank gun range with him, and again he'd do the same thing.

Not only was he good himself, but he knew all sorts of little techniques, all sorts of little things that you could use to teach the soldiers. Now I watched him in rifle marksmanship and machinegun marksmanship particularly, and he had a little pattern of things that he looked at. Most of it had to do with holding your breath and squeezing the trigger. A lot of it had to do with position, whether or not the rifle was in a steady position and so on, but a lot of it had to do with simple techniques like holding your breath, squeezing the trigger properly, and timing your shots. He was really quite good at that, probably the best I've ever seen. I was very impressed by that. I asked him about it one time, and he said, "Well, that's what we did in the cavalry. They did it in the infantry, too, but we thought we were a little better about it in the cavalry than the rest of them were."

Now I've met several people before and after him who were products of that same system, and they were all the same—excellent in performance of soldier skills. But, more than that, his ability to train the soldiers and correct their faults in a short period of time was just outstanding.

Well, anyway, the Advanced Course was like all advanced courses. Most of us go to those courses having spent most of our first two, three, or four years, or whatever it is, serving in a unit. Well, you go back to the school, and you've got people teaching at the school you really don't think know quite as much about it as you do, having been in a unit. Also some of it is a little bit nonrelevant. Well, we had all those problems. But it was kind of a fun year, and a necessary year.

I went from there to Korea, hoping to be a tank company commander again. I was a captain, but not very senior. Promotions dragged on in those days, and here I'd been a platoon leader, a company commander, a battalion staff officer, and had been to the Advanced Course. I thought I knew enough about commanding a company by then that it would be a breeze. However, my assignment was to the Eighth Army staff, the G-2 section, which didn't please me very much. However, it turned out to be a good assignment. It was an interesting 16 months, because after a short period of being the commissioned telephone orderly, as we have in many such headquarters, I became the coordinator of the covert and clandestine collection program targeted against China, Manchuria, and North Korea. It was run out of South Korea. The intelligence units in Japan phased their people and their activities through Eighth Army. We had to have a central focus for all those activities.

Shortly, however, we phased the headquarters down, and they took Eighth Army back to Japan, leaving an Eighth Army Forward in Korea. It was a minimal-size headquarters. I took over an office that had had five lieutenant colonels in it—mind you, I'm a captain—and I went around and listened to each one of them tell me what he did and collected all of their papers and their logs and whatnot. Then the sergeants and the officers all went away. Then one day, as the remaining master sergeant and I were sizing up our work, I decided to see the deputy G-2. To him I said, "How much of what those people did out there am I going to be allowed to get rid of, since there's only one of me and there were five of them, and they were all lieutenant colonels with combat experience and I'm a dumb captain with no combat experience? I've never been a G-2 before, don't want to be one, but need to know what I'm supposed to do." "Well," he said, "as far as I can tell, we're not going to stop doing anything we were doing before, so you're just going to have to work harder." So, for the next year or so, that's what we did. We worked very hard, but it was a lot of fun.

INTERVIEWER: During that time there apparently was still a lot of conjecture that the war could start up again.

STARRY: That's right.

INTERVIEWER: It seems to me that the G-2 section would be a pretty exciting place to work.

STARRY: It was, particularly in the clandestine business, since we were sending agents north. In fact, most of our information came from agents. It was something that had been done during the war. Now it's 1954-1955 that I'm talking about. There was an enormous amount

of infiltration back and forth across the DMZ into and out of North Korea, for our part both by parachute and by boat off of both coasts. The Korean Army, particularly, had a large organization to do that. Anyway, I got to look into all of the compartments and see what everybody was doing, which was very interesting.

. . .

INTERVIEWER: So you paid South Korean agents going north, and North Koreans headed back north?

STARRY: No, just South Korean agents going north. For a long time we used people who had lived in the north but had been pushed south by the Chinese invasion and were left behind when we drove the North Koreans back across the 38th parallel. So essentially, for a long time, we were sending people home, in effect. We'd equip them with radios and other means of communication to communicate with us. We were trying to build an agent network up there to assist downed aviators and parachutists who didn't get to the place where they were supposed to and for moving agent traffic around inside North Korea. As the government of North Korea gained more and more control over the population, it became impossible to do that. As a matter of fact, it got so bad that we were sending a lot folks north who weren't very well trained. We would spend a year training them but, given the quality of people we were dealing with, you had to wonder how much training was possible and whether or not it was enough.

As the government got control over the population, in the cities particularly, the block wardens (or block chiefs, I guess, is what you would call them) would take control. There was a little piece of wood posted on the wall outside the door of every house. On it were the characters—the names of the people who were authorized to be in that house. If you wanted to come and visit my house, you had to go out and cross the palm of the block chief with a little money and get an extra little plaque to hang up, which said that you were authorized to be in my house. You paid him for it. If the police came to your house and walked in, which they could do, and found someone unauthorized there, then everyone in the house went to jail. Then they would tear the house down. It doesn't take much of that to intimidate a population. So, as time wore on, over a period of a year or so, it became more and more difficult to send people home.

That put us in a totally different construct as far as agent training, agent infiltration, agent exfiltration, and agent communications were concerned. We had a hell of a time, because we had geared the whole thing up on the basis that we were going to build this big network of people whom we were simply going to send back to live where they had lived before the war. They, along with their families, were going to do whatever it was they wanted to do, and we were going to pay them for simply observing certain things. Now, on the basis of that whole network, we planned on getting this enormous take of information. However, it never happened. As the government closed down on the population and got absolute control over it, that whole idea fell apart. When I left in December of 1955, we were struggling to figure out what we were going to do about that. Eventually, of course, the radio intercept business got going. Once we got satellites up, we would be able to get better information, but that was still some years off. So there was a period of time when we were really strapped for information.

You could argue that approach was too much of an emphasis on human agents at a time when there shouldn't have been, and that's probably true, but it was something that they had done during the war and, apparently, had had great success with, or at least some success anyway. But the North Korean government's ability to acquire control over the population after the war really made it an obsolete concept.

INTERVIEWER: So, in other words, you never got your house of ill repute established?

STARRY: No, it never got established. The ladies were all lined up. I found a lady who had been married at one time to one of the last members of the ruling house in Korea. She was a very influential lady in Inchon. In fact, she owned the garbage contract in Inchon for the American installations. Now the person who owned the garbage contract was always wealthy. In addition, she still owned property in Pyongyang, and part of her family lived there. Anyway, she said she owned the property and could get a staff together for us. All she wanted from us was transportation. I was to run the transportation and communications arrangements, and she was to get what I thought was a reasonable stipend for her efforts. We had everything pretty well laid on, as a matter of fact. In the intelligence business, not knowing much about it, I felt obliged to report what I'd been doing and account for the money that I'd been spending. So I prepared a report and sent it in through the proper channels. It wound up in the Joint UW Task Force Headquarters in Japan. Now it turned out that everybody thought it was so funny that it became the topic of cocktail party conversation in Tokyo. The next thing I know, I'm standing in front of the Army commander—the ambassador was also there—and I'm told that this operation is immoral, illegal, and a whole bunch of other things and to close it down immediately. So I shut the whole thing down.

INTERVIEWER: It must have been rather easy to cross the border between North and South Korea at that time.

STARRY: Not across the DMZ. We did send people back and forth across the DMZ. In fact, there was so much traffic out there, going in both directions, that we threatened to erect traffic lights at one point, but every once in a while somebody would get killed doing it. There were only a few safe routes through the minefields, and both sides were using those.

. . .

INTERVIEWER: Were the North Koreans doing the same type of thing to the south?

STARRY: Yes. They sent an enormous number of agents back and forth. At least as far as we could tell, they didn't use the fishing boats as much as we did. They infiltrated an awful lot of people through the DMZ. And, as the DMZ shut down over the years, they started digging tunnels. That's what you've got over there now. They did not have the resources that we had, either in boats, people, communications equipment, or anything else. Also most of the agents that we captured—that had been sent south through the DMZ, or the ones we picked up landing from fishing boats—really weren't very well trained. As time wore on, they were not at all well informed about what to expect in South Korea or how to act, and frequently they would give themselves away just by the way they acted. I'm sure that was true going the other way as well. In fact I know it was. There was a question of

training. HUMINT [human intelligence] is a very, very interesting business, and we don't do enough of it. There is a tendency to believe that technology is going to take over and do what HUMINT does better, by intercept and so on, but the fact is there are just some things that human collectors do much better.

In fact we need them in east Europe today. As you know, Soviet divisions can march around over there blacked-out with no communications, and they're very good at it. They don't have their MPs [military police] talking on the radio all the time checking bumper markings off as convoys go by. They do it all by telephone. So what we really need over there is a network of little people who just watch the traffic go by and, every once in awhile, make a phone call someplace. That's just the way it works.

INTERVIEWER: In conducting this intelligence operation, did you ever find any indications that the North Koreans, or anyone else, were considering another invasion or anything of that nature?

STARRY: Every once in awhile you'd get a flurry of activity up there, and you'd find units moving south. We knew enough about what they were doing, and had enough people in place, that we could pick up those movements. We flew visual reconnaissance across the DMZ every day and could see it going on. So occasionally there would be a flurry of activity, and we were always asked to respond to that. We would be told, "We've seen this going on here in this area and this going on in that area. Send some people in there quickly." Well, you don't send people in there quickly to do something like that, at least not the kind of people we were trying to plant in order to develop a long-term network up there. Plus you don't have agents standing by in the ready rack waiting to send them in response to such a request. It's always very difficult to respond to those things. We tried as best we could to do it, but many times it just didn't work.

. . .

INTERVIEWER: Another question concerning the Korean War. I think you probably know that, in current Army circles, you're known as one of the "warriors." Yet you missed the Korean War. Did you attempt to get there?

STARRY: Well, yes. I was in Europe when the war started. I came home in 1952, the fall of 1952, and it wasn't apparent at that time that the war was going to end. Several of us tried to go straight from Europe to Korea. The personnel manager's wisdom was, "No, go to the Advanced Course. We don't know when the war is going to be over, but it'll probably still be going on when you get there." So we decided to wait it out. I don't know whether I regret that or not. I really wanted to go see what it was all about, but by 1952, of course, the war had pretty much stalemated along the DMZ, and once I saw the dismal situation of the training centers, I wasn't really sure that I wanted to go any more. It was really pathetic. We had the blind leading the blind. All those training companies down there were commanded by second lieutenants right out of OCS. They ran the OCS at Fort Knox. OCS graduates were assigned to run those training companies. Frequently there would be only one officer per company, maybe two, because of the rotation problem in Korea. It was truly the blind leading the blind. The officers were not well trained. Sergeants were the same way. The sergeants were pretty much similar to what we had during Vietnam, although I think we did much better in the training base for Vietnam than we did in Korea. It was

really pathetic. You just had to wonder what you were going over there to command and to operate with if it involved that kind of soldier. We just shouldn't have done that. Well, anyway, unfortunately, I missed it.

INTERVIEWER: I think we need to revert to your aide-de-camp time for just one more question. You were mentioned in the books *The Lieutenants*, *The Captains*, and *The Majors*. I take it you know the author.

STARRY: I know him well.

INTERVIEWER: I believe he was an enlisted aide at the time.

STARRY: No. His name is Bill Butterworth, not W.E.B. Griffin. His initials, from William E. Butterworth, are where he gets the W.E.B. Why he wrote under a nom de plume, I have no idea. He's a professional author. He's written quite a number of books. Anyway Bill Butterworth was a sergeant in the 82d Airborne during the war. At the end of the war, the 82d wound up in Vienna, then became part of the Constabulary. Bill became an enlisted aide to General I.D. White, the commander of the Constabulary. When General White came home from the Constabulary, sometime in the early 1950s, to command Fort Knox, Bill Butterworth came with him as an enlisted aide. General White then went to Korea to command X Corps, then to Hawaii to be Commander, US Army, Pacific. With him went Bill Butterworth. Then he left the Army and spent some time at Fort Rucker as a civilian employee, where he got all the Army aviation lore that's in those books. Then he became a professional writer.

He's one of those fellows the publishing houses have in their stables. If they want a book about whatever, they'll call him and say, "Write a book about so and so." So one book is about stereo systems. Another is about the history of Army aviation. What's in the *Brotherhood of War* series, those first two or three books stem from his personal experience. The Army aviation history is also something that he observed firsthand. He and I were correspondents for a long time because he used to write letters to the editor of *Armor* magazine. I also wrote for *Armor* magazine, either letters to the editor or articles, and occasionally he would comment on one of my articles or write me a letter or send it to the editor and the editor would send it to me. So he and I have corresponded for a long, long time.

I'd never met him face-to-face until I was in command at Knox in the mid-1970s. He called me one day and said, "I'm coming up to Louisville to see an old friend who teaches at the University of Louisville, and I'm bringing my two boys with me. Could we stop and just go around Fort Knox?" Well, my wife and our two girls, who were living at home at the time, were away. So Bill and his boys came and spent several days with me. We went out and shot tanks, drove them around, and had just a great time. The association that started through correspondence and that visit has continued ever since.

INTERVIEWER: He wasn't assigned at Fort Knox the same time you were in command there, was he?

STARRY: No.

INTERVIEWER: You left Korea and went to Fort Holabird, Maryland, and became an instructor there. I guess this was as a result of your experience and expertise in the G-2 field in Korea?

STARRY: I went to Holabird as the armor instructor. There was a little combined arms instructor group there consisting of a couple of artillerymen, a couple of infantrymen, two armor folks, a medical service officer, and an engineer. We were the combined arms group. We taught organization, tactics, weapons—we taught all of the field training that they had. Nuclear weapons employment, we also taught that to all the classes—basic classes, investigator, advanced classes. That was our responsibility. I guess someone decided they needed someone who knew something about G-2s and would know how to talk to intelligence officers in the classroom. I tried to get the assignment changed, but the answer from the personnel manager, of course, was, "Look, we know best what we're doing, as always." So I went.

Professionally, it was really very rewarding. They were very good to us. It was originally the home of the Counterintelligence Corps, but in the mid-1950s the combat intelligence schools were moved from Fort Riley to Holabird. In addition, they organized a new field called field operations intelligence, which of course is clandestine collection—a HUMINT program. All of that was centered at Holabird. They had put Colonel (General) Henry Newton there to organize the school; he did a super job. It was a good school. It was well run and had a good set of facilities, which General Newton was noted for providing in all the schools he ran.

They looked on us in the combat arms group as a source of expertise. Most of us had been to some service school, whereas they had no experience in school management. As a result, we were asked to do all sorts of things for them, some as simple as figuring out how to get to the students the issue material on time before the class, which is kind of sophomoric; still we were asked to set that up for them. It involved arranging pigeonholes to make sure that all the students got their stuff two or three days ahead of time. Well, we did that, but in addition, because we had expertise in subjects they knew nothing about (nuclear weapons employment, operations, and tactics), they were really very happy to have us and very good to us.

From the family standpoint, it was a miserable place to live. There were no quarters on post. Fort Holabird is right in the middle of downtown Baltimore, almost on the waterfront, behind nearby Dundalk, Maryland. There were few, if any, what would now be called condominiums—in Baltimore, they call them row houses—in that area. It was largely populated by people who worked at Bethlehem's Sparrow's Point steel mill. A lot of military people lived on our block, which made it easier, but it was still not a desirable place to live. So from a family standpoint, in an attempt to escape from that, we spent a lot of time touring battlefields at Gettysburg, Antietam, the Valley, the Wilderness, and others. From that standpoint, it turned out to be educational. My kids still go to places like Gettysburg—"Yeah, that's the cannon we stuffed our little sister into on such and such a visit." So apparently it made some impression on them.

But it was a time when we were just learning about tactical nuclear weapons, the first of them. There was a nuclear weapons employment course at Leavenworth, which I had to attend while I was teaching at Holabird. At that time target analysis was a tedious business. There were knee curves and other primitive methods for determining blast effects. The nomograph and tabular data forms we use now were not available at that time. As a matter of fact, another officer, Vernon Quarstein, and I developed a system of target analysis that eventually, along with some other work, led to the use of tables as opposed to the graphs

and charts we were using and lent themselves to computerization of the whole process of target analysis. So professionally it was a very rewarding time, particularly so because I went straight from there to Leavenworth as a student. I'd been teaching and writing operations orders for the Intelligence School students. They weren't really interested in tactics at the platoon and company and battalion levels, although we taught a little bit of that; rather the question was, "Where does the intelligence staff officer fit into the staff organization at all levels of command?" So we were teaching everything from the field army on down. As a result, I got a much broader exposure to that kind of instruction than I would have had had I been an instructor, for example, at Knox. That was particularly useful at Leavenworth, because I found out at Leavenworth that I knew a lot more about the various subjects than did my classmates. We had used Leavenworth issue material to teach our students at Holabird, simply because no other school in the system put out material at the level that we were concerned with teaching. So it turned out to be a fortuitous thing for me, at least. I went straight from there to become a student at Leavenworth. It made the Leavenworth CGSC year a lot easier and a lot more fun.

INTERVIEWER: Did you find the subjects taught at Leavenworth at the time to be relevant? Did it prepare you for your future assignments?

STARRY: Yes and no. I enjoyed that year very much. You've always got a little problem of relevance between the school and the real world. Mind you, by the time I went to Leavenworth in 1959, I'd been away from troops since 1953-1954 when I was at Knox. So there was a little gap there. So if there was some irrelevancy, I probably wasn't as conscious of it as I was before, coming directly from a troop unit and going to the school. It was a good course. I enjoyed it very much.

INTERVIEWER: After another tour in Europe, you then went to the Armed Forces Staff College. Now it was fairly common in those days for people to go to both schools. Do you think that is necessary? Are the two courses that dissimilar?

STARRY: Well, in those days, of course, the Army and the Marine Corps had a rule that you had to have gone to your service command and staff course, either at Quantico or at Leavenworth, before you could go to Norfolk. So all of the Army officers who went to Norfolk were graduates of Leavenworth, and all of the Marine Corps officers were graduates either of Leavenworth or the Quantico school. The Navy has never put the kind of emphasis on progressive schooling that the other services have, so the Naval officers at Norfolk were people who were essentially between assignments; they may or may not have had a squadron officer's level course. So for them it was a brand new world.

That was also the case for the Air Force officers. So the Air Force officers tended to be people who had spent the last 5 or 10 years of their lives on the flight deck of a MAC [Military Airlift Command] airplane or flying fighters someplace and may or may not have been to a squadron officer's school. Now, of course, that has all changed, and I think it was a mistake to change it. We should have held on to what we had. Most of the time, the Army and the Marine Corps students in that five-month-long course were tutoring their Air Force and Navy classmates, which is not all bad. As a matter of fact, it made us coalesce our thoughts on what the Army is, what the Marine Corps is, how they do business, and so on. It provided a better baseline for us. It taught all of us a lot about the other services that we never would have known otherwise. The allegation was frequently made, of course, that

the Army and the Marine Corps were having too much influence on Joint Staff processes through the school at Norfolk. Essentially there was an overinfluence by the Army and the Marines on joint operations, whereas every service should be equal. So we went through an equality spasm.

I guess it was General Ralph Haines' board that recommended that Army and Marine Corps students at Norfolk need not be graduates of a command and general staff course. I think that's the last of the Haines Board recommendations that we have not yet turned around. I thought it was a mistake in the first place, and I still think it was a mistake. That was a super school. Of all the schools I've been to, that one, for a lot of reasons, I think is the very best. Now I dearly love Leavenworth, but Norfolk is an opportunity to learn something about the other services that you could never get anywhere else. You get the major's or the lieutenant colonel's viewpoint of the Navy and the Air Force that you're never going to get in any other way. It really was invaluable. That place should be, as I've said many times and recommended several times, given some doctrinal development responsibilities, which is part of the key, I think, to developing what I called joint tactics, techniques, and procedures.

When I was at MacDill Air Force Base as CINC Readiness Command, nobody wanted to let us tell them about joint doctrine. There wasn't any real honest-to-goodness doctrine for tactical- and operational-level employment of joint forces, but there needed to be some, and that's the place to develop it. There isn't any other place. At the same time, I thought Leavenworth was short on joint operational training, especially operational-level command, joint task force theater-level warfare, and so on. Lacking that at Leavenworth, then Norfolk is an essential linkage. An awful lot of what I learned there I subsequently used, both as REDCOM commander and before that in trying to work joint problems out with the Air Force and Navy wherever that was appropriate, more with the Air Force, I suppose. Anyway, it's a super school.

INTERVIEWER: We've always had a problem with jointness. We had a problem even during the days when everyone was going to both schools. We'd like to get into joint operations a little bit more, but I guess the best place for that is when we talk about REDCOM.

STARRY: Yes.

INTERVIEWER: In the meantime, you went back to Germany, served a tour in Combat Command C, which was . . . ?

STARRY: The 3d Brigade. All Combat Command Cs became the 3d Brigades in 1963 when we went ROAD [Reorganization Objective Army Division].

INTERVIEWER: This was part of a regimental system?

STARRY: Well, the armored divisions were always organized into combat commands—A, B, and C. The infantry divisions from about 1956 onward were organized into battle groups. They went from regiments to battle groups in the infantry, but armored divisions never gave up their combat commands. Then, with the 1963 reorganization of armor and infantry divisions, everybody went to brigades. So the battle groups became battalions, and brigades commanded several battalions. We essentially adopted the armored division organization with brigades and battalions instead of battle groups or regiments. So the armored divisions really did not undergo as much of a reorganization as did the infantry divisions. But, in the

process, Combat Command A became 1st Brigade, B became 2d Brigade, and C became 3d Brigade.

INTERVIEWER: Now, shortly after that, about as soon as you got promoted, you took command of a battalion, is that right?

STARRY: Yes. I went from Leavenworth to the brigade in Friedberg in the 3d Armored Division in the fall of 1960. I was the S-3 from about August of 1960 to April of 1962. I was the executive officer of the 32d Tank Battalion for about a year. Then, I was promoted, as I recall, in April of 1963 and took command of that battalion until about July of 1964.

INTERVIEWER: Do you want to tell us a little bit about that battalion? You mentioned it a few times before. What was your mission? You hadn't spent a lot of time in troop units between the time you were in Germany before and you went back over there. In the meantime, had you run into other ideas or lessons learned, or did you model your battalion based on what you'd learned before?

STARRY: No, I think you'll always discover that a lot of things have changed if you stay away from the operating units for as much as even a year or so and then go back to them. You'll be surprised how many things have really changed, but they're not necessarily essential things. Administrative procedures change, and morning report systems, readiness reporting systems, and things like that change. But the fundamental things don't change much at all, really. So you see a lot of differences, but when you look at it carefully, I would argue that the differences are not all that significant.

So, when I went to be the S-3 of that brigade, I'd been an instructor for almost four years in tactics, armor tactics. I'd also been a student at Leavenworth for a year, and at least from the standpoint of the operational concepts of the Army of the day, I was probably as up to date as I possibly could have been. The most interesting thing I found at Leavenworth as a student was that I was the only person in my section who knew how to write an operation order. I taught that in school for four years. As a result, I could sit down with a clean piece of paper and fairly quickly write an operation order that was fairly correct, to include the punctuation, which was very important in those days. So, when we'd get into our little seminars at Leavenworth—work groups, I believe they were called in those days—and we'd have a problem to solve, the other students would gather around the map, and I would sit down, put a piece of paper into the typewriter, and start writing an operation order. They would all be around the map trying to decide what we were going to do, because we had to turn in an order at the end of the period and time was always short. Anyway, we'd get on toward the end of the period and I'd still be typing away, and then someone would inevitably say, "What the hell are you doing?" and I'd say, "Well, I'm writing the order. We've got to submit it in 15 minutes," or whatever it was. "Well, we haven't decided what we're going to do yet." I'd say, "Well, it's too late, fellas. If we're going meet the course requirement, we have got to get the order in." Now, another officer and I worked on the basis of that system. He'd stand up and listen, then he'd come over and tell me what they were doing, and I'd write it up as best as we could understand their concept. As a result, we always got our stuff in on time, and frequently we were the only people who did.

So that was good background for being a brigade S-3. Combat Command C was traditionally the reserve brigade, the reserve combat command, of the 3d Armored Division, so we always had to go where one of the other brigades was and do counterattack planning. By

that time I was pretty good at it. So, when I went from the brigade to battalion, it was just another step down the ladder. I knew how to do that fairly well. The battalion commander of the 32d Tank Battalion was Bill Mangum. Bill liked to let his executive officer run the battalion. I didn't object to that at all. Then, when Bill left, I took command of the 32d. It was, as I said awhile ago, during the period that the Berlin Wall went up. As a result we had stabilized and had a lot of people who had been there a long time. Thus it was fundamentally a very good battalion.

INTERVIEWER: When you took over?

STARRY: When I took command. It was a good battalion and had been for a long time. It was one of the best in the division. My predecessor was a good battalion commander who had continuity in command and good people. We weeded out the incompetents. We had a lot of cohesion. I talked about the cohesion before, so I won't go over that again. But one point that I think needs to be made is that we had a shortage of majors and senior captains, as we always do in units. So we had a situation in which we had plenty of lieutenants; we weren't short of lieutenants. But what I found out was that I couldn't have a mixed bag of commanders out there. In other words I couldn't have a couple of companies commanded by lieutenants and a couple of companies commanded by fairly senior captains unless I was willing to issue two different sets of instructions, because the kind of instructions I issued the lieutenants were not the same kind of instructions I would issue the captains, given that the captains had three or four more years of experience than the lieutenants. So I elected to keep the captains on the staff. We were short majors anyway. So you were almost always lacking majors. I kept the captains on the staff in the principal staff positions and let the lieutenants command the companies.

Now you could argue that procedure was wrong, that I should have put my experienced people in command of the companies and had a tutorial exercise for the staff, but I elected to do it the other way. I don't think you can mix them. I've had that happen to me several times since. I don't think you can mix them, and at the same time, I would also argue that the younger people with more imagination and a little bit more get-up-and-go are perhaps the kind of commanders you want to go to war with, at least in the initial stages. I would rather coach and develop teamwork with a group of people like that than to work with older officers who had had those jobs before and had a lot of preconceived notions. I think coaches have the same problem with teams; I remember some conversations with my football coach about that. Well, anyway, we had a bunch of young first lieutenant commanders. In those days you made first lieutenant, I guess, with two years in service. You were second lieutenant for two years and then you made first lieutenant.

INTERVIEWER: That was about the time I came in and made it in 18 months.

STARRY: It may have been 18 months, 18 months to 2 years, but you didn't make captain then for quite awhile. It was about five years or something like that. The Vietnam War began to shorten that up after awhile, and eventually folks were making captain in two years. But it always seemed to me to be easier to work with the younger people. I used a technique with them that I've used a lot since because it worked so well then. I always tried to have them together doing something that was different, and when you do that, the Hawthorne effect comes into play. In short, you find that no matter what you do, turn the lights up or down, or turn the music up or down, makes no difference. As long as they think they're

involved in some kind of experiment and doing something different from what everybody else is doing, things just keep getting better. And the people get a lot more satisfaction out of doing it and actually learn a lot more while doing that. It worked very well.

General Abrams was the division commander for awhile during that period, and he sent a team from RAC, the Research Analysis Corporation, to our battalion. They were trying to collect data on target acquisition times, fire times in tank combat exchanges. They brought some Air Force gun camera systems with them to record tank-versus-tank engagements. We spent about a year doing that. It was a great experiment and a lot of fun. We learned a lot from it. It was an experimental situation, a test evaluation kind of situation, but we all learned a lot from it. We found that we had to lay out these scenarios meticulously, in great detail, in order to do the instrumentation. Now that took a lot of time, but as we sat back and reflected on it, the S-3 said, "You know, the lesson I'm getting out of this is that we ought to be preparing all of our tactical training in that level of detail in order to get out of it the lessons that we want the troops to get out of it as they go through the training. I don't think it's enough just to give them the training area and send them out there all the time and tell them we're going to do an RSOP [reconnaissance, selection, and occupation of position]. What do we want them to learn as a result of that?" In artillery terms we're going to send them out to do an RSOP. Well, that's fine. So they go out and prowl around the training area at Friedburg, Wildflecken, or wherever for a couple of days without, by and large, anybody ever saying to himself, "What do I want them to know when they come back that they didn't know when they got there in the first place?" or "What skills do I want them to work on while they're out there?" By and large, that wasn't done very well. It may have been done sort of halfway, but it really wasn't done at all well.

So, ever since, I've done that. We spent a lot of time trying to figure out the pattern of "What do they know when they go into the training experience? What do we want them to know when they get out of it? And what goes on in the middle to make that happen?" In the end, I think we were getting a lot more out of training time than we had ever been getting before. Looking back on it, I decided at the end that we were really derelict in the beginning. We hadn't been doing our job very well.

INTERVIEWER: Your objectives sound a lot like the BTMS system.

STARRY: That's where the Battalion Training Management System started. If you go back in the literature, we created the genesis of it in that battalion. We had a thing called the Readiness Training Program, which consisted of tasks, conditions, and standards. We didn't call them that; those are Gorman terms. But essentially the Battalion Training Management System and that whole workup, the tasks, conditions, standards, and the whole training system today, originated in the ideas stemming from the experience resulting from that test. It involved a very smart kid as an S-3, with all kinds of imagination. A captain, he had been a platoon leader and company commander in that battalion. I made him the S-3, and he had more ideas than we could cope with, but we got them organized.

We had two good things that we did. One of them was that Readiness Training Program that laid out the tasks, conditions, and standards. The other one was that we standardized all of our administrative things in what we called the battalion policy manual. We'd had a couple of changes in division commanders and chiefs of staff, which resulted in a flurry of

directives from division. Everybody was all confused about what they were supposed to be doing. We ran platoon tests one time, and I went out to look at them. I remember saying to one of the platoon sergeants, "Why are you doing that?" whatever it was that he had done. I don't remember what it was that he had done now. "Why did you do that?" "Well, we got a letter from Colonel Something-or-Other." Now, Colonel Something-or-Other was about four battalion commanders before me, and I said, "Show me that letter." So he dragged out the letter and showed it to me. It was dated four years earlier, and this guy had signed it. I said, "Hasn't that been changed since? I mean, is everybody else doing that?"

Well, I got a bunch of the platoon sergeants together and we had a big talk about that. What I found was that each one of those platoon sergeants were sergeants who had been there that long. And they were carrying around little directives like that, from one battalion commander to the next one. None of them were the same; there was no standardization. So we took all that stuff and standardized it. Whatever the directive was, you cited it and put down what the division had said about it. If you wanted to add something to it, or the brigade had said something about it, or you wanted to add something to it as the battalion commander, you did it. So, when you went to do whatever it was, and it ranged all the way from investigations to motor pool operations, you just turned that tab, looked down, and there was your guidance on what to do. It eliminated an awful lot. We finished that thing and threw away about two filing cabinets full of standing orders and instructions. It dramatically simplified the administration.

And we did a lot of fun things. I'd been there so long by that time that I knew how to work all the systems for training. We always had a sergeant at the range conferences at Grafenwöhr, whether it was our time or not. We just sent somebody to all the range conferences, and he'd pick up the ranges. Anything that anybody turned in, we'd pick up. Then we'd trade them to people. The idea was that we would build up our primary time out there as much as we could, so that when we went to Grafenwöhr or Vilseck or Hohenfels to train, we'd sometimes spend a couple of months out there. If I could get somebody to pick up my sector of responsibility for that period of time, we'd go and stay for six weeks to two months. Everybody else went for three weeks. We also had a sergeant in the ammunition supply point at Vilseck who picked up all the turned-in ammunition credits that we could use. So, by the time we got there, we had all the ammunition we wanted. We did the same thing with POL. We picked up turn-in credits, extra fuel, so that, by the time we got out there to do the major training area activity, we had more resources than we could use. We just spent as much time out there as we wanted.

Locally, we worked a deal with the Germans so that we could maneuver in the countryside based on maneuver rights agreements. We'd work out the maneuver rights agreements in advance, then not have to deal with the forstmeisters [German forestry officials] and the kreis [county] people. That way, if we had a 24-hour freeze and I wanted to go out on an exercise, I'd call and tell them that the ground had been frozen for 24 hours and where it was we were going. We had more training areas than we could use. So, while everybody else was standing around complaining about not having enough resources to do training, we had more resources than we could expend. We did a lot of things that nobody else could do because they didn't have the resources.

INTERVIEWER: Sir, your first command tour in Germany occurred about the same time that I was coming into the Army, and I also went to Germany. What I remember most about training in those days was how very stifling the training schedule was. It had to be prepared, I think, a month to six weeks in advance, and you had to have an act of Congress to change it. Plus the training schedule was very, very detailed. If you planned a class for an hour, it had better last an hour. However, it sounds like you weren't constrained by that nearly so much as the battalion that I was in. Either that or you did very good planning. How did you work around that requirement?

STARRY: Well, once we had our Readiness Training Program laid out, the argument we'd make in the training network through division was, "Here's what we're trying to do," and nobody would ever argue with that. So the hour that had to be an hour and so on fit into that someplace, we just accepted that. Then what we did was start modifying it. I never really knew until about six months ahead of time how long I wanted to stay in a training area, a major training area particularly, because I never really knew how many bullets we were going to have or how much gas we were going to have. We really didn't know until about three months ahead of time what kind of credits we had built up. For the major training areas, we had kind of a three-month cutoff thing. Three months ahead of time, the S-3 and I would sit down and say, "Here's what we now have. Based on the way the buildup is going, here's what we're likely to have when we go." We'd take off 10 percent as a safety factor, and then we'd decide how long we could afford to stay. Next we'd look at the range schedules and get our range sergeant on the phone and say, "We want all we can get in here." Then, about three months ahead of time, we'd look at what he had collected and what he was likely to collect in the remaining time between then and the time we went. Then I'd get somebody to pick up my sector of responsibility, and we'd just stay out for however long we wanted.

So we started with that rigid program, but at the same time we collected resources, to include range time, and negotiated with everybody for resources. Now we got nicked a couple of times because we were out too long. Somebody said one time, "How can you afford to stay out that long?" General Bert Spivy was our division commander, a super officer. He asked me one time, "How do you do that? Everybody else is complaining that they don't have enough." I said, "Well, I shouldn't tell you this, General, but if you've got somebody who needs additional resources, I'll be happy to loan him some. We can't use what we've got. I've got to go home because we've got some other things to do. We've got to go home; we've been out here two months." He said, "How do you do it?" So I explained it to him, and he just shook his head. We knew how to manipulate the system, which really all came from my experience as a brigade S-3. It was just a matter of having been there long enough to know the system and how to work it.

INTERVIEWER: General Spivy succeeded General Abrams?

STARRY: No, General John Ramsey Pugh succeeded General Abrams. General Spivy succeeded him.

INTERVIEWER: Were you selected by General Abrams to assume command?

STARRY: No. He had gone by the time I took command. General Pugh put me in command of that battalion. General Abrams sent me to that battalion. He wanted me to become his

division assistant G-3. Well, I got him in my corner one day in the training area and told him that I was flattered that he wanted me to work on his staff and so on, but that I really felt that I needed to go down to that battalion, particularly since I was on the promotion list at the time. No, that's not correct. I thought I would be on the promotion list. I wanted to go to that battalion because, if the promotions went the way it looked like they were going, and if the battalion commander, the incumbent, left on schedule, then I would be in line to command the battalion, which is what I really wanted to do. He listened to that argument, grumped around a little bit, and said, "Okay, let me think about it." He called the brigade commander a couple of days later and said, "Okay, send him to the 32d." So he sent me to the battalion, and by the time my promotion came along, the other guy had left and General Abrams had become the corps commander. He went away for about a year, then came back as the corps commander. General Pugh is the one who put me in command of the 32d.

INTERVIEWER: That was in the days before the central selection for command, of course. I take it you're an advocate of the central selection process for battalion and brigade command?

STARRY: Not particularly. I don't think we've got any better people now than we had before. And, by and large, we've taken away from the system the ability of the guy who really wants to do that, and may really be good at it, to hustle it, even though he may not have the record that would stand up under scrutiny. Take my example yesterday of the battalion commanders in V Corps. If you've got a selection system that's all that good, you should not have such a situation as I discussed.

It would be ideal if we had a system that admitted that the selection process is made on the basis of records that are made out by human beings on other human beings and that there's always a source of judgment involved with a high probability of error and a higher probability of a lack of sufficient precision upon which to make an intelligent decision about the guy. Such is the nature of boards. We should have a system in which we somehow select people with the idea in mind that the first six or eight months is a trial period, during which we are going to take a look at this fellow and see if he is going to make the grade. If he's not, then we take him out, but with no retribution. In other words we simply say, "At this level, this job under these circumstances is apparently not this fellow's bag, but there are probably other neat things that he can do for us, given his background and so on, so we're going to put him to work doing those kinds of things instead of commanding this organization." That's pretty far-fetched, but ideally that would be the way to do it. Of course it's not going to work that way. The stigma of not succeeding in command, the drive in all of us that you've got to command in order to succeed, is so deeply ingrained into the system that I doubt we could ever have a system like that. So, while I think that would probably be the best way to have it, I also recognize that we're probably not going to have it that way.

It was that realization that led me as the TRADOC commander to propose what was nonaffectionately known at the time as SQTs for officers. I fundamentally believe that, if we're going to have the selection system like it is, then we ought to have an examination system—for promotion, at least, if not for command. There ought to be some way of examining the officer, testing him as best we can, together with whatever selection process goes on in the board, to improve the selection process. I just can't believe that we can't do

better than pick 72 guys to command battalions in a corps and get 15 who really shouldn't have been posted in the first place, along with 20 or 30 who are in the middle of the group of 72. We ought to be able to do better than that. I think, and I don't have any statistics to back this up, but I would argue that those rates are no better than the rates we had when we were doing it with the OMLs [order of merit lists] that were held by branch chiefs and so on, which in effect was a selection process all its own.

There was an allegation at the time that doing it that way wasn't equitable and, as we went through our great equality kick in the Army, along came these boards. I've sat on many of those boards, and I just have to tell you that it isn't all that good a process. It isn't all that precise a process. But we created a situation; rather we regulated a situation in which, once that selection is made, it's very, very difficult to change it. Unlike General DePuy's experience in Vietnam, you really can't just go in there and jerk the guy out and put him on the helicopter with you, then send him off to wherever it is you go when you've been relieved. The system regurgitates over that. So you have to go at it some other way, and frequently it takes longer to get the guy out of command than it should.

As I said yesterday, I would argue that we do not have enough battalions in this Army of ours to have mediocre battalions or mediocre battalion commanders. The second thing I would argue is that we owe the soldiers something better than mediocre or unsatisfactory leadership. Those two things, I think, are paramount in the selection of commanders. How to improve the system? I think some kind of a testing system should be added to the board selection if you want to do that. It's probably the only way we could do it. It would be much better if we had a system in which we said, "All right, we're going to put this guy in command," and then six or eight months later, you say, "I don't think old George is going to make it," so we take old George out without any retribution or black mark on his record. However, that requires a cultural change that I just think is beyond our scope. Also you have to accept the fact that, as people move up the ladder of command, you're going to find guys who were marvelous battery-/troop-/company-level commanders but are not going to make good battalion and squadron commanders. It's just human nature.

I can introduce you to guys, sergeants and officers, who were heroes in one war and cowards in the next at the same level of command; sometimes it happened in the same war. Everybody changes as he moves up the ladder. That's one of the things I admired most about General Abrams. I don't know how he did it, and I never talked with him about it, but it appeared to me that, every time he got promoted and took a new command, he deliberately took two steps backward and said to himself, "Okay, what am I? As the commander at this level, what am I supposed to be doing? What am I supposed to be doing as opposed to what I was doing before?" You could see him shifting gears. I watched him move from the 63d Tank Battalion to become the 2d Armored Cavalry Regiment commander. He left our division, but that regiment worked with our division, so we saw a lot of him even after he left our battalion. He clearly was a different kind of guy as a regimental commander than he had been as a battalion commander. I also watched him move from being a division commander to being a corps commander. He went away for a short period of time, then came back as a corps commander. He clearly was a different guy as a corps commander than he had been as a division commander. Knowing him as well as I did, I know that he made some deliberate decisions about what he wasn't going to get into because it was somebody else's business, and what he was going to get into. It wasn't that he didn't

score you on that other stuff, because he did. He watched very carefully and made some judgments that served as the basis upon which he took people out of command and so on, but it wasn't his responsibility to get down there and muck around in that world as it had been before. He was deliberate about it. I watched him do the same thing in MACV, and I think, from my own standpoint, it is one of the great lessons I learned from him.

It's also true in business. Every time you move up to some new plateau of responsibility, you had better step back and take a look at yourself and decide what share of that responsibility is yours and what part of it belongs to somebody else, then make sure that you are not, in your new plateau, still doing the things that you were doing at that lower plateau where you were probably managing things or running things in greater detail than you should be doing now. A lot of people can't do that. A lot of people can't shift gears. I counsel my own operations managers today. When we expand the business or we move a guy up onto a new plateau, I sit him down and tell him, "Look, you've got a new job, new responsibilities, a new level of responsibility, and new things that you should be worrying about as opposed to the things that you were worrying about in your previous capacity. Think about that, and then let's talk about what you're going to do now as opposed to what you were doing before. I want to make sure you've thought that out. I don't want you down there running their programs in that much detail. You've got to do something else. You have other responsibilities now." So it isn't just a military thing. I think it applies to the whole world of management, leadership, and being in charge of things. You have to do it, or otherwise you wind up with division commanders running squads and corps commanders running platoons, and that's not what division or corps commanders are being paid to do.

INTERVIEWER: Back to the selection process for a battalion commander. I don't know whether it would be the same percentages as before, or less or more, but didn't you see instances where an individual was selected for command as a result of being in the right place and knowing the right people? Didn't it involve a bit of cronyism?

STARRY: That's true. But if you take that bag of 72 battalion commanders in a corps that I'm talking about, what I'm saying is, I don't know that that other system, the whole system, was any worse than the system we've got now. I wouldn't argue that it was any better, either. I just don't know. I've never statistically analyzed that. But my perception is that it isn't any better now than it was before. Now, cronyism, that's a charge that's been levied against a lot of people, and I'm one of them, I guess. I have kept myself surrounded, particularly as a commander, with people who were known quantities.

It's the business of the association thing, the unit cohesion thing all over again, but in a little different context. You like to be surrounded by people in whom you have confidence, who are known quantities, and whose quality of work is known to you. Now there is some risk involved—risk because you're looking at them in a totally different perspective than the people below them, or with whom they work, are looking at them. So you have to be careful about that. You have to listen a little bit in the corners to see what's being said about all this, because you can get yourself into a situation where they begin to issue orders in your name and that sort of thing, and that's not good. You have to watch that. But, at the same time, I would argue that the advantages of having people work for you who are known quantities, and on whom you know you can depend to do things, far outweighs the

risks that you run that they will begin to take advantage of their position, your position, your name, and so on.

INTERVIEWER: A great deal of this excessive cronyism, you might say, is, like in your case, based on your judgment concerning that individual. Apparently, and I've seen this in my own career, there have been some poor judgments made in selection of battalion commanders by local commanders. Like you, I don't know which system is best. I think one thing that you might comment on is that the Army has a problem in making up its mind on the criteria to be used. For example, probably while you were at TRADOC, the Army decided it wanted all "Wunderkinds" to command its battalions. These were the guys with 12, 13, or 14 years' service, early promotees and, in many cases, individuals who hadn't done anything, so therefore they hadn't made any mistakes. As a result, we wound up with individuals with 12 or 13 years of service commanding battalions. Apparently, and I'll be quite frank with you, the Army won't admit that that was a mistake, but they've now gone in the opposite direction. Are you aware that they have put a cap on the number who can be selected for battalion and brigade command their first time considered? No more than 10 percent can be from the first-time-considered group.

STARRY: I didn't know that.

INTERVIEWER: Now, they say that that's to equalize the opportunities for command. I think the real reason is that the "Wunderkinds" didn't make it—and they know it. No one will admit that. But all of those decisions caused a severe problem within the hierarchy of the Army.

STARRY: But that's a function of what goes on within those selection boards. By and large, those boards tend to operate on the basis of what's on the printed page. You put the thing into the processor, you look at the screen, and then you take all these neat records and pick out the top guys. Now, I always picked the guys on a basis other than their record. I started my screening process by trying to find the guys who had had the tough jobs and had done fairly well at them as opposed to the guys who had had the not-so-tough jobs and had done extremely well. For example, if you're picking battalion or brigade commanders, if you look at the guys who have been on the Joint Staff, on the Army Staff in Washington, or some command staff someplace else, or department director of the schools, by and large they'll have clean slates. They're good guys because they were really never in charge of anything large in which there was a high probability of screwups as compared to a guy who's been in a couple of battalions somewhere. That doesn't happen any more, but in a battalion he has been responsible for some little thing. Now a lot people may be working on a problem, so there is a high probability that something is going to get screwed up and that it is going to be detected. The same is true for project managers or program managers in the logistics community, somebody who's been responsible for something other than just being a staff officer and running a little group of guys on the staff. That's a fairly straightforward job. You always get good marks for those. In fact those good marks tend to dampen out the less-than-good marks you get in some of these other circumstances where you've got a higher probability for screwups.

So I always looked for the guys who had the tough jobs, what I thought were the tough jobs, and who had done well—not as well as the other guys in terms of the record, but who

had done fairly well. Those were my candidates for a command, or for almost anything, because they were the guys willing to take risks. They knew they were taking risks when they did it. And, when things didn't turn out well, they bore the responsibility. They've got to be better guys than these other fellows.

Sometimes, they're just victims of circumstances. I'm not saying that these "Wunderkinds," as you call them, aren't going to be good, but by and large, in that particular period, you're right, there was a rash of people who came with top credentials.

Now let me give you a good example. When I had V Corps, one of my division commanders called me one day and said, "Do you remember Colonel So-and-So who commands that mech battalion down in 2d Brigade? He's been in to see me. He wants to resign or retire. I don't know if he has enough time in to retire or not, but he wants to get out. I asked him if he wanted to talk to you, and he said that he wasn't asking for an audience, but if you had time to talk to him, he would be more than happy to have you do so." So the next opportunity we had to visit that area was a week or two later, and I went to see this guy. He'd been out on our terrain walks, and I'd looked at his training and so on, and he really had done fairly well. He was a professional Joint Staff officer. He had spent a lot of time on the Joint Staff. He had a tour on the Army Staff, had taught in a service school, and had commanded a company way back someplace in the beginning, but not for very long, and obviously he had not done very well. But he hadn't been relieved, and there was no great problem; he just hadn't been there very long and received a "damning with faint praise" kind of report. Obviously he had done extremely well on these other assignments and had been selected for command on the basis of these staff jobs that he had had where he had done fairly well. Now he was by no means in the bottom half when compared to the battalion commanders that we had been out with. He was good. He knew what he was doing and had it all organized. He obviously worked very hard at it. Anyway, he said a very interesting thing to me. He said, "General, I want to get out because some years ago I made a conscious decision that I didn't really like this sort of thing, what I'm doing now, commanding things. I made that decision as a company commander in Vietnam, and nothing that's happened since has changed my mind. I was happy to be selected for this job. I knew that I had to do it in order to get promoted again, to get to go to the War College, and to do all these other things, but I was not at all looking forward to it because I knew it was a lot of work, work that I didn't like. I much prefer the staff environment. Then I got out here and started walking around out with you and the division and brigade commanders. The thing that impressed me is that you obviously like this sort of thing, and you're very good at it. You're much better at the terrain in my sector than I am. I could never understand that terrain the way you do. I understand that you have spent a large part of your adult life out here and have spent a lot of time on the ground. You have a feel for the ground that I will never have; I could never develop that. You also have a feel for the soldiers and the weapons and the equipment." He had a mechanized infantry battalion. "You know more about my battalion than I do. I will never be as good at that as you are. If I wanted to be a general and command a corps and do something big, then I think that that's what generals ought to be good at. I'm not good at it, and I'm never going to be that good at it. So I don't think it's right for me to hang around."

Well, we had a long talk about this. We sat together a whole afternoon; the guy had come to the point where his conscience was really bothering him. He realized that, a long time

ago, 10 years before or something like that, he'd gone off on a tangent, and it was the wrong tangent. Now, as he looked at the leadership of his own general, his colonel, and his corps commander, he realized that the real world of the operational Army was a world that he was divorced from, and all of a sudden he said to himself, "I'm not really doing what professional Army officers are supposed to be doing, and I don't think it's right for me to stay." Eventually he quit, resigned. I have to admire him for that. There were a lot of guys who were obviously in the same situation but who didn't have the guts to quit. Now he was a "Wunderkind," he really was. He was a fast burner. I've forgotten how much service he had, but he was in the category that you described and, all of a sudden, he realized that he was a fish out of water. I think most of those folks were fish out of water. I don't know how many of them were willing to face up to it the way this guy did, but I admire him for it.

INTERVIEWER: I think the Army is now making an honest effort to try to recognize success in positions other than command. A number of people, for example, are getting promoted to O-6 without having commanded. Still it appears that, if you have a successful command, you're going to make O-6, while great numbers of O-5s without command have to fight for the remaining positions. I would like to see some kind of professional practice that would fit this guy. We need people like that. Perhaps we're going that way, I don't know. You talked about a testing system. I suppose you know that we're going to a testing system. It's still on a trial basis. Right now it's nothing more than an aid to a battalion commander with regard to his captains and lieutenants. You mentioned before that the battalion commander, for example, should know as much as any of his troops. I want to discuss that for a moment, because I'm not sure that that's possible any more. I'm an artilleryman; I can operate in any slot on a 155mm howitzer crew. I can direct the artillery, but I personally cannot operate a TACFIRE van or, in all likelihood, do as well as my troops at stripping the rifle. In my 31 months of command, I tried to become as much of an expert on everything as I could, and I worked a lot on that before going into command. As far as the primary tasks—in your case, tank gunnery—I think the battalion commander can excel. However, do you believe that, in the modern Army, with all the modern technology that we have, that the battalion commander can still excel at what his troops do?

STARRY: Well, no. Without question there's a limit to what you can do. I think you have to sort out your primary tasks. In a tank unit, particularly, that's fairly easy. The battalion commander is a tank commander. Now, just by definition, that tells you something. When I took command of the 32d, we had five companies in the battalion at that time. We were getting ready to go ROAD, so we had to absorb one of those old heavy tank companies equipped with M103s. Two of those companies were then to go off and become another battalion. One of them was Don Smart's company. So I got all the tank commanders in the battalion together. That included the company commanders, the platoon leaders, all the sergeants who were tank commanders, and myself. Nobody else was allowed to come. The sergeant major had a bad case of the ass because I wouldn't allow him to come to the meeting. He said, "I've got to be at that meeting." I said, "You're not a tank commander. This is only for tank commanders, of which I am one and the S-3 is one." And I said, "Okay, we're going to get everyone assembled, and we're going to go through tank gunnery."

The reason I did that was because we had had a big argument in our division for a long time about whether or not the battalion commander should even fire his own tank, let alone go down range and fire the crew qualification course. Well, based on my previous

conversations, I don't need to tell you that there was never any question in my mind about that, having come from a battalion in which the battalion commander went down range first and was followed by the company commanders. I couldn't believe that there was any conversation about it. It had never entered my mind, but the argument had gone on for so long in that division that it had become a big bone of contention. So, to solve the problem, I got them all together. Nobody else was in the room except for 80-some-odd tank commanders, maybe 89 tank commanders, and I said, "Okay, we're going through tank gunnery. Why I'm telling you this is because the battalion commander will be the first guy down range, followed by the company commanders and their companies. As we go through this, the company commanders will be the first guys down range, followed by platoon leaders, who will be the first ones in their platoons. Furthermore, I'm going to whip your asses with the crew I've got. I'm not going to fix my crew."

Now one of them was AWOL about every third week; I was always out looking for him. The other one had been busted; he had been a sergeant and a private about four times in a row. Anyway, I said, "I'm going to take the crew I've got, and we're going to beat your asses. Anybody who beats us, any crew who beats my crew, I'll owe them all a steak dinner and a case of beer." Well, you know, they responded with a big, "All right. All right, you're on." Now my gunner was a guy who'd been a driver but got tired of driving. He said, "I want to do something else," so I made him a gunner. He was a good gunner, but he wasn't a professional gunner, he was a crewman. So they said, "Okay, what do you want to do?" I said, "Well, we're going to practice. Now I'll tell you what, fellas, we're going to have to practice on Saturdays and Sundays, and we're going to have to practice at night. That means you're all going to have to be here and be sober in order to do that, and you're going to have to meet my schedule. Now we'll work out the rest of your work so that it gets done too, but you're going to have to work when I can work because my time is really not my own. I've got a lot of other things to do."

Well, we'd been out all night one night doing some night-tracking exercises and some subcaliber firing. I was walking down through the motor pool, chatting with the platoon sergeants during a maintenance period one afternoon, when one of the platoon sergeants came up and said, "Sir, you're serious about this, aren't you?" I said, "About what?" He said, "About beating our asses." I said, "Why do you ask?" He said, "Well, I drove by here last night and the only thing I could see was your crew and yourself out there, working the targets and whatnot. We're not doing that." I said, "Sarge, if you intend to compete in the big competition, you better get your ass out here and do the same thing." So, after that, you began to see them all doing it. Well, we fired and were the high battalion in the division that year. Now, with that little crew I had, we were second high in the battalion. We were beat out by a crew that set a new USAREUR record. Now I neglected a lot of other things in order to do that, but at the same time, we did a lot of things by doing that that I think helped the whole battalion.

For example, we had just been issued the M73 machinegun, which was a disaster. So the first problem was simply assembling and disassembling the stupid thing, which was part of the preliminary gunner's exam. So I got the crew to take the gun out of my tank and I took it home. I took it home and that thing sat on the floor in the little den we had for about three weeks, with my wife sitting in there with a manual and me working that thing and, eventually, I got to the point where I could take it apart and put it together blindfolded in

less time than was required in the preliminary gunner's exam. So then we put it back into the tank, and I walked down through a training session one day—we had a little county fair setup—and there was one station that involved the assembling/disassembling of that machinegun. They were having a hell of time with it. I stood there and watched that for awhile, and then I asked the sergeant in charge, "What's the trouble?" "Well," he said, "we trained the guys on the damn machinegun." I said, "Look, there's nothing wrong with the machinegun. You may not like the way it's designed, you may not like the way it fires, but we've got it, and that's all we've got. We're not going to get anything else. Let me tell you something. I bet you I can take that thing apart and put it back together again blindfolded, and I'm the battalion commander, that's not my business. You guys are the gunnery guys, I'm just the battalion commander." He said, "Sir, we can't even do that, and we can see!" I said, "All right, you blindfold me and give me the gun," and I did it. I said, "You time me. I'm going to do it in less than the required time," and I did. The sergeant looked at me and said, "Oh, shit, you've done it again." I then said, "Time out. I want to go back and start the training all over again. We've not done it right. How long is that going to take?" So we sat down with the S-3 and we figured it out, and he straightened the thing out.

Now I could have gone down there and made a speech, pounded on the table, kicked them all around the tent and whatnot, but it wouldn't have done any good. All I did was have him put a blindfold on me, and then I disassembled and assembled the gun in less than the time that was required for the preliminary gunner's exam. I took the blindfold off and said, "If I can do that blindfolded, you guys, who do it all the time, can sure do it. I don't do that for a living, you guys do that for a living. If I can do that, you can do it without the blindfold on, but remember it's going to be dark in the tank. It's going to be night, it's going to be raining, and the rain is going to be leaking in, you're going to be in a hurry, and you're going to be scared. So everybody who has to do that ought to be able to do it blindfolded, because that's exactly what you're going to be. You may be able to see a little bit in there, but by and large all the other things are going to add to your problem."

That was the end of the argument. We had no further arguments about that gun. It didn't work very well; we had stoppages and whatnot, but they learned to clear the stoppages, and they learned to keep the thing firing. And it was that one thing that did it. I did several things like that. That was a trick I learned from General Abrams. He would sit in his office, and he'd read up on something in excruciating detail—not everything, but something—in excruciating detail, and then he'd go around and start looking at how that was going. When he found it going wrong, he'd get into it himself and demonstrate that he knew more about it than anybody around the table, or around the training site, and that he could do it better than anybody around the training site, and that was the end of the argument.

INTERVIEWER: That's a very good technique. I've found, though, that many times I have left someone out. I still remember my RATT rig crews and my cooks. Their feelings were hurt because I couldn't cook.

STARRY: Well, there's no question that you can't cover everything, but I think you can the primary things. That is much easier for a tank battalion commander, I think, than anybody else. It's quite clear. He is a tank commander. The tank is there for command and control, but it also has a basic load of ammunition. If he's where he's supposed to be on the battlefield, he's going to have to shoot it. So it solves a lot of his problems for him.

INTERVIEWER: You talked about an SQT, the testing system again, and in line with that you considered that as part of the criteria for selecting battalion commanders.

STARRY: Well, I think it ought to be a selection factor. We ought to have a standard examination system, like many armies in the world do, for officers for selection for promotion, for selection for school, and possibly even for selection for command, I don't know. If you have the other two, it seems to me that it isn't necessarily as important to have it for selection for command. You're going to be able to read the testing records for selection for promotion and for selection for schools and the outcome of their service in the school. You're probably going to be able to read enough out of that to help you make a selection for command. So I wouldn't argue necessarily that they ought to be tested for promotion to command.

INTERVIEWER: The testing would be a primary or a specialty type of testing?

STARRY: It's just part of the whole routine. If you're going to get promoted, you have to pass this level of exam. If you're going to go to this school, here's the entrance exam.

INTERVIEWER: No leadership-type exams?

STARRY: Well, how would you do that?

INTERVIEWER: Well, some people like to go with psychological testings, but I'd venture to say that I could screw up every one of those if I wanted.

STARRY: I don't have much confidence in those.

INTERVIEWER: The testing system can get out of hand too. I guess that's my point. You have to be very diligent and careful.

STARRY: I think we ought to periodically have, as a part of the evaluation system for officers and NCOs, a thing like the old cavalry stakes, a three-day cavalry ride. We put an armor stakes thing at Knox when I was there that was really fashioned after the old cavalry ride. In fact I wrote General Hamilton Howze and asked if he had in his files some of the stuff that we had gone through as lieutenants at Fort Riley, which I thought was extremely good, and by golly he sent it to me. I used that as a basis for the armor stakes thing that we established at Knox. I don't know whether they're still doing it or not. I think they are, but maybe not. Over the years I have used that.

In the 32d I used a system derived, in part, from what I knew about the cavalry stakes based on the experience at Fort Riley, combined with some information out of a book called *The Assessment of Men*, which was about the OSS [Office of Strategic Services] and how the OSS evaluated candidates for service in the OSS in World War II. It was an individual stakes kind of thing involving stress situations. These were small group stress situations, and these were individual stress situations, but largely they were onesies-, twosies-, and threesies-type situations and you were evaluated at each station. You were evaluated either on your performance as a leader, if you happened to be a leader at that station, or as a follower.

I think that every time an officer goes to school, at the basic course/advance course level and so on, there ought to be a repetition of that kind of thing, geared to that particular level of schooling. That's a test. When you say test, people think of a written test. How are you

going to do that? That's like the paper evaluation. There are a lot of ways of testing people and a lot of ways of evaluating people. I would rather make a judgment about whether or not a guy ought to be put in command on the basis of assessment tests like this thing out of *The Assessment of Men* than I would on a written exam.

INTERVIEWER: You mentioned 15 less than mediocre officers were commanders in V Corps. Did you do any kind of, or direct any kind of, an assessment of their backgrounds or previous experience or anything?

STARRY: No, not really, not a proper kind of evaluation. In many cases I looked at them just out of curiosity more than anything else.

INTERVIEWER: It might be interesting if we could do that. I guess you can tell that I'm very concerned about the selection process. I think, if we go to war, we're going to need that.

STARRY: Well, my concern is based solely on those two things I said a moment ago. One is we haven't got enough battalions to afford to have a lot of average or less-than-average battalions, and we haven't got enough soldiers to afford to put mediocre or less-than-competent guys in charge of them. We owe the soldiers something better than that.

INTERVIEWER: I think another problem is, and maybe we shouldn't be on tape now, but another problem is that you see very few outstanding battalion commanders. You see a lot of the middle ones and again a lesser number of the less than mediocre, but very few outstanding ones. Now I know that we have a number of outstanding officers in the Army, but they don't get there for some reason.

STARRY: There are a lot of guys who would probably be very successful battalion commanders, certainly better than the average, who never get a chance to command for one reason or another, and I think that's wrong. That's why I think the single thing that bothers me most about the present selection system is that it deprives those people of the opportunity to compete. Most of those guys who are good enough to do that, and be good at it, are people who would really want to compete, but we've deprived them of that opportunity. Now I also will admit that in the old system—that is, before the board system got started—by and large it was the local commander's call. On the other hand, it was always based on the OML. You always had an order of merit list at the branch that, as I recollected, most people looked at, at least, or considered when they put people in command. If the guy wasn't on the OML or wasn't high enough on the OML, then you really wanted to think twice before you put him in command.

INTERVIEWER: Well, it was my experience that the branches had way too much power in those days.

STARRY: That's why they got rid of the system.

INTERVIEWER: If you made a phone call to your branch and you maybe breathed hard, they would write down in your file, the file that you couldn't see, that you were out of shape or some stupid shit.

STARRY: The allegation was, of course, that with cronyism, gross cronyism such as if your friend was the chief of your branch, then, by golly, you were going to get preferential treatment.

INTERVIEWER: Well, in my opinion, another problem with the old branch system was that the people who were working in the branches were the "Wunderkinds" who had never experienced any problem anywhere. So, if they talked to someone who had a problem, say a retarded child or hardship case or something, they couldn't understand it and didn't want to deal with it, and therefore they didn't deal with it. They tended to gravitate more to people like themselves. I didn't think it was a very fair system at all, and I never, never want to go back to something like that.

STARRY: Well, that's why they did away with it. That was a pretty widely held perception.

INTERVIEWER: They were ones who picked the officers to go to C&GS and all that stuff.

STARRY: Yeah, that's right, the whole thing. I suppose you could argue that if you went back to a general officer as chief of branch. Really that's one of the things that caused me to try to persuade General "Shy" Meyer to recreate the center commanders, armor, infantry, and so on, as the chiefs of the branches and give them some say in the process of selecting commanders for the armor units, the artillery units, or whatever. However, we never got that far along with it. He was willing to make a tentative start toward putting those guys back in as branch chiefs, but at the same time, because of the centralized personnel management system, the resources didn't exist at the various centers to handle that problem. So it was hard to say how that fellow would get involved in selection. The system you've got is not satisfactory to a lot of people. The system you had wasn't satisfactory for some of the same reasons, plus some others besides. It's hard to say what would be better, but at the same time, I remain convinced that we owe the Army something better than that mix of battalion commanders I described in V Corps.

INTERVIEWER: Another thing that we can't seem to make up our mind on in the Army is the tour lengths, the peacetime tour lengths, for battalion and brigade commanders. Do you have some feelings on that?

STARRY: Well, I argued against extending the tour lengths at the time when General Meyer extended them. I argued with him on the basis that, if the selection system is no better than it is, then we should not extend the tour lengths. If the selection system produces the circumstances in corps like the one I described in V Corps, then we can't take a chance on extending the tour lengths, because we're going to extend the tenure of those less-than-satisfactory commanders. As a result, we're going to produce a lot more mediocre or less-than-mediocre battalions than we really should have. If you can change the selection system or change the system to produce something like I described awhile ago, where you can leave the guy in command for six or eight months, make an evaluation, and then say, "Well, he ought to stay," or "He really ought to go," then okay, extend the tour if you think extending it is useful.

But a tour length extension for commanders really misses the point. The point of the cohesion argument and the working together argument is that the lieutenants and the captains and the sergeants are there for a longer period of time and work together as a team. It really has little or nothing to do with the length of the battalion or the brigade command tour. The whole system misses the point with regard to the cohesion argument, which is the teamwork argument. Now, in my own case, during my tour in the 3d Armored Division

in the early 1960s, I reaped an enormous benefit from having been there. As I look back on it, the other battalion commanders in that brigade really suffered by comparison, and it wasn't that I was so much inherently better than they were. The argument was that I'd been there so long that I knew the system inside out. I knew how to use the system to our own advantage as a unit, and they didn't. Talk to Don Smart about that sometime. He went over to be the S-3 of another battalion. He used to come traipsing down to see us all the time, and he'd say, "How do you guys do this?" They didn't know how to get extra resources. They didn't know how to plan the training time. They didn't know how to work the local training areas. They didn't know how to work the maneuver rights. They didn't know how to work any of that stuff, and he sat there in envy most of the time of what we were doing. But the answer was that I'd been doing it for so long by the time I got there that I had a singular advantage over the other guys.

Now, if you're trying to re-create that situation, then it might be useful to extend the battalion or brigade commanders, but the purpose for which it was ostensibly being done was to help with the cohesion problem, but the cohesion problem is not a battalion or brigade commander's problem. It's a problem for the platoon leader, a company commander, a platoon sergeant, a tank commander, a gun section chief, a battery commander, or a troop commander, not the battalion commander.

INTERVIEWER: Perhaps that problem was too hard to whip, whereas you could whip the one with the battalion commander.

STARRY: Well, that's true. On the other hand, the argument I made against it is that, by extending tour lengths, you deprive yourself of the opportunity to put a lot of other guys through command, many of whom would have been as good as or better than the people you left in command. And, if you ever have to mobilize and expand an Army, you really are going to need a backlog of guys who have had some command experience at that level.

INTERVIEWER: How long would you say the command tour should be—24 months, 18 months?

STARRY: It depends on the officer and the circumstances, but 18 months, in my judgment, is not long enough. It depends on where you come from too. When I took command of that battalion, I required no startup time, but one of my neighbors came in as a battalion commander and he hadn't seen a soldier, a real soldier, since he had been a troop commander some 10 or 12 years before. He'd been in the Pentagon most of the time since, or in that kind of assignment, so that poor guy was starting from scratch. He had about a year's workup time just to get tangent with the situation that he was in. I had none of that. I walked in and took command. I'd been the executive officer of the battalion.

General Abrams said one time that the best thing that could ever happen to you is to put your executive officer in command of your battalion, because he knows where all the skeletons are and, as a result, the unit will immediately get better because he *does* know, but he hasn't been telling you, where the skeletons are. I had a significant advantage. This other poor guy suffered daily by comparison. The brigade commander used to come around—a fellow for whom I'd worked in Korea, as a matter of fact, was our brigade commander—and say, "Why the hell can't that outfit get up and get going? It's not that I like you and you're a good friend of mine. Those people have none of the stuff that you guys have got."

I said, "Wait a minute. Don't forget I was your S-3 for a couple years and the executive officer in this place for a year or so before I started this thing. I know this unit. That poor fellow came from Washington. Washington is more than 2,000 miles away from here. That guy's going to spend six months to a year getting up to speed, whereas his counterpart down here in this other battalion walked in having been the battalion exec. If you spend six minutes trying to shift gears, it's going to be too much."

INTERVIEWER: Are we ever going to get the Army to leave the length of a command tour to the discretion of the field commanders?

STARRY: Well, I doubt it, because we're off on this equity kick now; everybody's got to be equal. So, if you allow the local commanders discretion, you lose equity. That was one of the big arguments made for going to the centralized selection system.

INTERVIEWER: I'd like you to talk about General Bruce Clarke, who had Seventh Army when you were there. I'm not quite sure when he came out, sometime in 1963 or maybe 1962.

STARRY: Must have been; I don't really remember, but it was somewhere along in there.

INTERVIEWER: Did you ever have any contact with him? A lot of stories float around about how he used to go down to the units. Do you remember having any contact with him?

STARRY: Well, yes, of course. He came around a lot. I guess you could argue that he was a great one for oversupervision. He used to have a checklist of things that the commander ought to be doing, and you had to carry it around in your pocket, your field jacket pocket. If you didn't have it in your field jacket pocket and he caught you without it, you were in deep trouble, all of which I thought was unfortunate, because he did have some good ideas. His ideas on training are just as sound as a dollar, assuming the dollar is sound. It was unfortunate that he intruded himself at the company level of command the way he did, because it detracted a lot from the value of what he was saying, which, as I said, was not all that out of line.

He had a saying, to which I take great exception, that he used at CONARC and when he had Seventh Army. He maintained that the unit does well only the things that the boss checks. I believe the unit will do well the things the boss checks if he goes about it right. They'll also do a lot of other things very well that he won't have to check. You ought to have a unit that you've trained up well enough so that you don't have to check a whole lot of things, and that comes from cohesion, from working together, and from the kind of esprit and camaraderie that you develop in a well-trained unit. I really resent that saying that the unit only does well the things the boss checks. That's arrogance! That says that, if you don't check everything they're doing, it isn't going to be good, and that's not right. Now that isn't to say that people shouldn't go check things, I'm not arguing that at all. I'm just saying that it's arrogant. Now I like General Clarke very much; I admire him for a lot of things, and I don't think he intended for that to be arrogant, but it is. I think it always struck a lot of people that way, and I think it's out of line. He spent a lot of time as an Army commander intruding into things that were really the responsibility of the platoon-/company-/troop-/battalion-/squadron-level commanders. He probably didn't need to check into them at all. If he'd had the right kind of command atmosphere, he certainly wouldn't have had to check into those things at all. It was very unfortunate.

INTERVIEWER: Didn't General DePuy feel virtually the same way?

STARRY: I never talked to him about it, but I think so. Knowing him as I do, I dare say that he would say about the same thing I just said.

INTERVIEWER: I think it's too early to get into it yet, but it appears to me the 1976 version of FM 100-5 sort of bears that out a bit.

STARRY: Yes.

INTERVIEWER: General DePuy made a statement that, if you didn't go down and actively lead, then most of the people wouldn't do anything. I don't know what he meant by "actively lead."

STARRY: Well, you know, I wrote a lot of that book, and that was not the intent behind that. I've never heard that comment made about it before. I don't think he believes that. How did he make a decision to relieve a bunch of commanders at all levels—battalion, company, and so on? He was obviously looking into a lot of things. Some of them, at the company level particularly, were things that the battalion commander should have been looking into, but wasn't. In some of those cases, both the battalion commander and the company commander would come out.

INTERVIEWER: How many people did he relieve?

STARRY: The number that we operated on when I studied it in USARV was 56.

INTERVIEWER: In a period of how long?

STARRY: In a period of however long he was in command of the 1st Division—a year or 18 months, something like that. I don't know whether or not that is a right number. That was the judgment number that we had to make in order to examine the files to figure out why they were fired. There were a couple of sergeants major in that list, and there were a lot of captains and a bunch of lieutenant colonels, so it was a mixed bag.

INTERVIEWER: When he assumed command of the 1st Division, didn't he find about the same thing you found when you assumed command of the 11th Cavalry, that they weren't doing anything? The reading that I've done is that the 1st Division was virtually sitting still, doing nothing.

STARRY: It was a shoddy kind of operation. There was only one brigade that was really operating. The others were manning the base camps and whatnot. It really wasn't a very effective utilization of the resources. That division was not in a very commendable state. He got the whole division out fighting the war.

INTERVIEWER: His mandate, I think, was to get them moving. Maybe he felt he had to do that because they had become too lethargic and were just sitting around doing nothing.

STARRY: No, I think he would say, and in fact I've talked with him about this, I think he would say very much the same thing that I said yesterday—that I'm not willing to post a guy to command and let him be in charge of other people's lives when I don't have absolute confidence in him myself. If you lack that confidence, then you've got to take him out, or not put him in, or whatever the circumstance is, and my guess would be that if General DePuy were sitting here, he'd say pretty much the same thing, that he had lost confidence

in the ability of those guys in terms of the fact that they were responsible for the lives of the soldiers, and he wasn't willing to take a chance on it.

INTERVIEWER: Based on your analysis of that situation, had he been in command for two, three, or four months before he started relieving people?

STARRY: I don't remember, but as I said yesterday, I found one case, a case of an artillery battalion commander whose battalion fired short and killed some people, where the decision was probably not proper. There were really mitigating circumstances. I mean really mitigating circumstances, and I think it was an unfair call. The rest of them we found, in the judgment of the two or three of us who looked at it, that the guys who had been taken out of command, for whatever reason, were being taken out of command for nothing more or less than the same reasons for which we had taken guys out of command in Europe in the preceding years when I was in the 32d and the 3d Armored Division.

INTERVIEWER: Does that argue, then, that the other commanders in Vietnam were not doing what they should have been doing?

STARRY: Yes, sir, it sure does.

INTERVIEWER: After leaving the Armed Forces Staff College, you went to Carlisle Barracks. Do you want to talk a little bit about the curriculum back then?

STARRY: Well, this place has the same problem, I think, that West Point has, and that's relevance. There is a totally different perspective, of course, in the West Point situation. As for Carlisle, the Army needs someone not only looking at the political-military aspects of our national defense, but the Army really needs to sort out EACs, the echelons above corps, in the context of the operational level of warfare. Leavenworth got out of that business in the 1960s until I started them back into it when I had TRADOC. For a long time there was nobody teaching corps operations. Leavenworth now does that. Someone should have been doing it all along. Part of our dilemma with the echelons above corps is that nobody was teaching corps or echelons above corps.

Carlisle, because it is out of the mainstream of the TRADOC school system and bears some special relationship to the Chief of Staff and the DCSOPS, is immune from all that stuff. We need some enormous kind of work to be done at the theater level and above, at the level of army groups, groups of army groups, or whatever you're going to have. We need to look at the logistical support systems and all kinds of things like theater air defense systems—not just in theaters like Europe, but theaters like southwest Asia or Southeast Asia, and that's not being done. It seems to me that Carlisle is the place where a lot of that could be done and probably should be done. To the extent that we don't do it there, Carlisle's not relevant.

We went through a period in the Army where all Army officers were supposed to be political scientists—in addition to being Army officers. I went to school here when that happened, and we had to be political scientists and operations analysts. I went through both of those things as a major, a lieutenant colonel, and colonel. I struggled to get myself abreast of what the hell operations analysis was and how to do that sort of work and tried to become some sort of a grand political scientist guy who could relate the schemes of the political science world to the military schemes. It was all very interesting but, at the same time, I was deprived of a lot of relevant kind of instruction about military operations because

we were concentrating on something else. We should cover the political aspects of it, the process, and so on, but we've got a lot of professional military nitty-gritty stuff that clearly needs to be done at levels above corps, at the theater level of warfare, and they are not being done.

Someone might argue with me that this is not the place to do it. Okay, then, we've got to do it at Leavenworth. But we've got to do it somewhere. I think that, to the extent that we don't do at least some of that here, we're not utilizing this place properly. Joint operations and joint warfare arena, where is that done? Norfolk? No, not really. Here? Well, there needs to be more of it here, because the guys who leave here are going to be operating in joint commands, unified commands, and so on. The United States Army is going to go to war with someone else—first of all, the United States Air Force, and second, with the Marine Corps and the Navy. I don't mean fighting against them but fighting with them. We don't do some of those joint things very well at all, and we have got to concentrate on them. This comes primarily from my REDCOM experience, but it's been apparent all along that we just don't do that very well and we need to concentrate on it. What better place than here?

INTERVIEWER: Have you had a chance to look at the War College curriculum in the last year or two?

STARRY: Yes, I'm aware of the changes that have been made through the years. When I had TRADOC, I tried to get the War College back under TRADOC, not because I wanted to gather in everything, I'm not bent that way at all, but because there needs to be an audit trail from beginning to end of the military educational process, and there needs to be one person in charge of that. To me, that's the role of the TRADOC commander. I guess that's because I was the TRADOC commander. It used to be under CONARC. They took it out from under CONARC because General Bruce Clarke got into an enormous set-to with the Chief of Staff over what was being done up here. I don't know all of the circumstances, but at that point the Chief of Staff divested CONARC of the control of the War College, and it's still that way today. I think it's a mistake.

INTERVIEWER: Well, I think we have quite a bit of joint and combined operations here.

STARRY: Yeah, more now than when I was here, and that's a result of a lot of people like me hollering about it over the years. Maybe what I have been saying is not relevant today, but I think to some extent it still is.

INTERVIEWER: We did spend quite a bit of time, about six weeks, in learning how the Pentagon operates and about the PPBS.

STARRY: Yes.

INTERVIEWER: It was old hat to some of us. For others, the way it was covered so quickly, they didn't grab any of it anyway. But we do get a lot of jointness and a lot of combined operations.

STARRY: Starting with "Shy" Meyer, we emphasized that approach. However, you can't turn it into a joint school. I think there has to be a unique Army flavor to it. But, as a former unified command commander, I'll just tell you there are some enormous practical and

functional problems in joint warfare that have to be solved out there. One of them is air defense. Air defense problems are not being solved because there's nobody in charge of solving them, and they get all wrapped around the roles and missions axle. Somebody has got to be working that situation out. The unified commanders don't have the time or the resources to do it.

INTERVIEWER: Nor the authority.

STARRY: Nor the authority. Well, they've got the authority, but they don't want you to use it because it gets back into the tank. The JCS get in there, and they start wrapping their parochial trunks around it and the unified commander winds up getting shot out of the saddle.

INTERVIEWER: But with regard to joint doctrine, for example, unified commands don't have the authority to get into joint doctrine. In those cases where they have tried, they get their hands slapped by the service chiefs.

STARRY: That's why we called it joint tactics, techniques, and procedures. That's the name we used when I was CINCREDCOM to avoid the issue of doctrine. It is doctrine, but we called it joint tactics, techniques, and procedures. I got Jack Vessey to agree that we were going to work that problem only at the interfaces where the services come together, and then we would come forward to the JCS and say, "Here's what we need. It's technology, it's organization, it's doctrine, it's an agreement between the services, it's whatever." That was the beginning of a lot of this stuff that's going on now, but it hasn't progressed nearly fast enough, nor has it gone nearly deep enough.

INTERVIEWER: For something to think about when we talk about REDCOM, you're probably aware of the series of joint signatures on agreements between the Air Force and the Army that are supposed to solve some of these problems. Have you read the one on close air support?

STARRY: Yes.

INTERVIEWER: It says that the Air Force will continue to support, which, in my opinion, doesn't solve any problems. But we'd like to discuss those with you.

STARRY: That's a roles and missions problem. Every time that comes up, roles and missions, they really start throwing darts at you. You're on thin ground there.

INTERVIEWER: It's my understanding that the Air Force is jealously guarding its mission because it helps to justify the number of planes authorized.

STARRY: But they'd really like to get rid of close air support, particularly when it involves single-purpose aircraft like A-10s.

INTERVIEWER: Getting back to your student days at Carlisle, General Haig was also here when you were here. The rumor is that you and General Haig sort of dominated the place. Is that true?

STARRY: No, I don't think that's true. Al, considering what he later became, was kind of quiet. We had a lot of fun. The thing I enjoyed most about being here was the graduate

school. I had been to Norfolk. I not only went through the class, but I spent the next six months as an instructor on the faculty down there. Norfolk operates very much like this place does now—a lot of guest speakers—so I came here having heard almost all of those guest speakers. I'd been through a curriculum that, while it was more joint in nature than this place was, was pretty much at the level Carlisle was. I'd not only been a student, but I'd been an instructor in that world.

Frankly I would have been bored stiff had I not had the night school to go to. So I spent more time working on my master's degree than I did on the curriculum here. I filed the first dissenting vote, whatever you want to call it, a nonconcurrence with the committee report that had been filed in something like 15 years. I don't even remember what the subject was now, but I wrote this big dissent. I didn't think anything about it. The literature that they handed out said that, if you disagreed, you were obliged to write a paper. So we argued in the committee, and we agreed not to agree. It was something that I felt rather strongly about, so I wrote a paper about it, a two or three pager with a little summary in the front of it. The next thing I knew, the commandant sent for me, and I'm standing in front of his desk explaining what the hell my dissent was all about. He said, "Do you realize that you're the first student at this place who has filed a dissent in the last 15 years?" or whatever it was. I don't know whether that was true or not, but that's what he said. I said, "I apologize, General. I'll withdraw it, but I read this paper that you guys put out that said you encourage independent thinking, objective viewpoints, and whatnot, and that if you can't agree with what's been in the seminar after due conversation with your fellow classmates, then you can write it up and send it in. It becomes a matter of record."

Then he said, "That's right, and I think that's fair. We're going to do that. So I expect a dissenting vote from you on every subject." I said, "I'm not going to dissent on everything. I just had a point to make, and I couldn't agree with my teammates, so I filed this report." Well, that was the beginning of a good relationship with the commandant. He subsequently retired and went down to North Georgia College, and I went down there a couple times to make speeches to his little ROTC group. And I subsequently wrote four or five more dissenting opinions about things, particularly the political-military things, where I thought we were going off base on the curriculum. He read them all, then called me in, and we'd talk about them. Al Haig helped me write one or two of them. We didn't dominate the place, but we raised a lot of hell.

INTERVIEWER: Before we get into Vietnam, is there anything else about the school?

STARRY: No, when I was here—it was 1965–1966; I graduated in 1966—what we saw here at that time was all of the agony that the Army was going through over what the hell we were in Vietnam for and what we were supposed to be doing there. General Johnson, the Chief of Staff, came here several times during that year and made speeches. The one I remember most clearly was the one in which we spent a lot of time trying to decide what it means to win. He had a long discussion about that.

Another time he came and talked about the fact that he'd been over to the White House, and he was worried about the postwar Army because we had not mobilized nor had he been given permission to mobilize. He said, "We're going to have to use Europe as a rotation base." Of all the things that in fact happened, he foresaw them happening, and he was very

concerned about it. He said he'd been over to the White House five times to request partial mobilization and had been turned down each time. Someone got up and said, "Why don't you resign in protest?" He said, "I thought it was better to stay on and not raise a fuss and do what I was told to do than it was to try to protest by getting it out in the open and having it become a national cause of some kind."

So that was the level of stuff we were talking about. The war was just getting cranked up. The first US troop deployments were being made, first around Da Nang, and then elsewhere. When I got there in the fall of 1966, we had about 140,000 to 150,000 Americans; we were just in the buildup phase. There was still a lot of angry discussion about what we were doing over there or what we were trying to get done. So that was kind of the attitude of the students in my War College class.

INTERVIEWER: Wasn't General Johnson later accused of not saying anything?

STARRY: He never said anything publicly. He was a very loyal and dedicated citizen. In another war, at another time, that guy would have been a George Marshall. I'm very serious about that. The Army owes him a great debt, because he saw all the problems. He was right on target. He predicted what was going to happen in Europe if we used it as a rotation base, and in fact it happened. It was a lot worse than he ever foresaw that it would be. It took us 10 years to get over it. You know that better than most people, having been there for a long period of time. He took the attitude that we would give the guy in the field everything he said he needed to do the job. That was probably the wrong attitude to take. He should have gone out and counseled the guy and said, "Wait a minute, you can't have everything."

I heard him tell General DePuy one afternoon on the edge of the airstrip, "I don't have enough lieutenant colonels to keep you supplied if you keep on relieving them at the rate you're taking them out," but at the same time his basic attitude was, "Those guys are out there fighting the war. They're bearing the brunt of this whole thing. My obligation as the Chief of Staff is to give them everything they say they need to do the job." And that's what he did, to the best of his ability.

INTERVIEWER: I think the criticism came later. He didn't feel that the White House was listening to him, so he quit trying to get them to let him mobilize.

STARRY: It was in the spring of 1966 that he came here and reported to us that he'd been over to the White House five times asking for mobilization or partial mobilization. I guess he went over there subsequent to that. I would not say that he shirked his obligation in that regard at all. Now you could argue that he should have stood up and made a public spectacle of it.

INTERVIEWER: Did he enjoy a public stature such that his public resignation would have done any good?

STARRY: I doubt it, and I think that was his judgment also.

INTERVIEWER: He could have looked at it and figured that MacArthur's didn't do any good.

STARRY: Yes.

INTERVIEWER: We want to talk about this more later when we discuss TRADOC, but I think you had a hand in trying to solve this problem by creating roundout combat units from Reserve and National Guard units. That scares the hell out of me, sir. I don't mean from the point of view of the quality of the units. I'm just afraid that we may have to send some units to a war without those Reserve units because the political process won't call them out.

STARRY: That's right.

INTERVIEWER: It's a calculated risk, and I think it's a great one. When you get into mobilization and calling up the Reserves, well then you involve public opinion and politics.

STARRY: Well, you get into the statutory limits that have been placed on the number of people the President can call up. I would argue that it's probably better to call up organized units in that first 50,000, or whatever the number is, than to call up a bunch of well-drilling detachments, tooth-pulling detachments, and hemorrhoid detachments, which is what we were doing in the Vietnam War.

INTERVIEWER: Back to the War College again. Do you think that the War College can play any kind of a role in the doctrine process?

STARRY: Yes. I think the War College ought to be the doctrinal repository for doctrine for echelons above corps. I'm talking about armies, army groups, and theater armies, as well as field armies, and the study of war at the operational level. That is, at the theater level and above.

INTERVIEWER: Would you still have the Combined Arms Center to develop this doctrine, or should someone else do it?

STARRY: No, corps level and below is CAC. Leavenworth used to do all that other stuff, and it might be that you'd want to go up through the field army. We don't have field armies, but you could work up a provisional kind of TOE and some kind of doctrine for them. You might even want to give army groups to Leavenworth, but someone needs to work daily on the problem of fighting war at the theater level. That means joint, because that's where our biggest problems are. All of the functional interfaces come apart at the theater level in joint operations because there aren't any joint interfaces. JCS publications are not sufficient to cover the doctrine, the tactical- and operational-level doctrine that is necessary. Somebody needs to write that down. Should the Army War College be doing it, or Army units?

INTERVIEWER: That certainly would argue that the War College would have to work with TRADOC, right?

STARRY: Yes, and if the Chief of Staff wants to hold onto his sacred prerogatives to control Carlisle, so much the better. But there has to be some kind of an interface with the doctrinal guys, and that says that there's got to be some kind of an interface with TRADOC/Leavenworth.

INTERVIEWER: I'm not an expert on the staff here, but it seems to me that it would take some kind of major supplement to the staff.

STARRY: It might, I don't know. You'd have to look at that. I don't really know.

INTERVIEWER: A bunch of the students here claim they're overworked. Do you feel that the War College prepared you for your later career—generalship, if you want to put it that way?

STARRY: No, not really. I had a lot of fun here and met a lot of good friends, many of whom were people I'd known before. We cemented relationships, but as far as preparation for higher level command, no.

INTERVIEWER: Did you maintain a relationship with General Haig after leaving here?

STARRY: We went to school together. We've known each other all of our adult lives, and we're still good friends.

INTERVIEWER: General Haig went a long way without doing anything very conventionally and eventually moved into the position of SACEUR. I think there were many problems within the Army hierarchy when they announced that he was assuming such a role because of his lack of experience in other roles. Did you feel that same way?

STARRY: No. He was a good SACEUR. He was one of the better SACEURs we've had in a long, long time. In my opinion, Al Haig is a good guy. I have a theory about good guys. Good guys can do almost anything, and he's a good guy. He moved right in. He had a brief and frustrating tenure as the Vice Chief of Staff of the Army and then went hustling back over to the White House. He moved into SACEUR, and one would be hard put to find fault with his performance as a SACEUR. I have great respect for General Goodpaster, but he's a totally different kind of guy than Al Haig. I think Haig should have stayed longer. But Al Haig was one of the better SACEURs we've ever seen.

INTERVIEWER: Had NATO gone to war during your tenure, would he have been effective?

STARRY: Yes, I think so. As a corps commander, I would have felt a hell of a lot better going to war with him as the SACEUR than anybody else I could think of.

INTERVIEWER: But he had very little operational experience.

STARRY: Well, that's all right. He's a good guy, like I said. He can do almost anything.

INTERVIEWER: Well, he certainly had a super reputation among the allies and within his own headquarters.

STARRY: He sure did.

INTERVIEWER: I worked in and around SHAPE while he was there. He was much beloved by his staff.

STARRY: That's right, and they were loyal to him. There was an atmosphere there that has not been seen since.

INTERVIEWER: You're right there. How about his performance as Secretary of State?

STARRY: Well, the press got after him, and it's hard to say how much of that is because he's a positive, straightforward, typical Army guy. He stands up and takes charge. If you've got a problem, stand up and take charge of it, and he did. I think he should have been a little more sensitive about the fact that the press was after him. I guess he says it in his book. He

told Patton when he went down to try to get the Argentine thing under control that it was probably going to cost him his job, and sure enough it did. He was smart enough to realize that. Should he have done that? Well, I don't know. Somebody had to try it. Don't forget, the press was still living on the crest of the wave; they brought down the President, and they wanted to get him too.

INTERVIEWER: The general impression at the time was that he was upset about his perquisites, who got to ride on the right airplane and things like that. It wasn't so much of a substance matter, such as Argentina, as it was the perks. Are you familiar with all of that?

STARRY: I've heard that said, and I find it difficult to believe. That is not characteristic of him at all, based on my experience with him, and I've known him a long time.

INTERVIEWER: Do you think he'll get another position with an administration?

STARRY: He'll have a hard time. He's antagonized the press, particularly the Washington media.

INTERVIEWER: I think a lot of people would like to see him come back, but I agree. Do you still maintain contact with him?

STARRY: Yes, but not frequent. I haven't talked to him in a long time. Being retired, I've been busy frying the oils of the military-industrial complex and haven't done much with my military buddies.

INTERVIEWER: You went from the War College back to Vietnam to the G-3 Section, US Army, Vietnam. I believe you were there when General DePuy commanded the 1st Infantry Division.

STARRY: Yes.

INTERVIEWER: Any more lessons learned pertaining to your tour in Vietnam?

STARRY: In that year I spent three or four months as part of the G-3 Plans shop in USARV—US Army, Vietnam—which at that point was located in Saigon. It had not yet moved out to Long Binh and was essentially a logistics headquarters. It was a terrible place, a really awful place. I had one miserable assignment in 40 years in the Army, and that was it. Fortunately it only lasted for about four months. General Art West, in charge of the Mechanized and Armor Combat Operations, Vietnam (MACOV) Study, came along and grabbed me up to be a part of that study group. I essentially spent the rest of my tour working on that study. I came back and briefed it in this country and then went back to finish my tour.

The last couple of months I spent in Malaysia. We were doing some training of tracker teams in the British Jungle Warfare School at Kota Tinggi. I worked that exchange with the Brits. We bought some dogs from the Brits, and got some soldiers from Vietnam, and married them up in the British Tracker Wing in the Jungle Warfare School. They trained them for us, and then we deployed them to Vietnam. So I spent most of my last two or three months in Vietnam in 1967 working that problem.

USARV had too many people. They really didn't know what they were supposed to be doing. It was all make-work. You had to be in the office by 6:30 or 6:45 in the morning, and you couldn't leave until 6:30 or 6:45 at night. When you got there at 6:30 or 7:00 in the morning you had to look around and say, "What the hell am I supposed to be doing today?" You looked at all the guys up and down the hall, hundreds of them, doing the same thing,

and you just had to wonder, "Here I've uprooted myself from my wife and my family and they're all back there suffering from this whole thing. The press is against the war, and here's old Dad out here doing this. So what in the world am I doing here?"

There really was no logical answer. The old logisticians were over there fumbling around trying to figure out how to get organized. Some of the logistical units in the field were doing super work building ports, establishing airfields, and doing that kind of stuff, but still that whole headquarters was a common zoo. The commander of the place was a logistician or ordnance officer. He had a big screen system in his command briefing room. They used to go out and take 35mm slides of the port and airfield construction, then bring them in to show the general. You had to wonder if he was afraid to go out to them or what.

INTERVIEWER: He was the commander of USARV?

STARRY: Yes.

INTERVIEWER: Who was that?

STARRY: An officer named Jean Engler. Nice man, but clearly in over his head.

INTERVIEWER: What rank was he?

STARRY: Lieutenant general. He was succeeded by General Bruce Palmer, so we had a soldier instead of a logistician in charge, and things began to get a little better. But it was a disaster in the beginning.

INTERVIEWER: During this period, who commanded MACV?

STARRY: General Westmoreland. In all fairness to General Engler, the command had been a logistics headquarters. We were organizing the 1st Logistical Command at that point. This thing had been the support command or something, I don't remember the proper name of it, and they split it. They organized the Logistics Command separately, got another ordnance general to command that, and then organized USARV. They never should have put a logistician in command of it. Then, when General Palmer came in, things began to get straightened out.

INTERVIEWER: You were still there at that time?

STARRY: Yes. General Palmer, as I recall, took over in the spring of 1967. By that time we had finished MACOV. I think we finished that in about March. We came home and briefed it in March and early April, then I went back out in April. I spent the last part of April, May, and most of June in Malaysia with the British training the tracker teams.

INTERVIEWER: What were they tracking?

STARRY: We had used scout dogs, of course, but the scout dog will alert on a position but will not track people through the jungle. The British had had great success with tracker teams using Labrador retrievers (as opposed to German Shepherds, which were the scout dogs used in Malaysia) in the confrontation in Borneo and the emergency in Malaysia. Actually I had been down there earlier, then worked on the MACOV Study, then went back and finished the training after I got through with MACOV. We bought 30 or 40 Labradors from the British. The dogs had been deployed in operations in Malaysia and Borneo. We bought them, and the British trained our soldiers to use them. A tracker dog will track a

human from wherever the scent is picked up to wherever the person is. If the person goes into a hole in the ground, the dog will track him right into that hole. The risk with the tracker dog is that he'll track you right into an ambush; he won't alert. We found that, after you had a lot of experience, the dog will really tell you when he's getting close to the target, but it isn't like the scout dog. The scout dog will really stop and alert on someone who's 100 yards, or whatever it is, away. The Lab won't do that. The Labrador will get a little nervous as he gets closer. So, if you know the dog and you've been doing it awhile, you can sense that you're getting very close. When the dog starts getting nervous, you know that there's somebody usually within 30 to 40 yards of where you are.

INTERVIEWER: Did that prove to be successful?

STARRY: It was successful. By the time we got the program going, Tet 1968 came along, and after Tet there really wasn't the problem with the VC that we had before Tet. After Tet, for the most part, we fought regular North Vietnamese Army units, so the need for the trackers was not as great as it had been before when we were dealing primarily with guerrillas inside the country. You still could use them, but the need wasn't nearly as great. All of the VC infrastructure came out during Tet and essentially got blown away; it really left very little behind. During the whole time I commanded the 11th Cavalry, we had some "ankle biters" in the rear, but we fought regular North Vietnamese Army units the whole time. We had a couple of VC units in the rear calling for help from the North Vietnamese regulars across the border. We took great delight in intercepting the carrying parties that they sent down to bring medicines and food. We were about to starve them out. So tracking wasn't the problem after Tet 1968 as it was before Tet. It was an interesting experiment, and I happen to believe that it has a lot of promise for counterinsurgency-type operations.

INTERVIEWER: After that tour in Vietnam, you spent from 1967 to late 1969 in the Pentagon.

STARRY: I came back from Vietnam in the summer of 1967 and went to work on the Army Staff in the Assistant Vice Chief's office as an operations analyst. I stayed there until about February 1968, when I went to work in OSD as a special assistant to Dr. Solis Horowitz, who was the ASD (Administration) in those days. Dr. Horowitz, as the ASD (Admin), was Mr. McNamara's watchdog over the organization of the OSD and the JCS. In his watchdog role, he was charged with rationalizing all the "purple" papers—all the split decisions—of the Joint Chiefs and rationalizing all the differences of opinion among the OSD staff about what ought to be done concerning whatever the issue was. These were the days when the OSD systems analysis groups were running rampant over the services. It was a very interesting time. We worked some very difficult papers, all of which turned out our way because Dr. Horowitz had Mr. McNamara's ear. We got the Systems Analysis group under control. About that same time Alain Enthoven had decided that the fun had gone out of it, so he left and went back out to Litton. That was the de facto end of Systems Analysis power in OSD. In the next administration they downgraded them a little bit, and that's been continuing ever since. It was an interesting time. I went to work up there in about February, and I left almost a year later to go back to Vietnam. So, from February 1968 to February 1969, I was in the office of the ASD (Administration).

INTERVIEWER: Was this during the period when McNamara was busy taking away prerogatives and authority?

STARRY: It was after that. He left office early in that period and Clark Clifford replaced him. When Nixon was elected in the fall of 1968, Mel Laird came into office. So, during most of the period that I was there, Clark Clifford was the Secretary of Defense. It was during the period that McNamara changed his mind about the Vietnam War and for that reason resigned. Clifford, of course, was part of the antiwar movement, so he spent most of his time away from the Pentagon making speeches about getting out of Vietnam. The department was really run by the Deputy Secretary of Defense, Paul Nitze, for most of that period. McNamara left about the time I got there. I don't remember the exact timing of it.

INTERVIEWER: From there you went back to Vietnam in February of 1969 and spent about seven or eight months in J-3 of MACV. What exactly did you do there?

STARRY: After a very brief period as the head of Operations Analysis for J-3, I became the head of the task force to Vietnamize the war. This was in March 1969. By then the new administration had taken office. It's quite clear that they had begun work the previous November and December [of 1968] trying to figure out how to "get out of" Vietnam. In Vietnam, reading the probabilities that we would soon be told to plan redeployment of US units, General Abrams set to work in December considering one division, then in January and February, he added an additional requirement to examine taking out two divisions. In April 1969 redeployment had become National Security Study Memorandum 36. It set forth the requirement to develop a plan to first redeploy 25,000 people, then another increment of 100,000, or perhaps more later on that year. It was very closely held. General Abrams and Major General Carter Townsend, who was his chief of staff, plus myself and four majors (two Army, one Air Force, and one Marine Corps), were the only people in the headquarters who knew what was going on. The majors did the "spadework," and I would draw up a plan. The whole exercise was run through backchannels between the Chairman, the President, and the SecDef, mostly the Chairman and the SecDef, and General Abrams and General Townsend. As the MACV Chief of Staff, General Townsend had knowledge of it and sort of steered us along with what we were doing. Essentially we had to decide who to redeploy, how many, when, and so on. Then we had to bring in the J-2 to make an assessment to find areas where the threat would allow redeployment of US forces.

In the beginning we developed a plan to take out the 9th Division from the Mekong Delta. We talked about that a little bit yesterday in terms of how the deployment went and the mistakes I think we made in making that decision the way we did. We brought that division out that summer. Before we finished that redeployment, we were at work on the second increment, which was to occur in August. However, it was delayed because the North Vietnamese staged a period of high activity. We delayed the redeployment until September just to see what they were going to do. We also drew up plans for yet another increment, which was to be the third redeployment. This one was to take place in the spring of 1970. In December 1969 I was then posted to command the 11th Armored Cavalry Regiment. I went out to the regiment and took command on 7 December.

INTERVIEWER: Sir, can you tell us how you found the regiment when you arrived?

STARRY: For mechanized units, I guess, it's fair to say the fortunes varied as the wet and dry seasons varied, because there were a lot of things you could do in the dry season that you could not do in the wet season. There wasn't always a sufficient recognition of that fact on the part of either the people in command or the overall commanders themselves; that is,

the division and field force commanders. I assumed command just at the end of the rainy season.

It was a good regiment. They had had a couple of very frustrating campaigns in War Zone C in the rainy season. As I recall, the operational ready rate of vehicles was less than 50 percent and hadn't been above 50 percent for some five or six months, which was cause for concern. We had a good training program for newly assigned personnel. It was a couple of weeks in duration for officers as well as enlisted, designed to acquaint them with the weapons, the enemy, and the situation. The officers, sergeants, and the soldiers were as good and well trained as the Army could make them for that kind of duty. The thing that bothered me the most, I guess, was the maintenance situation, and the fact that there was no balance between the operational schemes and the availability of vehicles and weapons systems. In addition to running the operations, I focused on the operational ready rate of our combat vehicles. We were at the beginning of the dry season, which helped a bit. But, in any event, we had a maintenance situation that I thought was intolerable.

The first part of it had to do with the spare parts situation. The second part had to do with what the officers and the supervisors themselves knew about maintenance and how much maintenance was being done. I tackled both of those problems while running operations. The first thing I found was each squadron had somewhere between 2,500 and 3,000 lines in the prescribed load list. My experience told me that was almost 10 times too much in terms of one's ability to carry it, inventory it, keep it current, and turn it over. When I looked into it in detail, I found that a lot of the problem had to do with the Sheridan vehicle. They had pushed large packages of spare parts when they issued the Sheridan. Many of those parts had to do with the missile system. We were not using the missile system, but the parts were still on the PLL. If you're carrying them on the line, you're carrying them in the inventory, and they clutter up the depot system. So I went and tried to track back into the depots. What I found was that there was such a proliferation of parts that there was no emphasis on what was really needed as opposed to what was marginally needed or not needed at all. The demand support and supply system is not satisfactory for that kind of an operation for a war. It may work in peacetime, though it really doesn't work very well then, either.

So I did two things. I made them purge the squadron PLLs. Not long after we started the purge, the biggest squadron had about 325 lines in its PLL. So we had reduced the line item count in the prescribed load list by a factor of almost 10. At the same time I went through the usage cards and got the Logistics Command commander to come out. He was a lieutenant general whose name I can't remember at the moment. Anyway, we had a long session between the sergeants, the general, and me. His story to me was that I had the authority to adjust those usage factors based not only on the usage rate but on the time it took to get the supplies and all the down time. However, that was not correct. I guess I didn't do a very good job explaining it to him, but I found that I had a couple of sergeants who knew more about it than either one of us. So I let them explain it to him. What I had told him was that, by Army regulation, I could not adjust the usage factors. The sergeants finally convinced him that he was the only one who had the authority. He said, "All right, you send me a list and I'll authorize it." So we did, and he did. Within about four months or so, in addition to stripping out the PLL, we had increased the stockage of the high mortality parts, and the OR or operational readiness rate started to go up and continued to go up. We

went into Cambodia in May 1970 at about 98 percent OR and, although we lost a lot of vehicles in Cambodia, we cannibalized and came out with about a 98 percent OR. So over the period of just a few months, we straightened out the maintenance situation.

From an operations standpoint, I found the same situation that one finds almost anywhere. The hardest thing to teach people at the small-unit level, battalion and below, is how to integrate all of their resources into whatever they're trying to do. It's particularly difficult in a battle situation. You get into a firefight and, unless you've drilled yourself to just almost methodically go down a checklist—air, artillery, Cobras, maneuver units, resupply, all of those things—you'll forget some of them. And sometimes you'll have a squadron or battalion off in the middle of a firefight with the airplanes winging around overhead, the maneuver units maneuvering around on the ground, and the artillery sitting silent. Or you'll be blazing away with artillery with six sticks of fighters circling in the air overhead. In other words, it's just hard to teach people to remember to use everything. However, there is a drill. For a long time I carried a bunch of 3x5 cards. I did it as a company commander and even later as a battalion commander. I did the same thing as a regimental commander, because I didn't trust myself in the heat of battle and the excitement to remember all those things. I was always grabbing those cards and looking at them to make sure that I hadn't forgotten something. I think we all tend to believe that, by the time we get to be lieutenant colonels or colonels, we have all of that in hand. That's not the case!

One of the things I did with new squadron commanders, if I didn't already know them well enough to judge whether or not they could do that, was put them in a helicopter and take them up and let them do it. I watched them and made a judgment about whether or not they could do it. As part of the MACOV Study in 1967, we went around and visited every tank, mech, and cavalry squadron, troop or company in the theater. If I had to make a single observation out of that whole study, which consumed seven volumes and made a lot of other conclusions, it was that we had a whole lot of people out in command from the troop/battery/company level on up who really weren't as good as they should have been at putting all that stuff together and fighting the battle. I had believed that for a long time. I remember hearing then-Colonel Abrams talk about that as a big shortcoming of his battalion in World War II. He commented that it was a matter of training and discipline. You had to train the officers and the key NCOs, but particularly the officers; they had to learn to discipline themselves to just go down an automatic kind of a checklist to make sure that there weren't some resources available that they could bring into the fight that they had ignored. In some cases, that resource might win the battle for them. In the operations that followed, the squadron commanders that I had to relieve outright or get out of command a little early were people who simply couldn't figure out how to do that very well. Some folks can't do it, but I guess you never know that until you take them out and let them try it. It's something, I think, the individual needs to have thought a lot about beforehand. He had to figure out some way to cope with that situation. How you cope with it varies a lot from individual to individual, but it's something you always have to keep in mind. You've got to work out little systems for yourself to help you cope with it. To me that was the overriding lesson I drew out of the whole MACOV Study effort. There were a lot of others, but that was, in my mind at least, the overriding lesson of the whole thing.

INTERVIEWER: Did you and your squadron commanders handle command and control from helicopters?

STARRY: Not often. We did some, of course, but it was not a habitual thing. As a matter of fact, we wrote in the MACOV Study in 1967 that "the helicopter in the air costs the commander his feel for the war on the ground." That's essentially saying the same thing I just said. It's a question of the relevancy of your resources and putting them all together to do the job at hand. If you're flying around in the air over a firefight at altitudes of 1,000, 2,000, 3,000, or 4,000 feet (if the flak envelope will allow it), from that height the whole place looks like a pool table. It all looks so simple. I've observed generals and colonels flying around up there giving instructions that were totally out of line with what was going on on the ground simply because they had no visualization of the ground. While I did some commanding from the helicopter, I made it a practice to deliberately spend at least three or four days a week on the ground with units in operations. I had a couple of command tracks equipped for me with crews in them; they were just like a standby airplane. All I did was land and get into the command track and off I went.

The sergeant major and I ran the regiment. Sergeant Major Don Horn had been first sergeant of three companies in the 32d Tank Battalion in Friedberg when I commanded that battalion. He was probably the best operations sergeant I ever met. He was our brigade operations sergeant major in Friedberg, and when I went to the regiment, he was serving his second tour as the regimental command sergeant major. So I cleaned off that bench in the helicopter where most people had their artillery officer and air liaison officer and a number of other folks. The sergeant major and I, the two door gunners, and the two pilots were the only people I would allow in that airplane. The sergeant major was responsible for the fire support—air, helicopters, and artillery—and I was responsible for the maneuver units and what he couldn't handle in terms of fire support. If he got overloaded, I'd pick up one or the other of those. We had a system worked out so that two people ran the operation. He kept the maps, the records, and worked the radios. I helped occasionally with that. We had a super pilot, Larry Parsons, who'd been a scout pilot. For most my tour we were in northern War Zone C, and we had on the ground, either just south of the border or just north of the border, sufficient North Vietnamese antiaircraft units to force us to modify our air operations in the area. We really never flew much over the treetop level. At treetop level the reaction time was such that the enemy ground gunners couldn't get at you. Even so, we got hit a couple of times. Fortunately no one was hurt. My air cavalry troop commander, Don Smart, got shot down so many times I told him that I didn't have enough airplanes to keep him in command and that he was going to have to modify his tactics, which he did. So it was a risky enterprise, and we learned to fly low and stay there.

When we went into Cambodia, I went in on the ground simply because I was afraid I would lose control of the regiment if I started out in the air and didn't have access to my ground command vehicle and got shot down or forced down someplace in the middle of nowhere with no way to get out. So we made a big decision before we went into Cambodia that we were all going to go in on the ground, at least until we got through the flak belt. Once we were through the flak belt, and through the two regiments they had deployed in front of us, we were able to put scouts up. It was dangerous to fly because of the flak, but once we forced the regiments out of position, they weren't able to set up and we were able to suppress the flak sufficiently to fly.

I guess that answers your question about what kind of a regiment it was; it was a good regiment. I think there were a lot of things we could not do simply because we had not had

time to learn how to do them and hadn't been together long enough as a unit to do them. As for the fundamental skills, which battle sharpens up very quickly, I think they did about as well as we could expect them to do under the circumstances. They were good troops. We kept personnel on the line for 11 months. One of the other things I did was to run about 600 folks out of the base camp at Bien Hoa. Then, when the 1st Infantry Division moved out of one of its base camps, we moved into it. It was smaller and farther away from Saigon and the lure of the city. I just cleaned out the base camp. There were a lot of people there who shouldn't have been there, and the cavalry crew commanders were complaining to me that they didn't have enough people on the tracks to do their jobs. Six hundred guys sitting in the base camp will fill up a lot of tracks. So we put them out there and kept them out, except for their R&R. We tried to take care of them by rotating them in and out for a maintenance standdown period. We didn't stand anybody down for maintenance, but we took time out for maintenance and that improved the ready rate. At the same time, it gave them a chance for a little break.

Those were never safe areas. You were always surrounded by somebody. So it wasn't like the airmobile infantry, when they went back to their base camps, got drunk, and went to the massage parlors. I always felt that that was a mistake, because the soldier spends a week doing that, then you take him back out to the jungle and you have to reacclimatize him all over again. He's gotten all full of booze and women and the safety of that base camp, and then you take him back to war again. Psychologically it's a bad thing. I always felt that we had a better balance. We weren't just thrashing around in the jungle for a few days and then going back and sopping it up in the base camp. We were out day after day after day grinding away at the same old problems, and we learned to take care of ourselves much better than the infantry, the airmobile infantry units in particular, did.

INTERVIEWER: One of the criticisms of our operations in Vietnam was that we were so totally dependent upon firepower that it hurt our maneuver and kept us from closing with the enemy in some cases. Did you find that to be a problem? I'm talking specifically of the use of artillery, air, gunships, and reconnaissance by fire.

STARRY: I'm going to pick on airmobile enthusiasts a little bit. Among the airmobile zealots I would include the elder General George Casey, who commanded the 1st Cavalry Division to which we were OPCON for a long time and of whom I thought a great deal. He was a great guy who was killed in a helicopter crash shortly after I left Vietnam in 1970. He was an airmobile enthusiast, and his vision of airmobility was pretty much like a lot of the typical airmobile enthusiasts. The purpose of airmobile infantry was to locate the enemy and, once having located the enemy, to destroy him by fire.

What we found in the MACOV Study was that it wasn't being done very well. Most of the enemy was being located by air cavalry and not by the infantry—that is, the "air" air cavalry, not the air cavalry infantry. The time gap between when the infantry contacted the enemy and engaged him with fire was sufficient for the enemy to get away. So, in every case, we dumped this enormous load of firepower on an enemy that didn't exist, because he had had time to react. He knew what we were doing and was quick to react to it. The minute contact was made, he would stir it up a little bit. If he thought he was winning, he'd press on. If he thought he was losing, then he'd back away from it, knowing full well that

firepower was going to descend on him. The enemy learned that tactic, and we were not proficient enough at it to employ it successfully.

In the time we were OPCON to the 1st Cavalry Division, something like 60 percent or more of their claimed kills were claimed by the divisional air cavalry squadron. If that be the case, then my question is, "What's the purpose of all that airmobile infantry?" It is a means of getting soldiers from one place to another very quickly, there's no question about that. It beats the hell out of walking through the jungle. I don't question that a bit, but I would also observe that we had airmobile infantry battalions attached to us many, many times. We went into Cambodia with several of them attached to us, and before that we had them attached almost continually. My impression of them was that, while they got from point A to point B rather quickly, once they got there they didn't know where they were, they didn't know what the enemy situation was, they didn't know the ground, and they didn't know the terrain. In short, they didn't know anything. They're babes in the woods out there, with the blind leading the blind. I have commented on that before. It was inexperienced lieutenants leading inexperienced sergeants, and together the whole outfit was scared to death out in an environment with which they were not familiar.

As opposed to that, we put the cavalry troops out and left them there. They knew the ground, they knew the trails, they knew the enemy, they knew the situation, and they knew the animals that lived in the jungle. I've seen infantry companies waste a whole basic load firing at a couple of monkeys because they were something that stirred in the jungle. The cavalry soldiers could almost smell monkeys and had superb fire discipline. In Cambodia one of the troops ran into a large group of refugees in a rubber plantation. Had it not been for the fire discipline we had established, with the troop commanders controlling the fire, they would have blown away several hundred people before they realized what was happening. Once you start a cavalry troop firing, if you can't stop it immediately, you've got a disaster on your hands. You can wipe out a village in a matter of two or three minutes. You can wipe out several hundred people in a matter of two or three minutes. In this particular case the troop commander was in front, where we required them to be, and he maintained control long enough to determine, in his mind at least, that they were not something we should fire on. We avoided a near disaster with that situation. All of the troops were very good at that. It's risky, because you have a tendency to withhold fire, particularly in populated areas, until the leader is sure that he's facing an enemy and not friendlies. But you have to do that or you're going to have a My Lai or something like that on your hands. We knew about My Lai and were fearful of killing a lot of people who didn't deserve to be killed. As I said, we made the troop commanders and the platoon leaders ride up front where they were supposed to be, instead of in the rear, where you found a lot of the leaders in other units, and they were in charge of the fire discipline. I think that's the only way to do it.

INTERVIEWER: In operations away from the heavily populated areas and villages, were your troops allowed to use the reconnaissance by fire technique?

STARRY: Yes. But I think you have to discipline your reconnaissance by fire. That's why we put the unit leaders up front. As units gain more and more experience, they're less and less apt to just fire up a basic load in a reconnaissance by fire. My experience with them is—and we saw this in the MACOV Study a great deal—that a new unit that has not been

in a lot of firefights will fire up a basic load of ammunition the first night out. If you can replenish it on the second day, they won't fire near that much ammunition the second night out. It just goes in decreasing orders of magnitude until you get down to a point where the people out in front begin to sense whether or not they ought to recon by fire. It's living on the ground, on the trails, in the jungle, with the enemy, and with the animals—it's that continual sensing of that environment that is so important.

This was particularly important because of a whole lot of trail networks coming down through the area like we had in northern War Zone C. You just can't drop an airmobile unit in there during an afternoon and have them become effective by nightfall. They don't know the area and they're not familiar with the situation. There's a feeling for the jungle and the enemy that you get from being there and staying there all the time that you cannot get in any other way. That's why I thought it was so important. We worked those trail networks out there. We had an automatic ambush system in which we employed Claymore mines in tandem hookups. Most ambushes should be covered, but we would cover an automatic with another automatic instead of putting people out there unnecessarily. Sometimes we covered them with people and so with direct fire. Automatic ambushes are dangerous. If the enemy finds out that you're putting them out and if he can get to them, he'll turn them around on you. We had several incidents of that. We also established a rule that the guy who put it in has to take it out, so that a new man coming in doesn't make a mistake. You can't send someone new in to take down an automatic ambush. You have to send in the soldier who set it up in the first place. As long as we did that, it was okay. When we violated our own rules, we paid dearly for it.

But we knew those trail networks. You could go in there and see all the soldiers working at reading the signs on the ground. I learned some of this from going through the Jungle Warfare School when we were doing the tracker training in 1966–1967. The soldiers who were teaching at the Tracking Wing were New Zealanders, native Maori. They were very well educated people, but retained their traditional skills. As I watched them work and looked at what they were doing, it became apparent to me what they were doing was well described in my "ancient" *Boy Scout Handbook*. The more we watched our own soldiers in the 11th Cavalry, the more we tried to train them well in those skills. We concentrated on the simple tracking and scouting procedures. Because of that they could read the trails. The lead scouts could tell you how many people went down the trail, how long ago, and about what they were carrying. And they were hardly ever wrong. That's mechanized soldiers, not infantry. You can't put airmobile infantry in there and have the lead scouts be that proficient instantly, since they won't know what it looked like before. So I'd like to think we had a steadier, more stable, better balanced, more proficient, and, at the same time, safer kind of an operation. We had fewer casualties because we stayed there longer and became more familiar with the terrain and situation than did the units that just popped in, stayed a few hours or a couple of days, and then pulled out.

INTERVIEWER: You did a lot of mounted and dismounted work. When working dismounted, did you form ad hoc groups by pulling together the dismounted soldiers of the squads?

STARRY: The ambush operations were all dismounted because, if you took the tracks in, it was a dead giveaway. Those were dismounted operations. The troops learned to cover their tracks as they came back out of the ambush by dragging stuff down the trail. They learned

to use all the tricks of woodcraft that people use to cover trails. We did that essentially by scout squad. The squad leader was in charge, and the platoon leader was in charge of the squad leaders. We didn't change the organization. It was the same as vehicular organization. You usually leave a soldier or two on the vehicle to man the guns and provide communications and security, and overwatch if you are close enough. When you went into the ambushes, particularly to set the automatics up, you were out of direct fire range. In those cases we would move by fire team, or we'd use the squads like fire teams and move in what later came to be called traveling overwatch and bounding overwatch. If we got to the point where we were really in bounding overwatch, we had a firefight on our hands and had to bring up the tracks and do something different. As long as we were in a traveling mode or traveling overwatch and weren't too sure about what was out there, we went ahead with it. Once we moved into a situation where we had contact and shifted to bounding overwatch, we would bring up the tracks for direct fire support.

INTERVIEWER: One of the hardest problems in a case like that is the coordination of the fire support. What system did your regiment use, or did you leave that to the squadrons to coordinate? For example, who coordinated the tac air, the gunships, and the artillery?

STARRY: The squadrons were far enough apart, geographically, and the missions were far enough separated, geographically, so that almost always it was an individual squadron operation. We carved out an AO for each squadron. Everything that went on in that AO, from the ground to the sky, was the squadron commander's responsibility, to include artillery and air. We monitored that from the regimental command post to make sure that, if we had a priority problem, we'd give priority fires to it. I don't recall that we ever really had a serious conflict with that.

In the winter of 1969–1970, we were engaged in an operation along the road from Loc Ninh to Bu Dop in northern Binh Long Province. In clearing that road with Rome plows (D9 Caterpillars), we had to use more than one squadron, particularly by the time we got into Bu Dop. The 2d Squadron was conducting that operation. It finally got up to Bu Dop, which was some distance from Loc Ninh. Meanwhile, we'd had a situation in Loc Ninh that required the moving of another squadron in there. We had to coordinate that, because they were close enough together that we were using the same fire support for both squadrons. When we went into Cambodia, we had to control the artillery and the air. To do this I had organized an artillery section in the regimental headquarters. I got an artillery lieutenant colonel to run that. He was our senior artillery coordinator—the regimental artillery officer. The air liaison officer worked with him in the fire support element that we created at regimental level. You would call this the fire support coordination center or fire support element at division level. It was essentially a division-level kind of thing, but at the regimental level. When we went into Cambodia, we had our own three squadrons and, later on, four battalions of airmobile infantry attached. That's almost a division, and we were dealing with division equivalents of fire and air support. When we crossed the border into Cambodia, we had six sticks of fighters in the air overhead. We didn't have the Cobras up because of the flak situation, but we used artillery—8-inch and 155mm. Behind that, we massed tac air. When we were able to use the Cobras, they were mixed back into our fire support, but we began with just artillery and tac air.

INTERVIEWER: Being an artilleryman, one of the experiences I ran into over there was that we would be cut off at some point in the battle in order to bring in tac air, and then there would be a long gap before the tac air would come in.

STARRY: Never do that. There's no need to do that; you should never do it. When the battle starts, you start everything up. You start up the artillery, you start up the helicopters, and you start up the tac air. All you do is move it around. You never stop it. You don't stop anything. You might slow down the pace of it. In a stiff firefight, you have to keep it all working all the time. The trick is to learn how to move it around so that you're not firing at one another. That's coordination of resources and building up the battle. Not everybody can do that. You have to teach yourself to do that; most people aren't very good at it. The good ones are the people who have thought about it a little bit. They have a pattern in their minds about how they're going to do it.

INTERVIEWER: In judging your squadron commanders, and in determining whether or not they were adequate to lead their squadrons in combat, did you look at their coordination of firepower and their ability to visualize the terrain? Just what did you look at in determining whether or not they knew what they were doing?

STARRY: The first thing that I looked for was whether or not he could put all that together—the maneuver forces, the fire support forces, the air, the artillery, and the helicopters—in a coordinated way and run a battle.

INTERVIEWER: Generally speaking, how long did it take him to learn that once he assumed command?

STARRY: Some of them never learned it.

INTERVIEWER: How long for the good ones?

STARRY: The good ones had just about figured it out by the time they took command. Of the ones who seemed unable to learn, a couple of them had obviously given it some thought but hadn't worked it out in detail. It took them three or four months to catch on. Once I took them up in a helicopter and made them do it, they realized that it was something that was at least important to me, if not important to the battle, and their performance was going to be graded on their ability to do that. So they spent some time figuring out how to do it. Some people can't do that. Some people's thought processes can't be divided up and segmented that way. It isn't easy to be firing artillery over here, having Cobras coming in somewhere, and having close air support going in over there, then move all of that around. You can get it started up, but how do you move it around? How do you redirect the fighters so that they're not firing across the gunships, the gunships are not firing at the fighters, and everybody's not flying through the artillery?

INTERVIEWER: How do you convince the fighters that you are doing that? That's one of the problems.

STARRY: Confidence. You do it a couple of times. We always took our air liaison officers and forward air controllers and had them spend a couple of weeks in a track on the ground with a cavalry troop before they went to work as FACs or as air liaison officers. We also brought the pilots in from the fighter squadrons to spend a day or two with us. They loved it. It was the greatest thing we ever did. Once they got out there and saw how we did it, there was an

increase in confidence. They developed their own confidence in the fact that we knew what we were doing and that they weren't going to be flying through our bullets and that we were not going to fire across the Cobras and close air support with artillery.

INTERVIEWER: Did you normally require your squadron commanders to have served in Vietnam in some other job prior to assuming command?

STARRY: I didn't have a requirement for that, although my personal opinion was that it was essential. I don't think we ever put in someone who hadn't been there before. I preferred to have somebody who'd been in the regiment and knew how we operated. The people I put in command during my time were all folks who had been in the regiment. A couple of them had been the regimental S-3, two of them, and one had been the regimental executive officer for awhile. So they were people who had been in the regiment.

INTERVIEWER: What about troop commanders?

STARRY: You were pretty well forced to take what the system delivered to you in that case. It was really not possible to insist that they be people who had been in the theater. Most of the captains came to me new and had not been there before. Most of them had only a couple of years of service. We tried to use our own people who had been promoted; that is, the platoon leaders who were promoted to captain. We just took the best of the platoon leaders and made them troop commanders. Inevitably, they made better troop commanders than those who came from the outside who had not been there before. I don't remember putting one from the outside directly into command. We would put him on the squadron staff for awhile to give him a chance to get familiar with the ground, the operating conditions, the enemy, and so on. After watching him for awhile and giving him a chance to get acclimated, then we'd sometimes put him in as a troop commander.

The regiment had a training detachment in the base camp that we put everybody through. The sergeants and the officers received a reorientation on weapons, enemy tactics, and so on. The soldiers received a little indoctrination on the enemy, living conditions, hygiene in the field, and the kinds of things that bother soldiers in the field. The longest courses were a couple of weeks. The majors and the senior captains who had been to Vietnam before were frequently there for no more than three or four days, just long enough to reacquaint them with what had changed since they'd been there the last time. If a man had not been there before at all, we left him in there for the full two weeks, I didn't care what his rank. That helped a little bit, but even so we never took someone directly out of that and put him directly into troop-level command. We had to with the platoon leaders because we didn't have any choice, but with the captains, the troop/battery/company commanders, we never did that.

INTERVIEWER: Was your normal command tour for troop and squadron commanders six months?

STARRY: Yes. Now the company-level soldiers, the company-/battery-/troop-level people, a lot of them, once you got them out there, they were good. They wanted to stay, and so there were significant numbers of them who did more than six months. That means, if you were a new officer, you would come in as a platoon leader. Given that you'd been commissioned, gone to a school in the States and had a little leave, by the time you got to the unit you'd have a year or so of active duty and were within shooting distance of getting promoted to

captain. So I gave him six months in a platoon and, if he worked out, I might put him in as a troop commander. He'd spend six months more as a troop commander, which essentially gave him a year on the line. They wanted it; it was their call. In watching them, as long as you didn't detect that they had peaked and were about to go downhill and start making irrational decisions, there's no substitute out there for experience.

INTERVIEWER: Did you have a problem at company and troop level with the competence of the officers? Were they well trained? Were they well motivated? Did you run into any cowardice?

STARRY: Given the system we had, they were as well trained as the Army could afford to make them. They were not as well trained as you would want them to be. How much that additional training would have cost the Army in terms of additional manpower and additional training resources, I don't know. Somehow or another the Army elected not to pay that price. So we had to take what we got.

The same thing was true with the sergeants, particularly in repeaters. We had a significant number of sergeants who simply didn't want to go back on the line and spend another six months to a year as a platoon sergeant, first sergeant, or whatnot. Whether or not that's cowardice, I wouldn't go so far as to charge that to them. If they had been through it once before, and then gone home and thought about that a little bit, and didn't want to do it again, is that cowardice? I don't know. From a philosophical standpoint, I happen to believe that man's most difficult problem is fear—not necessarily fear of death but apprehension in the face of the unknown. You and I leave to go to a new assignment and there's always some apprehension about how we are going to do in that new job. Is it going to be a good job or not? And that apprehension runs all the way down to wondering what the family living accommodations are going to be like and so on. It's uncertainty, and in the face of danger that uncertainty heightens into what is just out and out fear about bodily harm.

In the case of leaders, if the officer or NCO is conscientious it turns into fear of how well he's going to do in commanding his outfit, because he's responsible for them. Their lives and fortunes are in his hands, and he wonders if he's going to make the right decisions and not get a lot of them killed unnecessarily. Are we going to do the right things and do them well? I honestly believe you have to have thought about that in advance if you are going to be a leader. If you don't, you're going to be confronted with the situation head-on, and that's not the time to be trying to think about it. You have to have thought about it ahead of time.

So I always tried to interview all of the lieutenants and captains. It didn't always happen; I'm sure I missed some of them, but it was because my nights were spent in the bunker working on paperwork and thinking about the next day. Frequently the urgency of the situation was such that there simply wasn't time to interview them, but I did try to interview them all. The sergeant major would interview the senior NCOs and I'd interview the officers. If he found an NCO he had a problem with he'd come to me and we'd talk about it. Sometimes I'd interview the NCO. I'd do the same thing with him and the officers. He and I together made judgments about whether or not we ought to put Sergeant So-and-So in A Troop as a platoon sergeant, or whether or not his reservations, and the impression that the two of us had of him, were such that we shouldn't put him in command at all. Frequently we'd turn them away.

I had a list of questions I asked them, but the single question that I repeated for every one of them was, "Are you scared or afraid?" I asked that question because I had come to believe that, if you weren't afraid or were unwilling to admit it, then you didn't belong out there. And, if you hadn't figured out what to do about it, you really didn't belong out there. I got some interesting answers to that question—really interesting answers. Most of them were not willing to admit that they were afraid, but you could tell by the way they talked about it that they were. Finally, as they talked through the problem, they would say, "Well, yes, I guess I am." I guess there were two dramatic examples that I can remember. A lieutenant came in one night and, in the course of the conversation, he said he wanted to be in the Civic Action Program working the villages, medical, food, and all that, help we gave to villagers. I said, "Well, that's fine." He had a degree in social work from a good university, and he was interested in that. I said, "That's fine, but we require every lieutenant to spend six months on the line in a platoon so that, when you're working the other part of that problem, you understand why you're doing it. You will understand the battle context in which we're trying to work this whole problem. Also, if they get into a problem down in your village, or wherever you're working, you will be qualified to call in artillery fire, direct close air support, call for gunships, and fight." Several times during the course of the conversation, it came up that he really wanted to get into that program. I said, "Okay, six months in a platoon and then you can do that." To the question, "Are you scared?" he sort of hedged and never really answered it directly. So I sent him off to be a platoon leader in the 2d Squadron. The next afternoon, I'm in my helicopter going someplace, and the squadron commander called me and asked, "What have you sent me?" I said, "What's the matter?" He said, "This kid is out here in the middle of my firebase and has now refused to take command of his platoon." So I whipped the airplane around, and we went over and landed.

Here he is with his duffel bag, standing in the middle of the Bu Dop Road. Our Rome plows were crashing the trees down, and we'd been burning a bunch of trash. It was a scene right out of Dante's *Inferno*. Here's this kid, standing with his duffel bag on his shoulders, frozen in the middle of the road. He'd gotten off the helicopter, but that's as far as he got. He walked out from under the blade arc, looked up at the trees, watched the trees come down as the plows went by, heard the artillery going out, the small arms zinging around, and he froze right in the middle of this place. Somebody went and got him and finally took him over to the squadron commander. He said, "I can't do it." So I put him on the helicopter and sent him back to the regimental command post. We gave him a nice, warm, safe, overhead-covered bunker to work in. I gave him a letter from me that said, "Having been posted to the command of so-and-so, it was reported to me that you had refused to accept command. I would like for you to take a few hours to think this over and please reply by endorsement, by hand, on the bottom of this page what your intentions are." Part of the letter pointed out some of the possibilities that could come about as a result of refusing to assume command. I didn't think it was a threatening letter, although some people complained that it was. But it was all there—his rights and his obligations. Almost inevitably, in previous cases, they had relented and said, "I'll do what you told me to do." In this particular case, I did what I did in most cases. I made him think the thing through and gave him 24 hours to sign the letter as to his intentions. He came around and said, "I'll go do that." I said, "Okay, what you're going to do now is get on a helicopter and go back to Long Binh." He served out his tour in Vietnam as the assistant club officer in Long Binh.

You could criticize that policy, I suppose, but I come back to what I said before, I was not willing to put in command of soldiers leaders in whom I did not have confidence. I was not willing to trust the soldiers' lives to someone whom I didn't think was up to snuff as a leader. Was the act of making him think it through and admit to himself that he was scared and say, "I'm going to sign up to go do it and do it right" sufficient to cause the turnaround? I don't know. I was not able to judge; that was beyond my skill level. I did the only thing I thought I could in all conscience. It was to make him solve the problem in his own mind, for that moment at least, after which I then sent him to the rear. Just as a postscript, he was an ROTC scholarship graduate from a good university. I said to him, "What in the world were you doing in four years of ROTC in that university? What in the world did you think you were getting ready for?" He said, "I don't know, sir. I never thought it through." I don't blame him; I blame the PMS and the whole system for that. I said, "You went to the Armor School. What in the hell did you think they were getting you ready for?" "I don't know. I never stopped to think about it," he said. "Now that you've made me think about it, I guess I always was scared to death the whole time, but unwilling to admit it, so I just put it aside."

Such behavior is fairly typical of too many people in that category. Another lieutenant came in a couple weeks later, and in response to the question he said, "Yes, sir, I'm scared. Colonel, I've thought about that a lot, and here's what I've decided—I've decided that I'm about as well trained as the Army can afford to make me. I need more training, but that little school we went to in the rear with the weapons, the enemy training, and all that stuff was super. I enjoyed it, and I got a lot out of that. I don't know what kind of a platoon leader I'm going to be, but I think I've got it all sorted out in my mind. I'm ready to give it a try. As far as fear of being killed is concerned, I've thought about it a lot and have looked at what is going on in our country in that regard, and I've decided that there are a lot of things a lot worse than dying for your country, and some of those things have to do with going away and hiding in some village in the mountains, or going to Canada, or not being willing to serve."

Now, the unfortunate sequel to that is that he was killed about three months later while leading a patrol on foot down a dry creek bed outside of Loc Ninh. He was a good platoon leader. He was probably was one of the best ones we had. I asked his sergeant afterwards what happened. They ran into an ambush. The lieutenant was out in front and was smart enough to understand what had happened to them. He gave a little signal of some kind that they'd worked out to deploy and attack just before he was hit. The platoon sergeant told me afterwards, "We had practiced that a hundred times. We practiced it in the base camp. We practiced it in the motor pool. We practiced it wherever we were doing our maintenance. We practiced it out in the jungle when nothing else was going on. We had about a half a dozen drills, and the guys all knew them. All he had to do was make a signal and the thing went. I didn't have to give a command. After the lieutenant was hit I didn't give a command, I just went with the fire team that I was supposed to go with, and the thing worked just like it was supposed to." They wound up blowing away the better part of a North Vietnamese infantry company. They won the fight, cleaned up the battlefield, and marched out of the jungle carrying their lieutenant on their shoulders. It was all because he'd gone in there and organized the thing and drilled them so that, when the fight came, they did what they'd been trained to do and it worked like gangbusters.

Some psychiatrist would have a field day with that story. Philosophically, ecclesiastically, or whatever, how do you justify the fact that one kid lived out his tour as an assistant club officer in Long Binh and came home because he was a coward and another guy who had the courage to face up to it went out and got killed? I'm not able to solve that problem. It's beyond my skill level.

INTERVIEWER: Your after-action report indicated that there was some problem, and I don't know how great of one, with conscientious objectors. I believe you were talking about officers.

STARRY: I was talking about officers. As I recall, we had several people who claimed to be conscientious objectors. I have two observations to make about that. One is that I can't figure out how the system let them get that far in the first place without having determined that they were conscientious objectors. Second, among other things, I came to the conclusion that their real problem was fear. All of a sudden they had gotten to the place where their fear overwhelmed them and they didn't know what else to say except, "Hello, I'm a conscientious objector." I don't really believe there were any conscientious objectors at all. It was just that they were scared to death. For the first time they had to deal with fear, and that's the only thing they could think of to say. But we did the same thing with them as we did the others—we sent them to the rear.

INTERVIEWER: For most of your tour as a regimental commander, you were attached to the 1st Cavalry Division.

STARRY: Yes, that's right.

INTERVIEWER: In your after-action report you made a comment that, prior to your arrival, the regiment had been split up quite often and attached to other commands. Were you able to keep the regiment together as a fighting force?

STARRY: Yes. It wasn't as badly fragmented in 1969 as it had been when George Patton was in command of it in 1968. For some four or five months during his command, I don't remember the exact time, all he had under his control was the headquarters troop and part of the air cavalry troop. Everything else was allocated out to someone else. There was a tendency to do that with armor. One of the findings of the MACOV Study was that in Vietnam infantry commanders tended to piecemeal their armor out, as infantry commanders always do. Armor units were never employed as units, and so it was with the 11th Cavalry. They had a squadron with the 1st Division and a squadron someplace else when George Patton was in command. Jimmie Leach, who succeeded him, managed to get back most of the regiment for part of his tour.

When I took command, I insisted that we had to have it all back together again. There was no sense in having it over there if it was not going to be employed as a unit. A cavalry regiment in an environment like that, even against the North Vietnamese regulars, can really cover about as much ground and cope with the size problem that you would probably have to use a couple of divisions of airmobile infantry to cope with. A lot of people would argue with that, but I really believe that a cavalry regiment is worth two divisions. In that environment, against that kind of enemy, used properly, you might want some battalions of airmobile infantry to help you with some things, but I'd want some more air cavalry. It's been alleged that I'm a critic of it, and I am, but my experience with airmobile infantry is

that it's a very sophisticated concept, and if you have a very well-trained division that has worked together for awhile and you employ them together, it's a good concept. But once you take that division and fragment it to the point where you've got a rotation rate that's based on a one-year tour of duty, you essentially have the blind leading the blind out there in the jungle and the concept breaks apart.

I would argue that, if the air cavalry squadron is accounting for 50 to 60 percent of your kills, then you have to wonder what the infantry is for. I would also argue that, if the whole concept of infantry is as the finding force and then you pile on with the artillery and fire support and it can't work, then it's not a viable concept. We were not able to make it work. We commented adversely on it in the MACOV Study, and I found it to be true as a regimental commander. I'm not a great fan of airmobile infantry except as a means of transport. And then you have to wonder, when you get them to where they're going, how good they're going to be. They don't know where they are, they don't know what the enemy is, they don't know the ground and situation, and so on. That's not very effective, and you're risking peoples' lives in a situation in which you have alternatives that are a hell of lot more acceptable than that.

INTERVIEWER: Were most of your operations under the 1st Cavalry Division prior to Cambodia?

STARRY: That's right. We went under the 25th Division just shortly after we got into Cambodia. The Cambodian Task Force was commanded by General Bob Shoemaker, who was an ADC [assistant division commander] in the 1st Cavalry Division. We went in under a task force organization. I don't remember now how long after we went in that it was broken up. I was wounded at Snuol, and when I came back, which would have been about late May, we went over to the 25th Infantry Division under General Ed Bautz.

INTERVIEWER: This was while still in Cambodia?

STARRY: Yes, we were still in Cambodia.

INTERVIEWER: Why don't we back up a moment, sir, and let you explain to us the objectives and what was going on during the excursion into Cambodia.

STARRY: We really weren't given clear-cut objectives. Bob Shoemaker himself admitted that he didn't really know what we were going in there for. But we were going, even though we didn't know how far or what we were to do. From reading the *Stars and Stripes*, we knew that the purpose of the exercise was to disrupt the logistics operations over there by getting into the cache sites and digging them out. That forced the North Vietnamese regular forces back from the border and gave the South Vietnamese time to get themselves a little better organized to take over as part of the Vietnamization process. It was almost a preemptive attack. We preempted the other guy by forcing him back away from wherever he was and away from his operating objectives. The objectives were ill-defined, and the timing was ill-defined if defined at all. So we sat down and laid out some objectives for ourselves. Based on what we knew about the enemy situation and the lack of any instructions from higher headquarters, we made our own objectives.

INTERVIEWER: Do you believe this was a political objective?

STARRY: Well, the political objective was to give the South Vietnamese time to get themselves a little better organized. To me that says a preemptive attack; that's the way I read it. What

we did was to strip out their logistics infrastructure that they had laid down for themselves across the border and force the regular units back off the border some distance. If they wanted to come back in, they would be obliged to do the logistics all over again.

INTERVIEWER: Do you know whether or not this operation was directed from the United States, or was it approved from the United States at the instigation of the MACV commander?

STARRY: I have no idea. Generally there was great apprehension. The press became enamored of the idea that we were going to find COSVN, the Central Office for South Vietnam. COSVN was a thing that looked like the Pentagon to most correspondents, so they wanted to know when we were going to get to the COSVN Pentagon. I tried to explain to a couple of them that, if there was a COSVN Pentagon, it was four or five guys with a radio in a hole in the jungle.

We had all sorts of ridiculous reports about what was over there. The intelligence situation was, at best, confusing. It was alleged that all of the stuff that was in Cambodia had come down the trail network from the north. We had been reporting for months that that was not the case. It was coming in by truck convoy out of the port of Kompong Son (Sihanoukville) and was probably being delivered by Cambodian Army truck units working for the North Vietnamese. This, in fact, turned out to be the case. But the initial intelligence information said that it was all coming down from the north. We got into the caches, and I made them pull out the bills of lading which, incidentally, were all there. Sure enough, they'd all been unloaded from third country freighters in Kompong Son. There was a dividing line somewhere farther north of us, northeast of us, where we found the stuff had indeed been coming down the trail network from the north. But it was some distance away and completely out of our area of operations. Everything that we found in Cambodia, as far as I know, was stuff that had been brought in through the Cambodian port and delivered into position by Cambodian Army truck units working for the North Vietnamese.

The second problem we had was that there was an enormous amount of misinformation generated by the special operations group people who were working across the border. I'd always been suspicious of them. They were there when I was in Vietnam the first time. I had limited contact with some of them and had the impression that they really weren't doing what they were saying that they were doing. That is, they weren't going deep enough to find out what was going on. They weren't getting across the border far enough to find anything. They'd go out and sit around in the jungle for a little while, get scared to death, and then come back and write themselves up for a bunch of awards. Most of what they reported was probably not true; at least we found that to be the case.

I went up to see the senior man in our area—he had a command post up in Bu Dop—before we went into Cambodia, and he told me about all of this stuff over there, the buildings, the concrete gun emplacements, the antitank guns, the antiaircraft guns with sliding concrete overhead cover things, and all that stuff, none of which we had seen. Now, mind you, we flew that border every day. You could fly it at night and watch the truck convoys. I did that night after night myself. We watched the truck convoys coming in from the west, going into the cache sites, coiling up, and then going back out to the west. Report after report that we turned in had that in it, and yet they insisted that this stuff was coming down from the north.

These people were reporting that way, and they were reporting bunkers and emplacements and all those sorts of things, none of which we had seen. We even had photography runs to try to find these things. We found absolutely nothing that those people said we were going to find, which of course confirmed my suspicions about them.

INTERVIEWER: Prior to going in there, had we been firing any artillery across the border?

STARRY: No, there was no firing across the border. We went across the border with a cavalry troop. Grail Brookshire and I went across the border with a cavalry troop one afternoon to rescue a scout crew that had been shot down. This was in early April. We fired some direct fire and had artillery ready to fire but did not fire it. We had air stacked up overhead but did not use it, either. We were able to get to the crew, get them out of the helicopter, and get them and the wreckage out before it was necessary to use the artillery.

INTERVIEWER: Had he been reconning across the border?

STARRY: No, he was flying along the border. The border was ill-defined in that area. Anyway, he took a burst of AK fire from the ground. When he crashed, he ended up across the border. We thought at the time that he was across the border, but there was no border marking to confirm it. We saw him go in and knew about where it was. We just cranked the troop up. Brookshire and I had our command tracks out there, so we just went after him. It took us about a half hour to get the guys and the wreckage out and pulled back on our side of the border. I think we reported the coordinates honestly, but there was some discussion about where the border was in those days, so nobody got skinned for going across the border. We did not fire except for direct-fire weapons. You could hear the NVA rustling out there trying to get organized. The helicopter did not burn, fortunately. The guys were wounded and covered with fuel. The scout/observer had a couple of rounds through his leg, and the pilot had a hole in his hand or an arm. Anyway, we got them out and washed them off. If you wear a flight suit impregnated with fuel, it'll just burn your skin something terrible. We stripped them and washed them off, then wrapped them up and hauled them away. We did all that in about a half hour. You could hear the North Vietnamese rustling around out there in the jungle, so we put a couple of platoons out as security while we worked the problem with the helicopter. We hoisted the helicopter up on the back of a retriever and hauled the whole thing out. We would have been attacked, but we popped a few shots at them as we left just to convince them that we were still there. This forced them to pause a little bit before they started closing in on us. Anyway, we hightailed it back to the other side of the border.

INTERVIEWER: During the actual incursion into Cambodia, what size force went in?

STARRY: We went into the Fishhook. Remember that there had been an earlier incursion farther to the southwest by some ARVN troops. The force that went in in our sector consisted of the 11th Cavalry; the 1st Brigade of the 1st Cavalry Division, which was stationed in Tay Ninh; the 2d Brigade of the 25th Infantry Division; and a brigade of the ARVN Airborne Division. The 11th Cavalry was to go directly through the southernmost border of the Fishhook. The 2d Brigade of the 25th was to go in on our immediate left. The 1st Brigade of the 1st Cavalry Division was to go in almost due north of Tay Ninh City to the west of 2d Brigade, 25th Division. We all took objectives commensurate with our respective fronts. The ARVN airborne brigade was to go into a place just north of where

the Blackhorse was crossing the border, and we were to link up with them. That part went pretty well. By afternoon of the second day, I met the ARVN brigade commander in an area we had agreed on—we had linked up. He had gone in with his brigade. It was an interesting operation from a command and control standpoint. We met the night before to decide where commanders were all going to be. Because of the flak problem, Brookshire and I decided to lead with the 2d Squadron. The two of us would go in on the ground behind H Company, a tank company, which would lead 2d Squadron. The 3d Squadron followed the 2d. Later, on the first day, we moved the 3d Squadron up on the right flank of 2d Squadron. By the end of the first day, we were two squadrons abreast, with the 1st Squadron following closely.

The brigade commander of the brigade of the 25th said he was going to command from his helicopter. I cautioned him against that because of the flak. He was liable to get forced down or shot down and lose control of the operation. He was leading with a tank battalion, the 2/34th, which had never fought as a battalion before. They got bogged down in soft ground in a place where we had advised them not to go and finally had to be dragged out.

The commander of the 1st Brigade of the 1st Cavalry Division elected to try to command the operation from his bunker in Tay Ninh. I tried to suggest to him that he risked losing control of the situation. By the time his brigade got across the border, there would be at least 50 kilometers between where he was and where his troops were. The FM links were pretty fragile at that distance, and they didn't have a good relay system. I just felt that he was going to lose control. He did, and by the second or third day out, he'd been relieved of command and replaced by Bob Kingston, then commanding 3d Brigade of the 1st Cavalry Division. I discuss that in my command/control conversations because it's an interesting lesson in command and control. Here's one commander who's going to do it from a secure bunker and he loses complete control of the thing because of the distances involved and he really can't visualize the battle. Other commanders commanded from a helicopter, in spite of the fact that they know that there were regiments of flak in front that must be suppressed before they could fly safely at altitudes where they could see what's going on and control the battle. I was counseled by Bob Shoemaker for deciding to go in on the ground and particularly counseled for positioning myself behind the lead company. That was considered to be too dangerous a place for the regimental commander. I said, "I've been joking. The reason I'm going to be out there is that, if you want to fire me, you'll have to come find me, and I don't think you're going to want to come out there that far."

As it turned out, I don't know whether he wanted to fire me or not, but what happened to other commanders was just exactly what we had predicted. That brings up the question of where the boss ought to be in a fight. Although it's of some risk to yourself, I think you have to be close to the front. I don't necessarily say that the regimental commander ought to have his saber drawn and be out in front of the lead cavalry troop, like a George Armstrong Custer, but nonetheless you have to be there. The other reason I wanted to be out there is that it was unknown territory and an unknown enemy. Even in a helicopter, had it been safe to fly, I did not have enough confidence in my own ability to visualize the situation down there so that I could make intelligent decisions. I think you just have to be there and see it. You have to be right there because the decisions have got to be made instantly. It was a good decision. We never got to the line of departure we had drawn on the map. One of the things the manuals tell you is that your line of departure should be in

friendly hands and be identifiable. The line of departure we drew was in enemy hands, and we damn near got blown away before we got to it. We attacked with about 8 or 10 sticks of fighters and about six or eight battalion volleys of artillery on that position before we even got to the line of departure. I don't know that we let our guard down, but the little bastards figured out something was going on and came across what they suspected we would lay out as a line of departure and opened up on that lead tank company with volleys of RPGs and rockets. Fortunately nobody was hurt and no equipment was seriously damaged. Most rounds were short because they fired too soon, and during the reload process we attacked. The minute the stuff landed, we attacked, because we knew they had to reload or rearm somehow. We figured that, if we could catch them in the middle of that rearming process, they'd break and run for cover, which they did. They broke and ran, and we shot them up with canister and machineguns as they boomed off through the jungle. That was the last organized resistance we ran into until we got to Snuol.

INTERVIEWER: That was on the third day?

STARRY: We got to Snuol on the fifth day. We ran into a couple of intermediate positions, then we ran into an enemy entrenched around the southern approaches to the airstrip at Snuol. The aerial scouts picked them up and we laced the trenches. According to the scouts they were standing shoulder-to-shoulder in this trench line along the trail network. We weren't on the trail, but we were using it as an axis of advance. You could see them. We worked Cobras back and forth across the trenches, and they broke and ran. On about the third day we ran into a river line where the bridges were down. They'd obviously blown the bridges sometime before, which said that somehow or another they knew we were coming before we knew we were going to come.

So the question was how to get across the river. The S-3 of the 3d Squadron took the commander of the 1st Engineer Battalion, 1st Cavalry Division, and went up and reconnoitered the riverbank. They were crazy, because they were well behind enemy lines and nobody knew what was out there. They went in using a scout helicopter, came back out, and never had a shot fired at them. The cavalry division decided that it would bring in its bulldozers and put in a bridge. So, by the time we got there and had the site covered by fire, the division was bringing in the bulldozers. You had to assemble the little bulldozers on the ground, which was going to take a great amount of time.

While we were squirreling around with that, in frustration I took a sergeant and an AVLB and started out down that river line, trying to find a place where we could put the AVLB down. Every once in a while some guy from the other side would take a pot shot at us, which would zing off the bridge. The sergeant would lay the thing down, discover that it wouldn't work there, and then we'd move on to someplace else. We were about to give up when the sergeant said, "Sir, you fire a little bit over there to make sure that the bank is clear and I'm going to put this thing down to the riverbank and see if I just can't sink it in the bank. That way we can go down this side, go over the bridge and up the other side. There's enough dirt down there to hold it if we can get it mashed in. If I take the thing down the forward slope of this stream, those guys are going to shoot at me again." So I took my M-16 and fired a couple of magazines into the other side of the river. He drove that AVLB down there, laid the bridge out, sort of patted it down a couple of times, and then backed

out. I went back and got a cavalry troop and brought it up. We laid down a little suppressive fire on the other side and put the cavalry troop across. Within 15 minutes we had a whole squadron across and headed north, while these guys were still fumbling with their bridge. They finally got it in the next day. Meanwhile we'd put the whole regiment across that one little AVLB. In fact we finally put a couple more AVLBs in at other places that we found later on. Essentially we crossed that river on AVLBs and proceeded north. I remember that it was late on the third day.

On the fourth and the fifth days, we ran into Snuol, where he had really dug in. On the edge of town were probably two regiments. I don't know where the third regiment was. They had a division, the 1st NVA Division, and I think they were looking for us to land on the airstrip. Snuol is a rubber plantation headquarters, and there was the typical plantation chateau with the typical grass-covered airstrip. It was built like Loc Ninh and Quan Loi must have been before the war. It was a pretty place. They had several antiaircraft positions around the airfield. A kilometer or so away, the regiments were dug in around the village. As nearly as we could tell, they were looking for us to airmobile into the airstrip and try to work into the town from there. So they were set up to defend the town, but from the direction of the airstrip. But when we went in, there was no airmobile, as we were all on the ground.

We fanned the cavalry out on the southern edge of that airstrip and went for it and the town simultaneously. At some point in that process, they broke and ran. They destroyed the village in the process. As we went into the airstrip area where the antiaircraft guns were, we captured all of them. I got wounded capturing one of them, but they really didn't have any troops over there. All they had was the ack-ack. I guess they figured they were just going to shoot down the troop-carrying aircraft as they came in. They left the guns in position. We also captured some NVA. In one gun pit was a soldier who elected not to run. He dove into a bunker and threw grenades out as we tried to talk him into coming out and surrendering. By that time it had been announced that we were only going to go in so far, 18 miles or 30 kilometers, whatever it finally turned out to be. In our sector that happened to be across a river line, so they drew back across the river and sat there. The North Vietnamese knew that was as far as we were going to go. They just pulled back and dug in. We'd shoot across the river at them, because you could see them over there.

INTERVIEWER: The village you went into, did the NVA blow the village?

STARRY: They did an enormous amount of damage in there themselves. We were blamed for most of it in the press reports. Storefronts were broken in. There were a couple of small fires, but no great conflagration. It wasn't that big a village—a couple of small fires and the petrol station where the fuel pumps had been knocked down. We didn't, as far as I know, do any damage to that village. There was no looting and pillaging or breaking down buildings and knocking out storefronts. That was all done before we got there.

INTERVIEWER: Were there still Cambodians in the town?

STARRY: There were some in the cellars. The French plantation manager and his family were in the basement of the chateau. Within an hour or so of the time we cleared the airfield—I didn't see this, because by that time I had been wounded and carted away—but within an hour or so of the time we cleared the airfield, a little red airplane came in and landed on

that airstrip from somewhere. Shortly afterward the Frenchman and his family came out and got into the little red airplane and flew away. They, too, had good communications.

INTERVIEWER: From a tactical standpoint, was this operation worthwhile? Did you recover enough material or whatever to make it worthwhile?

STARRY: Oh, yes. You can read the tonnages in the reports, but the amount of equipment we captured was just unbelievable. Brand new, Russian-made, some Chinese, some US, but mostly Russian-made equipment. Machineguns, mortars, small arms, AKs, tank gun ammunition—interestingly enough, no tanks, but tank gun ammunition—and this followed General Abrams' analysis of the enemy, which said that, "They project their logistics nose out into an area, and then they conduct an operation after they get the logistics laid down." For a long time they were doing that in South Vietnam. In other words they'd go across the border with the carrying parties and a little security and they'd lay down the supplies. When they felt they had enough supplies to support their operation, they'd move the units in on top of their supplies and then conduct their operation. That's exactly what they were doing in this case. We found a really extensive hospital complex in the Fishhook area, to include x-ray machines. I mean, it was a regular base area.

INTERVIEWER: Above ground?

STARRY: No, it was underground.

INTERVIEWER: You stated earlier that you thought that they knew you were coming.

STARRY: I judged that by the bridges. The bridges were down, and they'd been down for a few days.

INTERVIEWER: Was this just too much material to move, or did you think they thought they could move it?

STARRY: No, there was no way for them to move it all. You're talking about thousands of tons of stuff.

INTERVIEWER: Based on that, should we have gone back in a few more times?

STARRY: Well, we probably should have stayed there. An interesting thing happened during my first tour over there in 1966. Mr. McNamara came over in the fall—August, September, somewhere around there—and had a briefing down at MACV. General Westmoreland stood up and went through a recital of all the things that he needed to do his job. Mr. McNamara kept trying to tell him that the resources were not unlimited and that he ought to pull back on some of that. General Westmoreland's response was that he had been given all of these missions by all of these people—the President, the SecDef, the CINCPAC, and the State Department—and that he couldn't do them if he didn't have all of these resources. Mr. McNamara responded, "Make me a list of all the things that you've been told to do and the people who told you to do them, and then make some estimate of what it would take to do it all."

So a task force was convened. The USARV Plans Group had some representation on that task force, part of which was me. We made up a list that showed what had been said by whom and how long it had been in force and the instructions involved and so on. We then drew up an estimate of what it was going to cost. It would take a million and a half

soldiers—a million South Vietnamese and half a million Americans—and 10 years, and a force structure of so and so. We tried to make some budget estimates, but they were not very precise.

We took the message to General Westmoreland to sign. He refused to sign it. He said, "I'm not going to send that in. That's politically unacceptable." After some pressure from Washington, he sent the message, but he put a disclaimer on the bottom of it that said, "Here's what the staff has worked up in response to the Secretary's requirement, but I don't endorse the staff's report." One of the things we said in that report was not only what force levels and manpower would be required, but also that a different strategy would be required. If you wanted to win, you were going to have to go into Cambodia and Laos, and you were probably going to have to go into southern North Vietnam. The purpose was to block the infiltration routes, clearing away the logistics infrastructure and pushing the enemy back away from the border far enough so that he couldn't snuggle up to the border and conduct his operations with a safe haven base behind him. We were going to force him to traverse a whole lot of friendly—to him, enemy—territory before he would be able to get in and do the things that he wanted to do in South Vietnam itself. General Westmoreland's comment was, "That's totally unacceptable."

At one time he had prepared a plan to put a corps into the Laos plateau and block the infiltration routes from the north. That wouldn't have stopped it, because most of the stuff in Cambodia had come in through the port. That's what was wrong with that plan from the beginning. Eventually the message that we worked up for him to send to Mr. McNamara got to the Pentagon. I'm told it was one of the things that caused people like John McNaughton and some of the *Pentagon Papers* guys to back away from the war and become advocates of getting out.

I drew a lot of political/military lessons from that. Personally the thing that really bothered me was that there were no instructions from the National Command Authority about what MACV was supposed to be doing over there. There was not really a clear-cut operational concept for the theater. What was the theater commander supposed to be doing—search and destroy and all those other schemes that were worked up? To me, none of those things seemed to be relevant to whatever we thought we were doing. It was hard to get anybody to say what their ultimate purpose was. Even after we decided to Vietnamize the war, there was still a lot of the, "Guys, get out of the way. We're going to do this." While General Abrams was trying to instruct his commanders that we are going to leave and that, if we really want to leave our RVN allies something to go on once we leave, then they're going to have to take this thing over now, the attitude on the part of the senior American commanders was still, "Get out of the way and let us do this. Let us big guys do this." That was wrong! A lot of it was personal. It was self-aggrandizement on the part of the senior people. They wanted to succeed, and they wanted their divisions to be successful, particularly during their tenure in command. That meant they had to operate, be visible, and be doing something. You weren't going to do that if you were encouraging and helping your Vietnamese friend take over in your sector. Besides that, he might get in trouble and screw you up. There was a lot of that, particularly with the 1st Cavalry Division. Not so much with the 25th, particularly under General Ed Bautz. But it was certainly true with the 1st Cavalry Division under Elvy Roberts.

INTERVIEWER: Was that during the time you had command of the regiment?

STARRY: Yes.

INTERVIEWER: Do you feel that General Westmoreland, in the absence of clear-cut objectives, did the very best he could in trying to set some kind of military objectives?

STARRY: Well, that's hard to say. What you need to do is ask that question of General DePuy, because he was the J-3 and a lot of that was of his devising. I suppose at the time it was what was politically feasible, but I would also argue that they didn't have any instructions. They sort of had to figure out what they were supposed to be doing. General DePuy himself has admitted, subsequently, that the problem with the force structure was that they had deployed a lot of the wrong kinds of forces. They brought the infantry divisions over without their tank battalions. There was a big argument for a while about whether or not they even ought to bring the divisional cavalry squadrons. They thought there was no place for tanks. In the book that we wrote at Fort Knox about the mechanized operations in Vietnam, that comes out loud and clear. For years and years the mythology in this country was that there was no place for tanks. The data that we gathered in the MACOV Study, which I used later on in the book that we wrote, shows that Vietnam was a place where you could use armor. The mythology started with Bernard Fall's book, *Street Without Joy*, which described the death of Groupe Mobile 100. Groupe Mobile 100, even if you read Bernard Fall carefully, was not a mechanized unit. It was a column of trucks, it was truckborne infantry. They had some armored vehicles with them as fire support, but it was in no way an armored convoy, and they got themselves into a stupid situation, made some very dumb mistakes, and got eaten up by the enemy just crisscrossing the column. They eventually destroyed the group.

The image that we drew out of that battle was that Vietnam was no place for tanks or armored vehicles of any kind, simply because they destroyed this armored group on the road up there in the Central Highlands. It wasn't an armored group at all, but just a bunch of trucks under a stupid commander who made some dumb tactical mistakes that cost him his entire command. The thing that bothered us the most, when we got to writing the book, was that there was an enormous amount of information available from the people who had been in Saigon since the French left. Our people, Americans, who'd been in the mission over there had an enormous amount of information. Unfortunately it was all classified and kept in the State Department files and not distributed or disseminated. Army schools never got hold of that information, and no one ever studied it. There was no attempt to extract lessons learned from it. There was no attempt to look at it and evaluate tactics, force structure, strategies, and so on, at the operational level. So there it sat, an enormous body of information, because it had some State Department classification on it and couldn't be released to anybody.

So the mythology came into being that Vietnam was just a swampland and had a monsoon climate and was not suitable for much of anything except dismounted infantry and the animals that lived in the jungle. That was not the case at all, as you know. So we did that to ourselves. We had very imperfect knowledge of the landscape, of the climate and weather, and of the enemy. We made some very dumb decisions early on about the tactics, the strategy, the force structure, what the operational goals at the theater level of war were,

and so on. In retrospect, and I suppose it's easy to be 20/20 in hindsight, but some of that should have been apparent up front. The information *was* available in this country to give us a better handle on that.

INTERVIEWER: I believe you made a comment earlier, and in some of your after-action reports you've stated that, even after you had done the MACOV Study, there was really no reaction to it in the Army.

STARRY: Well, it was too late. By the time we got the study finished in the late spring of 1967, there was a ceiling on the force structure. The ceiling had been imposed by Mr. McNamara because of the situation I described a little while ago in which he tried to explain to General Westmoreland that we didn't have unlimited resources. I think it was on 10 or 11 November 1966 that Mr. McNamara sent a message that put a troop ceiling on us. As I recall, the troop strength at that point was about two-hundred-and-some-odd thousand.

Of course we eventually went up to five-hundred-and-some-odd thousand, but each one of those additional requests was approved almost man by man. There was an office in OSD where a civilian was responsible for every single additional manpower authorization that was given to MACV, to include units and individuals—cooks, bakers, and candlestick makers. This one civilian had never been in uniform, never fought a war, and never been to Vietnam, yet he was the authority. He was the single, sole authority for approving manpower authorizations from MACV. Every one of those additional three-hundred-and-some-odd thousand manpower authorizations was wrung out of that guy, one drop at a time.

Eventually it was General Westmoreland's ill-advised request for 206,000 more, however that came to pass, that broke the camel's back. Whether or not he thought General Wheeler encouraged him to do it, no one will ever know. General Wheeler's gone now. But—in good faith, I suppose—General Westmoreland sent in his request for 206,000 after Tet, and that broke that camel's back. He believed that the Secretary of Defense and the President were going to give him everything he thought he needed to run the war. I heard him say it many times, and he says that in his book. The trouble was, every time something happened over there, he requested more troops.

INTERVIEWER: But they had cut his requests prior to that, hadn't they?

STARRY: Yes, but they still kept coming. So we got up to 549,500 authorized. As far as his perception was concerned, that was not at all the end of the line. He thought there were probably more available. I remember saying to him at a briefing one time, shortly after the SecDef message came out, "This is the beginning of a new era over here. The fact that they've imposed this ceiling on us signals that resources are not unlimited, and that whatever we do from here on out, we're going to have to justify in excruciating detail."

We had no force development activity in USARV at that time. That led to the creation of a Force Development Office in the G-3 section in MACV and USARV, because they'd just been clobbering requests for units. It was so bad that we had no force structure guides to work from. They were sitting down in MACV using Leavenworth pamphlets that had listings of type units, and they'd say, "Well, we need to go up here and operate in this area. What kind of units do we need?" So they'd order up these units by type number. These

guides were what they were using at the Command and General Staff College. Some of those units weren't even in the force structure. Some of them were units for which a TOE had been drawn up after World War II. So they worked up TOEs for those units and sent for them, even though the Army didn't have them. The Army would try to create them or send them a substitute.

It was really a force structuring disaster. A lot of the large number of people we deployed were individuals or two-man well-drilling detachments. There was a TOE for a two-man well-drilling detachment. The most ridiculous case I can remember is that we actually deployed a one-man mess detachment. I spent Christmas week of 1966 pursuing the case of the one-man mess detachment. A sergeant at Fort Meade got orders: "You are a one-man mess detachment." The orders described this kit and stuff that he was to gather. He got this stuff together from one place or another, signed requisitions, got himself shipped to the port, and got his one-man mess kit, stoves, and all this stuff put into the hold of a ship. He got on the ship with his rifle and arrived in Vung Tau. They picked him up and shipped him out to Long Binh, where he got separated from his one-man mess detachment kit. At this point he called the inspector general and said, "They can't do this to me. You pulled me out of my nice warm bed with my wife at Fort Meade, gave me all this stuff, and here I am. I brought this damn stuff all the way over here, with the Army protesting all the way. All the colonels and the generals were trying to keep me from getting here. I got here with my rifle and my one-man mess kit and now, by god, I want to be employed some place!" So we had a big investigation. I went out to talk to the sergeant, and that's exactly what had happened; he wasn't exaggerating. But when he got there, no one knew why they had requested a one-man mess detachment.

There was this young captain with a truck company. They had organized this truck company, gave him whatever the truck company authorization was—62 or 65 trucks or something like that—and landed the truck company at Vung Tau. He went in, reported to the commander at Vung Tau, and said, "Here I am with my truck company. What do you want me to do?" The commander replied, "Who the hell are you and where did you come from?" The captain showed him his orders, and he said, "Well, I don't know, we need some trucks to haul trash, why don't you haul trash around here?" So the captain organized the trash-hauling detail at Vung Tau. Pretty soon he got bored with that and said, "I really didn't come all the way over here just to haul trash around Vung Tau." So he went to see the base commander at Vung Tau and complained. The commander said, "I don't have anything else for you. Get on an airplane and go up country someplace and see if you can find somebody who needs a truck company." So he did. He got on an airplane and finally wound up at Qui Nhon. The Qui Nhon area commander said, "Boy, am I ever glad to see you. I need you. We'll use you to haul stuff into the 1st Cavalry Division up at An Khe. Go back to Vung Tau, get your trucks together, put them on a ship, and bring them up here." So that's what he did. He went down to Vung Tau, got his guys, cleaned up his trucks, said good-bye to the Vung Tau base commander, got on the ship, went up to Qui Nhon, and spent the rest of the war hauling stuff in to the 1st Cavalry Division at An Khe. When the 1st Cavalry Division moved south to MR III, he went on to do something else. It was a force structuring disaster.

INTERVIEWER: Sounds like it.

STARRY: From the word go.

INTERVIEWER: How did you get wounded, sir?

STARRY: We rolled up onto the southern edge of the airfield at Snuol and could see in front of us, right off the edge of the airfield, a gun pit with one of those great big antiaircraft machineguns. Then off 50 or 60 yards away on the edge of the rubber were two other gun positions that we could see. We sent a cavalry troop after the guns in the rubber and the Vietnamese got up and ran. They were in hot pursuit over there. I was in my command track in the middle of a cavalry troop and the gun in front of me was pointing at the helicopter overhead. The OH-6 had in it Major Fred Franks, the S-3 of the 2d Squadron, who said on the radio, "This guy is pointing his gun at us." So I looked up and sure enough he was. The gun was swinging around and I thought, "My god, we're going to lose that helicopter and those guys."

I rolled off the back of my track with my rifle, which was all I could get my hands on at the time, and grabbed a couple of guys and headed for the gun pit. I rolled over the edge of the parapet as this gunner was swinging the gun around to get the helicopter in his sights. I knocked the gunner away from it; he went back with his arms up and surrendered. I gave him to somebody. The second guy, who was standing there holding the ammunition belt, dropped the belt, jumped over the parapet, went down the trench, and crawled into a bunker. So I went after him. I was looking for the interpreter to try to coax him out of the bunker. Still I had a hand grenade in my hand. The interpreter, the Vietnamese scout we had with us, was coming along hollering at this guy, and I looked over to do something and then looked back. By that time the little bugger had thrown this damn grenade out of the bunker that he was in.

Well, you have read about things happening under those circumstances, and they're quite true. Your whole life passes in front of you. You weigh out all sorts of alternatives—I can throw myself on the thing and get a Medal of Honor and be a hero, but that doesn't make much sense because it'll probably sting a little bit when it goes off. I could pick it up and throw it back into the bunker and get him, but goddamn it, the fuse is awfully short. I could kick it away, but that doesn't make much sense.

While I was in the process of going through that systems analysis, I looked over and the helicopter has landed and Major Franks was standing there. I remember thinking, "If I don't do something, poor old Fred's going to get blown away." Well, that was more important than all the other alternatives, so I dove for him and that's about the last thing I remember. Sometime in the process of diving after Fred, the grenade went off and the two of us went rolling around on the ground. I lost my helmet and my rifle. I still had a grenade in my hand. Somebody got that away from me and went and dumped it in the bunker, and eventually we got the little guy. I had about 15 or 20 holes of one size or another in me. The worst wound Fred had was in a leg, which eventually became infected to the point where he had to have it amputated. Several other people were also wounded. I guess he and I were the most severely wounded of the lot.

That occurred mid-afternoon on 5 May. I missed the battle for the next 12 days. I'll tell a story about the hospital. If they did this to me, you have to wonder what was going on in the hospital with the soldiers who got wounded. We went to the aid station, and from the

aid station they patched us up, stopped the visible bleeding, and sent us to the hospital in Long Binh. I was operated on late that night. In fact, apparently they spent most of the night picking stuff out of me. They cut a big hole in my stomach to see where the big piece in the middle had gone. Now, I made all the soldiers wear flak jackets, but it was a very hot afternoon and so the friendly regimental commander, in disobedience of his own orders, had taken off his flak jacket. You ought to obey the regimental commander's orders, and the regimental commander especially ought to obey the regimental commander's orders. By sometime early the following morning, they had probed around in me sufficiently to get most of the metal out. Anyway, I'm lying there in the bed, having slept a little, not feeling very well, and open one eye, and there stood this doctor, a major. He says, "Don't worry about this. We'll have you out of here in a few days. I think you probably need to go to Japan, where they'll do some more surgery on you, and then, if we can get the thing stabilized, you'll be in the States in short order. There's nothing to worry about. You don't have to go back to war," or words to that effect. So I tried to grab the bastard, but found that I was not able to do that quite as briskly as I wanted. I finally managed to get myself into a half-assed sitting position, and then I called him several things that were later reported by the nurse as being obscene. I said, "You get the hospital commander and the two of you report right here," and they did. I told the hospital commander the story, and I said, "Let me tell you something. I'm one case, but if this guy's going around telling the soldiers this sort of thing, you've got an unconscionable situation in your hospital. These guys are soldiers. Some of them want to go back to war. I want to go back to war. I'm not leaving this place until you guys send me back to the damn war. You're not going to send me anyplace else. A lot of other soldiers in here feel the same way, and here's this screwhead trying to tell us, 'Oh, don't worry, we're going to get you home and get you out of here.' He's subversive." He said, "Calm down. I'll give you a shot, sir." I said, "I'll give you a shot." So I finally got calmed down. I don't know whether or not the major went around making his speech any more. He had obviously made it several times before he got to me. How much of a problem did that cause in the hospital, I don't know, but as far as I was concerned, that guy was subversive.

INTERVIEWER: Did you remain in that hospital until you were released?

STARRY: I stayed there for 12 days. The first thing they do with wounds is they stuff them full of gunpowder, gun packing, or whatever that stuff is, that absorbent stuff. Then they have these ghouls who come around once a day and jerk that stuff out and pour sulfuric acid on the wound and stuff more stuff back in. They call that debridement or something like that. When it stops watering, they sew it up. So, on about the third or fourth day, they sewed it up. I realized that, if I was ever going to get back to the regiment, I had to demonstrate to them that I was in sufficiently good physical shape to do that. I got my doctor, the guy who had operated on me, not that quack major, and said, "Okay, I have got to start doing exercises—situps, pushups, whatever you think I can do. What I want to know is, did you cut muscle when you cut into the wound?" "No," he said, "I separated the muscles. We didn't cut any. You can do exercises if you can stand it, but I doubt that you can stand it."

So I went over to physical therapy, found a nice nurse/physical therapist, and said, "Okay, sweetie, we are going to get me back into shape, because I'm going to get out of here as quickly as possible." She took a look at the holes and said, "That's going to be a long time." I said, "No, it isn't, it's going to be a very short time. We're going to do situps today."

She said, "It's going to hurt." I said, "That's right." So I did situps that day and the next day. I did them two or three times a day. Eventually it helped the recovery process really dramatically. When I went back, I was still kind of wired together. The regimental surgeon had to come and do a little patching every evening just to make sure that I was still intact. But, in the end, it allowed me to get out of the hospital in 12 days. I'm sure it would have been a lot longer had it not been for that.

INTERVIEWER: Did you rejoin the regiment while it was still in Cambodia?

STARRY: Yes, sir.

INTERVIEWER: Who commanded in your absence?

STARRY: The regimental executive officer, Colonel Bob Bradley.

INTERVIEWER: Was that normal, or did you normally pick your senior squadron commander to do that?

STARRY: In this case, the regimental executive officer was called the deputy. He was a colonel and ranked the other guys.

INTERVIEWER: Was this the action for which you were awarded the Silver Star?

STARRY: No. I got the Silver Star for leading the original attack into Cambodia to rescue the scout pilots. We just started up and went, and I was the first guy on the scene. The guys were still strapped in the helicopter. The fuel was pouring out all over the place. I thought, "Oh, Jesus, it's going to blow up." I reached in and cut the switch. By then the tracks were coming up, so I made the guys deploy a security force, bring up a VTR and a couple of tanks, and got it organized. I realized that, if we didn't get out of there in a hurry, we were going to get attacked. As I said awhile ago, we got them out of there in about half an hour. Now, as for the Snuol operation, I guess I got a Bronze Star for that. If you're dumb enough to have that happen to you, you really shouldn't get a decoration for it—at least not in my opinion.

INTERVIEWER: Was Major Franks also evacuated to the hospital?

STARRY: Yes.

INTERVIEWER: Did his leg become infected while in the hospital or later?

STARRY: No, they evacuated him to the States, because his leg was badly wounded. He spent a lot of time in Valley Forge Hospital. I think it was during the Valley Forge operation, while cleaning up the wound and trying to repair the damage, that he finally got a low-grade infection that they couldn't get rid of. They finally had to do the amputation there.

INTERVIEWER: Sir, to wind up the Vietnam business, we've talked about what it did to the officer corps and what it did to the NCO corps, the supply system, and the maintenance system. Were there any other lessons learned that you think we gained from that?

STARRY: No, I think we covered them all. We laid out a lot of them in that little book we wrote on mechanized and armor operations, but only for the mechanized and armor aspects. I'm afraid the big lesson, the political/military lesson, such as the goal of the operation at the theater level—the operational level of war—is one that we're still struggling with. It's one

of the things that caused me to revise the operational level of war in the 1982 edition of FM 100-5. I believed that we had reached a point where we spent a lot of time worrying about tactics, what we used to call minor tactics. We were turning out War College graduates who were great political scientists and could talk about things at the political/military level in Washington, but nowhere in our school system were we causing people to think about the operational level of war. We hung back from it for a time, but the Soviets have never given up on it. They've always talked about the operational level of war. They've always believed that you could separate theater nuclear warfare from intercontinental ballistic missiles and intercontinental nuclear war. We've never believed that. There's always been a linkage in our system between the tactical level and the intercontinental level of warfare, nuclear or otherwise. That deprives you of a whole lot of flexibility. I stayed away from trying to put it back into our liturgy, because there would be some criticism that we were trying to mimic the Soviets, which wasn't the case at all. We used to teach the operational level. That's what they did in the second year at Leavenworth years and years ago. That's why we had so many senior officers in World War II who were good at that. That caused me to try and start a second year at Leavenworth for everybody. That's beginning rather well. Eventually we may get to a second year for everybody. We've now got a course out there where 40 students this coming year will attend a second year at Leavenworth. The purpose of that second year is to study the operational level of warfare.

INTERVIEWER: In your reflections on Vietnam, did you ever come to the point where you felt that, personally and professionally, we wasted resources within the US Army because of the way the war was conducted? There are a number of people who were quite bitter after years of reflection. The perception is that we lost the war because we never prosecuted it right. Should we have been there?

STARRY: Well, that's hard to say. You could argue that we sort of backed into it. We did a lot of things wrong. We didn't study the background. I've already commented on that. We didn't know the history of the thing. We didn't know the country. We didn't know the enemy, and we made no organized attempt to find it out and disseminate it. It wasn't studied at the higher levels at all. We had a flawed operational concept at the theater level of warfare that flowed from some mistaken notions in this country and confusion at the executive level of government about what we were supposed to be doing there—which was, I suppose, aided and abetted by a lot of the problems in the beginning.

When they relieved General Harkins and brought him out of there, it was in large part because things were not going well in the countryside. Now General Harkins had been reporting that things were going well in the countryside. There were several of his subordinates who were telling him that the reports he was getting were wrong. However, for reasons that no one will ever know now, he sent them in because they were positive reports and he thought, I believe, that's what the administration wanted. It's unfortunate that he died without writing all that down. I don't know whether it's in his papers or not. I have talked with him about it several times. He was a good friend. I don't know whether or not that will ever be unveiled.

From the beginning we had a mistaken notion about what was going on over there. We were not able to size it up. The information was there to make those judgments, but we interpreted it wrong or, for one reason or another, we reported it wrong. General Westmoreland operated under

the mistaken notion that he was going to be given all the resources he needed to prosecute the war. It became apparent to some of us early on that that was not going to be the case and that he had to operate on the basis that he was not going to be given unlimited resources.

On the other hand, with a few exceptions, we really did not lose any battles. A North Vietnamese officer pointed out to Harry Summers, "That's right, but it's irrelevant." I think the Army acquitted itself very well, given the circumstances. The soldiers did well. The officers did well, under the circumstances and given the conditions—our lack of ability to train them as units, to give them the unit cohesion they needed to do well in battle consistently, the one-year rotation policy, the confusion of goals, and the situation at home. As the war wore on, they came out of an environment in which there were all sorts of adverse commentary about the war and what we were doing and not doing and so on. Given all those things, I think the soldiers did admirably well.

You see it in the book *Once a Warrior King*. As I read this book, I felt this same thing myself. You had been over there, with every day being a matter of life and death. You're involved in something that, to you, is a very vital undertaking with your Vietnamese buddies and your American buddies, and you're doing great things. There was an intensity about life in that environment that was a little nerve-racking at the time. But, when it's gone, there's an enormous letdown. This fact is reflected in the book *Once a Warrior King*. I felt the same thing when I came home myself.

I remember getting off the airplane at Dulles Airport, and I'm about four days out of command of a cavalry regiment then in the middle of a bloody firefight in Cambodia. Life was a very intense operation. Then, all of a sudden, I was back, and there were no flags. I didn't expect everybody to call out the honor guard to greet me or anything else, but as I walked through that terminal and watched these Americans going about their normal business, I thought, "There are Americans over there, too, and they come home to this! They deserve a hell of a lot better than this."

I would argue that the country, by and large, the management, the administration, the Congress, certainly the press, let its Army down, let its soldiers down, let its airmen down, and let its sailors down. I think you see that reflected in the current spate of attitudes toward the Vietnam War and the things that you see going on now. The books being written are almost revisionist history. In some cases it is being drummed up. In all that I read some guilt feeling on the part of people. The press is now saying, "Oh, my goodness, we shouldn't have done that." When Peter Braestrup wrote that super book of his, *Big Story*, about Tet, they damn near drummed him out of the press corps. Now they're saying, "Well, yes, Peter was right and we were wrong." But, damn their souls, they did it at the time and they stuck by it. They knew what they were doing. You can't condone that. I don't care if they're having second thoughts about it now. They're saying, "Well, we shouldn't have done that." They did it, and as far as I'm concerned, we lost a lot of good soldiers because it was the perception in North Vietnam that the war was going to be won in the United States, not on the battlefields of Vietnam. I don't know how many times we intercepted message traffic out of the North that contained a statement like, "We don't want to do this operation," or "We don't want to do this thing," or "We don't want to have this happen because of potential adverse impact on our base of support in the United States."

INTERVIEWER: I'm sure you've heard the statement that war is too important to be left to the generals. It appears that our political leadership was not up to the task of prosecuting the war. For example, what you were just talking about. They never made any attempt to mobilize public opinion in support of what we were trying to accomplish. President Johnson made a conscious decision that he would not mobilize anything, and in that decision it was inherent that we wouldn't mobilize public opinion.

STARRY: That's right, because it might have interfered with the Great Society. He was so selfish, so shortsighted, and so narrow in his views that he insisted on pursuing the Great Society when anybody with a right mind could have told him that he couldn't have the Great Society and the Vietnam War at the same time. It was too much; the country couldn't stand it. It was apparent at the time, and it's more apparent since. For that you have to condemn the man.

INTERVIEWER: Yes, sir, and that approach was not changed by a subsequent President. Given that most of our political leaders have not served in the service, and have no intent to do so, are we in danger of this type of a problem recurring in the future in that the generals will be inadequately listened to, and the politicians don't know, or are unwilling to mobilize public opinion, or to mobilize the armed forces? In other words they are unwilling to commit themselves to a philosophy of winning.

STARRY: Well, I think the danger is substantial. I have a little problem with the generals. You ought to listen to the generals, but the generals are not all that smart either. The single lesson I learned most dramatically out of Vietnam, but you learn it also from studying political science in places like the War College, is that before you commit your military force to an operation you had better decide what you want to have happen politically as a result of that commitment. Once you've laid the political goals out, you should be able to evaluate the possible outcomes of the military operation to see if they fit the political goals. If they don't, then you'd better take a second look at it.

But military guys are also guilty of that. When I had REDCOM, David Jones, who was the Chairman of the JCS and is the author of all the turmoil that's in Washington now about reorganizing the JCS, wanted to control everything. I testified before Congress that I thought it was wrong to give the Chairman any more authority, particularly the kind of authority that Dave Jones was asking for. He's a nice man and I like him, but he's totally off base.

He used to call me up about once a week and say, "We need a plan to send a brigade to such and such country," and I would say to him, "David, what do you want them to do when they get there? How do you know it takes a brigade?" He'd reply, "Well, we just need a plan." So I'd say, "Wait a minute, what is the political goal? Give me a scenario, what we are trying to do in that country, so that I can structure a military force and a military operation to do what it is you want to get done in terms of contributing to a political goal, but you have to start with a political goal." "Well," he said, "all right, I'll do that." He never did. About a week or so later, he'd call up and say, "We need a plan to send a division to so and so." "David, what do you want them to do when they get there?" We went through that litany over and over and over again. He never understood that there has to be a political rationale underlying every military operation this country's armed forces undertake, and that unless those military operations contribute to that political goal then you'd better have

a second thought as to whether or not you want to commit your military force.

Because the military is well organized and responsive, it often salutes and says, "Yes, sir." There is a tendency in this country, and always has been, to grab the military as the first and only instrument of national policy. That's wrong! That's flat-assed backwards, and unless we all learn that—the generals, the politicians, the administrators, and everybody else—we are going to get ourselves in deep trouble one of these days. Take the Gulf of Sidra. What are they doing in the Gulf of Sidra? What is it, you step over the line—what's the game the kids play, chicken? You step over the line with your toe and I'll mash your toe and smash your nose, or however that goes. Colonel Khadaffi is a madman. There is no way of predicting his behavior. What is the political goal of circling the wagons of the Sixth Fleet offshore and trying to poke into the Gulf of Sidra? To provoke him into something? Then what are you going to do? So two steps backwards, men, and wait just a minute.

Now I'm not saying we should back away from doing something when resolute action is called for. I am saying that, between the generals and the politicians—and the generals need to be the foremost spokesmen for this, when the President or the SecDef says, "Let's send a force to do this, that, and the other thing," some general needs to ask, "What is your political goal?" In my opinion, the belligerent posturing of this administration has created turmoil in parts of the world where there need not be turmoil today. Eventually, if they keep it up, it's going to get us in trouble.

INTERVIEWER: Are you including the Gulf of Sidra in that?

STARRY: Yes, sir. President Theodore Roosevelt said an interesting thing, "Speak softly and carry a big stick." What we're presently doing is speaking loudly and carrying a small stick.

INTERVIEWER: We are often blamed—when I say "we," I'm talking about the services and the generals—for not coming across strong enough on these worldwide crises. The perception right now is that the President and the Secretary of Defense desire to commit military forces, but the Joint Chiefs, the generals, are against it. In other words the President and the Secretary of Defense have more confidence in the military than the military has in itself. Or is the military more realistic? Which is the case?

STARRY: I would argue that the military is more realistic. I've spoken with Mr. Weinberger about this several times. Mr. Weinberger is an honest-to-god hawk. I like him very much. He's been a good Secretary of Defense in a lot of ways, but he's a genuine out-and-out hawk. Part of the belligerent posturing that I spoke of has been of his devising, and I honestly believe that's wrong. I also believe that he doesn't think much of his military advice, although he will tell you the contrary. When I went down to take REDCOM my predecessor, Volney Warner, had been very vocal about his disagreement with the decision to make a unified command out of the RDJTF (Rapid Deployment Joint Task Force)—and for good reasons. When I was asked if I would take the job, I went to see the Secretary of Defense. He said to me that he could not understand why General Warner had been so vocal in his opinion about the unified command and that he couldn't understand why he wanted to retire in protest. They had offered him another job but he wouldn't take it, and Mr. Weinberger couldn't understand that. I said, "Your intent is to create another unified command down there, whether we need it or not?" "Well, yes," he said, "we're too far along

with that now—we can't back away from it." I told him, "I don't think it's a wise idea, either, because I don't think you need that other command. I also happen to believe that there are some things at Readiness Command you should be doing and can be doing quite apart from the RDJTF, missions that are useful and necessary in the joint area. I'm willing to do two things for you—with REDCOM—get it started doing some things and get us out of this squabbling. I'm willing to stop the squabbling. There will be no squabbling when I get there. If that's what you want done, I'll be willing to go do that for you, but I tell you that, in my opinion, you're making a mistake."

So I went. I stopped the squabbling. Bob Kingston and I stopped the squabbling. We agreed that there wouldn't be any. There was still some among the staff, and a lot of adverse commentary among the staff and so on, but the two of us elected to ignore it. We wouldn't let anybody talk about it when we were around, and that tends to suppress it. I started out with REDCOM doing some things that I thought REDCOM should and could be doing. For the first year Reagan was in office, his administration paid no attention to foreign policy. They spent all their time squirreling around with the economic problems at home, which probably was proper. Then someone dusted off this plan that was drawn up in the Carter administration for us to go to the Middle East.

If they'd looked at it carefully, they would have seen that all they were doing was re-creating the Strike Command mission. They had a command at MacDill that was perfectly capable of absorbing a little bit of an increase in manpower and re-creating that other joint task force that Strike Command used to have for that very purpose—deployment to the Middle East. But, oh, no, they've got to have a unified command, with all the expense of officers, overhead, and the whole damn thing. The creation of the command itself was construed by many people in the Middle East to be a belligerent act. It was probably not appropriate, but it probably cost us. It would be hard to say what, but it probably cost us.

Mr. Weinberger's an older fellow, and a very loyal, dedicated American. But I have yet to see him in a situation with generals around where it didn't seem to me that he had already made up his mind as to what he was going to do. It didn't really make any difference what the generals around the table said. This included the Defense Resources Board meetings with the JCS and so on—at which I've been present.

INTERVIEWER: Who do you think has Mr. Weinberger's ear? Who has influence over him?

STARRY: I don't know. One of his problems has been that he doesn't get very good advice from inside his own secretariat. He had a bunch of people working for him who were pulling and tugging in different directions. On a single coordinated course of action, you've got Dick Perle pulling off in one direction and Fred Ikle pulling off in another direction. For a long time the only stabilizing influence in the whole thing was General Dick Stilwell. He is retired now, so I don't know what's going to happen. But there is divisiveness inside of OSD about strategy, the perennial problem of the Defense Department and State Department working at odds with one another, and the problem with Dave Jones, the former Chairman, wanting to take charge of everything. It wasn't until we got Jack Vessey in office that we had a much better rational viewpoint of the political/military world than we've had in a long time. The chain of command goes through the SecDef, there's no question about it. He's in charge, but it's unfortunate that it has been necessary to do what

I call belligerent posturing. I would argue that, when you posture belligerently with forces that are as inherently limited, not necessarily weak, but limited, as ours are, you run some risks that you better have another look at.

INTERVIEWER: Sir, after your departure from Vietnam, you went back to the Pentagon and spent some time there working for the Deputy Chief of Staff for Military Operations, then later the Deputy Chief of Staff for Force Development. First, would you identify who the deputy chiefs were in both of those jobs?

STARRY: General Stilwell was the DCSOPS when I came back and went to work in DCSOPS in August 1970. When I was in the hospital in Vietnam, I came out on the promotion list to brigadier general. In April 1971 I was promoted and about the same time went over to be Director of the Manpower and Forces Directorate in the ACSFOR. General Bob Williams was the ACSFOR. The person I replaced was General Fritz Kroesen. It was a job that General DePuy had held at one time, as had General George Blanchard before him. It was a prestigious job. That guy was the keeper of the force structure of the Army. One of the things General Kroesen and I talked about as he left office was, "What is the force structure of the Army?" We were coming back from Vietnam and bringing out thousands of spaces. The troops were all getting on airplanes and going somewhere, wherever MILPERCEN wanted to send them. But the question was, "What is the structure?"

At the same time, they were organizing all sorts of interesting things like the Race Relations and Equal Opportunity Program, which cost us 1,900 manpower spaces. That cost us six field artillery battalions. The day I had to make that decision, that is what was on the force list. It was coming out of Vietnam that day, and someone called to say, "The Secretary has made a decision to create a Race Relations/Equal Opportunity Directorate in OSD, a school down in Florida, and advisors about RR/EO (Race Relations/Equal Opportunity) in all the units of the military." For the Army that bill was 1,900 and some manpower spaces. I said, "The only way I can do that this morning is take these units." I totaled them up, and it turned out to be six field artillery battalions.

We didn't know whether or not the Army was going to go back to 16 divisions, which it had before the war, or down to six divisions. Over the course of the time that I had that job, we worked our way down to about 12 1/3 divisions that really had manpower in them. General Vessey had become the Director of Operations in DCSOPS, so I went up the hall one afternoon and I said to him, "How many divisions do you guys want in this Army of ours?" "Well," he said, "isn't there a plan for that?" I said, "No, there's no plan for that." So we sat down and spent one Saturday afternoon in his office trying to figure out how many divisions we ought to have in the Army. Then I was to go back and figure out what the supporting force structure was to be.

We finally decided, for a whole lot of good reasons, that we ought to have 16 divisions. By that time General Abrams was about to take over as Chief of Staff. During the period when he was being confirmed, or shortly after he was confirmed, I don't remember which, I went to see him and I said, "We have got to make a decision, because these guys are niggly-pigglying us to death." There was no limit. There wasn't even talk of a 600,000-man Army—580,000 men was the number I remember, and it was going to have somewhere between 8 and 10 divisions. That was a little bit alarming. We looked at the menu of things the Army was supposed to do in pursuit of the national defense, and we realized that this

was not a sufficient force structure. We finally convinced General Abrams that he had do something about it.

In those days Jim Schlesinger was the Secretary of Defense, and he and General Abrams used to get together on Saturday mornings and have a little cigar-chewing session. General Abrams came back from one of those meetings, called us up to his office, and said, "You've got your 16 divisions." Now I had talked to him beforehand about the manpower end strength and had cautioned him that, if we got an agreement for 16 divisions, we would need an end strength that's something on the order of 850,000. We could not have less. The last time we had 16 divisions we had about 986,000 people in the Army. He said, "Well, I didn't do too well on that one. I got him to agree that we would take as a floor 765,000, or something like that, and that we would justify additions to that as time wore on."

I don't need to tell you we've never been able to justify sufficient additions to that. As a result the Army today is overstructured and understrengthed. It was in the beginning, when we put that together, and still is. The addition of all these light divisions in the force structure has made the problem even worse. I believe you ought to structure what you think you need. The structure is expressed it in terms of the AAOs (authorized acquisition objectives). You develop your authorized acquisition objectives, then your procurement programs are set out on the basis of that. The baseline of the AAO is what you're trying to get to, but at the same time there's a practical limit to it.

Overstructuring and understrengthing the Army means that you increase the turbulence of the people going back and forth trying to fill up the structure. The more you increase the structure, unless you make a decision not to fill this or that slot, the more you increase the rotation problem. The result is that you get units that approach the rotation limits of the guys in Vietnam, where they're standing up in front of squads trying to get them to do something that's important and no one present has seen his fellow soldiers before. You can't run good operations that way.

That job and the redeployment planning job in MACV are probably the two toughest jobs I ever had. At MACV we'd go to work at 4 o'clock in the morning and seldom quit before 10 or 10:30 at night. I took two hours off for lunch. I swam for an hour and slept for an hour. It was like working two days in one. I did essentially the same thing in the Pentagon. I'd get a list every morning of what was coming out that morning and how many manpower authorizations and how many units that represented. I then walked around with that list all day satisfying everybody's requirements for extra this and extra that. The war was over, and we were going to get back to all these other things like Race Relations/Equal Opportunity and all sorts of other special interest claims, all of which caused me in the end to go up the hall and say to my friend Jack Vessey, "How big an Army are we going to have? How many divisions are we going to have in it?" That is what started it.

INTERVIEWER: I suppose you know that they just eliminated Race Relations/Equal Opportunity.

STARRY: I know.

INTERVIEWER: Did someone in 1971, 1972, or 1973 sit down and decide what size the armed forces was going to be and then divide that pie between the services?

STARRY: To the best of my knowledge that was never done.

INTERVIEWER: So it was just a "fishing expedition" to see what you were able to retain?

STARRY: It was done service by service. The Army's problem was that we created, with the absence of mobilization for the Vietnam War, new units out of whole cloth. In other words we added some 3 divisions or whatever it was to the Army's strength from the baseline of 16 that we had at the beginning of the war. To my knowledge the Navy and the Air Force didn't do that. They were operating with a force structure that was pretty much fixed throughout the war. Once we expanded, that sort of eliminated any baseline, and I couldn't find any plan that said when the war is over we're going back to this. There wasn't any such plan. The question then was, "The war is over, what are we supposed to be doing now, and how big an Army do we need to do it?" When you only have 12 1/3 divisions, and that's all you've got and you know it, and as you see the redeployments continuing, you have to say, "Where are we going to stop?" That raises the larger question of how big an Army we are really going to have. So we had to go back through the whole thing and commit with NATO, commit with the Koreans, and commit somewhere else in the world. Then we had a 2½-war or a 1½-war concept. Eventually the turmoil that we started led to the administration falling off the 2½-war concept—whatever that is. I'm not even sure the 1½ wars is a viable concept. I know it's not when you have to deploy units to fight the 1½ wars, because we don't have the deployment means to do it. But it's sure a hell of a lot better than 2½ wars, which we obviously have no capability to do.

INTERVIEWER: You mentioned General Abrams and his confirmation as Chief of Staff. Could you fill us in on what the problem was there? I believe it took about seven months for that confirmation.

STARRY: It had to do with the allegation that he had knowledge of the bombings in Cambodia at the time he was COMUSMACV, and that he and his air component commander were both guilty of some kind of insubordination or withholding information from the administration. Eventually, I guess, the Congress decided that he wasn't involved, so they went ahead and confirmed him.

INTERVIEWER: Did he know about the bombings in Cambodia?

STARRY: I don't know. We were bombing Cambodia all along. Everybody knew it. There wasn't any prohibition against it to my knowledge. I'm not knowledgeable enough about that. The argument was over in the Congress. I guess the Congress was mad because they hadn't been told. The administration was doing it but hadn't told the Congress, and they got upset about it.

INTERVIEWER: Another question that many of us often wonder about concerns the Pentagon. You mentioned working there probably 15 or 16 hours a day during this period. I spent some time there, and that's fairly common in the Pentagon. It drives many of the better staff officers and many of the better officers away from the Pentagon, never to return if they can help it. Are the hours that we put in at the Pentagon really necessary?

STARRY: One of the good things General Westmoreland did as Chief of Staff was to say, "We're not going to be here on Saturday," because we were working Saturdays and Sundays

just like other work days. So on Saturdays and Sundays he shut the place down. It didn't have any ill effects that I could determine. I still had to go in on Saturday because we were doing what we were doing. I eventually wound up taking part of Sunday off during that tour. I think there's a lot of make-work. Some of the people in that building are awfully busy, and some of them are not busy at all, and that's always the case. You could argue, I suppose, that 80 percent of the work is done by 10 percent of the people. That's always going to be the case. I do think we overdo it. It used to be a matter of great pride as to how long you worked. I was never very proud of that. It was always a pain in the ass to me. I finished a three-year tour there, and my wife reported to me that I had had dinner at home with my family twice in that three years. She felt that we should really strive for something a little better than that on the next go-around.

INTERVIEWER: Well, you know there was a time when they were trying to force everyone to carpool. Many of the generals in the hierarchy decided that was a good idea, as it provided a good reason to go home. That's worn off now. It doesn't happen any more.

STARRY: I spent a brief tour on the Army Staff as a systems analyst in 1967. We lived out in Springfield in those days, and we only had one car. I was a lieutenant colonel and we couldn't afford two cars. I rode the bus back and forth to work. Eventually I got into a car pool with another guy down the street who worked in the same office, but we were pretty much dependent on that bus, or his car, or my car. If both wives needed the cars, then he and I rode the bus. There were only one or two buses in the morning and two in the evening. It was pretty far out in those days. It's the middle of town today, but back then it was pretty far out. So we were victims of the bus schedule.

At the first office social event, the wives were complaining to me about their husbands not coming home until 8:00, 9:00, or 9:30 at night. I wasn't working them that hard, and I was in charge of this little office. I said, "Hey, let me tell you, I leave to get on that 5:30 bus, more often than not, and I'm not keeping them there." I borrowed the car from my wife for a couple of days and drove to work. I would leave at 5:10, go down the hall, walk around a little bit, and then I'd come back. At 5:30 promptly these guys would close up the desks, lock up the safes, take out a deck of cards, and start playing bridge. They played bridge until 8:30 or 9 o'clock at night, then went home and told their wives about what a terrible day they'd worked. So I asked them, "Why are you doing this?" "Well, we've got some papers up in the Chief's office." General Johnson was the Chief of Staff at the time, and he had a system where you put the "blame line" up at the top of the page with your name and phone number. He'd call action officers at home sometimes. It didn't seem to bother him, and I didn't see why anybody else would be bothered about it. But their story to me was, "We've got some papers up there with our 'blame lines' on them, and the Chief may call." I said, "Well, how long have you been doing this?" "Oh, about a year." I said, "Has he ever called?" "No, but he might." So I said, "Okay, let me tell you what, fellas. I ride the bus. You know my little problem with the bus and the car. From now on, everybody has to be out of this office before I leave. I seldom leave, almost never leave, after 5:30 at night. That means all of you guys are going to go home by 5:30 at night, or at least be out of here. You can go to a bar or to your girlfriend's house or wherever you want to go, but you're going to be out of this office, because I'm not going to be castigated by your wives for being the cause of your working overtime when, in fact, you're sitting here playing bridge." There

was a lot a grumping around about that, but I became an instant hero with the wives. The guys didn't like it too well, because they didn't have anything to complain about any more. Well, there's a lot of make-work.

INTERVIEWER: Perhaps that should occur throughout the building.

STARRY: You walk down the halls early in the morning, look into all those little cubby holes, and what do you find? The old civil servants and some of the military guys walk in there with their papers, their thermos bottles, and their portable radios. They sit down at their desks, turn on their radios, pour a cup of coffee, open the paper, and read the paper. I think they can do that at home.

INTERVIEWER: I never had the luxury of that experience there. I had more to do than I could get done, and I think most of us did. At the beginning of this assignment in Force Development, you were promoted to brigadier general, I believe.

STARRY: Yes.

INTERVIEWER: I'd like you to talk a little bit about your transition into the general officer ranks. Was there schooling for you at that particular time? How did you make that transition? That's a subject of much interest today.

STARRY: There were no charm schools in those days. Well, there was too. I guess you went to an orientation course of some kind. It was conducted in the Pentagon and lasted just a few days. It was not as broad an event as the ones that are run now. The problem with getting promoted to general officer rank, I think, goes something like this. For reasons that I have never been able to determine, a lot of people believe that they have arrived when they make general. Now, where they think they have arrived or what they think is there after they have arrived, I'm not quite sure. But somehow there's a perception that, "I have arrived at some new plateau that is quite different from what has gone on before. Now I'm a part of a larger framework of this thing, part of the elite at the top of the dung heap, and I'm now different."

Nothing could be further from the truth. As a matter of fact, brigadier generals get treated with less respect and so on than second lieutenants do in many places. I got much better treatment as a second lieutenant, in many instances, than I did as a brigadier general. So that's all mythology. Where it comes from, I really don't know, but you find a lot of people, the minute they make general, start acting like damn fools because they think they've arrived. I have a good friend, I've known him all my military life, who made brigadier general. He survived that fairly well. The day he came out on the promotion list for major general, he went home and said to his wife, "I'm going to be a major general. The President has nominated me to the Congress to be a major general, and that means that I am in the top." He had it figured out that one-point-some-odd percent of all the officers in the whole military establishment make major general. "It says that I am on a new plateau and there are greater things ahead, and I have to change my lifestyle. And you, my dear, do not fit into my new lifestyle." He thereupon packed up his stuff, left, and filed for divorce. Now, as far as anybody knew, they'd not had any sort of problem up to that point. I mean, they'd been happily married all their lives. We'd gone to school together and all that sort of thing. All of a sudden he decided, the day he came out on that list, that he had somehow

arrived. Interestingly enough there was apparently no other woman or man involved in the situation. He just decided he had arrived someplace, and he didn't want this grumpy old hausfrau, who had been with him all these years, as a part of his entourage at this point. So he left her. They got a divorce. I guess he eventually remarried, but it was several years later. Strangely enough, within a couple of years, he had retired from the Army disgruntled, disillusioned, disappointed, and upset because somehow or other being a major general hadn't elevated him to some pinnacle that he had somehow or other perceived in his mind was where major generals were long, long ago.

It's a strange phenomenon, and it happens all the time. I contend that it's the Peter Principle in operation. I think there should be some kind of a trial period, or provisional period, in which the institution has a look at the newly promoted brigadier/major general to see if the guy is going to make the grade. I replaced a fellow in V Corps who had been relieved for cause. He was the kind of person who thought he had it made with every promotion, but being a lieutenant general blew his mind. I mean, that was obviously the pinnacle of everything, and he was going to be something. I don't know where he thought he was going next, but obviously he was now a lieutenant general and had arrived. He took his private car down to the motor pool and had them weld star plate brackets on the front and back of it. Then he put star plates in those brackets. So, in his Buick or Oldsmobile or whatever it was, up the road he drives, visiting his friends along the way with his brackets and the star plates on his private car. He went to Frankfurt to command. First he turned in the house they were living in because he didn't like that. It was full of antique furniture. It had been the American High Commissioner's house for a long time in the early days. The corps commander had lived there ever since. He moved into a set of expanded colonel's quarters out in Bad Vilbel. Over the little portico that keeps the rain off the people who are waiting to get in the front door, he had erected this large red sign, and I mean a *large* red sign. It was six or eight feet across and two or three feet high—with three big white stars on it. It was illuminated at night. Now here we are on an American kaserne in the middle of the German community, where the Germans walk by and whatnot. So here is this obscene American with this insignia of rank over his door, floodlit at night. In addition there is a big corps patch, made out of plywood, about six feet tall, sitting beside the door. It, too, was floodlit at night. He signed a letter certifying that he had to have his own furniture over there because of his position. He had a house full of the most beautiful antique furniture in all of Germany, but he had to have his own private furniture over there because of his position. He turned all that stuff in to the Quartermaster, and I don't need to tell you what happened to it—it disappeared. I spent a year trying to recover it. When he left the house there was nothing left in it. My senior enlisted aide and I reported for duty in Frankfurt. My wife and the girls were still living at home. They temporarily stayed in the States, as one of them was having some minor surgery. We moved quickly and were unable to get all that organized. So Sergeant Norman and I went to Frankfurt. I took command of V Corps, walked into the house, and there's not a goddamn thing in the house—nothing. We broke out some sleeping bags and air mattresses and slept on the floor for the first week until the Quartermaster could find some furniture of any kind to put in there.

INTERVIEWER: Did you replace the Quartermaster?

STARRY: I replaced the Quartermaster! If public executions were allowed, there would have been one. But, in any event, the point of the story is, "Where do you suppose that fellow thought he had arrived?" He just came unscrewed and behaved like a blithering idiot. Among other things, he started lying about this and that. This was the basis on which he was finally relieved for cause. I went down to the corps headquarters and, midway through the first week, the G-3 came in and said, "Sir, it's time for you to go and see the 'cutting edge' room." I asked, "What is the 'cutting edge' room?" "Well, that's where we keep track of the maintenance situation in the corps." So I went up to this room, and there's a major, three or four sergeants, and a captain or two in there. They've got this side-lighted Plexiglas up there, and it's built like a Form 2715. Every company-sized unit in the corps has a line and the columns, of course, are the columns in the 2715 report. The company, battery, and troop phone numbers are up there, and when he finds something in red, the corps commander calls the company/battery commander up and says, "What are you doing about old Alpha-15?" or whatever the vehicle number is.

I said to them, "What is the purpose of this?" "Well, it's how the corps commander keeps track of the maintenance in the corps." I said, "What are the brigade commanders and the battalion commanders and the division commanders doing?" "Oh, this is the corps commander's network. The heat goes directly to the troop, battery, and company commanders." And I said, "As I recall the regulation, the corps commander is not in the 2715 reporting chain." "That's right, he's not." I said, "What's the purpose of this, then? The division commander is responsible for this, and he reports it through another channel. We monitor those reports, and if he needs help, we can give it to him, but he is responsible for it, and he reports through a different channel. There is no provision for me to be a part of this. Why was it necessary in the first place?" "Well," they responded, "the OR (operational readiness) rate was down." I said, "How far down was it?" And they said, "Well, it was about 80 percent." I said, "What is it now?" "It's about 56 percent now," they said. I said, "You mean under this system it's gotten worse, not better?" "Well, that's sort of right, but there are some extenuating circumstances."

So I said, "I'll tell you what, men. You have exactly 24 hours to get rid of this whole mess—this room, these people, this stuff, this reporting system, and the whole thing. And Major, I want you to go back to wherever it was you were before—captains, sergeants, the same thing. Get this whole thing out of here." And I went downstairs and called up the division commanders and told them, "You guys and the regimental commanders are in charge of the 2715, the AR 220-1 Reporting System," or whatever the number of it is. "I don't want to hear any more about it. If you have a problem, I expect you to call me. If you don't have a problem, I don't expect to hear about it. The OR rate should run about 98 percent or better, and that's all the guidance you're going to get from me." Well, there was this applause on the other end of the telephone. "Thank you very much," and within a couple of weeks the OR rate started to go up. It hit 98 percent, and it stayed there or better for the whole time I was in command. Now what in the world did the man think he was doing? I have no idea, but somehow, as an individual, as a commander, as a whatever, he thought he had arrived someplace. Meanwhile he took command and starts squirreling

around over the status of vehicles in the motor pools of the troops, batteries, and companies in his corps. That's ridiculous!

INTERVIEWER: The ultimate in micromanagement.

STARRY: Right. I said, "There are more important things to do. How are we fighting the war? We get out on the ground and find battalion commanders who have never been in their general defensive positions." I asked one of them, "Why haven't you?" And he said, "I've been down in the motor pool monitoring the cutting edge report." I said, "Oh, it's a matter of priorities." So that's my story about generals. They're a strange lot. Some of them make it through one or two grades but don't make it to the next one. Some of them get seized with the agony the first time around, and some of them behave like asses until the time they retire. Even worse, they get away with it.

INTERVIEWER: Are you familiar with the latest survey that was conducted of about 40-something newly promoted brigadier generals?

STARRY: No.

INTERVIEWER: A number of questions were asked, such as, "Are you perceived to be different by your friends?" The respondents mentioned, "Yes, I am, and I have to work very hard to get them to still be my friends," and this type of reply. Sir, while you were in the Force Development job, you were selected for major general. Is that correct?

STARRY: Yes.

INTERVIEWER: And then you were subsequently selected to take command of the Armor Center. Do you know how you were selected?

STARRY: As far as I know, General DePuy and General Abrams made the decision, and as far as I know, it was at General DePuy's request. General DePuy was the A/VICE, the Assistant Vice Chief of Staff, when I had that directorate. Because we were trying to restructure the Army, rebuild it, and whatnot, he was in that business up to his elbows. I should add that the ACSFOR himself was really not very interested in that. General Bob Williams was more of an equipment development-type guy. He was the senior Army aviator, and probably one of the fathers of Army aviation, if not the father. He was a very, very good guy to work for, but force development, force structuring, and whatnot really wasn't his bag. It was General DePuy's bag, but he didn't have a staff to cope with it. So my directorate and I really worked for the A/VICE directly almost the whole time I was in charge. I did report to General Williams weekly, tried to report to him weekly, on what we had been doing so that he could stay abreast of what was going on, but by tacit agreement between him, General DePuy, and me, I really worked for General DePuy.

Over that year or so we developed a rapport, and I think he was instrumental in my appointment to the Armor Center. Whether or not he went to General Abrams and said, "I have to have this guy," I don't know. I don't know how that happened. I do know that they had decided to put someone else at Fort Knox. General Bill Desobry was going to leave. They wanted to put him in V Corps and planned to post General Bill Burke to command Knox. I don't remember whether or not there was actually a set of orders published on him, but it was common knowledge in the Pentagon that he was going to Fort Knox.

At about that time the STEADFAST reorganization came into being and, as part of that reorganization, we were going to create Forces Command and TRADOC out of CONARC (Continental Army Command) and have two separate commands. General DePuy and General Kerwin were probably going to be the two commanders, although early on, it really wasn't decided who was going to take which command. General DePuy sort of dropped the A/VICE work then, because the A/VICE was to disappear during that reorganization. Instead he concentrated on sizing up CONARC and eventually more and more concentrated on sizing up TRADOC, which he eventually commanded. It was sometime during that period of sizing up the school system that he apparently decided that, for some reason, he didn't want General Burke. Once I came out on the promotion list, he preferred to have me. Maybe he had been waiting on the promotion list, I don't know. It came out in March, I guess, or February, somewhere in there. It may well be that, when he looked at the list and saw my name on it, he decided that he would push the other guy aside and put me in. I really don't know. But, of course, General Abrams made the final decision.

INTERVIEWER: Where did General Burke go?

STARRY: He went on to be the Chief of MAAG in Greece. After that assignment, he retired.

INTERVIEWER: And General Desobry had been commanding Fort Knox?

STARRY: Desobry commanded Knox, then went on to command V Corps. General Bob Fair replaced him in the fall of 1975, and by Christmas time he was in trouble with the SACEUR and with both General Bill Knowlton, who was Chief of Staff, EUCOM, and with General George Blanchard, who was CINCUSAREUR. Shortly before or after Christmas, I don't remember which now, but sometime over the Christmas period of 1975–1976, they decided to replace General Fair. By this time, of course, General Abrams had passed away and General Fred Weyand was the Chief. He called me in January 1976 and said, "I'm gonna send you to V Corps." So I went to V Corps in early February 1976, Bob Fair having been the commander for about four months.

INTERVIEWER: F-E-I-R or F-A-I-R?

STARRY: F-A-I-R. You're thinking of Phil Feir, F-E-I-R. It's Bob Fair, Robert L.

INTERVIEWER: And he retired?

STARRY: He was retired as a major general. They relieved him for cause, and because they had relieved him for cause, they were not willing to place his name before the Congress for promotion to lieutenant general on the retired list, so he retired as major general.

INTERVIEWER: So General Desobry only had V Corps for about eight months?

STARRY: No, he had V Corps for the whole time I was at Knox, plus that four months, so it would have been from the summer of 1973 to 1975, a little over two years.

INTERVIEWER: He retired from there?

STARRY: He retired from there.

INTERVIEWER: Right up front, how did you compare commanding Fort Knox to the normal progression that would have meant being a division commander?

STARRY: Well, I went to see General Abrams when he sent for me, or when it became apparent that I was going to go to Fort Knox. I went to see him at his request, and one of the things I said—I think I commented on this conversation the other day—but one of the other things I said to him at that time was, "You know, I really would like to command the 3d Armored Division more than Fort Knox or anything else, because I spent five years in that division, and I know that ground, and so on." He looked at me a minute and chewed on his cigar for awhile, and then he said, "I know that. But you're going to go to Fort Knox." I said, "Yes, sir."

The answer to your question really varies a lot with where that division is. If it's a stateside division, then in many cases the commander is also the installation commander. That may not be true in a place like Fort Hood, for example, where you've got more than one division, but he's usually the installation commander. The school operation in the big centers like Knox, Benning, Sill, and Bliss is a much bigger, more comprehensive, and more demanding operation than commanding a division, even if the division assignment includes commanding the installation. You've got a school, a set of schools, for officers and for NCOs. You've got a training center for initial entry training. You've got the whole combat developments spectrum of events going on out there, to include a board, plus you've got the community. So you've got a thing that's larger than a division as far as troops go. It's engaged in a variety of activities that are much more diverse and demanding on your time, really, than is commanding a division. You've got to worry about the community, the post, and the installation, all at the same time. It's a tough job. And at the big installations, the big school centers, it's a very, very tough job.

It may be too big for one guy, I don't know. I've thought about that a lot; people have asked me about it. Should we have a system where we have one person commanding the post? You've got a training center commander and an assistant commandant down in the school, but at the same time, if you're going to have an effect on your branch and move it in the directions it needs to go, you've got to take charge of those things. Initial entry training centers are always kind of a disaster waiting for the proper time to happen. You're always going to have some problems down there, of one kind or another, with the drill sergeants or the cadre or something. So in spite of the fact that you've got a good guy in charge of that, you're going to want to spend some time at it, because it's part of a whole spectrum of training that runs from beginning to end, for the enlisted people as well as for the officers.

The combat developments problem is equally demanding. I was at Knox when we were trying to reorganize the Army and trying to look at the equipment. We hadn't done any equipment development to speak of for 10 years or more. We tried to piecemeal Vietnam with stopgap kinds of developments. We did those through the limited war labs for things that were unique to Vietnam. General Desobry had run a tank task force to develop requirements for a new tank. Someone else had worked up some requirements for infantry fighting vehicles. Those were just in the preliminary stages, and more work needed to be done on them. The scout vehicle was the same way. So we neglected our vehicle requirements process, R&D, and procurement for a long, long time. And, in addition to that, we had a very active TRADOC commander who was trying to develop tactics and techniques and whatnot and get the Army straightened out. It was a busy time, a very busy time.

INTERVIEWER: It sounds like you went to Knox with a mandate from General Abrams and, subsequently, from General DePuy. It was a great time of doctrine development while you were at Knox. Did you spend a preponderance of your time on working with General DePuy on doctrine development, along with weapons systems?

STARRY: Yes, the organizations and weapons systems and the training systems to go with them. I did not view my situation there as being a mandate from anybody to do anything. That's been alleged by a lot of people. One of the majors at Leavenworth wrote his doctrinal dissertation on this. He said that I said I thought I had a mandate. As I reported to you the other day, I had a long conversation with General Abrams about what I thought needed to be done at Knox. But it was part of a larger spectrum of things that I thought needed to be done for the Army, based on a lot of conversations that I had previously with General DePuy. And I think General DePuy and I were certainly in line, or in tune, with his perception of what needed to be done there at the schools and in the doctrinal business. Anyway, apparently whatever it was I said to General Abrams passed whatever test he was putting me to by having the conversation with me. Otherwise he wouldn't have called me in. I think perhaps he was looking to see whether or not I was lined up in the same direction as General DePuy. And, without saying so, I guess he validated that notion. So I went, not necessarily with the idea in mind that I had any mandate at all, but that there was a necessity to look again at things like the doctrine, the organization, the weapons systems, and the whole training system. "What is the Army going to do?" now that Vietnam was out of the way. "Are we going back to what we were before? We can't go back. So what are we going to do now?"

Well, that opened up a whole series of questions that had to be answered. So the first thing I did was sit down and have a look at our warfighting doctrine. We spent the summer of 1973 squirreling around with that. I organized a cavalry task force because I felt that, functionally, cavalry was something that, in the armored world, we probably needed to look at first. We'd fallen into some bad habits in the cavalry over the years, particularly in Europe. Because of that, I thought we needed to have a reevaluation of cavalry tactics and perhaps even organization and equipment, although I wasn't certain about that in the beginning. So we started with the cavalry task force and, at the same time, we tried to depict what we thought war on the modern battlefield was going to look like. I had that in my own mind fairly well by the fall of 1973 when the Yom Kippur War came along. For us the Yom Kippur War was—I've said this in writing somewhere before—a fortuitous event, because almost without exception it validated everything we thought we had discovered in the studies we had done. And it was fortuitous because, once I had the framework in which I thought doctrine development needed to go, tactics and so on, I looked at it and said to myself, "This is so dramatically different, or sufficiently different, from what we've done before that there's going to be a perception that these wild men out there at Fort Knox are trying to upset the traditional old applecart." I didn't know if it was going to fit with General DePuy's notions at the time or not, although subsequently I talked to him about what we had done, and he said, "That's about right. We're getting there." Together we went on with that development. So it wasn't at all apart from what he was thinking about, but still it was sufficiently different from what the Army had ever done before that I realized, and I think he did too, that we were going to have a hell of a time selling it to the Army. The Yom

Kippur War was real armies, real bullets, and real soldiers. And everything that happened out there validated, almost without exception, what we thought the future battlefield was going to look like.

It was the analysis of that battlefield, in comparison with what we had pretty much decided we ought to be doing in the first place, that led to the first edition of FM 100-5, the 1976 edition, and all of the supporting manuals that went with it—the cavalry, tank, infantry, and other manuals. We went down to that level, based on testimony of the Israelis after Yom Kippur. I spent a considerable amount of time in Israel in 1974, 1975, and 1976, working with the IDF Armored Corps and with General Tal, who is the developer and father of the Merkava tank. Working those equations back and forth, we had help from both General Tal and General Musa Peled, then commanding the IDF Armored Corps, and General Bren Adan, who commanded in the Sinai during the Yom Kippur War. However, by this time, Bren was the attaché in Washington. He came to Fort Knox several times.

We learned an enormous amount from all of them, and we really owe them a great debt. With their experience and background, most recently in the Yom Kippur War, they identified things about which we were unsure. In the 1976 edition of FM 100-5, we really did a reasonable job of describing doctrine for the close-in battle—what had to be done to be able to fight that tactical-level battle successfully. What we were not able to cope with, and I knew it at the time, was what to do about the follow-on echelons. I wrote most of the defense and offense parts of that 1976 manual, and I knew that something was missing—what to do about the follow-on echelons. You can stand on the Golan Heights—in the command post that northern command occupied during the Yom Kippur War, and you can see Damascus—only 40 or 50 kilometers away. There the Syrian Army deployed, row after row after row, 2,000 meters wide, rank after rank of tanks, fighting vehicles and artillery, marching from Damascus toward the battle line along the Golan Heights.

The three brigades deployed along the Golan front had, in fact, stalled the Syrian offensive. But what would those already badly wounded brigades have done if those follow-on echelons had kept on coming? About this time Musa Peled's (reserve) division began to arrive. Musa proposed to counterattack directly on a line toward Damascus, along the exposed left flank of the Syrian force. Debate ensued. The prime minister was called. She dispatched Bar-Lev to referee the debate. Bar-Lev sided with Musa's desire to seize the initiative with a counterattack. With no more than two-thirds of his division on site, Musa moved toward Damascus, whereupon the Syrian Army broke and ran. The front echelons on the Golan got up, got out of their T-62 tanks, leaving the engines running, and ran away on foot. It was that close. So we asked, "Why didn't you put air on the follow-on echelon?" There were many reasons for that.

"Why didn't you use artillery against the follow-on echelon?" Again there were many reasons for that. So we were left with the questions: "What systems do we need to fight the follow-on echelon, and what tactics do we need to fight the follow-on echelon?" All of this occurred at the very time we were trying to determine how to fight the first-echelon battle—the battle at the FLOT. By the time we wrote that book in 1975, I knew what the problem was, but I wasn't quite sure how to solve it. Anyway, we wrote it the way it was, for better or worse, because our judgment was that it was better to try to describe the tactical battle, get that settled first, then try to solve this operational-level problem.

Otherwise it would be a matter of delaying the new doctrine, and we didn't want to do that, so we went ahead with the 1976 edition. It aroused an enormous furor. Most of the furor, incidentally, had as its genesis the resentment of the staff and faculty at Fort Leavenworth. The book was written at TRADOC—much at Fort Knox, and a lot more at TRADOC headquarters at Fort Monroe. And so General Jack Cushman at Leavenworth led the surge of resentment about the 1976 edition of FM 100-5—Active Defense. I have characterized that many times as probably the greatest act of institutional and individual disloyalty I have ever had the chance to observe. It reflected Cushman's personality and the undue influence of Ivan Birrer, Cushman's education advisor. He had spent 35 years or more as the education advisor at Leavenworth. He thought Leavenworth was the nexus of all doctrine development. His after-action report reflects his disdain for the rest of TRADOC—headquarters down to the schools and branch centers. He and Cushman were buddies from the time when Cushman was a faculty member out there. Anyway, they didn't understand how TRADOC, particularly with the participation of a bunch of "smelly tankers from Fort Knox," was smarter than they were. Nobody ever said we were smarter than they were; we were just trying to get the job done, and they weren't participating, so they got shot out of the saddle in the end. Also they fed the information, the complaints, and so on, to guys like Bill Lind and Ed Luttwak, who became the vocal nonmilitary critics of the 1976 edition of FM 100-5. In my opinion, they did the Army a great disservice, the Army and themselves, one for which I shall not soon forgive them.

INTERVIEWER: Was General Cushman involved in this?

STARRY: Yes, sir. The principal manuals (FM 100-5, *Operations*, for example) are supposed to be written at Leavenworth. They wrote them. They had a draft version of what later turned out to be the 1976 edition. They also had their own draft. It was nonrelevant. They hadn't digested the lessons, Cushman hadn't, of the Yom Kippur War. General DePuy finally gave Brigadier General Morris Brady a charter to do an evaluation of that out in Leavenworth, which he finished. But, by then, we were well along with the book and with the horseback estimates of General DePuy, the others and I, who had been there and had talked to the Israelis as they came back to this country to visit us. The work they produced at Leavenworth really didn't match, in most cases, what the rest of us were trying to do.

INTERVIEWER: Was Leavenworth chartered to write the first edition or the first draft?

STARRY: Yes, they wrote a draft.

INTERVIEWER: The way this divergence of philosophy comes across in some cases, sir, is that General Cushman was very much upfront with General DePuy on his disagreement and philosophy and submitted that first draft in good faith. General DePuy then—and this is all supposition—rejected it, but never charged General Cushman or CAC to go back and correct it. At that time he drew it into his headquarters. Is that right?

STARRY: Well, I think that's essentially correct. He was in a hurry, General DePuy was, because he realized that he didn't have a lot of time. He realized he had taken considerable time to produce that first draft, and if he went back and did it again, he was looking at another year or two of drafting. That being the case, the thing would never get done on his watch. As a result the Army would continue to drag along in whatever shape it was

in tactically. We couldn't wait that long. In that judgment I think he was quite right. You could argue, I suppose, and Cushman did from time to time, that there wasn't all that much divergence between what he was saying and what we finally produced.

I can't begin to adequately describe this, but General DePuy is the product of his World War II experience, which is described eminently well in Paul Herbert's doctoral dissertation. He did a brilliant piece of work, he really did. He interviewed General DePuy at some length. He talked with me for several hours. He also talked to Paul Gorman, apparently, because we were the principal authors of a large part of that first book. Herbert spells out in detail where General DePuy was coming from in terms of his tactical perceptions, and in those perceptions, although I didn't have nearly as much combat experience as he did, I found him to be exactly correct.

The old traveling overwatch, bounding overwatch, and everything that grew out of it made eminently good sense to me. We did it in the 11th Cavalry in Vietnam for good reason and it worked. We didn't call it by the same names, but we did it for the same reasons that he was talking about. He had a hell of a lot more dramatic experience with "sorry-assed" commanders than I had had, although I had had enough to bring me to the same convictions that he held. I had no difficulty at all with what he wanted to do. What he called it didn't make any difference as long as we did it tactically, organizationally, and so on, for the battle of the FLOT.

I don't think Jack Cushman had the same perception of the battlefield as we did. I cannot talk for him. Jack Cushman is a very smart guy, and I have great admiration for his intellectual ability. But he is not a very practical person. He fundamentally believes that he knows more about almost any subject you want to talk about than anybody else. He came to see me at Fort Knox shortly after I got there, because Leavenworth was supposed to be some kind of a coordinating headquarters over the combat arms schools. He said he wanted to come and see what we were doing. He came and I was prepared with briefings to talk with him and show him what we were doing. He talked for three days. *He* talked for three days; I listened and quickly determined, within a couple of hours on the first day, that he didn't want to hear what we were doing at Fort Knox at all. He wanted to talk; he wanted to show me how smart he was about all these things. The more he talked, the more I realized that he and I were not in any sort of agreement about anything—tactics, organization, doctrine, *anything*. That caused me some concern, because he was supposed to be my coordinator and the coordinator for all the other combat arms schools. If this guy was coordinating, how were we ever going to get anything done? I knew that he was off track with our boss. I went away and talked with myself a little bit about that and decided to wait it out and let the thing unfold by itself, which is what I did. I never said one way or the other to anybody what I thought about Cushman.

INTERVIEWER: I understand that General Cushman and Leavenworth were more or less excluded from the writing of FM 100-5.

STARRY: They came to the meetings, but they didn't write anything.

INTERVIEWER: I understand, at the meeting you had at Camp Hill, that you wrote, General Tarpley wrote, General DePuy wrote, General Gorman wrote, and staffers wrote, and that General Cushman and some of his staffers were there but that they did not take part.

STARRY: That's correct.

INTERVIEWER: Was not that a very awkward situation? What did he and his staffers do while the rest of you worked on FM 100-5?

STARRY: He sat down at the end of the table during the big meeting we had. We wrote for about two days steady without taking a break. He sat at the end of the table, a big, long table, with his draft edition of FM 100-5. Meanwhile Gorman, Tarpley, and I would talk this back and forth. Tarpley had some intelligence guys down there. Vern Lewis was also there. General DePuy was at the other end of the table. We were working these things and were throwing cards and papers at one another with comments such as, "Write this up. This is good." General DePuy would talk and somebody would write it down. It happened just like that. The first thing that became obvious was that Cushman couldn't follow that exchange. He wasn't following what we were doing. As the kids say, we were "on a roll." And it would be like that for 12 hours at a time. Meanwhile, every time anyone would say something, Cushman would grab his draft and start looking though it and would say, "Well, we said that on page so and so." Nobody paid any attention to him, nobody at all, including the boss. So he finally got up and went away. He sat there for several hours, doing that with his book, and then he finally went away. He came back after awhile and listened, and then went away again. I don't know what they did. But we wrote the book. You'd finish a page, hand it over your shoulder, and a clerk would then take it and bring it back typed, and you would say, "Okay, fix it and make some copies." Then we would pass the copies around. That's the way we did it.

INTERVIEWER: General Cushman and CAC were not the only sources of consternation and controversy at that time. I guess consternation is a good word, in that the infantry was in the midst of losing its dominance on the battlefield. It appeared that you and Fort Knox were trying to take over.

STARRY: Right.

INTERVIEWER: You were accused of trying to do that, and General DePuy was accused of letting you do that or directing you to do that. General Tarpley, I believe, at first objected. Do you care to comment on that?

STARRY: We were not trying to take over the world. I don't believe I'm the kind of a guy who likes to grab hold of everything in sight simply because I think I ought to be doing it. But it seemed to me, it has always seemed to me, that the big problem we had was with mechanized infantry. If you really did it right, you'd do what the Germans do and you would have two combat arms schools. One would be for mechanized forces and one would be for infantry. And all of the mechanized—whether it's infantry, tanks, cavalry, or whatnot—are trained on the combat side or trained as the German Combat Arms School Number One. Meanwhile the infantry—airborne, ranger, airmobile, light, mountain, whatever—belongs in this other place. That would be a better division than the one we have. That way, you've got a guy in charge of the mechanized forces, a Chief of Armor, which includes the mech infantry, and a Chief of Infantry, which includes all the infantry except for the mech. We ought to train the way we fight, and that's the way we're going to fight. It's an old school system. The training of the soldiers, the training of the officers, and the training of the

NCOs are broken out that way, and it makes much more sense to me than to do it the way we're doing it.

Matter of fact, at one time General DePuy had a new school model that had that in it. There were some other changes in the artillery as well. But the big change was that combat arms training system. He and I talked about that a lot. I wasn't necessarily pushing for it.

I also believe we've got a problem with Army aviation. We had transport aviation at Fort Eustis. We had attack aviation and scout aviation at Fort Knox. We had the Aviation School for training aviators at Fort Rucker. Well, is that right? Should you do that, or should you have all the aviation at one place? In fact, when I had TRADOC I tried to put it all together at Fort Rucker, but I lost that battle in Washington because the Transportation Corps cried, "Oh, my god, you can't take that away from us." In the end it broke apart simply on the numbers. We couldn't train that many aviators at Fort Rucker—unfortunately, because I still think that all aviation training ought to be in one place. I still don't believe that we should have created an aviation branch per se. For the combat aviators, the scouts and the attack guys, we need to run them through the combat arms schools so they understand what's going to happen on the ground. That way they'll know how they fit into the battle. If you don't do that, you're going to get the kind of aviation support that the rest of the armies in the world have, which is not as good as ours. So we've got a lot of problems, and in my opinion, we've not been at all successful in trying to rearrange that.

My perception of how that went, the reason that he gave Fort Knox so much more of the free rein and gave me the things he did, is because we produced results. That was not the case at Benning. I like General Tarpley; he's a good guy, but he was not caught up in the ground swell of this thing like we were at Knox. That may have resulted from my previous association with General DePuy and General Abrams. Tarpley was in position when we all got there, and had been for some time, but he simply wasn't seized with the need to do all these things by way of tactics, organization, and so on, that the rest of us were. He's not the kind of guy to get his hands dirty. I was writing doctrine at Fort Knox. I organized some task forces at Fort Knox that reported to me. We wrote the manual, we wrote the doctrine, ourselves—at least the skeleton outlines of what we wanted in the books. After we finished the outlines, we gave them off to somebody else. If you let the school system alone, it takes forever to get anything done. So a good guy, Ed Scribner—an artilleryman, interestingly enough—and I wrote those books. He'd get a lot of help; he had some super people helping him, but Ed organized the operation. It was a simple-minded thing that went back to, "Who writes the thing and who does the illustration?"

It's almost a mechanical thing. But, at the same time, it's conceptual as well. How do you take two pages worth of concept and make a manual three inches thick out of it, with illustrations and diagrams, and breaking it all down? Ed was very good at that. So I created a task force. Eventually I created several others to do other little pieces of it, and they all fit together. But I took charge of that because that was what was important to TRADOC. Without the doctrine, I couldn't see any way of describing our equipment requirements, our organizational requirements, and our training requirements. So we first had to decide how we were going to fight the battle. We needed to do that very quickly. So I started with that. My perception, and ask General DePuy about this, was that he leaned on us because we were doing something. Right or wrong, we were producing results. And we produced

them more quickly than anybody else did because I was personally involved in it. We cut through all the red tape and normal procedures, because I felt there was a sense of urgency about what we were doing that wouldn't allow us to use the normal procedures. I won't take exception to what Paul said in his dissertation at all, based on what General DePuy said to him about me. He's quite right about most of it. Some of what he said is based on his interviews with General DePuy.

INTERVIEWER: I read Paul Herbert's dissertation.

STARRY: That's a super piece of work. That ought to be a book. I told him that it should be a book.

INTERVIEWER: Yes, sir. Sir, yesterday we were talking about the development of doctrine and the development of FM 100-5 while you were at Fort Knox. The Army has been accused of developing weapon systems and then developing doctrine to use those systems. Was one of your objectives to get the doctrine developed and then to build the weapons systems?

STARRY: Yes. I've been convinced for a long time—and I'd be hard put to say where it started—that we were doing it backwards. You have to lay out what I have since come to call operational concepts, which amount to doctrine. You need to describe how you think you're going to fight the war and then force the technology to produce the equipment, force the system to produce the organizations, force the training system to support the training necessary to support the operational concept, which is doctrine in the broadest sense.

That notion really upsets the scientists. Several years ago I was invited to talk to the Defense Science Board about this subject. They were meeting at Colorado Springs at the Air Force Academy, and I made a speech that had to do with this very subject. It turned a lot of people off. I got a lot of violent argument from the scientists in the room, whose view was, "If you just let us fish around long enough, we'll find something that will solve all your problems for you." My view of that is that, in effect, they are saying, "We don't want anybody telling us what to do in our hobby shops," which is what the laboratories are, scientific hobby shops.

On the other hand, I do believe there has to be a close linkage between whoever is responsible for developing the operational concept and the scientific community. Thus, the user, the requirer, the guy who writes the requirements, who develops the operational concept, is obliged to go and find the laboratories and find the technology in the laboratories and, together with the technologists, make some kind of an assessment about which technology best supports the kind of things he thinks he wants to do. That should result in some modifications to the operational concept itself. It certainly will result in a different list of priorities for the laboratory work than was the case before. But it is necessary!

That's hard to do. There is no mechanism for that. There is no institutionalized system for that. The laboratory system in the Army Materiel Command exists, and always has, quite apart from the user. They march to their own drum. They do what they damn well please. We tried to mesh operational concepts with what was going on in the laboratories to make sure that the prioritization of moneys and resources spent in DARCOM or AMC matched the set of operational concepts that the user thought he was laying down for the conduct of warfare. We haven't got enough resources to afford to have laboratories function as hobby shops for the scientists who work in them. That's still going on, but perhaps not as much

as before we adopted that notion. There are a lot of scientific people who still resent, even reject, the idea, but we don't have the resources in this country to allow for the luxury of the scientists just to squirrel away in their little laboratories and come out every once in a while and say, "Can you guys use this?" It has to be directed, and that direction comes out of what we came to call operational concepts.

That was behind the doctrinal revision from the beginning. Whether General DePuy believed in it any more than I did, I don't know, but I was convinced of it, and I guess my conviction came more from having watched us field a bunch of unsatisfactory weapons systems than anything else. When I was a battalion commander in the 3d Armored Division, and Mr. McNamara came into office in the early 1960s, you may remember that President Kennedy told him to go out and get what he needed for defense and never mind the cost, or words to that effect. So, in the early 1960s we really had more weapons systems delivered to us, dumped on us almost, than we could accommodate. We had a hard time training up for the next one. Some of them were all right. The M60 tank was a welcome change from the M48 and represented a significant advancement in combat capability. Others of them were not. The M114 was a disaster, an absolute bloody disaster. We never should have fielded it. Somebody should have terminated that program before they put it in the field. How does that happen? Later on, in Vietnam, the first time I was there, they wanted to field the Sheridan. They sent a message from Washington saying, "We want to send you the Sheridan. Can you handle that?" Well, it turned out that they organized a little study group in USARV to look at the Sheridan, and we looked at it for several weeks. We decided, first, that at that point it was nothing but a machinegun platform as far as we were concerned. The missile system apparently was operative, but we didn't have any targets for it. The conventional ammunition, the caseless ammunition, was not ready to be fielded, and so, in effect, without conventional ammunition and without the ability to use the missile (there were no targets for it), we essentially had a $300,000 or $400,000 machinegun platform. Now that didn't make any sense. So the task force that I headed at USARV to look into the thing rejected the deployment of the Sheridan. But the fact was that AMC had several hundred of them coming off the assembly line. They were sitting in a field someplace out in the AMC community, which was bothering them no end. They knew they had to have them fielded to justify themselves. So there was great pressure to field them. After I was gone from USARV, they in effect forced the command to take them, with a caseless ammunition that was really not ready to be fielded. We had enormous difficulties with it, and we lost a lot of soldiers' lives because of the way that stuff behaved when a vehicle got hit.

Fielding of the M60A2 was the result of a conviction on the part of the missile community. I guess they came into their own with missiles and rockets in Huntsville, which ranged all the way from Pershing and whatnot down to little missiles for tanks. General Hank Miley said to me after he retired that he guessed he'd made a mistake, because he was really the guy who was pushing missiles. He believed that they offered us a greater combat capability, better first-round hit probabilities and so on. But the systems that ran the missiles out from the launch vehicle to the target were a disaster; you couldn't keep them operating. The soldiers couldn't fix them. They tried to fix that by the black box system in which you simply replaced the boxes. But the Sheridan itself and the M60A2 that followed it were technical disasters that the soldiers couldn't really use very well.

And so one of the things I tried to do, and did at Knox, was lead the fight to get all of those things removed from the fleet. The Sheridan, the M60A2, the M114, all the way down to that unsatisfactory machinegun on the M60 tank. They were technical pipe dreams. Now you could argue, I suppose, that they were so technically advanced that we just hadn't worked all the bugs out of them, and if we had just left them alone long enough, they would have been all right. But I really don't believe that's true.

There is a great gap between what's going on in terms of the requirements in the user community and what's going on in the Materiel Command laboratories. After I got to Knox, one of the first things I did was go up to TACOM in Detroit-Warren, Michigan, just to hear what their programs were and find out what was going on, just so I could establish some kind of personal relationship with the people up there, some kind of a linkage between what we were trying to do in doctrine development and what they were trying to do. I was introduced to the civil servant who was, according to the people up there, the most knowledgeable man in the whole world about track suspension systems. And, of course, he showed us all the modern things they were doing with track suspension systems and, along toward the end of the day, I asked him what they were doing about the sprocket bolt problem. He said, "I don't understand. We've never had a sprocket bolt problem." And I said, "We've had a sprocket bolt problem with new tank models ever since I was a second lieutenant. We had it on the M26, we had it on the M47, we had it on the M48, we had it to some extent on the M60, and we had it on the Sheridan. We've had it on every series that we've fielded. We've turned in complaint after complaint after complaint. They used to be called Unsatisfactory Equipment Reports. Now they're called Equipment Improvement Reports, or something like that, but they serve the same function—to identify unsatisfactory equipment." Now this was the guy who was introduced to me as the most knowledgeable fellow in the whole world about track suspension systems, yet he didn't understand that the Army, which he's supposed to have been serving for 30-some-odd years in service, has had a problem with sprocket bolts since the very beginning. Now that tells you something about the system!

So the real problem is that the DARCOM or AMC laboratories are all segregated. It's almost as if each one of them was behind one of those green intelligence doors that everybody talks about. There was little, if any, cross-leveling between them. I remember one day at Knox that I had three guys come to see me in the same day. Each one was from a different laboratory, and each one was working the same technology trying to solve essentially the same problem. Yet none of them knew that the other two existed, and neither did the people for whom they worked. There was no place in AMC, or DARCOM in those days, where you could go and find out how much money we were spending on that technology across the board. So the system is not very well organized.

I tried to correct that when I became the TRADOC commander. We got started on a program, but I understand it was dropped after I left because not everybody understands the problem that way. It is very difficult for those center commanders out there. We talked about the center commander's workload a little bit yesterday. He's a busy guy if he's doing the job. He really doesn't have time to run around to all the laboratories in the country to find out what everybody is doing. Yet I maintain that he has got to take the time to do that. I took the time to do it, which was at some considerable expense to me in terms of the energy and

the effort I had to expend to go see them. You have to do that, because you can't go to just one place to find out what's going on. You have got to go see them all, or enough of them to understand what's going on, and ferret out the technologies they're pursuing and see if they line up with what you think you're doing in terms of operational concepts. It's very difficult to do, and not many people are interested in doing it. Not everybody is interested in doing it. As a result, it's a tough little task, or series of tasks, to add to a center commander's bag of tricks, which is already overloaded.

INTERVIEWER: You had a Combat Developments Command, and each of the centers has a board. There's an Artillery Board, an Armor Board, and so on. Is it not part of their charter that they tie in doctrine with development?

STARRY: Well, that went away with TRADOC. TRADOC absorbed CDC.

INTERVIEWER: But don't we still have the boards?

STARRY: Well, the boards are not separate. There was a big argument, and I suppose there still is, about whether or not the boards ought to go under TECOM, the Test and Evaluation Command. In my view, at least, and I don't know what they've done with them since I retired, the boards belong to the center commanders. The boards are the user's test vehicle for operational tasks at the lower level. It allows for an operational test of the equipment for which the user has prepared requirements. They're the center commander's way, the TRADOC commander's way, of telling whether or not the stuff that has been built actually matches the requirements that you laid down for it from the user's standpoint. The secret to the thing is for the center commanders to get connected with the labs when the development begins, when the thing goes to FSED, or even into engineering development. You've got to have soldiers on the ground.

I think one of the reasons that the Ml turned out so well is that General Bob Baer, program manager for the tank, and I as Armor Center commander agreed that I would provide some sergeants from Fort Knox to be stationed at the tank arsenal in Detroit at a time when they had nothing but plywood. They didn't even have a mockup at that time. They had plywood boards out there and were trying to build a mockup. Thus, from the very beginning, the sergeants were standing there telling them what made sense and what didn't make sense. And those people from Fort Knox stayed there throughout the M1's development. General Baer and I had been friends for years, and we realized that if we didn't link arms and march forward together that we were probably going to lose the tank program because, for one thing, of all the hullabaloo in Washington over how much it was going to cost and so on. If it didn't turn out right, it was going to be our fault. So we swore a blood oath that we were going to do it that way, and we stuck together from beginning to end. I think that's one of the reasons that the Ml turned out to be such a successful program. I think that approach needs to be used with everything.

INTERVIEWER: Do you think the Army is getting better at doing this?

STARRY: Well, I think there is a better recognition, a more urgent vision, of the necessity to do the sort of thing that I described. Whether or not it's being done adequately, I am unable to say. I would suspect that it's not being done adequately, simply because the laboratory system is so fragmented that it's hard for the guys at the centers to find out what's going on. Not all of them are as interested in that part of their job as they are in the business of

running the center, the training center, the school, and whatnot. Some people just aren't bent toward technology. Plus they're busy people. I took a lot of time to go and do that, but it was time that I could have spent, *should* have spent in some cases, doing something else.

I think the air defense, the DIVAD gun, the Sergeant York, is a different sort of problem. It was to be a quick development. We were going to sidetrack all of the normal development processes by simply taking those old tank hulls that we had and refurbishing them, upgrading them to an M48A5 chassis and power train. We were going to take the radar off the F16 and get some guns, either from Orlikon, Hispano-Suiza, or from the Swedes, the Bofors, and hire somebody to glue all of that together. So they had a competition. Well, in the first place there was really no evidence, from the very beginning, that the air defense radar, or the F16 radar, was going to work in a ground environment. Most of us were worried in the beginning about the ground clutter problem, which eventually turned out to be a big part of the problem with that system. It wasn't designed to operate on the ground. It was a good radar system, but it wasn't designed to operate in the ground environment at all, and it didn't. Now the developer, in this case Ford, did not insist, did not really bear down on Westinghouse, which makes the radar, and force them to fix it. Even the development items, which were part of the developmental system on the basis of which the award was made, didn't work, and yet nobody bore down on Westinghouse in the interim—between the time that the test was finished and the award was made and the time they began production. So, when Ford went into production with the thing, they had an imperfect radar, and they knew it. They had done nothing, absolutely nothing, in the ensuing two or three years between the time the award was made and the time they started rolling Yorks off the assembly line to make Westinghouse fix the radar.

Many of us, and I guess I was the strongest, or at least the loudest, voice in this argument, objected to putting that thing on the M48 tank chassis. We wanted to put it on an Ml tank chassis. The argument against that was that we didn't have enough Ml tank chassis. Our counterargument was that we would have, or could have, by the time the York was ready for production. And that turned out to be the case. But, "Oh, no, we can't do that. We don't have enough Ml chassis. Besides, we have something like 4,000 M48 tank chassis out there at Anniston." Anniston was just about through with the refurbishment of the damaged vehicles that we got back from Vietnam, and folks were concerned about what we were going to do with the Anniston Army Depot. So all of those things caused the decision to be made. Also it was pushed by AMC and the Army Staff to take the M48 tank chassis and refurbish them. I thought at the time it was a lousy decision, and it turned out to be a lousy decision. That thing can't keep up with the Ml on a road march or on leapfrog. It just can't operate in that battle environment. You need a common chassis at least. The turret was going to be different, but you need a common chassis.

It was to be a hurry-up job, yet it turned out to take almost as long as the development would have anyway, largely because they forced Ford—and they would've forced GD if GD had won the contract—to make a lot of changes in the thing after the test was completed but before the production model came off the assembly line. As a result there was no time to do testing. For example, the requirement was to remove 4,000 pounds from the turret. Well, 4,000 pounds is a lot of weight, it's a lot of armor, and it meant a lot of reconfiguration in

terms of trying to provide some survivability for the turret commensurate with what the original armor package was thought to provide. Ford had a modest little armor development program involving its own IR&D money to try to solve that problem. They got no help from the Ballistics Research Laboratory. So we felt that the system was more vulnerable than the system we tested.

I speak from some knowledge about that, because one of the first things that happened to me when I went to work for Ford was that they asked me to go and do an IG job on DIVAD, which I did, through the production facility and through the vehicle itself, of which we had just produced the first assembly line model. I came back and recommended to Ford management that they not bid on option two, which was up for bid at that time, and certainly not on option three. There were several reasons for it. I still felt that the vehicle was not satisfactory in terms of the battle environment. We were fielding the Bradley, and I was a critic of the Bradley from the beginning because it couldn't fight with the tanks out there. It didn't meet the requirements for an infantry fighting vehicle. I was responsible for getting the Bradley adopted as a scout vehicle. It was an unsatisfactory decision at the time and I knew it, but the alternative was to put the scouts back in jeeps. So going ahead with the Bradley was less unsatisfactory, if that's a good phrase—I don't like it—than the alternative, which was to put the scouts back in jeeps, just as the decision to put the mech infantry in the Bradley itself was a less unpleasant alternative to putting them back in 113s.

But, in the business decision in the case of Ford and the DIVAD, the problem was that the AAO, the authorized acquisition objective, had come down from, I think, a couple of thousand in the beginning, which was what everybody was talking about, to 618 fire units. Now this was the result of the typical congressional staff line item analysis and whittling things out of the budget. So that number, which was originally postulated at 2,000, had shrunk to 6l8. The break-even fire unit quantity, as nearly as I could calculate it in the fall of 1983 when I did this for Ford, was about 460. So in effect Ford was going to invest $500 million of its own money in the program before it reached the break-even number of fire units. And so the question then is, "Can you, between fire unit 460 and fire unit 618, recoup your $500 million investment and, in fact, make a profit?" Well, the answer is no way is Ford going to do that. So, if those numbers were about right, I became convinced that Ford should not bid on subsequent options. Now the management of Ford Aerospace and Ford Motor Company felt that they had a commitment to the government to produce this thing, and here is this wild-eyed retired general, who now works for them, running around probably grinding some old axes. And, to some extent, I was, although I tried to make a fairly objective business kind of an analysis for them. So they decided to go ahead and bid on it. In the end it was canceled, and in the end it cost us a little over $300 million of our own money. There was no profit at all.

INTERVIEWER: Was the government obligated to cover any part of that?

STARRY: No. If what prompted your question was the example of the Ml, where we had soldiers on the line from the very beginning, that wasn't necessarily the case with York, although I don't really think it was that much of a problem. Don't forget the chassis came to us "as is." We were really the systems integrator. The turret was built by AI. The guns

came from Bofors. Westinghouse provided the radar. We did build the gunner's sight, a couple of electrical control boxes, a wiring system, and some other odds and ends that were necessary to make the interfaces between these other systems. All in all it performed fairly well. In other words, there were a couple of areas like "time to acquire" and "bring fire to bear" in which we were sort of marginal in meeting the requirement. But essentially it met the original requirements laid down for it. The reason it was killed was because they changed the requirements, then they tested it. The last series of tests that were run were tested against requirements that were well out of the original requirements envelope. That's not a fair test. There was no objective testing done. What the tests said was that the system was obsolete against today's threat. We should have been smart enough to see that in the beginning. Some of us were, or at least we thought we were. But, in terms of mobility, in terms of survivability, and in terms of firepower, nobody was willing to listen to us. We were going to try this as a gimmick, and the gimmick didn't pay off.

INTERVIEWER: Sir, back to the development of doctrine. There were two schools of thought, especially after the criticism started of the 1976 version of FM 100-5. I don't think there is any doubt that General DePuy felt he had to rush that doctrine out to the field as soon as possible. But one of the schools of thought was that the Army was geared for a Vietnam-type war and, coming out of Vietnam, everybody again realized that the threat was Europe. The other school of thought was that General DePuy wished to hurry doctrine into the field in order to justify new weapons systems or a modernization of the Army. Could you comment as to which of those is true, or both, or what?

STARRY: Well, I think General DePuy would have to speak for himself, but my impression was that he was driven in large measure by the desire to get the Army focused back on something that was, "What are we going to do now that Vietnam is over?" It wasn't that he necessarily wanted us to turn our backs on Vietnam, but we needed some new focus, and that new focus was to be provided by a modernization program that included tactics, operational concepts, equipment, organization, and training. In that regard he was driven, I think, largely as Paul Herbert points out in his doctoral dissertation, by his experiences in World War II.

After I came back from Vietnam the second time in 1970, while in my job at DCSOPS, and then in ACSFOR, I made several trips to Europe. It was six or seven years since I had seen Europe. When I left it in 1964, we had a good Army over there. It was solid, we had good equipment, we had good soldiers, and we had been together for a long time. We had some problems, as we always do in a place like that, but essentially it was a first-class fighting force that was ready to fight.

When I went back in 1970 and 1971 and took a look around, it was a shambles. It was an absolute bloody shambles. If you went and talked to the sergeants, the lieutenants, and the captains, they didn't think they could win that battle over there. And there's nothing more frightening and discouraging and disheartening—frightening is a better word, I guess—than American soldiers and American officers who don't believe they have a Chinaman's chance in hell of winning the battle that they've been sent to fight. I'll tell you what, that scares you.

And, when I went around and listened to them talk and looked at why they weren't able to do it, I realized a couple of things. One was that the quick rotation in and out of the theater during the Vietnam War had deprived them of any unit cohesion at all. They were almost as bad off as the guys in Vietnam were during the latter stages of the redeployment. As I said the other day, when you stood up in front of your squad or your platoon in the morning, you couldn't recognize anybody out there, and they didn't recognize you. Yet you were supposed to go out and fight a successful battle. There was no unit cohesion. They had apparently been deprived of sufficient funds to maintain the barracks, maintain the family housing, and provide themselves with sufficient fuel and ammunition to do training. Those things were always problems, but I have never been convinced that the funding levels were so low that they had to neglect the things that they had obviously neglected. But they did neglect them, and I lay that on the doorstep of the senior commanders who let it happen without doing anything about it.

I remember I went over there one time and went down to see one of the very senior commanders in the theater who happened to have been a good friend of mine. It was early in the morning, and he had a set of 5x7 cards on his desk. He was going through these cards shaking his head. I politely inquired as to what they were, and he said, "Well, these are all the telephone calls that came in during the night." You know, at that time, there was a little unrest among the troops. They had had some riots in some of the prison facilities, and everybody was worried about the soldiers' complaints. So they'd established this Dial CINC hotline, and what he was reading to me from these 5x7 cards was the Dial CINC input from the night before. I looked at some of those cards and, just looking at them, and knowing soldiers as I did, I began to suspect that there was a little leg pulling going on.

Several days later I was back in Friedberg, visiting my old haunts, and one of the sergeants major invited me to come down to the NCO club and have dinner with him and sit around and shoot the bull with some of the guys who'd been in the 11th Cavalry in Vietnam. Some of them were guys out of the battalion that I'd commanded earlier, or at least out of the division, the 3d Armored Division, who were back again. So we went over and had dinner and sat around drinking beer, talking, and I was just listening to what was going on. Late in the evening everybody took out a coin, and they started matching coins. I watched this for awhile. Of course, by the process of elimination, it got down to three or four guys. At that point they stopped the game. Then these guys, one at a time, would get up, leave and come back, apparently having made phone calls. So I said to one of them, "What are you guys doing?" And they said, "Well, we've decided that we ought to put a little input into the Dial CINC program. We sit around here almost every night and decide who's going to call that night. The mission of the caller is to make up the most preposterous story he can. Whether or not it's true doesn't make any difference. We just make up a leg puller. Then we dial it in, because we think the whole thing is so damned ludicrous that that's all it deserves."

Now here sits the senior US Army commander in Europe going through those 5x7 cards, worrying, shaking his head, and becoming all despondent because of what's on the cards, and at least some of those cards were the result of that sort of activity on the part of the sergeants. I suspect, if it was going on in Friedberg, it was going on in a lot of other places.

It was all a big laugh to them. The program was considered unnecessary and nonrelevant. They just thought it was a spoof. Now, when you get a situation like that, something really needs to be done.

Short of going over there and taking command of part of it, which I was later to do, the question is, "How do you solve that problem?" You talk to the lieutenants and the sergeants about the tactics and why they think they can't win, and they say, "Well, we're outnumbered." So the big problem was out. Hell, we were outnumbered when I was a lieutenant over there in the 1949–1950 timeframe—much more so, in fact, in terms of sheer numbers than we were in the early 1970s. They had no confidence in their tactics, they had no confidence in their operational schemes, they had no confidence in their logistics system, and they had no confidence in themselves. Training was a shambles and was a hangdog kind of an operation. It was pathetic, particularly when I looked back on my own experiences in Europe in the 1960s. The difference was so dramatic that it was really alarming.

So the thing that was really driving me when I went to Knox was how to help Europe. How could we at the Armor Center help get hold of those tank battalions, cavalry squadrons, and mech battalions over there, even though they didn't belong to me doctrinally, and get the people off of their butts, mentally and psychologically, with some new scheme that would at least help restore their faith in themselves and their ability to do what they were there to do.

I've long believed that with soldiers, with anybody for that matter, if you get them involved in something that's a little bit different, or new, you get an immediate positive response to that, psychologically, which makes things happen just because it's different. The Hawthorne Experiment, which I think I talked about the other day, is a good example of that. It doesn't make any difference what you do with the music level, or the light levels, or anything else, because the people think they're involved in some kind of experiment, something that's a little bit different, and all sorts of good things begin to happen. In short, you're working on the group psychology.

I was not at all sure how much Fort Knox could do about that, but I was convinced that it was a problem throughout the Army as a whole about which we had to do something. So I guess I was driven by the same sort of motivation that drove General DePuy, although I did not have his vast combat experience as a background. Anyway that's what was behind my personal impetus in revising armored operational concepts—what we spend, organization, equipment, and everything else. And, after I got to Knox, I went back and forth to Europe. We'd go around to the battalions and the squadrons, trying to talk to people about what was going on and what was coming up. Of course, it takes a long time for that stuff to gestate in the training system, in the school system, and in the development system. And so, as time wore on, it was more and more apparent that that lag, timewise, was preventing us, really, from producing the results that we thought we needed to produce in Europe.

As a matter of fact, when I was there as corps commander, there was still a lot of that going on. As a corps commander, one of the reasons I took them out on the ground and made them walk around and describe how we were going to accomplish our mission was because we had a lot of new weapons coming in. We had new doctrine. When I went there, I got

General DePuy to send me several hundred draft copies of the new FM 100-5. We passed them out and made people use them. We also had some draft manuals from Knox that we passed out and made the people use them.

Just to show you how people reacted to that, I had one brigade commander who had done a very unsatisfactory job of describing what his brigade was to do out there. I told him, "Look, I gave you a copy of this thing. You're supposed to read it and do what it says. Why aren't you doing that?" "Well," he said, "General, that's not going to be approved, that manual." And I said, "What do you mean?" And he said, "Well, it's not approved. It doesn't have the Chief of Staff's signature in the front of it. All it is is a draft out of that TRADOC place, and I've worked in the Chief of Staff's office a lot, and I can just tell you that that manual is never going to get approved. You're talking about something that's never going to happen." I happened to know at the time that the Chief had approved the thing the week before, which I knew he would all along. So I said to this colonel, "You're making a judgment. Now here I am, the corps commander, and you are the brigade commander in this division, right? You understand that, right?" He understood that. I said, "I am telling you as the corps commander that this is the way we're going to fight the war here until somebody tells us not to. But you're telling me that you're not going to do that." He said, "That's right, because it's never going to get approved. It isn't signed by the Chief of Staff of the Army." I said, "Okay, Colonel, I thank you for your opinion. I would like you to turn your brigade over to your executive officer. Your successor will be on station as quickly as we can find somebody to succeed you." So we replaced him that afternoon. I got the new guy in and I gave him some instructions and turned the battalion commanders around. It was a good brigade after that. But here is a colonel in the United States Army, saying to his corps commander, "That's bullshit, General. That's never going to get approved. Therefore, I ain't gonna do it." That's insubordination! That's what that is.

INTERVIEWER: And also not very smart.

STARRY: Well, right, you could say that about it. But the first reaction is it's insubordination. I told that story because it was a mindset. I don't know what he thought we were going to do. He had a lousy brigade. I mean, they were all there. That was also the brigade in which I found the battalion commander who had never been to a general defensive position before. The colonel didn't think that was important. The colonel, himself, had never been out to his GDP until the division commander made him go out because he knew that I was going to come and talk with him about it and listen to him tell me what they were going to do. The man had never gone out there to figure out how his brigade was going to fight the battle. I asked him about that before we had this other conversation. "Well," he says, "this isn't important to me. What's important to me are the statistics—the AWOL rate, the number of phone calls to the Dial CINC system, the 2715s—and we're having trouble in the motor pool, as you know from reading the 2715s—and so on. The community affairs are in bad shape. I've got more important things to do than to be out here doing this." There was a lot of that.

So you've just got to get them up and out of those holes and get them doing something that relates to their mission. The people, themselves, in the end, the battalion commanders and the brigade commanders in that corps, convinced themselves that we could fight and win using the doctrine laid down in that draft manual and the supporting documents that we

passed out. We were sitting down in the 3d Armored Division sector one afternoon, and the battalion commanders in the brigade were telling their stories about how to fight the battle. We were back in about the third set of defensive positions and had worked out the whole equation about how we were going to move, who was going to cover while we moved, and so on. We were sitting there on the side of this hill on a lovely summer afternoon when the brigade commander turned and looked at me and said, "You know, General, I think we've won the damn battle." Now, *he* said that! All I did was take him out there and make him work out the equation. They convinced themselves that they were gonna win.

Now, we had some problems. I thought about that statement afterwards and had said to him at the time, "There's another echelon coming over the hill. What are you going to do about that?" This further reinforced my concern for what to do about follow-on echelons. It was then that I realized that that was my problem. As the corps commander, I had to solve that problem. That started what later became the AirLand Battle in which we had a full-blown concept for the attack of the follow-on echelons. But the people, the sergeants and the officers, convinced themselves that they could win. That's what you have to do. There's no way for me to go over there and stand up on a pulpit and make a speech, "Hey guys, if you do this, this will happen and you'll win." They convinced themselves, particularly so in view of the mindset they were in in the first place. But how we can let an Army sink to those levels? I don't care what the problems were, how we could let them sink to that level of despondency is beyond my comprehension.

INTERVIEWER: Shortly after the initial distribution of the 1976 version of FM 100-5, there was widespread, shall we say, criticism. To whom would you attribute that, or was it actually a fallacy in FM 100-5 itself? And, to follow that up a bit, I think before you got to Europe as a corps commander there were already a few draft copies over there. Is that correct?

STARRY: To the best of my knowledge, the only ones that were there were those that I took along with me, and that was, you know, just two or three. In fact, those were preliminary drafts. I'm not even sure we had a draft, because I sent a message after I went out and looked around a little bit and realized just how poorly we were doing—I sent a message to General DePuy asking that he send us some copies. We had really not made—well, we had made some attempt to coordinate the thing with the field. And so you're probably right. There had been drafts go back and forth. How many I'm not sure.

The biggest concern we had was over the nuclear problem. We had tried to coordinate the nuclear problem with the SACEUR, but it didn't work. Given more time, or had we taken more time, we probably could've coordinated it successfully, but General DePuy wanted to publish it unclassified. It got all wrapped around the NATO classification system in the SACEUR's office. They were not willing to have us talk about nuclear war, particularly relating it to battle in Europe, in an unclassified context. So we decided to take that out. Thus the 1976 edition was very weak about nuclear war, and the reason for that was because we were going to publish a classified annex. But we tried to coordinate the thing with the SACEUR. We just were not successful.

As for the criticism—and I said this yesterday, I think—how do you get guys like Bill Lind, who at that time was Senator Gary Hart's gadfly; Ed Luttwak, teaching at Georgetown; and other people of that ilk to speak out or to even pay any attention to the thing? What you

found, if you listened to Luttwak, and Lind particularly, is that Lind hadn't even read the damn thing in any detail. I'm not sure that Ed Luttwak had, either. They were the principal academic Washington kind of vocal opponents of the thing. Subsequently—and I didn't realize it at the time, but it has come to my attention off and on more and more through the years—most of that opposition, vocal opposition, came out of or was generated by the guys at Leavenworth. Whether Jack Cushman, himself, was personally involved in it I don't know. I suspect he was. I know that Ivan Birrer was, and I know that a lot of the colonels, the disappointed colonels at Leavenworth who had spent a lot of time writing that draft manual that Cushman brought to those meetings, really resented it. I mean, some of them were violently resentful of the whole thing. They were the genesis of most of the opposition to the manual, in my opinion.

INTERVIEWER: How did they approach this? Was it criticism by article or by word of mouth?

STARRY: Well, they fed it to the people who they knew were the vocal critics. It's the same thing that the staff officers in the Pentagon do when they want to build support for or opposition to a program that you've got going. You go over to the Hill and get some of those staffers to work the problem. Lind is a staffer, and so they got Lind. Luttwak, I don't know who got to him. Well, I do too. There's enough evidence in my mind as to where it came from. That's why I said earlier that it was the greatest single act of individual and institutional disloyalty that I've ever observed.

INTERVIEWER: Was General Cushman actually General DePuy's deputy?

STARRY: No, I think we made the guy at Leavenworth a deputy after General DePuy. I think we did that on my watch. I think you'll find, if you look back at it, that he was not then styled the deputy. He was the commander of the Combined Arms Center. There were to be three of those: Combat Arms at Leavenworth, Administration at [Fort] Ben Harrison, and Logistics at Fort Lee. I don't think he was deputy. Now the deputy thing came along when we appointed General John Roy Thurman to command Leavenworth. We made him a deputy because we wanted to promote him. I think that's when that happened, which was about the time I came to TRADOC.

INTERVIEWER: Well, at any rate there was absolutely no doubt that General Cushman added to the criticism.

STARRY: He was supposed to be a coordinator. There was no question about that. The coordinator, in that case, was operating at odds with his boss. The coordinator was either not smart enough or not willing to listen to his boss. You couldn't tell Jack Cushman anything. You had to listen to him. You'd go to a meeting out there, and there'd be 50 or 60 guys. General DePuy gave them all the resources in the world. Meanwhile, I'm working with Ed Scribner and a handful of guys at Fort Knox trying to write a manual that was supposed to have been written at Leavenworth with the 50, 60, or 70 guys he had been given to do it. I didn't necessarily resent that, because I think, when you get that many people together, you're never going to write a good piece of work. That's too many folks working on the same project.

Anyway, you'd go to a meeting out there, and you'd spend all day sitting in a room. There'd be 40 or 50 people in the room, and everybody would sit there and listen to Jack Cushman

talk all day. And he was by no means the last word on every subject that he talked about. He was by no means an oracle. I said previously that I admire the man's intellectual ability, but he's not very practical and he never listens to anybody. He listens to himself, I suppose, but he never listens to anybody else. Now he was aided and abetted by Ivan Birrer, who was a good friend of mine. I liked him as an individual very much. But Ivan also falls into the category of the disloyals as far as I'm concerned, because he was egging Cushman on. In Ivan Birrer's debriefing report, submitted when he retired, there were several paragraphs that revealed a whole lot about this whole thing. He said, in effect, that Leavenworth was an institution apart from the rest of the Army; it exists for itself, and nobody in the rest of the Army should be telling Leavenworth what to do, and certainly not a bunch of jerks over at Fort Monroe. The tone of his commentary was resentful that anybody like General DePuy should intrude on the sacred grounds of Leavenworth's responsibility to the rest of the Army. He and Jack Cushman were good friends; they'd been friends ever since Jack Cushman was a captain out there on the faculty. A lot of Cushman's problem was Ivan Birrer.

INTERVIEWER: What was his position at that time?

STARRY: He was probably the educational advisor at that time, or whatever we called them in those days. The title of that fellow changed, but he was essentially the educational advisor for a long, long time. He's a good guy, a curriculum developer, and a lot of other things, but he was in over his head and, over the years, he had become very possessive. He'd been there awhile. He was the old civil servant who stayed while the generals came and went. Over time he'd become very possessive about the place. He thought it belonged to him. And he certainly believed that it had some kind of a role in the Army system that was independent of anything else the Army was doing. That may be true, but there needed to be some checks and balances on it nonetheless. And there needs to be some guidance from the top.

I love the place. When I commanded TRADOC I tried to restore it to some of its former glory. That's why we introduced things like CAS3, second-year courses (SAMS), and some of the other things that they're doing out there. I insisted that the 1982 FM 100-5 manual be written out there. Even though I wrote a lot of it myself, ostensibly it was written under the Leavenworth label, and when it finally came out it had that in the book. I participated in that writing no less than General DePuy did in the 1976 edition but, having watched the reaction to the 1976 edition and having sensed at least some part of what I just said about the Leavenworth guys being the generators of a lot of the opposition to it, I was convinced that we had to somehow write the next edition of that manual at Leavenworth, even though that would mean that I wasn't going to participate in it as fully as General DePuy did in the earlier one. So we had no meetings at A.P. Hill or any of that stuff. And we got a very, very smart colonel named Huba Wass deCzege, who was really the principal author of that thing. Had it not been for Huba, it never would have gotten written, either. It's got some shortcomings, and they're all my fault or Huba's fault. Were he here, I'm sure he'd be the first one to say the same thing. But at least we wrote it out there and did not give the world the impression that we were going off into the jungles at A.P. Hill all by ourselves with a handful of three or four guys sitting around a table, cobbling up some kind of doctrine for the Army as a whole.

INTERVIEWER: Was General Cushman moved as a result of this controversy, or did he serve a normal tour?

STARRY: Yes. They promoted him and sent him to command I Corps Group in Korea, which I thought was a mistake, as did a lot of people. He retired from that job. General DePuy was anxious to get him out of Leavenworth. In fact he passed through Fort Knox one night, spent the night with me, and allowed as how he was on his way out to relieve Jack Cushman, but he never did it. I never asked him what happened.

INTERVIEWER: General DePuy must have tacitly, at least, approved the promotion.

STARRY: Nope. I was sitting in his office the morning the Chief of Staff called and told him what he was going to do, and I remember General DePuy saying to the Chief of Staff, "Fred, you're making a mistake."

INTERVIEWER: This was General Weyand?

STARRY: General Weyand, yes.

INTERVIEWER: One other question on the 1976 version of FM 100-5. We've already talked about one of the problems with it, which I don't personally think was universally recognized. Apparently you recognized it, but most people hadn't begun to think about the second echelon at that time. The other problem was the nuclear problem. One of the greatest criticisms, as I read the literature, was the elimination of, you might say, the human dimension, coupled with the elimination of the age-old principles of war. Many people felt there was too much of a systems approach rather than a human approach and that the manual gave no weight to the human dimension.

STARRY: Too statistical was the charge that was made against it.

INTERVIEWER: I think we've discussed many reasons for the development of the doctrine contained in FM 100-5, such as coming out of the Vietnam syndrome, recognizing Europe as a primary threat, and the modernization of the Army. Now it's obvious that one of the things driving all of you was the 1973 War and the lessons learned from that. One of the lessons learned from that, according to most people, was the emergence of the handheld tank destroyers, if you want to call it that.

STARRY: ATGMs.

INTERVIEWER: I'm using someone else's term. It's felt in many circles that many people at that time felt that the ATGM was coming into an era of preeminence and that the tank and the APC may be doomed. However, I think we found out later that this was not the case because we could develop tanks that could handle that. Given all of that, the criticism and the lack of acceptance of FM 100-5 were due primarily to what?

STARRY: It's hard to tell, because no one that talked about it, particularly the most vocal of those who talked about, Lind and Luttwak and so on, really came forth with any substantive commentary. Lind kept talking about maneuver warfare and so on. I don't know what he meant. He never said what he meant. The argument that we were too statistical and whatnot I suppose was a valid charge. But, at the same time, one of the other things that was in my mind, in addition to trying to get the Army in Europe, the Army as a whole, off of its ass and moving ahead, was trying to solve the problem we faced in Europe. I had become almost totally convinced that we were never, ever going to get permission to use nuclear

weapons. And yet the whole structure of the defensive scheme depended on the use of tactical nuclear weapons at some point in the battle. The SACEUR now testifies, depending on what year you catch him, that he has somewhere between 6 and 10 days before he's got to use nukes. I was never convinced, first of all, that we were going to get permission to use them. Second, I was never convinced that the mechanisms we had for their use, the target analysis and direction capability, were going to be adequate to use nuclear weapons in the tactical mode.

When I was an instructor at Fort Holabird, another officer and I invented a target analysis system for use in the tactical employment of nuclear weapons. Someone like an FO could work that problem, because I was convinced that, if you were going to use small yield weapons in that close, then you had to have a faster response mechanism in terms of target analysis than we had built for ourselves. The purpose of that study, which essentially led to the tabular systems that we now use as opposed to the old curves, was generated out of our desire to create a system that was responsive to the commander at the tactical level. That was the other problem.

One of the underlying purposes, in my mind at least, of the whole exercise of doctrinal revision was to try to figure out how we could fight and win when outnumbered, and do so below the nuclear threshold. Now that says you've got to pay attention to numbers. What are the numbers? The Russians are great on this, and I think perhaps they overdo it, but I don't know. They analyze everything. They crunch the numbers in seven different directions and come out with these statistical analyses of battle for which they're so famous. But, at the same time, crunching the numbers and moving them around and analyzing them in different ways gives you insights into how to fight the battle. And looking at, listening to, and reading what the threat guys say about that same problem gives you some further insights into the battle.

So I would argue that it's necessary to do some kind of analysis simply to inform your judgment—not necessarily to base the analysis on some number that's below a line that you draw at the bottom of the page but to inform your opinion and to inform your analysis of the subject at hand. So I do not believe that the criticism that that manual was based too much on statistical analysis is well founded. The purpose of that analysis—and perhaps we laid too much of it out in the book, I don't know—was to inform us and form our opinion and judgments about how to fight the battle outnumbered and win and to do so below the nuclear threshold.

This was part of the follow-on echelon problem. If you can win the battle up at the FLOT, and do so in the second or third battle position back, what are you going to do about the second-echelon front? Do you have enough left to fight that fellow, or do you have to, as the SACEUR says, turn to the nukes? That's essentially what he's saying. Well, the answer is, if you can get the forces deployed there in time, you can fight the second echelon. There are four echelons of Soviet forces between the Inter-Zonal Border in Germany and the borders of European Russia, and we are going to have to fight at least three of those four echelons and probably all four of them. We're not going to succeed against the first of those echelons, whichever echelon that turns out to be, unless we can prevent the follow-on echelon from loading up the frontline battle. In fact, if we let them load up the frontline

battle, it turns out there are not enough nuclear weapons on board to do that. So, even if you use nukes, you're not going to achieve success. You've still got to do something with the follow-on echelons.

And the question is, "Can you do that conventionally?" Well, technology seems to promise the means—perhaps not at this very moment, but then again perhaps at this very moment. Who knows? The means are there to attack the follow-on echelons, but they're not very well coordinated and they're not very well tied together. The surveillance and target acquisition means all go down in the downlinks that are closely guarded by all of these intelligence agencies and other agencies of the national government. But they're not linked together, so the information flow is difficult. Still, they're there! And I maintain that, even though we don't have a full spectrum of air-launched cruise missiles, ground-launched cruise missiles, or MLRS deployed yet, we do have a growing capability in that regard.

But the thing we lack most dramatically is the command and control capability over the intelligence systems, the surveillance systems, and so on, that will provide the corps commander and the army group commander with the kind of information he needs in a timely way to go after the follow-on echelons. We'll never know whether or not we've got enough sensors in the air or in space. We'll never know whether or not we've got enough weapons systems to successfully interdict the follow-on echelons until we wire all that stuff together and make some kind of an analysis based on the numbers. We need to do that to determine whether or not we can really fight that war over there successfully when outnumbered and do so below the nuclear threshold. We can do it in Korea. If you look at the Korean war plans and at the way that battle turns out, there aren't that many echelons, and that's the secret. They're not looking at four echelons; they're only looking at about two plus. And someday, someplace along about the 10th or 12th day of the battle over there, if the scenario unfolds along the lines of central tendency, the Korean and US forces are going to win that battle, and the war—unless someone else intervenes, of course.

But the problem in Europe is just echelon after echelon and the growing strength of the Soviet conventional forces. I maintain that that's why the Soviets have undertaken such an enormous improvement in their conventional forces. If you read the Soviet literature over the last 15 years or so, they themselves are struggling with the problem that I've just outlined—how to fight the theater-level war and win it without having to resort to nuclear weapons. They do that, in large measure, because we have always linked the first 8-inch round that goes out with intercontinental nuclear warfare. They have never done that. They have always believed that you could fight successfully at the theater level and win. Their impetus toward conventional development, improving their conventional forces over the years—the last 20 years, I would say—I think has occurred in large measure, if you read their literature, because they just can't solve that nuclear dilemma. So they said to themselves, "Okay, guys, we need to build a conventional capability that is so impressive and so overwhelming, in the other guy's eyes as well as ours, that all we're going to have to say to him one day is, 'Look, don't do that or we will do this.'" Nuclear weapons are not part of that equation. Meanwhile, we're trying to solve that, at least I myself was trying to solve that same equation, with the additional factor that we are always going to be outnumbered conventionally and nuclearwise, as well as in the theater systems. They've got the Frogs, guns, and Scaleboards at the theater level. We have never deployed a theater ballistic system, nor have we ever concentrated on their theater ballistic systems as primary

targets. Now that's the first thing we ought to destroy—their theater ballistic systems and theater air defense system. We have never adequately concentrated.

INTERVIEWER: But the Soviets realize that, if they get too overwhelming numbers in conventional systems, they're going to drive us to go nuclear?

STARRY: Well, I don't know. I think that's a risk they're willing to run. Don't forget, they didn't start the conventional development that's now underway until after they thought they had nuclear parity. And nuclear parity, in their view, is that they are just a little bit better than we are. So if you look at the theater nuclear imbalance and at the intercontinental nuclear imbalance, I would argue that they have a substantial margin, certainly in theater nuclear systems, and they have a comfortable margin in intercontinental ballistics systems. Because of that baseline, then, they were willing to proceed on an enormous conventional growth program against a backdrop of a nuclear force with which they were comfortable.

INTERVIEWER: Sir, in February 1976 you took command of V Corps. At that time you were working for General Blanchard, who was the USAREUR commander. Had you worked with him before?

STARRY: No.

INTERVIEWER: Do you know at this time who nominated you and how you were picked for that job?

STARRY: No, I don't. As I said earlier, I was comfortably rocking in my swivel chair behind my desk at Fort Knox one rainy afternoon when the phone rang and my secretary came bouncing in and said, "The Chief of Staff of the Army is on the telephone." And sure enough, he was. I said, "You're kidding me!" and she responded, "No, no. He's on the phone." I had heard that Bob Fair was in trouble, but I had not heard just how much trouble. I had no idea that he was on the verge of being relieved for cause, and I certainly had no idea that I was to become his replacement. You know, I'd been a major general for what, almost three years at that time. I didn't know what major generals had to do to get promoted. I wasn't worried very much about that at all. So it was a bolt out of the gray afternoon sky. I'm sure General DePuy had a big hand in it. General Abrams may have had a hand in it, although he was dead by then. What passed between him and General Weyand before he left, I don't know. I think General DePuy probably had a big hand in it.

INTERVIEWER: Did you find that you were compatible with General Blanchard once you arrived?

STARRY: Well, I knew he was a little bit leery of me. At least I sensed that he was a little bit leery of me. By that time, of course, he had heard all the comments about how we were trying to take over the Army and whatnot as you mentioned yesterday. So I suspect he was a little apprehensive about me. But I sensed that almost from the beginning, and I tried to work around it and not do too many wild and harebrained-looking things. All we did was go out and walk around on the ground and figure out how to fight the battle and how to train for it. He couldn't argue much about that.

INTERVIEWER: When you arrived there, you mentioned yesterday about not having any furniture in your house. Did you go back and occupy the previous set of quarters used by the corps commander?

STARRY: Well, no, because the agreement that we had about the house downtown with the Germans was that, once we were done with it, it reverted to the ownership of the city of Frankfurt. The city of Frankfurt didn't want it; they didn't know what to do with it. The furnishings were gone. We had put them in the Quartermaster warehouse and all the generals' wives in Europe had come and raided it. A lot of it disappeared into the bins of the German civilians in the Quartermaster warehouse and into some of the American civilians' bins, I suspect. I spent a year trying to find a lot of it and get it back into the house that we then occupied, but by the time I got there the furniture was gone. There was no way to move into it. I subsequently had the Germans come to me and really plead with me to move back down there. I pointed out the furniture problem, and the response from some of the wealthier ones was, "We will furnish it with whatever you want in it if you'll just move back down there. It's just not possible to have the senior American in this area not living in the middle of Frankfurt where he has been ever since the High Commissioner was here." Well, it just turned out not to be possible. I talked with General Blanchard about it several times. He gave it considerable thought and, between the two of us, we finally decided that it just didn't make any sense.

INTERVIEWER: Were you living out at Bad Vilbel?

STARRY: Yes, at Bad Vilbel.

INTERVIEWER: Was it furnished with your own personal furniture?

STARRY: No, we finally found Quartermaster furniture. We didn't take any furniture from the States. You're not allowed to take your furniture with you. I would have had to sign a certificate that said I had to have it to do my job, and I didn't believe that, although Bob Fair had done that. So we went around and found enough Quartermaster furniture for the place. It wasn't very satisfactory, but it was enough.

INTERVIEWER: Perhaps this is not too important in the relative scheme of things, but I can't believe that the staff at V Corps allowed you to come in without having furniture in the house designated for you to live in.

STARRY: Of course, I saw the household furnishings officer, who I later had to relieve. He was a civilian whom I later had to fire for incompetence. They had made some desultory attempts; there were some chairs around and that kind of stuff. But they hadn't even bothered to clear out the office that the Fairs had used in that little study room off of the front entranceway in the quarters. So there hadn't been much done. Whether or not anybody in charge had paid any attention to it, I don't know. Sergeant Norman and I made out all right.

INTERVIEWER: Due to the relief of General Fair, were there a multitude of problems that you had to straighten out when you first took command, such as German-American relations, training of the corps, and the board that you mentioned earlier pertaining to the 2715? Was that General Fair's idea or his predecessor's?

STARRY: No, that was him. That was his invention. I don't know the full story of his problem. I know a lot of things about it, but what actually happened to set him crossways with General Blanchard, with the SACEUR, and General Knowlton, I'm really not qualified to say. That's recorded somewhere, I'm sure. He had only been there four or five months, and

apparently he had come there from commanding the 2d Armored Division at Fort Hood. He brought with him a training program that had worked for him at Fort Hood, which was a way to train a unit in the States. I'm not sure that, had I been a division commander in the States, I would have done it that way, but that's a matter of opinion. There was nothing fundamentally wrong with it. But essentially it was a system in which you rotated your training in such a way that about one-third of your force was, in effect, stood down at any given time to take care of all the administrative things—language training, GED training, and all sorts of administrative, incidental or nonrelated to the combat mission-type things. Now I say that, at a post like Fort Hood, where the facilities are crowded and the training facilities are limited, and given the circumstances of units in the States at the time, that may have been appropriate for Fort Hood. But it was a totally nonrelevant training program for V Corps or for any deploying corps for that matter. Totally nonrelevant!

He had served in V Corps before as a junior officer. He should have known better. His program just didn't match the circumstances. It was something you shouldn't and couldn't do, given the mission. He apparently arrived with that document, the 2d Armored Division document, handed it to the G-3, and said, "Implement that in this corps," without ever going around to look, so I'm told, to see what the training situation was, what the circumstances were, and what really needed to be done. He then said that the training system was all wrong.

Apparently he was paying a lot of attention, according to this maintenance board that I described the other day, to things that really were not the corps commander's responsibility. He had brought with him an officer from Fort Hood to be his G-3, whom I later had to get rid of. He wasn't flexible enough to change out of the system that he had seen at Fort Hood. General Fair brought him over with him and had promised him that, if he came over there to be a G-3, he'd make him a general. So there he was, but he was not qualified to be a corps G-3 in any way, shape, or form. He was a nice, good officer, I'm sure, but not qualified. Since he had only been there a short period of time, there really had not been sufficient time for a lot of the things that he was doing to filter down to the units. Also the division commanders provided a buffer between the corps commander and their units as best they could.

He would appear on the kaserne in civilian clothes in the middle of the night, bowling his way through the gate to check various things on the kaserne, which obviously was the cause of some consternation. So there was some erratic behavior that they were having a little difficulty with. Because of that reporting system I described previously, he bypassed the division, brigade, and battalion commanders and dealt directly with the company, battery, and troop commanders on maintenance matters.

So it was obvious that the first thing I had to do was change the training system. But just to change the training system and say that the Fort Hood training style was not appropriate in V Corps didn't appear to me to be sufficient. The training system had to have a grander purpose. So I tried to create that grander purpose by taking them out on the ground and working the battle-fighting part of the corps responsibility and then relating the training to that. I also got rid of that thing where you had one-third of your force stood down all the time. You just couldn't do that. You couldn't meet your mission requirements if you

had your people scattered doing everything for three or four weeks at a time. I guess it's fair to say that I think he was relieved largely because he began to fabricate things and lie about things, or so I'm told anyway, to his superiors as well as to his subordinates. That began to surface, and someone appealed to General Haig, who turned it over to General Bill Knowlton, the Chief of Staff of EUCOM. The Knowlton-Blanchard equation was what eventually brought about his downfall, but it had to do with integrity rather than disagreeing with the training system or anything else. That's about as much as I know about it.

INTERVIEWER: It doesn't sound like you encountered any major problems when you took command.

STARRY: There were a lot of them. We still had the overriding problem of the fact that they really weren't over that hangdog kind of thing that I described a few moments ago. And we had to do that! I knew that we had to get the new doctrine over there and get it working. I suppose that, if General DePuy had a hand in my going there, it was for that purpose. In fact we later became known as TRADOC East in V Corps—and not without some good reason.

INTERVIEWER: Was VII Corps doing the same things you were doing, trying to implement the new doctrine?

STARRY: No. The problem was that all of this doctrine stuff had been generated in the school system in the States, and as I said it takes awhile for that to migrate to the field. Essentially no one over there had been paying any attention to it. In fact, in the training systems at Fort Hood, General Bob Fair was one of the big critics of what was going on in TRADOC while he was a division commander. He essentially paid no attention to us, and when we went there a couple of times to try to talk to them about tactics and get their opinions and whatnot, we got short-shrifted. It didn't bother me. We were still trying to figure out what to do ourselves, so all that was very useful. But no one else in USAREUR was working the problem. General Fritz Kroesen had VII Corps, and of course he had not been privy to any of this that was going on. So V Corps kind of led the way. V Corps had taken a back seat because General Blanchard, himself, had come out of VII Corps. He felt for a long time that V Corps had been the premier outfit in Europe and now it was VII Corps' turn, so they got preferential treatment. That was a problem in V Corps. It was a kind of a morale problem that we tried to correct by just getting old V Corps off its ass and out on the ground. Eventually everybody started doing it, mainly because it made good sense to do it.

INTERVIEWER: You previously mentioned the problem with Europe and that you thought it was a command problem as far as the implementation of new doctrine, living conditions, and whatnot. What commanders were you talking about?

STARRY: Well, I guess I'm talking about the USAREUR commanders through those years and probably the corps commanders as well. I'm sure that they're good guys, all of them, and I'm sure they were acting in good conscience. I'm not sure that all of them realized what was happening to them. You almost had to be away from it for awhile and then come back, as I did, and see it now as opposed to what is was before in the mid-1960s, to understand how far down we had gone. General Polk was over there for a long time, and while I have great admiration for him, I never did think that he really realized what was

going on and what was happening to his army, simply because he had nothing to compare it with. And I think that was part of the problem.

One of my predecessors in V Corps was a gentleman whom I'm told never left his office except to go to official functions and so on. Essentially he didn't prowl around in the motor pools, the training areas, the tactical deployment areas, and whatnot. He did it all by reading reports and writing memorandums to people. Respectfully I say he's a nice officer and a good one I'm sure, but I respectfully submit that you can't command a corps that way. You can, but it won't be a very effective organization. Now, if you went around in his organization while he was doing that, you'd realize that nobody was in charge of the damn thing. What was it supposed to be doing? There was no focus on what they were supposed to be doing. If you're there in Europe, and you've served there long enough yourself, you realize that it's a strange environment in many ways. It's divorced from the Army in the United States, and I think if you're there for a long time you simply tend not to be—what's the right word?—aware enough, I guess, of what's going on in the States or what's going on in your own command relative to what's happening in the rest of the Army.

We have never admitted to ourselves, in my opinion, the cost of that ridiculous rotation system that we used in Vietnam that caused us to use Europe as part of the rotation base. We've never admitted or owned up to that. We've never admitted there was a mistake. We've never tried to assess the cost and, believe me, the cost was enormous. The cost was enormous in terms of facilities, troop housing, family housing, and training areas. We simply didn't do anything with them; we just let them go. We spent 10 years building that back up. Now it's not for me to say, I suppose, that some fellow on the ground could have done something about that. It may be that there wasn't money enough to do it. I don't know. But I'll tell you what, in the six years from the time I left in 1964 to the time I returned in 1970 to look at it again, *everything* had gone to hell in a handbag. The training areas, the family housing, the troop housing, the accommodations, the places where the people had to live and work had just gone to hell. That's unconscionable! All those good folks may have been back here in the States pounding the desk trying to improve conditions and been thrown out, I don't know. But the Army never owned up to it.

INTERVIEWER: No, sir. The most frequent things that you hear are that the morale was very poor over there at the time because it was used as a rotation base, and I know from my own experience that, as early as 1966, my battery and my battalion were at less than 50-percent strength.

STARRY: That's right! Someone should have stood up and said, "Hey!" One of the things that has always interested me was the Russian response. You know damn well that the Russians knew what was going on, so why didn't they do something?

INTERVIEWER: Amazing, isn't it?

STARRY: I have never been able to understand that. You know they knew what was going on. All they had to do was drive up and down the road and look at the kasernes. They're smart guys; they know a lot about that environment. Why didn't they try something?

INTERVIEWER: Perhaps they weren't ready.

STARRY: Well, it may be that they looked to the other side of the world and said, "If we push him over here while he's all wrapped around that problem over there, he may get

desperate and do something that we will both regret." It may be that that held them off, I don't know.

INTERVIEWER: Another problem, too, that most commands blamed the lack of fighting ability on was that, from probably around 1966 until 1977–1978, no money went into Europe. The Germans, too, at that time, were a little bit desperate for money, hence they had no money for matching funds for billets and whatnot. I guess, given those situations, other than the commander getting out into the field and being able to improve morale—and perhaps they should have worked somebody's ass off to improve the morale—I'm not sure what they could have done. For example, I don't think they could have gotten any more money during that period of time.

STARRY: Well, that's what I said awhile ago. I'm being critical, and I'm probably out of order because I wasn't there and I don't know. But, at the same time, I would argue, as you just suggested, there was still an awful lot that could have been done. It's one thing to have the barracks run down; it's another thing to do something about it, even minimal things. And my impression of them in the early 1970s was that they were sitting there on their asses, waiting for someone to come and do something. There was no initiative being taken at any level.

My oldest son was an artilleryman and was in a barracks over there, one of the old German barracks from way back. As you know, they are solid old buildings, but they tend to get dingy-looking very quickly. He was an FO and battery executive officer with a subsequent tour as a battery commander over there, and I said to him one time, "Mike, why don't you do something with these damn barracks?" "Well," he said, "somebody else is supposed to do that." "No, no," I said. "You don't have to let the plaster fall off of the walls and just leave it lying there. Somebody can clean the damn stuff up, and you could patch the plaster. You can get the stuff to do that. You can have a self-help program down here and at least make your battery area look decent." I said the same thing to his battalion commander, who said, "Oh, no, we've been told to stay away from that. They're going to do it for us." So they were all sitting there waiting for someone to come in and fix them.

Let me tell you something—I was over there in 1949, 1950, and 195l, and there wasn't any money back then, either. I mean, there was *no* money in those days. I remember when I was a lieutenant I put—and lieutenants in those days could ill afford to do this—about $25 a month into a fund that Lieutenant Patton and the rest of us kept to buy paint to paint the barracks. We actually bought the paint and the ladders—I guess we rented the ladders in the end—and we bought those big old German bamboo sticks they used to paint the high walls with. We bought that stuff and painted the damn barracks ourselves because we couldn't get anybody else to do it. Now I'm not suggesting that everybody ought to do that, but having had that background, I can testify that a little initiative will do a lot to keep a place clean, neat, orderly, and looking like a soldierly enterprise—even though, in general, it isn't as well maintained as it ought to be. But, you know, the engineers come and do grand things to a barracks—big plumbing, big heating repairs, and whatnot. But the simple little housekeeping things that you need to do to keep a place looking nice, looking soldierly and orderly, they weren't doing. It was a lack of initiative at all levels. They were sitting there waiting for somebody to come and fix it up for them. It should have been obvious for a long time that nobody was going to come and fix it for them. That's the thing I really objected to,

the lack of initiative, just as there was no initiative in the battle-fighting sense. They were just sitting there, waiting for somebody else to fix things.

INTERVIEWER: During your tour as V Corps commander, did you begin to get some money for improvements?

STARRY: The barracks improvement programs had begun. I don't remember when they began, but it was a couple of years before. However, we weren't a quarter of the way through. I don't remember the name of the program, but the first of the big barracks improvement and housing improvement programs was fairly well underway; it was about 25 percent done, or something like that. Money was being made available to fix them. The thing that concerned me, even then, was that it wasn't enough just to fix them once. There had to be a program because, by the time we were finished with the program, the ones that we had done first were going to need redoing. As a matter of fact, before we were through with the program, you were going to have to go back and start doing over again the ones you did first. There has to be a continuing program, and somebody needed to program that out. We had not done a very good job of that. There was money becoming available, and I guess the great thing I did for V Corps was finally to get the motor pool in Fulda paved. It wasn't paved until after I left, but I arranged the program to have that sucker paved. To my personal knowledge, since 1949 the unit that was up there, first the 14th Cavalry and then the 11th Cavalry, had been wandering around in the mud and the rocks on the top of that hill. Nobody had the brains to go out there and say, "Let's spend a little money paving the motor pool." We finally did it.

INTERVIEWER: I remember my first sergeant standing in my motor pool and saying, "You know, we've been here so long we could have stolen enough cement."

STARRY: That's right.

INTERVIEWER: It might interest you to know that there are still about 30 to 40 percent of the motor pools in V Corps that are not paved. It seems like that is one of the easiest things in the world to do, yet has the largest payoff.

STARRY: That's right. And it isn't all that expensive, either. You're talking about pouring concrete, which isn't all that expensive. It isn't cheap, but it isn't expensive.

INTERVIEWER: You already mentioned that you got V Corps started on FM 100-5 and implementing the provisions therein. I think you talked about trying to improve morale and emphasize warfighting capabilities rather than just doing maintenance or housekeeping. You mentioned terrain walks. What other things, sir, did you do for V Corps in terms of getting it ready to fight the battle?

STARRY: Well, I was only there 16 months, and I'll tell you what, I didn't try to measure what else I did. As for the maintenance situation, as I pointed out, we were about 56-percent operationally ready when I got there. Within a few months we were at 98 percent and stayed there till I left. That was a situation that took care of itself. Once the corps commander got out of the micromanagement of the thing, it took care of itself.

INTERVIEWER: Let's put the question another way. Since you stayed only 16 months, were you reasonably satisfied when you left that V Corps was ready to take its rightful place and do its job?

STARRY: Yes, I think so. What would I have done had I stayed longer? I was just beginning to figure that out when I left. But it was obvious that the terrain walks and the training related to the battle-fighting and the doctrine had begun to take hold. The troops had convinced themselves that it was necessary to do that, and it was beginning to take hold. So the question was, "What are we going to do next?" I really hadn't quite made up my mind. There was still more work to be done on the battle plans, still more terrain walks ahead, and so on. Because guys turn over all the time, you're always looking at a bunch of new faces out there when you go out on a terrain walk. So all of that has to be done over and over again.

The community alerting thing bothered me. That's an important part of a soldier's life. I think you ought to start with the warfighting part of it, but at the same time you need to pay some attention to how the soldier lives and how his family lives. So we had started sprucing up the communities in terms of management as well as facilities. We started a little of what we called Community Life. It's a name that has been used in many places. But at Knox where we did it—I did it based on my wife's recommendation as a matter of fact—Fort Knox has about 4,000-and-some-odd sets of quarters. At the time we were there, they had more family quarters than any other post in the United States, and yet they spent less money on their family quarters than most posts in the United States. They showed it. There was a lot of dissatisfaction, unhappy wives and unhappy families, because of the way they were having to live.

Unfortunately the engineering workforce wasn't very responsive to that, plus we had limited funds. I went to General DePuy and said, "I have got to have some money," and he said, "I'll give you the money if you'll save some and make it available." He said, "I'll give you 'x' million," I think it was $10 million, "if you'll save $3 or $4 million in the next year or so, and if you can show me a program that will get the most out of that money." So, instead of getting the engineers to work on that, I put the families to work on that. As we talked about this one night, my wife recommended that we start a program whereby we involve the families in the improvement of their communities. So as we talked about it, she said, "Those housing areas are geographically isolated at Fort Knox. What if we elected mayors in each one of those communities and had the mayors appoint town councils and let them establish the priorities as to what they want done to fix their place up? Can you do that?" And I said, "I don't see why not."

So we did it. We had community elections and elected the mayors. In the first round they were all women, as a matter of fact. We allowed them to appoint their town councils, arranged however they wanted. But they had to have a council, because there were some functional things that needed to be done. I got the mayors together and I laid out the budget for them. I said, "Here's what's available. Now here's what I'm going to do. First, you are going to establish the priorities in your housing area and determine what needs to be fixed. We're going to match that with the engineers' perception of what needs to be fixed, and then we'll rationalize the two somehow. Second, I'm going to make available to you some discretionary money. In other words there's going to be a part of that money that you're going to use to do things that you want to do that are not in our program. I'm just going to seal off a certain amount of money to do the things that you think you want done."

In one case it turned out to be an RV park. The recreational vehicles were parked all over the streets. The kids were darting in and out, which was dangerous, and it looked cluttered. They couldn't get back and forth with their cars. So the first thing that community wanted was a recreational vehicle park. Well, that's pretty simple—put up some chain-link fence, put down a pad, put the RVs out there, and provide for some controlled access. So we did that. Well, the engineers resented it. The whole engineering system just resented the hell out of that, but I made the mayors a part of my personal council on that. In the three budgets of Fort Knox, maybe four, over which I had any control, we spent about $40 million on family housing. That was more money than had been spent altogether in the preceding 20 years on family housing. It shows you how bad the neglect level was.

One area, I remember, needed roofs—all the houses needed to be reroofed. It was a big contract. As I recall, we engineered it at something like the $4.5 million level. Some guy bid $2.8 million and they gave it to him. When I looked at the difference between what we had engineered it at, and what he had bid—and won the award as the lowest bidder—I realized what he was going to try to do was make up, at my expense, the difference between $2.8 and $4.5 million. So we got the wives and the mayor of that particular area together, and I said, "Okay, prepare a briefing," which she and her staff gave. They got all the housewives together and said, "All right, here's what is going to be done. These guys are going to come and put in the roofs, and here's the schedule." I allowed them to make out the schedule to suit the traffic patterns, the schools, and everything else. They worked up the schedule of how the roofing was going to be replaced. We went down through the contract with them and showed them what the roofer was supposed to do, what he was not supposed to do, and what he was forbidden from doing. He's not going to slop tar all over the front of your house; he can't mash the bushes; he's got to leave in place all the things that were in the contract. If those things don't happen, you call the mayor, and the mayor will call me, the chief of staff, or a central office that we have established."

One of the reasons for that was that, after I looked at the size of the contract, I realized that the guy was going to try to rip us off. I told the chief of staff that I wanted to hire some more quality control guys. He told me that we didn't have the money to hire quality control guys, as only so much was provided by the contract and the contractor was going to provide some. The contractor was going to evaluate his own performance! I said, "Okay, we are going to make these wives quality control quality assurance people." In the end, the contractor came around to see me and said, "You've got to get these women off my back." I asked him what was going on, and he said, "Well, here are the complaints." I said, "You make me a list of the complaints, then you and I will go over them one by one with the contract laid out beside us. If you've got a legitimate complaint about one of the complaints, I'll be happy to take care of it. But if the wives' complaints are legitimate, then you and I are going to have to have a talk about why you're not performing according to contract."

Fortunately for me, there was not a single complaint on that list that was not validated by the contract. He finally came back to me several days later and said, "General, let me tell you what's going on. I bought this contract, as you obviously have figured out, to try to keep my workforce alive. I'm waiting for this big project up in Louisville to develop. I've

been doing work down here for 25 years and I suppose, by your terms, I've been ripping you off for 25 years. You're the first guy who caught me at it. I'll tell you what I'm going to do; I'm going to perform on that contract. It's going to cost me about $l.5 million to do it, but I'm going to do exactly like the contract says because I really admire what you're doing. Somebody should have done it a long time ago. I guess, all things considered, philosophically, I've made enough off Fort Knox so that I can afford to do it." And he did! He went ahead and did it.

INTERVIEWER: Quite an admission.

STARRY: But if you don't terrorize them, they'll slack off. I used to ride around in a jeep and my aide would carry a bucket. We'd go around the post visiting the paving contractors, and I'd just scoop up a bucket of what they were using and send it to be analyzed. Nine times out of 10, they had a bunch of crap in the paving material that wasn't supposed to be there, which degraded the quality. Just driving down the street one day I stopped and picked up a bucket of paint from a painter. It was about half gone, and I said, "You've got a new bucket?" He said, "I've got one in my truck." And I said, "Well, give me the old bucket." We sent it away to be analyzed, and it had twice as much water in it as it was supposed to have. The guy was giving us watered down paint, half and half, and he was pocketing the other half. So I threatened to take him to court. In any case, the painter came around and said, "What do you want me to do?" I said, "I want to you to paint all that stuff over again with paint that's certified, and you and I are going to inspect it." He did and we did. Now you only have to do a little bit of that.

It worked at Knox because it was a post with a fence around it. It's a neatly contained thing. But it really paid returns. The people began feeling like they had some involvement in the quality of life in the place where they lived. They put up an RV park and got the RVs off the street. People would look around and say, "Hey, we did that!" It wasn't that I had done it; it was *we* did it. "We said we wanted that and it got done." You only have to do that once or twice and everybody becomes a believer.

When we went to V Corps, I wanted to start something like that, and yet I was reluctant to do it for the very reasons that I described about General Fair. You can't walk into someplace new and function like you did in the last place. It may not be the same environment. So I was reluctant to start that. I asked my wife to take a look at the situation, because by this time she was the expert on community life. "Go take a look at that, and then let's decide together whether or not it's something that's worthwhile doing, that is needed, and how much of a return we would get for the effort it would take." Well, we finally did it after I fussed around with it for about six or eight months. But we finally did it. I'm sorry we didn't do it sooner, because it paid enormous dividends. Same thing as at Fort Knox, the money was there and it would have been spent anyway. What we really did was give the people who lived there some feeling that they were involved in polishing up the appearance, livability, and quality of the place they lived in. It just paid enormous dividends. It needed more work, a lot more work, and had I stayed there longer, I think we would have spent a lot of time working on that.

INTERVIEWER: Do you think the community system is working in Germany?

STARRY: It's a difficult situation. If you look back to the early days in Europe, when I first went over there in the late 1940s, we had a system of little subposts. There was a military post and a military subpost. Frankfurt was a military post. All the little kasernes for miles around Frankfurt—Friedberg, Gelnhausen, Hanau—were subposts of the Frankfurt Military Post. There was an enormous staff structure. Frankfurt had a staff, and then there were area commands above the posts. There was a very elaborate structure. It was expensive in terms of manpower and everything else.

Of course they did away with that. In the 1960s that all went away and the community eventually evolved as a substitute. The support structure in the old area command system, the post and subpost systems, tended to live for its own benefit and was not very supportive of the troops. You had an awful time getting anything out of those people because they, the Germans particularly, tended to stay there forever more. You had an entrenched civil bureaucracy that was much worse than the United States Civil Service—if that's possible. They came to believe that they owned the place themselves, because the Americans kept coming and going and they were the only thing that stayed. In the end it became pretty nonsupportive. It was a difficult situation, even in the beginning. The community thing that we have now, depending on how much effort the community commander is willing to put into it, seems to me to be a better solution to the problem. Although there are a lot of the nonrelevant problems that were inherited from the old system, this one seems to be the better solution. Although I realize there are still problems, I don't know what a better solution would be.

INTERVIEWER: Sir, you mentioned how you only spent 16 months in V Corps. I'm sure this is much less time than you thought you would. Would you explain the circumstances of your leaving?

STARRY: I left, of course, to come home and replace General Bill DePuy in TRADOC. I must say I was so busy as the corps commander that I really hadn't bothered to give any thought to how long I was going to stay. It was a super job. It's probably, all things considered, the best job I ever had. You don't have to worry about all the administration of a post, and you don't have to sign all the courts-martial and all that stuff. If you do what we did when I was there, and spend your time worrying about tactics and training, it's going to be a super job. There can't be any better. I really had no idea what was to come next, if anything. I was perfectly happy doing what I was doing and willing to stay as long as they'd let me stay. General DePuy came over in March 1977 on a visit. He spent a couple of days with me. One of the things he unfolded for me was that he was going to retire. He had decided to retire in July and was going to try to get me appointed to replace him. That was the first inkling I had that I wasn't going to be there forever. Of course subsequently that came to pass. I never gave it any thought, really.

INTERVIEWER: I'm sure you're still keeping up with everyone and probably know that General Wetzel has been talking to someone who may replace him.

STARRY: I have no idea.

INTERVIEWER: One of the candidates is one of your successors who is down at Fort Knox right now.

STARRY: I suppose he is. There's been kind of a tradition of some sort of sending guys from Fort Knox to be corps commander of V Corps. His father commanded that corps when I was in the 3d Armored Division in the 1960s.

INTERVIEWER: Do you think it should go to an armor general?

STARRY: Well, historically, Europe has been looked upon as a theater where we put the armor commanders. I'm sure that was convenient for the Army as a whole, because historically the Army between the wars is run by infantrymen. Artillerymen are scattered here and there, but there are not very many of them. It's something we have done historically. Europe is a convenient place to put senior armor commanders and get them out of Washington and out of the mainstream of events back here so they can't cause too much trouble. Historically, until you come to guys like Blanchard and Kroesen, Europe had been an armor commanders' theater. It wasn't until the days when they put General Blanchard in VII Corps and then later in USAREUR and General Kroesen in VII Corps after him that they began to put senior infantry guys in command in Europe.

I don't necessarily believe that you should put the senior armor guys over there just to get them out of the country so they don't clutter up the infantry's management of the Army as a whole. On the other hand, it is a place where you ought to put your senior armor commanders rather than send an infantryman over there who has never served there before—and we've had a couple cases of that. They were senior infantrymen who had never served there before or had done so so long ago that they didn't really remember much about it. Someone who has not grown up in the armor tactics and doctrine world and so on has a different attitude about how to fight that war than the armor soldier does. Fundamentally I believe it's a theater where you ought to put senior armor commanders, even though some of them probably could be said to turn out to be turkeys in the end. I don't know that the turkey count is any less with the armor guys in command than with other folks. But I think it's a place where you ought to utilize your senior armor talent, and do so consistently.

INTERVIEWER: As you were leaving Germany to come back to be promoted and to assume command of TRADOC, you were involved in an incident that must have been very disappointing to you. Would you like to describe that to us?

STARRY: Well, it was disappointing. I was invited to make a speech, the graduation speech, at Frankfurt High School in June 1977. So I did. We were busy doing a lot of other things, and I have to admit that I delayed thinking much about what to say until it was really too late to sit down and dream up anything very substantive. My oldest daughter, who was home from college at the time, suggested that I drag out a speech that I had given at Fort Knox when she graduated from high school. I thought it was a good speech at the time. The kids thought it was a good speech that, whether I thought so or not, kind of tells you that it wasn't all that bad. So I got it out, changed it a little bit, updated it a little bit, and gave it.

I talked to the graduates about four things: peace, truth, God, and the class of 1977. With regard to peace, I said that it was a noble goal. I mentioned that there was a lot of talk about it. A noble goal probably should remain a noble goal, but it is an elusive one. I told them that it would be as elusive in their lifetime as it had been in mine, and that they ought to think about that a little bit. I encouraged them to form an intelligent opinion about that because, although peace is a noble goal, they had to recognize that it is probably not going to be

achieved. Truth—a fragile commodity that some people don't tell much any more, maybe because it always seems to be unpleasant, more unpleasant than some fiction. But one of the important things in life is to have some personal opinion about that, some personal stance about telling the truth and being honest and candid about things. God—although the press some years ago tried to bury the poor fellow, He still seems to be alive and well. Whatever your religion, background, or whatnot in the world in which we live, where values have become diffused and so on, an attitude, an opinion at least, a personal decision about God and how that relates to life in general, and to you in particular, is important. I commend that to your attention. Class of 1977—what is the future and so on?

In trying to illustrate the problems of peace, I mentioned the fact that, while the world was in an unsteady state of peace at the moment, there were a lot of places in the world where peace was likely not to persist and that war could break out almost overnight. I used the Middle East and the Yom Kippur War as an example. I pointed out the fact that there had been several wars since the end of World War II. I pointed out the Sino-Soviet confrontation in the eastern part of the Soviet Union and the fact that it had been—although it doesn't get a lot of publicity—an open war off and on for about 15 years at that point and that it was probably likely to continue. If not an open war, then it was some kind of a standoff. If that were to break out, it was difficult to see how other major powers, including the United States, could avoid becoming somehow in it, although perhaps not as active participants. It would be difficult to see how we could avoid taking sides. I stayed away from Korea, because this graduation came just shortly after the period of time when General Jack Singlaub had been relieved as the chief of staff of Eighth Army because he had disagreed with the Carter administration's position on the redeployment of troops from Korea. He didn't really come out and say he was against that. Somebody asked him a question, you'll recall, about what the Koreans thought about it. He said what the Koreans thought about it, and the reporter then asked him what he thought about it, and he said, "I agree with the Koreans." That's all he said about it, but a great furor arose and he was fired. With that as background, I elected not to say anything about Korea. But I used these other two examples and, as I recall, maybe one or two others.

Anyway, a person who, it turns out, had been fired by several wire services, but who was still selling to UPI as a freelance writer and who taught journalism in the American University night classes over there, heard the kids talking about the speech. He was not present and did not hear the speech. Apparently the kids thought it was a good speech, and he heard them talking about it. So he called the headquarters and asked for a copy of it. He called my secretary as a matter of fact. And the secretary, because he called her directly, assumed that he had been through the public affairs channel and that they had okayed it. So she gave him a copy. He came and picked it up, for what purpose I really don't know. Somebody said it was to be used in his journalism class as an example of a good speech or something like that.

Anyway, he took out of context the description that I had made of the Sino-Soviet border dispute and filed a story that said that I had predicted that there would be a war between the Chinese and Russians and that the United States was going to get involved. Following on the heels of the Singlaub incident, that just blew up all over the place. I read the UPI story before it had been made public and had been printed. I took the speech, made a message out of it, and sent it to the President, the Chief of Staff of the Army, the Chairman of the

Joint Chiefs of Staff, several of my friends in Congress, and anybody else I thought would be interested in reading it.

The message said, "Here's what was said, and I followed the script very carefully. I think that the speech speaks for itself. I have no apologies one way or the other. I didn't predict anything." That, I think, tended to diffuse it a little bit. Then the issue became whether I had cleared the speech. Well, there was a big investigation about that. As a result of the investigation, it was determined that I had the best track record of any general in the Army for clearing speeches. I was rather meticulous about it. In that particular case, I had not cleared it because I had given the speech before. The PAO at Fort Knox had gone through the process and had it cleared. As far as I was concerned, it was in the public domain. In fact, the script from which I read, with notes on it, at the graduation had the clearance stamped still on the front page. As I said, I did it almost at the last minute anyway and so it just never struck me that it was going to be necessary to reclear it. After all, when you talk to a high school graduating class, you're really not talking about national policy, and I wouldn't think that it would be an appropriate thing. But that became the issue.

We were coming home anyway to go to TRADOC. I'd been nominated a couple of days before the speech was made, and of course that made it a big turmoil. So we all got on an airplane and started for home. It was kind of a dismal departure situation because I didn't know whether I was going to be fired, asked to retire, cashiered with my buttons cut off, or whatnot. When we got home and landed in New York, someone picked me up, put me on an airplane, and I flew down to the Pentagon to confront the Secretary of the Army and the Chief of Staff, General Rogers. I left my wife and the girls in New York. General Rogers was engaged in what he called a large damage-limiting operation in which he was very successful. But I had some friends in the Congress whom I contacted to see how much damage had been done. I couldn't find anybody who was all that excited about it. By that time, Walter Cronkite had come on either a TV or a radio show of his. I had sent a copy of the speech to him. I had heard a tape of it and Cronkite, in effect, had said, "Wait a minute, fellas [media fellas]." He said, "Wait a minute. We're making a mistake. I have read the speech that the gentleman made. I don't agree with a lot of things he said." I took the media to task, the liberal media, for having tried to bury God and whatnot, and he said, "We didn't try to do that." Well, anyway, he said, "I don't agree with everything the general said, but he has every right to say it. There is nothing in here that is as alleged in the UPI news release. He is not criticizing national policy or taking exception to the President's views on anything." In fact, he said, "I don't know what the President's views are about peace, truth, God, and the class of 1977, because he has never expressed them. Therefore, you can't accuse this general of having commented contrary to the President's wishes, because we don't know what the President's views are."

That diffused the whole thing. By the time I got to Washington on a cold, rainy afternoon, the only person pacing the corridors was the UPI bureau chief in Washington, who was waiting to pounce on me as I came out. So the Chief of Staff and I went down the back stairs, got in his car, and went up to his quarters, where Mrs. Rogers was kind enough to feed me dinner. That was the end of it. Well, it wasn't really the end of it. Congress hadn't acted on my nomination, so there was some conversation about whether or not I was going to have to go and testify.

The Chief said, "Go on leave," so I went on leave. I went home to Kansas. By this time General DePuy was handling it. He called and said, "Go ahead and start for Fort Monroe, but we don't know how this is going to turn out." So we packed everybody up in two cars, the girls driving one and my wife and I in the other one, and hit the road. We had a little trouble with one of the cars. We got to Fort Knox and thought we could make Fort Monroe with that entourage, even though we were having car trouble. They called from Monroe and said, "Well, we're not sure that confirmation is going to come this week, which means that the Fourth of July holiday will intervene, so it may be a couple of weeks. The Chief of Staff doesn't want you anywhere near Fort Monroe, lest it be presumed by the Congress that we are acting on the presumption that they're going to approve this when, in fact, they're not. So you can't go to Fort Monroe."

So I said, "Okay, here we are at old Fort Knox." So we unpacked the cars, put one of them in the garage, and set out to drink friends out of booze and eat them out of house and home, up and down Fifth Avenue at Fort Knox. That was one afternoon. Late the next afternoon they called again from Fort Monroe and said—I think this was a Wednesday afternoon—"You have to be in Fort Monroe Friday morning. Confirmation is going to take place tomorrow or Thursday. The Chief is going to be on a little overnight vacation down at Fort Story, and he wants to come in and promote you into office on Friday morning at 9 o'clock." I said, "Okay, roger that." So I looked at the logistics situation. One car was in the shop and two rooms in the guest house were piled full of stuff. So I said, "All right, girls, pack up your overnight kits, because we're going to get on an airplane and go to Fort Monroe," which is what we did. We left all the cars and all the stuff right there and went to Fort Monroe and moved into the guest quarters. I was sworn in on Friday morning as the TRADOC commander. As I recall we finally got the cars and whatnot all back together after about six weeks. But there were about 10 days or more when we really weren't sure whether or not I was going to be on active duty or driving trucks for a living. That and some other things were what I later came to call the "insulting executive environment" present throughout our government. Through industry, too, as a matter of fact.

INTERVIEWER: You mentioned General Rogers backing you fully in this. Do you feel there were any detractors?

STARRY: To the best of my knowledge, no. Of course, I saw Secretary Alexander and the Chief of Staff, and they had read the speech. Both of them said it was a damn good speech. All the Secretary was concerned about was why I hadn't cleared it. So I went through that with him. He said, "Well, it's not the same to make that speech as the commander at Fort Knox as it is to make that speech as the commander of V Corps." Well, okay, I screwed up, I guess. I never heard from the Secretary of Defense. Somebody later told me that the President had read the speech and said, "I think I'll make him the Chief of Chaplains instead of the commander of TRADOC." I don't know whether or not that's true.

INTERVIEWER: For some time after that incident, the rumor was that you were censured for not clearing the speech. Were you censured in any way?

STARRY: I don't think so. There was never anything in writing. The only thing anybody ever said to me was what Cliff Alexander said as we talked around his table that night, which I just recited—it's one thing to make that speech as the commander at Knox and it's another

to make it as the V Corps commander. They acknowledged that it had been cleared once before. To the best of my knowledge, that was the end of it.

INTERVIEWER: Just for clarification, do speeches by general officers have to be cleared and, if so, by whom?

STARRY: Well, the Office for the Freedom of Information is the censorship agency in Washington. There's an Army office that does that, a DOD office that does that, and an OSD office that does that. I don't know what the status of the regulation is with regard to that sort of thing now. Nor do many of my friends. I don't, to the best of my knowledge, think General DePuy ever cleared anything he said. He may have. He told me one time, "I don't clear anything." I cleared everything. I must admit that I worked up a system. I cleared almost everything before this happened. After this happened, I cleared everything. But, anytime I had made a speech before, and a lot of them were kind of an impromptu kind of thing, to include Rotary lunches, Kiwanis Clubs, and that kind of stuff, I wrote something out and I had it cleared. I started doing that at Fort Knox.

First, it provides a record. Second, it protects you to some extent against just what happened. And third, it's a background kind of thing that you can use in developing your ideas. The system I used in TRADOC is the one I had used for a long time—at Knox, V Corps, TRADOC, and REDCOM. The aide did a lot of that for me. Aides that I had were officers who, for the most part, had worked for me before. Several of them had been lieutenants in my battalion.

Later we designated one of them as the ghost. The ghost is not a speech writer. The ghost is a fellow who, when the requirement comes in to make a speech before the so-and-so group, comes in and asks, "Well, what do we want to say this time?" You talk about it, and the ghost takes it all down in outline form, goes away and does the research, then comes back with a draft. You go over the draft, and then he goes back and revises the draft. You do that however many times it takes to produce what you think you want to say. Then you've got a record copy of it. You've got something as a basis for what you want to say, and you've got something that can be cleared. I'd been doing it before, but I wasn't nearly as religious about it as I was after this incident.

So every speech I have given in the last 10 years has been a piece of cleared work. Now I must admit you need to be able to sense the audience and the circumstances, and you may want to change your talk. So what I delivered from the platform was not necessarily what I had written. But, at the same time, it was close enough that you could consider the original as a written record, and you had protected yourself. A couple of times after that incident something like this would come up, and we would just drag out the approved record and throw it on the desk and that was the end of it. So I think you ought to clear your remarks. Were someone to ask my advice going into jobs like those, I would commend it most highly as a matter of practice.

INTERVIEWER: Sir, you assumed command of TRADOC in July 1977. You replaced General DePuy, whom you were very familiar with and knew his work. What did you feel you really needed to get done as you assumed command?

STARRY: He was a difficult act to follow. I've said many times that it's fairly easy to take over an outfit that's all screwed up. Almost anything you do is an improvement. But to

follow an act like General Bill DePuy's is really quite difficult. I have great respect for him and admiration for what he did for the Army. I was in no way of a mind that I was going to do as much, could do as much, as he did. At the same time, there was an enormous amount of work that he had started to which I had been a party in the beginning and had continued to be a party in TRADOC. We had a constant message exchange going back and forth while I was in V Corps. That work needed to be carried forward.

At the same time, I had become convinced in my own mind of essentially what needed to be done with the second- or the follow-on echelon problem. To me that meant a revision of FM 100-5. Having observed that to be a process that drove almost everything else, it seemed to me that it was sort of the first order of business. At the same time, we had to figure some way to avoid the pitfalls, the trap that we had fallen into with the 1976 edition. I sat down and tried to consciously decide what those were, and we talked earlier about some of those—having it written at Leavenworth and so on. We avoided the commentary that we got with the 1976 edition. At the same time, we fully fleshed out what later was called AirLand Battle.

TRADOC had a Deputy Chief of Staff for Training. Originally it was individual training, then it became Deputy Chief of Staff for Training. It had a Deputy Chief of Staff for Combat Developments. It did not have a Deputy Chief of Staff for Doctrine. It seemed to me that we ought to have an office that was responsible for making sure that the doctrine was consistent; that is, that the overarching guidelines that were laid down in FM 100-5 were followed consistently throughout the system, particularly in the important books, the green camouflage-covered books that we had said were the critical documents. So we went looking for someone. We finally found a colonel named Don Morelli who had just been nominated for promotion to brigadier general and had considerable experience in the old Combat Developments Command. I invited him to come and talk and decided that he was the right guy for that job.

The first thing I set him doing was getting the Bill Linds and Luttwaks, and by that time Newt Gingrich had chimed in, and all the critics in Washington and in the press and in academia and so on to write down their criticisms. In some cases the criticism was just sporadic. We asked the critics to write down what their objections were. "If you don't like it, then tell us what to do better," was the way he went at it. He was a good man. As you probably know, he tragically died of cancer a year or so ago. Don Morelli did the Army a greater service in the last three years of his life than most people do in 35 or 40 years of service. He really was super at that. He was kind of an unassuming fellow who told his story in a convincing way. If I had gone about doing that, I'm sure we would have been rejected out of hand. But with Morelli doing it in a kind of unobtrusive way and just working at it, we turned a lot of our critics around. Newt Gingrich, who started out to be a critic, is a good friend today and a great supporter of AirLand Battle. Without Morelli, regardless of what else I did with it to fix it—such as writing it at Leavenworth and so on—we would not have it today. Without Morelli, we would not have had it published without it being part of a great controversy. He just did a service whose value cannot be measured. He was just a super guy! He spent the rest of his life doing that and did a marvelous job of it.

AirLand Battle all started at Knox, as a matter of fact. I had a speech I gave that had several versions. At one point it was called the Central Battle. At another time, I called it the

Central Duel. It was a briefing that we gave. Most times I gave it myself when I went to talk at places like the Armed Forces Staff College or Leavenworth. Wherever the audience was appropriate, I gave that speech. It was never the same twice, because I got a lot of feedback from the audience, particularly military audiences where I got questions and answers. At TRADOC, V Corps, and Fort Knox, my aide would sit there and take notes, then he and I would sit down afterwards and decide what we needed to change. When I finally got a ghost, my ghost did that. It was an evolutionary thing. It started out as a description of the battle in Europe as we understood it, based on our Yom Kippur War evaluation. That was at Fort Knox. When I went to V Corps, we called it the Corps Battle. Essentially it was how V Corps fights the battle. The briefings had pictures, slides of the terrain, the enemy, the threat, and how the battle unfolded. I used that briefing as a kind of a living thing that developed into what we later called AirLand Battle. For a while, we called it the Extended Battlefield. In fact, I published an article in *Military Review* called "The Extended Battlefield." For a while it was also called the Integrated Battlefield. We said that we were trying to solve the nuclear problem, so we called it the Integrated Battlefield. That didn't seem to be right. Then we called it the Extended Battlefield. There were a lot of candidate names. Shortly thereafter Morelli persuaded me to call it AirLand Battle.

In the original draft of the 1976 edition of FM 100-5, we had had a chapter that General DePuy put in there as a sop to Leavenworth—it had been written out of Leavenworth—called AirLand Battle. They're not the same, because what Cushman was trying to solve in that chapter really verged on the role of the theater air commander as the controller of the air battle as well as the air defense battle. In fact they went down at one time—Paul Herbert writes this up in his dissertation very well, I think—over to Langley and briefed the TAC, when General Bob Dixon was the TAC commander, on that and got a very negative response. General DePuy backed away from it very gingerly because he was very sensitive to both Dixon's and the Air Force's reaction to what we were doing. I told Paul Herbert this in my comments on his dissertation.

AirLand Battle, as it exists today, is not the same as the AirLand Battle chapter that is, or what's left of it, in the published FM 100-5, 1976 edition. Morelli's argument was a good choice of phraseology. Anything else we used would not have made it quite as apparent that we were trying to get a joint battle going, with the Army and Air Force operating together. By the time General Bill Creech replaced General Bill Dixon, they were happy with it. We went over to Langley with it one time and Bob Creech and I sat down and talked about it. He said, "Well, I'm getting a lot of resistance from my staff, but I think it's over something that happened here some time ago." It turned out to have been this briefing that Cushman gave them. Then he said, "As you explain this to me, it isn't the same thing. Let me keep this and look at it." I gave him the briefing with a narrative on the back facing the charts. He later called me and said, "I don't see anything wrong with this at all. As a matter of fact, I think this is just the thing we need, you and I, to move the Army and the Air Force in the direction of a better battle-fighting capability, particularly at the theater level." He was very enthusiastic about it. He apparently called his staff in and said, "This makes sense to me. Let's stop bickering about this thing. These people are not in the roles and missions business. They're not trying to redo the theater air commander's function. There is something in here for the Air Force, as well as for the Army, so let's wrap our arms around it."

Morelli was an actor on that stage as well, and with Bill Creech's support, we went forward with what was AirLand Battle. Bill Creech had his people at Leavenworth and some of the staff help us with some of the 1982 edition, so it was an honest-to-god joint effort by the time we finished it. It was written at Leavenworth, but it was a TAC-TRADOC product. It subsequently resulted in a memorandum of understanding about a whole lot of things that were. It was started by "Shy" Meyer, but was finally signed off on by Generals Wickham and Charlie Gabriel.

INTERVIEWER: It appears that the 1982 version of FM 100-5 was over four years in the making.

STARRY: That's right.

INTERVIEWER: But, when you finished that, you had involved everyone and apparently the actual distribution and acceptance of the manual was much more pleasant than the 1976 version.

STARRY: I've already mentioned the Air Force and Leavenworth involvement. The other thing we had to do, which General DePuy had started, was an evaluation of the new organizations that we thought we ought to have. There was an on-going study at Fort Hood, the division restructuring study. They were having a field evaluation with some organizations organized one way and others organized the other way. I went down and looked at that early on. It really was not very satisfactory. The instrumentation system that we were using was not precise enough to measure the things that we were trying to measure. The units were not well enough trained in either the old doctrine or the new doctrine to be able to tell whether or not we were looking at a stupid commander, a lousy organization, or poor doctrine. I mean, you just couldn't tell. There was no way to discriminate. Instrumentation was certainly not going to give you that. The soldiers, who were interested only in winning and not having their tracks knocked out during the battle, had figured out how to spoof the instrumentation system by putting their field jackets over the sensors that were sensing whether or not they were hit. That was simple enough to do and would fool the system. We learned some things out of it, but really not what we started out to learn. It would have been very, very shortsighted of us to make a lot of decisions based on that. We let it run its course, but then we terminated it.

There was a lot of resistance to what was going on there. It was the same kind of resistance that I had sensed before and that we've talked about. It was done off in the corner by a few people and was based on some notions that went around a table with only a few people. There was not a lot of involvement. But I was convinced that we needed to reorganize our units. I thought we ought to reorganize pretty much along the lines of the armored force in the Israeli organization. There would be three tanks in a platoon, three platoons in a company. Each company would consist of 11 tanks. Although Israel didn't have any cavalry, we had a cavalry organization, and there we went back to the disagreements about whether or not you want a combined arms team at the platoon level.

We started over from the beginning with the question, "Is that what you need on today's battlefield?" The answer is probably no. How should the mech infantry be organized? Should it go on with the tanks? Yes, it should. If it does, it has to be in a carrier that will survive at the same rate that tanks survive. Do we have one? No. Are we building one? No, we're not. We talked about that compromise earlier. So we had some dilemmas.

The focus of all the controversy had shifted, to some extent at least, from the 1976 edition of FM 100-5 to the DRS test going on at Fort Hood. So we let that run its course and then terminated it. Then I got all the center commanders together at Fort Leavenworth. We met about once a month, a couple of times more often than that. The purpose of that was to reorganize the Army, and they were going to do it. The result of that was a thing called Division 86, which of course is the baseline for the on-going reorganization of the Army. General DePuy and General Weyand had wanted to just flat reorganize out of hand. Do it! Force it on the Army. They may have been right, I don't know. I think, in the end, they would've had the same problem that they had with the 1976 version of the field manual. The whole thing might have come a cropper as a result, I don't know. It's hard to say.

General Weyand, of course, elected not to try to get himself reappointed and, in his words, left after having finished out General Abrams' tour. General Rogers, who succeeded him, was not willing to simply dictatorially reorganize the Army. Meanwhile General DePuy had started the restructuring study and had gone ahead with it. So we took that study, some work that had been done at CDC, and a lot of organizational evaluation that had been going on since the beginning of TRADOC, and took all that data out to Leavenworth. We met out there with the center commanders and, over a period of the next two years, hammered out what came to be called Division 86. It, like the infantry fighting vehicle on the equipment side, and like the scout vehicle on the equipment side, is not what we really wanted. I still believe that smaller units are better—the three-tank platoons, the three-squad infantry fire teams, and the mechanized infantry and so on. What we got, obviously, was a compromise.

We compromised largely on the basis of a couple of things. One, we wanted to keep the same number of vehicles in a division; that is, the same number of fighting vehicles in a division. That put some constraints on us. General DePuy wanted to have 15 battalions in a division. I still think that's the right thing to do. In other words we would have kept the same number of tanks but would have gone to smaller platoons and smaller companies. We would have wound up with 15 battalions in a division. If you do that, you have to add some battalion overhead. If you add Israeli-type battalion overhead, you don't have much. But if you have US-type battalion overhead, you've got a lot of logistics tail and administrative staff people involved in it. So we were going to have to increase. While we would have increased the leader-to-led ratio on the battlefield, at the same time we would have increased the overhead ratio at an amount that was kind of alarming.

In looking back to the 1963 reorganization in the armored divisions, we added about 3,500 manpower spaces to the division, but we actually lost one mechanized infantry company in that reorganization. We really got soundly criticized for it. In the environment of the mid-to-late 1970s, I could see us trying to do that again and getting shot right out of the saddle. We had to compromise, based on the fact that we wanted to keep essentially the same number of combat vehicles in the division, and we really didn't want to increase the overhead and the number of battalions all that much. So the solution to that turned out to be smaller companies but larger battalions. In other words the companies are smaller, but there are four, not three, companies in a battalion. That is an Israeli concept if you're looking at the idea as a paradigm. That's not a good thing to do, but on the other hand, the real difference is that a four-company battalion can fight on two axes, whereas a three-

company battalion can't. And so, as long as you understand that and you accommodate your doctrine to the compromise in organization, you've probably got a good balance. There were a lot of compromises. There were compromises in artillery.

There were compromises in the cavalry. One of them was the divisional cavalry squadron, which we decided to turn into a reconnaissance and surveillance organization. That will probably get changed back in the end to something else. However, for a lot of reasons it was an acceptable compromise at the time. But, in the end, we produced an organization that was acceptable to the Army because the center commanders had had a part in it, every one of them. I forced *them* to make the compromises. I didn't make the compromises and then shove them down their throats. They participated! If it didn't turn out the way they wanted it, they knew exactly why not. They knew that they had had their day in court and been heard out and that, in the end, the consensus was that we ought to go the way we did. We evaluated it, and everybody had had a say. All the arguments were out on the table. I think that General DePuy had wanted to reorganize in a hurry and get it over with so that it wouldn't drag on for a long time. And he was right about that. This will never turn out to be what we started to have in Division 86 because it dragged on so long. Now people are beginning to nibble away at the edges of it. At the same time, a long-term reorganization is not nearly as traumatic as is a short-term reorganization; that is, if you can keep your eye on what you started out to do—which was to improve the leader-to-led ratio and the combat power at the lower levels of command—that's reorganization!

INTERVIEWER: Sir, that was the beginning of what has continued to evolve over the years to the point where the corps is now perceived as the warfighting echelon rather than the division. If a division does fight somewhere alone, it must receive a corps plug. That brings us right back to the issue that people who have worked together for some time have better cohesion and a better opportunity to do the job right. How do you feel that this corps plug, especially in the contingency operations, will work? And is corps the correct echelon to be fighting the war?

STARRY: I think the corps. We were trying to get at the operational level of war. We've talked about that for a long time. In fact, as you know, we left the principles of war out of the manual. That was deliberate in 1976. We didn't want the manual to be that general and generic, so we took out the principles of war. Eventually, of course, they were published in FM 100-1, called *The Army*. When I came back to TRADOC, we revised the principles of war and put them back in that book. Even in that revision you don't see the operational level spelled out. We go from tactics to strategy. That definition of the principles of war, I suppose, is all right, except that I would like to see them written now with the operational level included in them, because it is a thing that requires some definition in terms of general principles.

I didn't do it at the time because I didn't want it to appear like we were simply mimicking the Soviets, who have never abandoned the operational level of war. I always thought that we should have been doing it all along. There was instruction in that when I was a student at Leavenworth. I thought we made a mistake to drop it out in subsequent years, and we needed to put it back in. But I was very reluctant to have it appear that we were simply mimicking the Soviets. We had dropped corps instruction out of the curriculum at Leavenworth. In General Abrams' reorganizational decision in 1974, late 1973 or early

1974, we lost the corps as a subject of instruction at Leavenworth. The body of knowledge about the corps was not there and hadn't been taught to a generation or two of officers who went through Leavenworth. They didn't even know what a corps was. Some of them couldn't even spell it. Some of the new emphasis on the corps was made necessary by the Division 86 compromises, particularly the compromises in artillery and aviation organizations. We were forced to put some things in at corps level simply because of the lack of resources and the desire not to have a 25,000-man division.

When we first laid Division 86 out, it had almost 26,000 people in it. I felt that was too big and so did everybody else. We all felt that we needed to get it down, so we began the tradeoffs. Part of that set of tradeoffs concerned what goes in general support artillery at the division level and what goes in general support reinforcing artillery at the corps level. The same was true with aviation. The increased level at corps came about as a result of several things. For one thing, we needed to reemphasize the operational level of war. The corps is the first and probably lowest level to do that. In a joint task force, you're probably looking at a corps. You might have a division, but you probably have a corps. Then there were the compromises in Division 86 and so on. All of those things sort of came together, and the corps in our minds became kind of a central focus of the operational level of war and higher. We talked the other day about groups of corps, armies, army groups, and so on, so it's probably not necessary to repeat that here. In joint operations, certainly, the corps is the central piece of that operation. In almost any kind of a theater, unless you're just going in with a brigade or so to do some little thing, the corps is probably going to be the focus of that operation. So it's an important organizational and doctrinal level. It is back in the literature now. It is being taught. In fact that's essentially the focus of the SAMS course—the second year at Leavenworth. And it is being woven into the rest of the Leavenworth curriculum. So we're back about where we were at Leavenworth in the instructional mode in the early 1960s when I went there.

INTERVIEWER: In your deliberations on Division 86, did you ever approach the Chief of Staff or anyone else about raising the manpower ceiling for the Army?

STARRY: Yes. I commented the other day that, when General Vessey and I went to try to persuade General Abrams that we needed 16 divisions, I had a conversation with General Abrams about the end strength. I told you how that turned out. Subsequently, when General Meyer became the Chief of Staff, he was a part of the Division 86 process. He would come out occasionally and at least sit with us through a summary of what we had done. He was a participant—not a full-time participant, but he gave us as much time as he could spare. He understood the manpower end strength problem—perhaps not as acutely as I did, because he had never been in the force structuring business, but he certainly understood it well. He was concerned about it, but was unable to do anything about it.

My personal view is that, if you're not going to be able to have much more than 785,000, and I doubt that we will, then you have to look at yourself internally. For example, the Army, the one time we looked at it, had 60-some-odd-thousand cooks. The Army has 30-some-odd-thousand military police. The Army has 25,000 or 30,000 in this category and that category. The question then is, "If we're not going to be able to have more than 780,000 plus, can we afford all these little accounts?"

The special missions account is an interesting subject in itself. That is the special mission brigade in Berlin, the brigade in Alaska, and the brigade in Panama. There are all sorts of structural things you can do, both MOS structure as well as organizational structure, to help solve the problem in the mainstream Army that is brought on by the shortage of manpower. For example, 30,000 MPs. How many of those do we really need? You've got too many on this post, for example. You could take two-thirds of them and turn them into infantrymen and have more infantry. That's a little thing, but if you do it across the whole Army, it provides you a lot. Should the brigade in Berlin be a separate brigade in a special mission account or should it be a part of a division? It could be a deployed force that is a part of a division, with the other two brigades stationed in the United States. Should the brigade in Alaska be a separate brigade or should it be a part of the division that is in the United States?

By a combination of things, you create a structure in which you don't have to go short all the time in the manning levels because the Army is overstructured and understrength. The adding of new structure with the light divisions, whatever you think about light divisions, is a mistake, because you're over the threshold at which your structure and strength is in balance. It was in balance before they started adding this structure. They never should have added this structure, because we are simply aggravating the problem. The problem you are aggravating is turbulence in the units. Soldiers are moved more often. If the turbulence rate is over 20 percent per quarter, you don't get any meaningful training done. We know that, and yet we've got units in which the rotation rate, the turbulence rate, is 40, 50, or 60 percent. If we ever want to fix it, we're going to have to do a whole combination of things. How many times a quarter do you see a new face in that job? Rotation policy is a part of it. There's a whole spectrum of events. Some of the problems are turf problems. DCSPER will tell you that you can't screw around with the rotation policy because that's their turf. Well, that's interesting. It is their turf, but at the same time it's all a part of the same Army. If we're not willing to tackle the whole problem and try to solve it in a multifaceted way, then we're not going to solve it at all.

INTERVIEWER: Speaking of structure, I'm sure you're aware that the Navy and the Air Force have increased their respective structures in the last few years.

STARRY: They got it on the books. Whether or not they will ever do it, I don't know. Honestly I do not believe that the Navy will ever have a 600-ship Navy. Who's going to man the ships? You go out to the Naval Amphibious Base at Little Creek and the ships are sitting there with no crews. There's a caretaker squad aboard, or whatever they call it, but there are no crews. Where are the crews? The crews are on the deployed ships in the Mediterranean.

INTERVIEWER: But that's a mothball fleet.

STARRY: No, it isn't a mothball fleet. They've got an active amphibious fleet out there that is not manned. They're not manned because the sailors are on the manned ships. Now you've got a Secretary of the Navy who, for whatever reasons, is hell-bent for a 600-ship Navy. I would contend they have not given sufficient attention to how they're going to man those 600 ships.

Although I highly endorse the need for more tactical air squadrons, tactical air squadrons take base squadrons, but base squadrons take people and maintenance squadrons take

maintenance people and so on. If you're going to go up to 50- or 60-some-odd tactical aircraft squadrons, then you've got to look at your base structure, manning levels, where the pilots are going to come from, and so on. I think it's an easier problem for the Air Force because there is a certain synergy in the base structure. The first airplane cost you two-thirds or more of the base structure. Once you decide you're going to operate that first airplane off the base, you've got to have a base, the people, the tower, and so on. You can add a lot more airplanes to that without adding too many more base people. It's a simpler problem, I think, for the Air Force than it is for the Navy.

The Navy, if they're going to sail those ships, has got to have crews. There is no evidence in my mind that they know where those crews are going to come from. The armed services, as a whole, have never sat down and done a decent straightforward analysis of how they're going to raise the necessary manpower in light of the declining cohort of 17- to 21-year-old males, a decline with which we are now proceeding right along.

INTERVIEWER: But the recruiters believe they can recruit enough folks to keep us up there. It's going to take a hell of an effort and a lot of money. The way it was explained to us recently, for example, is that the end strength of the Army was purposely not increased because that would detract from the modernization effort. In other words it would take away money that was needed for modernization. But I believe you said it best when you said earlier that we've reached the end of our rope as far as expanding our units and services without increasing the end strength.

STARRY: If you're not going to increase the end strength, then you dare not increase the structure.

INTERVIEWER: Well, you know we're increasing to 18 divisions.

STARRY: That's all on paper. That's all a subterfuge. That's all a sham. If it was necessary for some kind of a political image or whatever, that's all right. But the end result of increasing the structure is that it increases the turbulence rate in the units, because there's more structure, which means that people have to move more frequently. There's a ratio there that you can describe mathematically. What it does is increase the number of times you see a new face on the job. We had a situation some years ago—we still have it, as a matter of fact, although it's been dampened out a little bit, but not much. The armor sergeants, and I believe artillery was next, and I think infantry was third and so on, do a tour in Europe in an armor unit for 36 months and then they come home. They're home an average of about 14 months when they're alerted to go back overseas. Eighteen to 20 months later, unless they're in a school category, on recruiting duty, ROTC duty, or something like that, they're back overseas. Statistically, they do that twice. The third time the wives said, "Wait a minute. I ain't going. You go, but I stay, because the schools overseas are not satisfactory. I don't like stairwell living. I've got a job here in the States, at the PX or wherever, and I need that job because your pay is not increasing rapidly enough to keep up with the cost of living, and I'm tired of moving." So the sergeant does one of three things: he goes without her, which all too frequently results in divorce, broken families, and whatnot; he gets out of the Army; or he does some other ridiculous thing like look for a place to hide in a stabilized tour where he can plan on staying for three or four years.

At the time we looked at this, I was still at TRADOC, so it had to be 1980–198l. The armor sergeants were leaving us faster than we could replace them. The promotion rate and the

turning out of NCOs were not sufficient to replace the loss rate. I don't think that's true any more. But the more you increase the structure, the more you increase that problem and the more you create the family problems. That's the reason we started the Regimental System. The purpose of the Regimental System is to try to help overcome the effects of turbulence. They're not going to overcome turbulence unless they change the rotation policies and so on, but it was to try to overcome the effects of turbulence, which are you don't know the people, don't know the circumstances, don't know the ground, don't know the area, and so on. As I said, the purpose of our Regimental System is to try to overcome the effects of turbulence.

INTERVIEWER: What do you think of the concept of light divisions per se?

STARRY: You need a light force for some applications, I'm sure. I believe that light infantry brigades are sufficient and that we do not need light divisions. Light divisions are an anachronism, and I'll tell you why. Let's take the Soviet tank fleet. It now numbers about 60,000 or 70,000. That includes only the tanks they have produced in the last 20 or 25 years. It is bigger than we had thought it was for a long time. It's bigger because we tend to mirror image them and say that the stuff is only going to be in a fleet for 20 years and then go out. So the profiles for tanks by type tend to show them going out in 20 years. As a matter of fact, the T-55 has been in the fleet for 33 years, and the last numbers I saw showed that they made 400 of them in factories in Eastern Europe in 1984. I have not seen any 1985 figures. The point is, it's still in production. The T-62 is the same way. It's been in the fleet for 28 years. As I recall, in 1984 they produced several hundred of them in factories in Eastern Europe. So they're still in the fleet and under production. The fleet size is larger today than we had thought it was going to be, and the profile increases with a glide slope that we had not predicted in times gone by.

If the threat to the central region, given the structure of the central region in Europe, is about 40,000 to 50,000 tanks on their side, the question is, "What have they done with the rest of those 70,000 or 80,000 tanks that they've got?" The answer is they've exported them. Where have they exported them? All over the world. For example, let's take six countries: in the Middle East, Syria, Egypt, and Iraq; India in south Asia; and Cuba and Nicaragua in this hemisphere. If you look down the list of exported equipment, you will find that, in tanks alone, the Soviets in the last three decades have exported 12,000 tanks of one kind or another to those six countries. That's more tanks than we have made since the beginning of the M60 development. Exported them, given them away, sold them, rented them, leased them, whatever the arrangement was, they've exported them to client states.

U.S.A. published a thing last fall that contained an array of where that sort of equipment is located all over the world. It's an impressive list. There's a tendency to say, "Well, that's obsolete equipment, obsolescent at least, if not obsolete." If you look at Syria during those same three decades, beginning in the 1950s, you'll find a profile that shows them beginning with T-55s and getting T-62s in the second decade. In the last decade, ending in 1985, which included the war in Lebanon, Syria lost about 500 T-62s. The Soviets replaced them, not with T-62s, but with T-72s. The reason they did that is that they had begun to issue T-80s, the next model, to their own troops in 1980. In 1982 they were willing to give the next-to-the-newest model, which was the T-72, to their Syrian clients. It isn't old obsolete equipment, it's a modern tank. It's as good as anything we have out there and better than

some we have out there. So it isn't that they're just giving away the junk that they have. It's good modern equipment. I used tanks as an example. If you look at infantry vehicles, artillery vehicles, and even helicopters, you'll see the same pattern. They're exporting a whole lot of stuff to folks all over the world, such as Nicaragua and Cuba.

INTERVIEWER: Why?

STARRY: Well, because they fundamentally believe that military force is a way you lever political decisions. If you want to lever political decisions, you have to have a credible military force. A credible military force consists of fairly modern equipment in the hands of people who know how to use it. That's a pattern they use in their own country. It's also a pattern they use in their surrogate and client states. That being the case, we're going to send light infantry to do what? Almost anywhere we send light infantry, it is going to be confronted by some size of force that is quite likely to be equipped with a fairly modern set of gear. You can send the light infantry out there if you want, but I promise you that, when faced with T-72s, T-62s, and even T-55s, the light infantry is going to get blown away. So why are you sending them there? Now I'm not saying that the whole Army ought to be armored, or that you have to send an armored force everywhere. What I am saying is, if you're going to send the light infantry, you have to equip them adequately to take care of the threat that is going to be out there. We're not doing that. All of this conversation about light infantry with light weapons—open HMMWVs, and TOWs mounted on open jeep-like vehicles, and all that stuff—isn't going to survive.

If you want to obtain a political advantage with the use of military force, which is why you should be deploying forces in the first place, you haven't got it with light forces. So I think the whole light force is an anachronism. We simply shouldn't be doing it. What do we need for small-level contingency operations? We need light infantry brigades similar to what we had in Vietnam. Those were good organizations, tailored for a specific war in Southeast Asia. I would submit to you that, in Latin America, certainly Central America, and parts of the Middle East, that would not be all that bad of an organization and not all that bad a weapons layout. If you upgraded the weapons, you'd probably have a fairly decent force. But to send light divisions to do a job that clearly is going to require heavy weapons, especially heavy antiarmor weapons, is suicidal. I don't understand why we are doing that.

INTERVIEWER: Many of us don't understand that, sir. And the immediate impact right now is, first of all, that funding the light divisions is taking a large part of the budget, especially in facilities and that type of thing. The other immediate impact is that the bill payers are coming out of the rest of the Army's structure.

STARRY: That's right. I said this earlier, and I'm not necessarily being critical, but it is the cultural mindset of the people in charge. General Wickham is a light infantryman. The Secretary of the Army is a light infantryman. The infantry is in charge of the Army. When the infantry is in charge of the Army, you get this kind of mindset working on the force structure and everything else. They fundamentally believe that, somehow or another, they're going to fly that airmobile infantry all over the landscape and have them somehow be more effective than the airmobile infantry that I described in Vietnam. I defy anybody to do that. Unless you're willing to do some of the things that we've talked about in preserving the

cohesion of the units and developing the kind of airmobile infantry that we sent to Vietnam in the first place, but quickly split up because it didn't meet MILPERCEN's requirements, it won't work.

The stupidest thing we ever did was to train those guys as units and send them to Vietnam and then break up the units because it screwed up the rotation pattern. We fragmented all of those units when we got them over there, because if you didn't, then all the guys in the unit were going to be going home at the same time. So you wouldn't have any unit; you'd have a whole new unit. So what we did was to undo the good effect of the training that we had given that unit in the United States. We automatically created a situation in which the unit had a whole bunch of new guys. It's the stupidest damn thing I've ever seen. It's the same thing I said about the redeployment. We let the manpower managers drive that thing—the personnel managers, not the manpower managers—and it was wrong. When are we ever going to learn? I say the same thing about this effort.

INTERVIEWER: We're getting into some of the REDCOM business, but I think it's appropriate that we mix TRADOC and REDCOM. In your experience with REDCOM, did you ever see a situation anywhere, either a contingency planning situation or a real one, where we could have used a light division?

STARRY: No. There were a couple of places in the Middle East where you could rescue embassies and protect and repair oil fields or disrupt oil pipelines, where a light force, probably not to exceed a brigade, would be totally adequate and very appropriate. But the large plans for protecting the Middle East against things like a Soviet invasion of Iran are ridiculous, absolutely ridiculous! I remember in the beginning, just after World War II, there was a JCS study that said that the Soviet threat in Transcaucasia consisted of about 22 Soviet rifle divisions. The friendly response to that, US or otherwise, had to be something like 13 divisions. Remember, we had a lot of trouble getting the Soviets out of northern Iran after World War II. So, against the 1940 threat of 22 Soviet motorized rifle divisions, it was appropriate to deploy 13 US infantry divisions. They had tank battalions, tank companies, and so on. Today the threat is 20 motorized rifle divisions—a hell of a lot more powerful force. The threat is 20 divisions. I'm sure the same thing was true in the beginning. They're not all CAT l, but there are 20 of them. So we're going to go there with essentially 5 1/3 divisions—three US Army and two Marine Corps divisions and a brigade or regiment. With this force, we're going to cope with 20 motorized rifle divisions? Are we, now? You're going to go in there with airborne and airmobile to defeat a whole bunch of tanks coming down? Are we, now? Really and truly? You know that the motorized rifle division now has almost as many tanks as a tank division. They've done a lot with tanks at the regimental level and so on. I mean, that's preposterous! That's foolish! We're just deceiving ourselves.

INTERVIEWER: The driving force behind the light division is to be able to deploy that force within two or three days.

STARRY: It's essentially a deployment problem. Well, two things: One, it's the infantry mindset of the senior management of the Army, and second, it is the terrible deployment means dilemma that we've gotten ourselves into. We don't have the means to get heavy units there quickly. We owe the SACEUR 10 divisions in 10 days. We actually deliver to him seven divisions in 30 days. If the current ship-building program and C-5B air fleet

program come to fruition, we will have just enough to meet our requirements to reinforce Europe, but nothing with which to do anything else.

INTERVIEWER: We hope to get, for example, a light division to a trouble spot within three or four days. Take Iran, for example. It has advanced forces right now on the Kuwaiti border. Within a day or two, they could be on the Saudi Arabian border. Saudi Arabia is a friend of ours. If we decided that we needed to protect the Saudis and to project power there, given that the Iranians are already within a day or two of the Saudi Arabian border, we can't get heavy forces there in less than 36 days, yet it is clear that we need heavy forces there.

STARRY: I think you have to look very carefully at what your political objectives are. I would argue that, even if you deployed a light division, or even a couple of light divisions, in a matter of days, it won't matter. The Iranians apparently have a substantial tank force still surviving, even though they've been fighting the Iraqis for some time. If they came down with that kind of a force, what's a light division going to do? What are two light divisions going to do in a matter of days? What you're doing is helping your friends in Saudi, right? It's a noble goal. But, at the same time, you risk the loss, the total loss, of two US light infantry divisions, or whatever force you can get there in the time that's allowed. Is the presence of those two divisions going to stop the Iranians from coming down? I doubt it. The place is run by a madman.

The same thing is true about Iran that I said the other day about the Gulf of Sidra. We're not very credible, any more, after Vietnam. They know what we can do. If the Iranians went down into that area, I suspect it would be with the tacit encouragement of the Soviets. You see, the whole thing is working against you. You should not put forces into a place where you know they're quite likely to lose. We cannot afford to lose. And yet we can't afford to win. Therefore, you better have a careful look at your political objectives. In a democracy some people say it's impossible. My 1982 Kermit Roosevelt Lecture was based on this. Some people say that, in a democracy, it's impossible to cobble up a set of political and economic programs that are substantial enough and sustaining enough to provide you the means to adequately lever yourself around the world. The Soviets are said to be much better at that than we are, and I would have to say that that's probably the case. But that's a central government, and we are not a central tsardom. I would say that, if we're not able to put together a decent set of political, economic, and social programs, coupled with some military support, to do whatever it is we think we want to do, then democracy, as we understand it, our form of it particularly, is doomed to defeat.

We are fast becoming a second-rate power. We will soon become one if we persist in fragmenting ourselves all over the world with light forces. In doing so we are diffusing the important issues, which at the moment at least are our defense commitments to Europe and to Korea. Governmentally, we're just not very good at putting together organized and coordinated political, social, economic, and military programs. The military is the last of those four. As I pointed out the other day, historically we have a tendency to reach for the military as the first and almost always the only instrument of national power, because it's the only thing we know how to use. Soldiers salute and respond. Nobody else does. If we really believe what we say about democracy and the power of our economic system, the appeal of the capitalistic industrial system, then we ought to be able to come up with

programs that make sense to people around the world and be able to leverage ourselves politically, economically, and socially as opposed to militarily. But, to date, we have a woeful track record at that.

INTERVIEWER: Do you feel that the light division is being pushed strictly by General Wickham and perhaps the Secretary of the Army, or is it some kind of concept that perhaps meets the requirements perhaps of the Reagan Administration?

STARRY: Well, I don't know. It's the infantry mindset, and both Wickham and Marsh are infantrymen—light infantrymen. They obviously persuaded the Secretary of Defense that they ought to have these light divisions, so maybe he is a light infantryman in disguise too. I don't know.

INTERVIEWER: I've been told, and I'm not sure it's true, that at a four-star commanders' conference General Wickham made a presentation for the light infantry division. He made the statement that the United States had to have a force that it could project immediately over the world. He didn't say who said that we had to have it, but that if the Army didn't take that mission and go forward with it, the Army's force structure would be cut and the Marines would be given that mission.

STARRY: That's a risk. I hadn't heard that story, but that is a risk, and it's probably a valid observation. But, with regard to what he's describing there, I would call the force an insertion force—airborne, airmobile, amphibious. For years the United States Army and the United States Marine Corps have been in a contest over the resources, the national resources, for insertion forces. This has been to the detriment of both and to the benefit of neither and to the discredit of the country as a whole. There ought to be a better way of handling that problem. The force structure of the Army might get cut, but somebody ought to offer the Marines the airborne mission and see if they take it. They won't take it. I guarantee you they won't take it. The airmobile mission—they won't take it. The Marines are going to stick with their amphibious mission.

Now they recognize the limitations. They recognize limitations in firepower and airpower support for amphibious forces ashore. They realize in their heart of hearts that they cannot go ashore and go deep and fight. All you have to do is look at their contingency plans. In the contingency plan for the Middle East, the Army was going to go to Ispahan and beyond and do all this magic stuff and probably get blown away up there in the end. Not the Marines! The Marines are going to go ashore in this little place up here. The limit of the Marine advance in that theater of operations is the limit of forward projection of sea-based airpower and the sea-based air defense umbrella. They're not dummies. They're very, very smart guys. They're very good soldiers; they realize their limitations more than we are willing to admit our own limitations.

What kind of an Army can you have in the world that we've got now? Well, you know, you can have a quite different Army with the special mission account doing things with the individual MOS structure. You could have a hell of a lot better Army than you've got now. We probably ought to have about 14 divisions in it. Instead there are going to be 19 or 20 divisions, all of which will be so short in some categories that they can't perform their mission. And in every one the turbulence rate will be such that you're not going to get any decent training done. That's what you're going to have. So we really ought to go back to about 14 or 15 divisions and knock out an airmobile division and an airborne division. Does

the Army need an airborne division? I don't think so. It needs some airborne capability. Look at the Israeli outfits. It's landlocked—not landlocked, but a land force fighting a land enemy and so on. They've got a 12-division army, a mechanized and armored division army, with a parachute brigade. Look at the Soviets. Proportionally, the Soviets have a hell of a lot less of an airborne force in their army than we do.

INTERVIEWER: Don't they have an airborne battalion per division?

STARRY: I don't know whether or not it's per division, but you look at the airborne component of the Soviet Army and I'll bet you—I haven't looked at it in several years—that you'll find that, proportionately, they have a hell of a lot less airborne than we do. We don't need an airborne division! We don't need an airmobile division! We need light infantry brigades, but how many I don't know. You'd have to look at the special mission account and see what they ought to be doing. We need armored divisions and mech divisions, because the heavy threats are in Korea and in Europe.

INTERVIEWER: Your days as TRADOC commander, with the force structure argument, Division 86, and everything else that was raging then—same as it is now—marked the *real* beginning of placing a much greater reliance on mobilization involving the Reserves and National Guard. I believe in this period we formed divisions with roundout brigades and brigades with roundout battalions. We certainly put, I believe, about 60 percent of the forces in the National Guard and Reserves. I can understand that, because it's probably much more affordable and you can use the active Army end strength for active Army forces. But are we going to mobilize those forces should we go to war, or is the Army going to be sitting out there with combat forces but no support units? Have we made a mistake in relying so much on the Reserves and the National Guard?

STARRY: We did it because it is a part of the overstructure-understrength problem that I mentioned awhile ago. That is what drove us to that decision. We didn't have the manpower to fill it up, so we put it in the Guard and Reserve, which, fortuitously, gave an additional impetus to the Guard and Reserve, which were languishing after the Vietnam War. So it was probably driven by a couple of those motivations. And then the Congress put a limit on what the President can mobilize, which, in effect, almost defeated that. If you want to have a substantial mobilization, you're not going to have it. If you want to mobilize the combat units first because you need to round out your combat units and you know that you put most of your support units in the Guard and Reserve, you can't mobilize them because they put a limit on what the President can mobilize. With the mood of the Congress these days, I would say that the assurance that we're going to be able to mobilize enough to round out and fill up the Army and support it in a substantial emergency is quite remote.

We made some unfortunate compromises. Basically they were all driven, in the beginning, by the overstructure and understrength problem. We could have beefed up the Guard and Reserve and given them some additional impetus in several other ways. We didn't have to do this to them. It was fortuitous. They end up getting some new equipment out of it. They're getting some modern equipment, which is good, because they need modern equipment. They deserve modern equipment. But, there again, even in the Guard and Reserve, there's an awful lot of structure that could come out. We have a lot of ASA, what used to be ASA, radio intercept units, in the Guard and Reserve, but we're not willing to provide equipment to train them. Where's the equipment going to come from? There isn't any! If we had to

mobilize them and go to war quickly, we're not going to have that equipment, so why do you have them in the structure? The whole force structure needs a good scrub. Some of that I tried to do as the keeper of the force structure. That happens to have been one of them. I tried to get rid of civil affairs; that was another one. None of it worked. With regard to civil affairs, there were so many Reserve general officers in civil affairs that, for about two weeks, I got nothing but phone calls from members of Congress saying, "You lay off civil affairs units."

INTERVIEWER: During your tour at TRADOC, were you able to improve the working relationship with AMC or DARCOM to the point of helping to solve some of the doctrine and weapons systems interrelationships?

STARRY: Well, we did finally get into the spring lab reviews with a set of TRADOC drawn-up priorities. The Battlefield Development Plan, which we started, helped us lay that out for DARCOM. They were happy to have somebody come and suggest to them what their priorities ought to be. By and large they accepted our priority listing. I understand that system languished after I left, largely because it's a very complex thing. General Jim Merryman did that for me when he was the Deputy Chief of Staff for Force Development. The guys who came after him really didn't understand the problem as well as he and I did. So I understand the system languished. As for the lab guys, in spite of my criticism of them, I found that, by and large, they are very happy to have you come and tell them what you think you need. They're happy to have you do that. The whole establishment is happy to have you lay out priorities for them, because it helps them justify their budgets. We didn't have any real controversies with them. However, the bulk of the work has to be done at the center level. The center commander has to go out and find them and kind of steer the technology along. We don't do that very well, for all the reasons that I cited awhile ago.

INTERVIEWER: What would you consider were your major TRADOC accomplishments?

STARRY: I really think I'd be foolish to try to take credit for all of this, because General DePuy started it, but when I left, we were on the verge of publishing the 1982 edition of FM 100-5. The doctrine revolution that we started in the 1973 time period, as far as I was concerned, was complete. General DePuy and I had done what we collectively started out to do. I felt kind of good about that. I'm sure he would be critical of the 1982 version, because it didn't do things exactly like he thought they should be done. To that extent, writing it at Leavenworth watered it down a little bit and made it more generic rather than specific. I'm sure he would be a critic of that. I have not talked with him about it but, knowing him as I do, he probably would be. All of which I understand and accept.

We didn't have the controversy we had before. Had we written another FM 100-5 that was as controversial as the first one, we might well have been in deeper trouble than we were in with the first one. First, we put out all the fires, almost all the fires, and then we finished what we set out to do. We finished an organization, which he started and I finished, even though I had to change the thrust in the middle for good and sufficient reasons. We had fielded a new tank, are about to field a new attack helicopter, and fielded the Bradley and several other combat and support vehicles, all of which were required by the doctrinal revolution. The Black Hawk came in. You had to feel kind of good about that. It was a part of that whole process.

When I was at Knox we pioneered one station unit training (OSUT) in an attempt to get away from the break between what we then called Basic Combat Training (BCT) and Advanced Individual Training (AIT). I still think that was the very best thing to do. We should have probably done it long ago. We revised the officer education system. We created the noncommissioned officer school system almost from scratch. That was in place and operating fairly well, with a lot of work left to be done, by the time I left. I would like to say that, between the two of us, we really turned the officer, NCO, and enlisted education and training systems onto the new track, following the doctrine and so on.

I like to believe that, in the years I was there, we managed to turn Leavenworth around and get them started on some of the things they should have been doing all along under Cushman but didn't, some of which resulted in what is now CAS3 (Combined Arms and Services Staff School) and the second year (SAMS) for some. I wanted to put all the US students through a second year. We may do that yet, I don't know. We've got 40 SAMS students going this next year, as opposed to 20 each of the last two years. Both of those programs are eminently successful. CAS3, particularly, is a real winner, as we thought it would be in the beginning. We turned the regular curriculum at Leavenworth around to the point that they're now studying war instead of political science. It still has some way to go, but it's improving. We got Leavenworth back in the doctrinal business. Now they probably have more clout in that business than the TRADOC headquarters does, which I think is an imbalance that should be addressed. But that's the way it is. So Leavenworth is a big voice on that stage, and that had to be done. We couldn't relegate it to a minor thing, or you'd have a situation like the Air Force has at Maxwell. They've got a super school, but it doesn't have anything to do with doctrine training and so on, which is unfortunate.

In the things that General DePuy and I both thought were critical to us in the revolution—the doctrine, the tactics, and the operational level of war (although he didn't see that quite the way I did, and I don't think shared my sense of the importance of it)—I think we pretty well got them done. The equipment, the organization, and the training in the eight years that the two of us were in command, we pretty much finished the cycle of development. There were some holes and some imperfections in it. Some of the things we started out to do didn't get done. But, if you judge it on the basis of the fact that it was a pretty grand scheme in the beginning and look at it eight years afterwards and see how much we were able to do, all things considered (and being human, as we both are), we didn't do badly.

INTERVIEWER: We agree.

STARRY: I'm not one to congratulate myself on what a great guy I am, but I think we did some great things for the Army, some of which are going to last for a long, long time. Somebody asked me the other day, "If you had tried to start that yourself, could you have done it?" Hell, I don't know. I really doubt it. I don't doubt my own ability, nor do I doubt my ability to generate vision and put marks on the wall for people. But General Bill DePuy is a guy who is unique. In spite of the fact that we've had some great leaders in our Army in this century, the circumstances were quite different. In looking at the Eisenhowers and the Bradleys, all of us are going to pale almost to insignificance. And, whether or not they were good at what they were doing at the time, they certainly grew in stature as time went on after the event. But, anyway, a post-World War II soldier has got a hard road being compared to those guys. But, having said that, I just have to say that I think General Bill

DePuy is one of the very small handful of very great soldiers that this country has produced in this century. No question about it! He had the energy, he had the intellect, and he had the ability to get the thing organized and get a whole lot of stuff done. We made some false starts, which some of us were able to wrench around, which he probably would have done himself. The organization is a good example of that. The Army owes him a great debt, an enormous debt. He set it on the path for the 21st century.

INTERVIEWER: Sir, I think it's rather obvious what you think of General DePuy, and you stated it rather eloquently. It's also said that the warriors come out only in war. But, since we haven't had that, who else would you characterize as being in the great or near-great category, based on your experience in the Army over the last 40 years?

STARRY: As warriors, you mean?

INTERVIEWER: As warriors or those who have made great contributions to the services and to the security of the country.

STARRY: That's a tough one. I don't know. I can think a couple of guys who have just done some awfully good things for the Army. General Fritz Kroesen is one of them. Even though he's an infantryman, he did more for USAREUR than many before him. He's one of the best programmer guys—taking resources and laying them out against the timeline—that I have ever known. He put USAREUR back on its feet. It was just dabbling along until he took command over there. He put it back on its feet in terms of facilities, resources, and the management of resources. I wrote him a letter when he retired, and I thanked him for that. Having served over there for so many years, first as a junior officer and then later as a corps commander, I've seen every ridiculous thing happen in that theater that the mind of man could possibly devise. He was the first guy, in my memory, who got it all organized and really got something going that was organized and programmed out. He did the Army in Europe and the Army as a whole really a great service. It's unfortunate that General Abrams died when did. Who knows what would have happened under his tenure as the Chief and perhaps as the Chairman?

It's unfortunate that General Haig had to leave. I think the world of him, as I mentioned the other day. He was a good SACEUR. I think he would have been a great asset to the Army as its Chief of Staff or as the Chairman of the Joint Chiefs, particularly as the Chairman. But that wasn't to be. He probably could have done the country more good in those jobs than he wound up being able to do as the Secretary of State, through no fault of his own. I don't know. I'd have to go through a roster and sort them out to really answer your question in detail. But there are some good guys out there.

INTERVIEWER: You spent four years as the commander of TRADOC. Did you have any expectations as to where you'd be going as you left TRADOC?

STARRY: No, not really. You know, you sort of go on and do the best you can with what you've got and let the chips fall where they may. At that point, having done what I had done, I would not have minded at all staying on. As commander of TRADOC, General Meyer thought I was a logical candidate to succeed him as Chief of Staff. But, in order to do that, I needed more joint visibility. So he persuaded me that I ought to take REDCOM.

I did so with some reluctance because it was in the throes of great debate, an acrimonious debate, which I talked about the other day. I wasn't really anxious to go and do that. But I went because he asked me to, and so I said, "Okay, I'll do it."

At the time, I had several job offers, to include three or four college presidencies or chancellorships, which had been discussed or offered. Some of those went to other people, and some of them I simply had to turn down once I made the decision that I was going to go to REDCOM. Europeans came to me and asked if I would be willing to be the SACEUR. But they were not willing to go to the administration and say, "We don't like General Rogers. We'd like for him to go away. We want you because you have done an awful lot of work with the Germans and the Brits over the years, particularly in TRADOC, V Corps, and at Knox as well." I personally, and the organizations that I commanded, had a super rapport with the British and the Germans and also with the French. Because I had spent so much time over there and really looked on Germany as kind of a second home, I had a particularly good relationship with the Germans.

I would have welcomed the opportunity to be the Supreme Allied Commander. I thought there were some things I could do for Europe and for the Alliance. I wasn't running for office, but at the same time, I would've welcomed the opportunity. Same thing with the Chief of Staff job. I thought there were still some things that the Army needed to have done for it. The Army, at that point, had to make a decision to go with the heavy forces and perhaps cut back on some of the other stuff or go with the light forces and proceed along the lines that we already described. The SACEUR decision was made because General Rogers kept coming back and getting himself reappointed. Nobody ever raised a voice against that. The Chief of Staff decision was made by the Secretary of the Army without consulting with his Chief of Staff or with anybody else. Apparently, he never asked General Meyer or anybody else for a recommendation.

INTERVIEWER: This occurred after you'd gone to REDCOM?

STARRY: Yes, this was when I was still at REDCOM. Thereupon I said, well, I was coming up on 35 years of active commissioned service. And General Meyer said, "I'm perfectly willing and would like to put you in for reappointment at REDCOM and we'll see what happens." So I went to see General Vessey, and I said, "Do you want me to stay?" He said, "I'd be more than happy to have you stay, but I understand, like all of us, we all have to kind of sort out what we're going to do between now and the time we're 65 and facing retirement. You've got to make that decision for yourself. But I'd like to have you stay." Fundamentally I had decided to leave because I had 35 years' service. It looked like General Rogers was going to perpetuate himself in command forevermore. General Wickham was going to be appointed as Chief of Staff, and the regulation says that 35 is enough, so I said, "That's fine. There are no jobs that I really want, other than those two, and I'm not going to go around and make a fuss about it." So I sent in my papers and left.

INTERVIEWER: When was the conversation that took place between Mr. Marsh and General Meyer concerning his replacement?

STARRY: I never discussed it with the Secretary. General Meyer reported to me about February or March of 1983 that the Secretary had made up his mind and had just announced it to him, General Meyer, and that this was the way it was going to be. General Meyer was very upset. At that point he said, "Well, whatever happens, I'm having the paperwork drawn up

to go in for you to be reappointed as CINCRED." And I said, "Give me a couple of days to think about that." So I went home and talked about it, talked to General Vessey about it, and decided to leave.

INTERVIEWER: Who made the decision to leave General Rogers as the SACEUR?

STARRY: Well, the Secretary of Defense makes that recommendation to the President, and General Rogers has a lot of clout on the Hill from his days as Chief of Legislative Liaison. He, I think, wanted to outlive General Lemnitzer as the SACEUR in tenure and so on. But he's a very mercurial personality, and the Europeans don't like that very well. But he has been very successful in getting himself reappointed.

INTERVIEWER: Did General Meyer, himself, have any aspirations toward SACEUR?

STARRY: I suppose he did. He would have made a very good one, I think. But he had lost a lot of clout, though neither of us realized it. He was a very controversial guy in the tank. He took a lot of exception to Dave Jones as the Chairman, as anybody had to if they were the Chief. It was a miserable environment to work in. But he became—what's the word? He lost his clout in the joint arena and with the Secretary of Defense as a result of being so controversial all the time with David Jones and with the Secretary of Defense. He was not a power. Witness the Secretary of the Army not even bothering to consult him on who he was going to appoint as the Chief of Staff.

INTERVIEWER: Isn't that becoming more prevalent today?

STARRY: I think it is. I commented the other day on Mr. Weinberger. As much I respect him, I frankly don't think he gives a damn what the generals say. I've never been to a meeting with him in which it wasn't kind of apparent that he had already made up his mind what he was going to do, and it didn't make any difference what anybody around the table said.

INTERVIEWER: Had it been available at the time, would you have taken USAREUR?

STARRY: I don't think so. You get to that 35th year and you kind of have to look at yourself and see where you are financially, what with facing retirement sometime in the next few years. And, if you need money, need to make money, you're going to have to do that essentially between whatever time you retire and the time you reach 65. Given Social Security guidelines, you're not going to be able to make much money between the time you're 65 and 70. When you're 70, apparently you can go back to work and make a lot of money. But, between 65 and 70, I guess you're supposed to rest up. I'm not quite sure how that's supposed to work. It's an anomaly of the system, I guess.

We had just finished putting four kids through college. Some took longer than others. I don't need to tell you that it isn't cheap these days. We had spent 10 continuous years in command and had spent a lot of our own money doing things that the government system should have been willing to support, such as entertainment and so on. When I went to Fort Knox it was at the time when they did away with the bookstores, which were the commandants' source of funds for entertainment and whatnot, so we had put a lot of our own money into the job. I don't complain about that, because I took it as a part of the job. But, at the same time, that and the level 5 ceiling on executive salaries really put us into a position where we owed some money. We had built a house out in Colorado on which we had a substantial mortgage, and some of our kids were living in it. We had about $25,000 or

$30,000 in the bank, which isn't much to show for 40 years of hard work. It was apparent that I needed to retire sometime soon and make enough money so that we could afford to have a place in which we could live with a mortgage that wasn't all that burdensome.

I was 58 when I retired, and it was apparent that it was going to take about six or seven years to get enough money together to do that. We wanted to get our act together so we could afford to retire and own enough of our property so that the mortgage wasn't out of line and have enough money left to travel and do some things for the kids that we thought we wanted to continue to do. So it just looked like a good time to do it. Everybody faces that problem sooner or later. Some of my friends have been a hell of lot smarter about managing their money over the years than we were. I think we gave generously in terms of being willing to commit ourselves and our own resources to the jobs that we had. I don't regret that at all. I wouldn't complain about that at all. At the same time, a lot of my buddies had been a lot smarter about using their money than I had; they didn't put as much into their commands and whatnot as we did. But I think it showed it in the end. So I have no regrets about that. It's just that you have to size yourself up at the end of the line and decide what you need to do between now and the time you have to face retirement.

INTERVIEWER: Back to the prospective question of being the Chief of Staff. When you went to REDCOM, did General Meyer believe he could persuade the Secretary of the Army to name you as his replacement?

STARRY: I'm sure he did.

INTERVIEWER: However, he apparently lost his clout and wasn't able to do that. Did you know Mr. Marsh or had you dealt with him very much?

STARRY: Well, I had dealt with him a good bit. I don't think he thinks I'm his kind of guy. I wouldn't go so far as to say I don't believe he likes me. We just don't connect. He was a welcome change from the social revolutionary we had had as the Secretary before him. I asked him to come down to TRADOC when he was first in office, which he did. We briefed him on what we were doing and so on. He may have been turned off a little bit. He had a major working for him at the time who was kind of antiestablishment, and I was part of the establishment. I was part of the revolutionary establishment, and he was part of the antirevolutionary establishment. The major, I think, did both TRADOC and me a little bit of a disservice in his comments to the Secretary about what was going on down there. Somehow or other that soured him on me, I think, as a person and on what we were doing. However, he never intruded himself on us. He just wasn't interested. He has a strange personality and is not a very effective Secretary in my judgment. Look at the Army's share of the defense budget. The Army's share of everything has gone downhill under his tenure, and he has not done anything to prevent it. He spends a lot of time over on the Hill because he was once a Congressman and still has access to the facilities. My friends in Congress keep calling me and asking, "What in the hell is he doing over here? We don't want him over here. He's cluttering up our facilities, and we're crowded now. Why don't you guys see if you can't get him away from here? Get him some Army facilities to go to." As I said, he has not been a very effective Secretary in my opinion.

INTERVIEWER: Do you think he was looking for a Chief of Staff that he could control?

STARRY: Tractable, I think, is the right term.

INTERVIEWER: Pliable?

STARRY: Pliable? Okay.

INTERVIEWER: What happened to the major? Is he still in the Army?

STARRY: I don't know. He was a candidate for public execution as far as I was concerned for awhile. But, what the hell. He may have recovered, he may not. It doesn't make any difference now.

INTERVIEWER: You moved to REDCOM after the decision had been made to establish CENTCOM. I believe that's true, anyway. General Warner had retired rather than go along with this split, but you knew it was coming when you went down there. I believe you said you approached it from the standpoint of it not being a really controversial matter since the decision was made, which you implemented. Did you agree with that decision?

STARRY: No. I think it was a mistake. I said so the other day. I think that the creation of that other command down there was totally unnecessary. You have to remember that, when Strike Command was first organized, and for the 10 years that it existed as STRICOM as opposed to REDCOM, they had in the command two joint task forces. There was, within the headquarters, a composition of two joint task forces. There were two joint communications support elements, each one of which supported one of the task forces. One of those task forces had the mission of conducting deployments into the Middle East and Africa south of the Sahara. The other one's mission had to do with deployments elsewhere in the world in areas not covered by other CINCs under the Unified Command Plan.

The Navy resented that from the beginning because Paul Adams, the first commander of REDCOM or Strike Command, took charge of the naval forces in the eastern Mediterranean, and the Navy resented that. Obviously, in their view, no Army officer should ever command naval forces. Army officers cannot be expected to issue intelligent instructions to naval forces. That just can't happen. So the Navy over the years tried to break up Strike Command. They tried it several different ways. When we were going through our candy-ass period at the end of the Vietnam War in 1971 to 1973, the issue came up again and the Navy had enough clout to "unstrike" the Strike Command. We're not going to strike anything, we're nice guys and so on. So they unstruck Strike and renamed it REDCOM. In unstriking Strike, they took away that other joint task force or reduced it to token numbers and reduced the size of the headquarters. They got them out of the intelligence business and the foreign military assistance sales business. Part of that function went to the State Department, part of it went to EUCOM, and part of it went away. It didn't go away as a problem, but it went away as a function.

Now, if you have a problem in the Middle East, which is the same sort of problem you had before, then it makes eminent good sense to beef up REDCOM and re-create that other joint task force. Or take the joint task force that he already has, beef it up, use it as the Middle East focus force, and then restructure the Unified Command Plan to give the rest of the CINCs the areas of the world that REDCOM was then responsible for.

The people in the White House in the Carter years, who wrote up this plan to create the RDJTF, apparently never bothered to check and see and to understand the background and the history of REDCOM and why it was formed. When they got the Navy input, which apparently they got somehow, the Navy said, "Boy, you can't go back and do that over

again." And so they came up with this plan and somebody said, "Well, we can't do that." So they put it on the shelf.

Then the Carters went away and the Reagan people came into office. They spent the first year screwing around with the domestic economy and then said, "Well, we have got to do something about the Middle East—the oil problem and so on—lest that recur again." And so somebody dusted off this plan, and Mr. Weinberger just accepted it then and there without ever talking to anybody about it. That other command is not necessary. It's a waste of resources in my opinion. There's nothing about it that the Readiness Command can't handle perfectly well—better, as a matter of fact, than Central Command. Those commands are expensive. And as for officers, where are all the majors and lieutenant colonels that people need in the battalions, brigades, and divisions? They're down there in that headquarters. The CNO, the Chief of Naval Operations, said, "I am not going to commit any more officers to joint headquarters." Then he sat down in the tank and voted for the organization of the Central Command. In short, he spoke with a forked tongue.

INTERVIEWER: Let me ask you this, sir. Given that CENTCOM is a given, does REDCOM retain a viable mission?

STARRY: REDCOM has a lot of things to do. In the first place, REDCOM and the Joint Deployment Agency have an enormous function in terms of meeting the deployment requirements—the Central Command, Europe, Korea, wherever they are. There needs to be a senior headquarters working on that problem all the time. It could be a joint agency, I suppose, but it really requires the clout of a commander in chief to go around and see those other warlords and do business with them. REDCOM can furnish that service to the deployed CINCs in terms of joint war-gaming activity, which we started when I was there. This is, I understand, now proceeding to develop. My idea there was to provide a central model, in model development and model resources, which would enable everybody to test their war plans. I mean, that's where the computers are these days. Then everybody can play war games; we can play joint war games, and we can play national-level war games with something better than those subjective judgments that are made in the Pentagon when we get those war games going.

Somebody needs to be in charge of joint tactics, joint techniques, and joint doctrine, which we call tactics, techniques, and procedures. I spoke about that the other day. We started that. The JCS has picked that up and it's still continuing. In the couple of years that I was there, we stifled the controversy. We got REDCOM turned around and doing some things that REDCOM should have been doing all along. We got a couple of programs started, which apparently have survived. I looked at the mission of command and control of the residual resources in the United States in case of a nuclear attack. REDCOM is not equipped to do that, but it's part of its charter. I wanted to get FEMA (Federal Emergency Management Agency) organized with REDCOM to do that. Of course FEMA has now fallen afoul of the grand jury and I don't know what will come of that. That effort was set back by FEMA's demise. It's still in operation and they have a new head, but they're still under a dark cloud as a result of that grand jury investigation. I think we got REDCOM started on those things that REDCOM can do. It is capable of doing a lot more, I think, and that's why I argued that you should have given it the other mission too. However, they elected not to do that, and that's their call.

INTERVIEWER: One last question, sir. It's quite obvious that your wife and family have been a great source of inspiration for you over the years. You've told us how your wife helped you break down machineguns and entertained lieutenants who were doing it and so on. I think that's something we would all like to see more of. We'd like to have you comment about that relationship. It sounds very good.

STARRY: I talked a little bit about this to Matt previously. I don't think the tape was on when we were doing it. I believe that when you put a person in a responsible job, especially in command, when you put a guy in command, you're really putting a husband and wife team in command. I always selected my commanders based on the guy and his wife. And, as a matter of fact, I turned down several major generals and above for commands in my time because their wives were a disruptive element that we simply couldn't stand. Now some of those general officers were pretty good commanders. So some of my friends didn't get commands because I knew their wives very well and didn't want them out there screwing up my outfit. Command is a team effort. You can't go out there without a wife, or with a wife who is nonsupportive. All you have to do is look around you at the posts where you're having difficulty, where the Army Community Services, the Red Cross, and whatnot are sort of going along but really languishing and not getting the attention they ought to get. You look at what the CG's wife is doing and you'll discover that she's not interested. She has an obligation. I mean, you join this thing together. This is me talking, it is the Starry approach, and a lot of people don't agree with it, particularly today when wives like to work and liberation has taken its toll and so on.

There is no way that some guy is going to go out and take command of an installation or a command and be able to look at all of the aspects of it that are important. In today's world, so many of the young enlisted people are married as opposed to before we knocked off the draft in the spring of 1973. I think the numbers go something like this: E4s and below were less than 10 percent married. Those numbers are now up to 50 and 60 percent as I understand it. I don't know the exact numbers, but that caused a change that we were slow to recognize. In fact, my wife recognized it for me first and went and got some numbers and said, "Look what's going on on your post." Then you just have to sit down and think about that, because they're out there living on the sides of the hills and in the trailers at Fort Knox and whatnot. You tell them not to bring their wives to basic training. But you've gotten them down off the hills in eastern Tennessee and Kentucky, and you know they're going to bring them. And so there's a whole world of work that needs to be done in the community sense to build a community, because a part of the performance of the soldiers, officers, and NCOs is that community, and how well they are satisfied with the community, and how well the community supports them in their view.

And some of that is women's work. Guys can't do it. Guys are not smart enough to do that or sensitive enough to some of the problems to do it. So it's a team effort. I don't think we ever sat down and had a conversation about this, my wife and I. From the beginning, we just assumed that that was the way it was. Most of the good ideas that I ever had about how to improve the communities we lived in were her ideas. She was sensitized to the things that were making people unhappy and causing unrest and to the opportunities for improving the situation, I guess because she saw it all from a totally different aspect than I did. She always gave pretty good advice. Sometimes I couldn't afford to pay the price as

a commander for what she was suggesting be done, but we always managed to get it done somehow. Where I couldn't pay for it, she'd organize volunteers.

As I said awhile ago, you look around and see places where things are a little bit unhappy and not doing well and you will discover that the CG's wife is not paying attention to the things she ought to be. I've said many times that, behind every successful guy, there's a bunch of kids and a wife, each of whom has paid some kind of price for daddy's success. They've had a lot of fun. They've lived in a lot of different places in the world. They've made a lot of good friends. But, in terms of what their peers have been doing in the civilian world, I think the kids have paid a price. Still, they've gained something that nobody else has. Most of them come away from that experience with a hell of a lot better sense of dedication to the country and to the values that the military system still espouses. At the same time, in terms of school, educational opportunities, and a lot of other things, they've all paid a price.

I spent almost three years in Vietnam, three years plus, and it was at a bad time in this country. We had kids in high school, and it was a bad time for daddy to be away. They've all recovered from it fairly well, but you always have to wonder what they would have been sooner than they were if you hadn't been gone. And there was the trauma. You know, the street we lived on in Springfield, Virginia, the guy who lived down the street—who was a federal employee, as a matter of fact, the head of the Federal Prison System—used to send his kids up the walk to throw eggs all over our car, particularly when the windows were open, because he was anti-Vietnam. The kids see that, and there's no way to explain that to them. So the family pays the price.

To some extent we've tried to reduce that price by letting the women believe that they don't have an obligation. And some of them believe that they don't. In my opinion we're making a mistake, because the sense of family can only come from families working that equation. I maintain that families have to work at it.

INTERVIEWER: Sir, it has been a fascinating experience. I'd like to thank you for being so candid and open, and I hope that we've been able to bring out everything you wanted.

2. Reminiscences of General Creighton Abrams

US Army Military History Institute Oral History Interview
Conducted by Colonel Jim Bergen, Lieutenant Colonel John Collison, and Lieutenant Colonel Bill Burleson
14 December 1976

INTERVIEWER: General Starry, you were associated with General Abrams as a lieutenant in the 63d Tank Battalion, then later in the 3d Armored Division as a field grade officer and battalion commander when he was at V Corps, in Vietnam as a staff officer and commander of a major combat unit, and then as commander of Fort Knox when General Abrams was the Chief of Staff. Would you give us, share with us, your perception of General Abrams as a leader and perhaps how this perception changed over the 25-year span you knew him?

STARRY: That is sort of an open-ended question. Well, let's start at the beginning. I reported to the 63d Tank Battalion as a lieutenant, newly commissioned and embossed by the Armored School and the Ground General School at Fort Riley, where they sent all newly commissioned second lieutenants at that time. I reported for duty in the 63d Tank Battalion in August of 1949, about two weeks before Lieutenant Colonel Abrams reported for duty as our battalion commander. My perceptions of him as a leader at that period have got to be set against the background of what he had been and what he had done. He was, as you know, a tank battalion commander in the 4th Armored Division in World War II, under the leadership of General "P" Wood, who was, in my opinion at least, one of the great armor commanders of our time.

General Abe had probably been certainly the most colorful, if not the best, tank battalion commander or battalion commander in that division, a division that numbered among its commanders guys like Art West and artillery battalion commanders like Bill Hasselback and so—just a top-notch group. He had been promoted to colonel and commanded a combat command in that division. He went back to Knox from that experience and was demoted to lieutenant colonel from colonel in the reversion in rank program at the end of the war. He became the head of the Command and Staff Department at Knox. There he rewrote the field manuals, the TOE, and the whole business. They had a couple of very intensive years there putting down on paper all that had been learned in World War II.

Then, all of a sudden, he is a lieutenant colonel with all of that background and he's assigned to command a tank battalion in an infantry division in Europe, so what I have to say about him as a lieutenant colonel commanding the 63d Tank Battalion has to be understood in the context of that background. It must have been a very, very discouraging experience for him. He must have come to that job not really anticipating it at all and a little bit ticked off at where he found himself. I never talked with him about it, nor did he ever say anything to me about it, but I have tried to put myself in his place at that point in his career many, many times, and I come away every time I do concluding that he really must have been in a kind of sour mood as he walked into the 63d.

INTERVIEWER: What sort of an outfit was the 63d?

STARRY: Well, the 63d Tank Battalion was an interesting organization. During the war, there were no tank units organic to infantry divisions, so they took a bunch of corps tank battalions and attached them to the divisions, and the battalion that was attached to the 1st Infantry

Division was the 745th Tank Battalion. It was a separate corps tank battalion, and it fought most of the war, as I recall, with the 1st Infantry Division. After the war they created new divisional tables of organization, including not only a tank battalion organic to the division but regimental tank companies. And they were, in the context of the time, heavy organizations; that is, the companies had four platoons, five tanks each, and there were two headquarters tanks. So there were 22 tanks in a company. There were three companies in a battalion, and that made for a big battalion. We had 69 tanks in our battalion. Sometime before 1948 they had created regimental tank companies in the 1st Division, but had not activated the tank battalion, and so in 1948 they activated the 63d Heavy Tank Battalion by cadreing from the companies and the regiments of the division. That was the 63d; it bore the lineage and honors of the old 745th. Well, I don't need to tell you that the regimental commanders—and, as I recall, all of the regimental commanders in the division had been either battalion or regimental commanders in that division during World War II. It was a closed Big Red One Association; those stalwart fellows sent their best soldiers, of course, out of the regimental tank companies over to the 63d Tank Battalion.

As a matter of fact, they were so selective in their choice of people that, the week that I arrived for duty in August of 1949, half of my platoon left to go home on whatever the undesirable discharge was in those days; I've forgotten the proper nomenclature of it. It was a strange collection of misfits—people who had gotten out of the Army and came back in because they couldn't get a job, people who had gotten out of the Army and really never wanted to get out and discovered that after they got out and so got back in. It was, once we purged the misfits, a unique assortment of very capable young men who, for one reason or another, enlisted in the Army. But it had experience. In the first platoon I commanded in that battalion, every tank commander had been a tank commander or platoon sergeant in a tank outfit in World War II—every one of them. The drivers and the gunners were the same way—they had been tank commanders, and then they had come back as corporals or sergeants after a year or so out of the service. We had an enormous amount of combat experience; not all of it was good—but we had an enormous amount of experience, particularly among the leaders.

You talk about training the soldiers—the sergeants knew how to do that; they were very, very good at it. I don't think I've ever seen an outfit, with the possible exception of our Army in Europe in the early 1960s, where we were that capable, in terms of the NCO corps, of being able to conduct the individual training of the soldier. The young soldiers who had enlisted, for whatever reason, were a remarkable group of people in that particular organization. Almost every one of them that I can remember in the first company that I was in is now a sergeant major. Those who won commissions later are lieutenant colonels; we sent them to OCS, and they've all done extremely well. I don't know of one who has bombed out in a military career, either as a senior enlisted man in the enlisted ranks or as an officer. They've just done remarkably well, so for whatever reason they enlisted, they were a very capable group of guys.

By the end of 1949 we had pretty well cleaned house. We had the misfits out, as a result of which we were understrength, because we had a volunteer Army in those days and the draft did not start again until the Korean War came along. From a leadership standpoint it was a different Army than I have ever been in since, with the possible exception of the 3d

Armored Division when General Abrams commanded it in 1960–1961. It was at that time, as I recall, about 90 to 95 percent volunteers.

So here he comes, you know, with that background. He's got that sort of enlisted structure, good capable NCOs—but some drunks in the lot, the kind who would come in once a month and say, "I've got to have a three-day pass," and you'd better give him one, because he would go get drunk anyway. There was a lot of that, but that's sort of from the old Army, and a lot of them were from the old Army. His officers sort of fell into distinct categories, I guess. We had a lot of captains and senior lieutenants who had commanded tank companies in World War II. The motor officer had been a tank company commander in World War II, so had his S-4, and several others, and so there was a lot of experience.

And then there was a distinct gap between that group and the younger lieutenants, none of whom had any experience at all. We had some combat experienced older first lieutenants who had gotten out and come back on active duty, but the second lieutenants—there were nine of us in the group that I was in when I reported to duty—had no experience at all. Some were West Point graduates, some graduates of the ROTC system, who had been through the schools and were now reporting for duty. And it must have been kind of discouraging for him to look at that gaggle, particularly the second lieutenants, and realize that he was, in fact, starting all over again. He had a job at which he had been very successful several years before and probably felt that he had left behind forevermore. So, as a battalion commander, he set about to make a well-trained, professional, tough outfit out of what was then the only tank battalion in Europe.

We did some things that you couldn't do now. He decided one time that we ought to have a little better experience with live fire and maneuver. So he had us take some machinegun ammunition, and in each company we dipped the belts in paint so that the tips of the cartridges were colored, and we went out and fired them at each other. Then he went around the tanks and counted the paint marks on the side and that told you whether or not you had been hit. We shot off some antennas, shot up some phone boxes on the back of tanks, and blew out some optics—there was great consternation in the division about the terrible damage we had done to the tanks. Well, we had great fun and it was superb training. He went looking for new training areas; we opened up Baumholder, what's now Camp Baumholder—the French were using it for a staging area for Indochina, and we went over there in 1950–1951 for the first time. American units had not been there since the war. We were the first tank unit to go up to what's now Bergen Hohne, the British training area up in the North German Plain, south of Celle, and we sort of opened that up for American units. He was always looking for some new training experience for us. We had alerts for the first time—nobody had any alerts. We had a couple of alerts for the first time.

INTERVIEWER: Was that within the division or within the battalion?

STARRY: No, that was just the battalion—he just did all this, and eventually the division would pick it up, but he was always pushing ahead. We had no ammunition on board the tanks in 1949 and 1950. In the summer of 1950 I was in the company that George Patton commanded. I was the exec. George was on leave. We were out at Grafenwöhr in the training area, and one day at lunch the battalion commander said, "I want to see you in my office about 2 o'clock this afternoon. I want to talk about ammunition." So I went back, got

the first sergeant and the platoon sergeants together, and said, "Now, what do you suppose he wants to know about ammunition—from me?" I had a notebook that listed every round in every tank—I had it—I even had the lot numbers, and I really thought I was ready. We did have our basic load of ammunition with us, but it was in an ammunition dump in Grafenwöhr where I had put it as the company executive officer. I recall thinking, as I was doing it, "What do you suppose we would do if I ever had to go down and get this stuff out of there?" It wasn't properly arranged and so on, so we made some changes, but they weren't really all I thought we ought to make. And I remember saying to myself, "You're going to regret that."

So, I reported in to see the friendly battalion commander, and he said, "I want to talk about ammunition. How much have you—what kind of ammunition have you got, and where is it?" And I told him what the basic load was and where it was stored, and he said, "Have you seen it?" And I said, "Yes, I put it in the dump." He said, "How long would it take you to load your company up?" I said, "I don't know; it would take a long time." "Well, how long?" "Well, at least four or five hours." He said, "Okay, lieutenant, you've got four hours to load up; move out." Fortunately I had the presence of mind to tell the first sergeant to get the company together and have them standing by in the motor pool, because I didn't know what was going to happen. So I raced over to the motor pool, got the tanks, and we drove down to the ammunition dump and loaded up. We did it in about three hours, and I reported back to him. He never said a word—just grunted, bit down on his cigar, and said, "Okay." And then he ordered everybody else to do the same thing. Nobody in the division was loaded. Everybody came to look—the division commander came to look; the division staff came to look. It was sort of like a miracle, and then the whole division loaded up. So he led the way.

Everything that he did was something he calculated would improve our readiness to fight. The Korean War had started, and we had a kind of crisis in Europe at the time also. It was the year that Mr. Truman made the decision to leave dependents there; we boxed up our "excess household goods" and sent them home. Our families lived with a full set of rations and emergency gear; blankets, water cans, and everything else were in the front hall closets for over a year, so it was a time of considerable tension. We mobilized in the States and sent some units to Europe. They arrived in due course, but that wasn't until about a year later. In 1950 we thought we were in difficult straits, and everything he did was aimed at getting us ready to do the best we could to fight against what even then were very difficult odds. So he was out in front, with his outfit, of everything that was going on.

We had a horrible maintenance situation. When I joined the 63d in August of 1949, the battalion was stationed in Grafenwöhr, where it had been organized. And in, as I recall, November or December of 1949, we moved to Mannheim from Grafenwöhr. We left some families behind to come along later and moved down to Mannheim. The division ordnance company moved into the same barracks with us, Sullivan Barracks in Mannheim. Shortly after we got down there, we discovered that, out of the whole battalion, we couldn't field one company of tanks, because the spare parts supply system was in pretty bad shape and the ordnance company, even though it was collocated on the kaserne with us, just couldn't supply the spare parts. So the battalion commander got in his sedan one day, went down to Heidelberg, walked into the theater commander's office, General Tom Handy, and reported, "Sir, the only tank battalion in Europe is virtually deadlined."

All hell broke loose. They had an investigation of the ordnance company and court-martialed a couple of people. The supply officer was involved in a multithousand-dollar survey of missing parts and so on. The end result of it was that the deputy theater commander was put in charge of trying to get all this straightened out. In the course of that procedure, they opened up the Mannheim ordnance depot to us; we were allowed to go in there and, if we could find it, we could have it. So he got us all together—the company commanders and the company executive officers—and he said, "Now, I want to make sure that we don't leave any stone unturned to get everything we need out of that depot." Well, what he didn't realize was that he was turning that job over to the most overzealous nonprofessional thieves in the world. We robbed that depot blind. For about seven days, we ran a fleet of trucks in and out of that thing 24 hours a day. There were sergeants down there with packing lists and parts lists, and we had so many parts, spare parts, that we went down to the basements of our quarters and built bins down there to hold them, because we didn't have any room to store them in the barracks. Well, several months later he discovered what we had done, and all hell broke loose. Then we had a big "turn in all your excess" program. He realized, I guess too late, that he had turned that over to a real bunch of thieves. But, here again, he had the courage to just get in his car and go down there and say, "Boss, this thing isn't going very well." And he at least got their attention to the point that we were back on the road very shortly. The changes they made in the ordnance support system were such that we were able to survive after that and, of course, the mobilization came along and they put two ordnance companies in the divisions and things were a little better.

As a battalion commander, as I've said, he was the toughest fellow I ever worked for. Lieutenants could not do anything right—nothing. As a lieutenant in that outfit, try as I might have, I don't think as far as I knew then I had ever done anything right. As a matter of fact, when I left that battalion to come home, I thought I was a complete failure as an Army officer, because I hadn't done a thing right that that battalion commander wanted done, at least so far as I could tell from the way he had talked to us. There was no standard short of perfection that was acceptable to him. And again, in the context of what he had been through before, in the context of the times that we were living through, the fact we thought we were in an emergency situation, the Korean War starting and so on, I'm sure that's the only attitude he could have taken.

He was, on the contrary, good to his sergeants. He and the sergeants had a kind of a pact—a rapport. They talked to him; in fact, several of the older, crustier ones would flat tell him when they thought things were screwed up in no uncertain terms, and he took it. They knew him well enough to know if they told him something that was wrong, the whole thing would come a cropper; he would not accept that. But if they told him about something that was wrong in the battalion, he'd fix it, just like that, once he had confirmed that in fact what they had said was true. So he and the sergeants had kind of a good relationship; they loved him.

INTERVIEWER: Did he look after the NCOs that got in trouble?

STARRY: Yes. Well, he may have overdone that in my opinion. I really can't say that, either; I have done the same thing. Based on his example, I have done the same thing; sometimes it comes back to haunt you, but not very often. But the end result of it is that the NCOs thought he was great. They would have followed him anywhere, and that was the great

strength of that outfit—it was in the noncommissioned officer corps. But the lieutenants were just a miserable lot, never did anything right, at least as far as we knew. It turns out later that, reading back on the efficiency reports that he wrote on us, and things that happened subsequently, he sorted all those lieutenants out. The ones that he apparently thought were worth keeping he said so and, in fact, helped along as time went on. The rest of them he sort of passed by the wayside, so it wasn't all for naught, even though at the time it seemed like it.

INTERVIEWER: I recall a story that I was reading in the file of an instance about an ammunition dump in Mannheim. Were you involved in this?

STARRY: The guy you want to talk to is Colonel Sidney Haszard. We had an ammunition dump. We had our ammunition stored in an area out behind the kaserne in the Kafertal Woods out behind Sullivan Barracks in Mannheim. And, during the buildup in the Korean War—well before that, I guess, but also during that buildup—there was a lot of Communist activity in that part of Germany. There was an organized Communist Party that demonstrated, threw rocks, and so on. They decided at some point, apparently, that they were going to attack that ammunition dump, so we began to get pilferage through the wire. Someone dug a great long tunnel from a place way out in the woods under the fence and up into the dump and carried away several rounds of ammunition. I don't know how many, but several. The woods got to be pretty well trafficked by people who were obviously up to no good and also trafficked by a lot of people who were just passing through.

So he mounted a combat patrol out there one night and put it under the control and command of Hap Haszard. Haszard probably had more experience with combat patrols than any officer in the battalion, having been a member of the old 1st Division Recon Company in World War II. He earned a battlefield commission in that company. Haszard will have to tell you the story of the patrol. Anyway, they caught a bunch of people and brought them in and locked them up in the cooler—cells that we used to calm soldiers down when they were drunk and disorderly—in the guardhouse at Sullivan Barracks. Well, my gosh, some of the people they brought in were innocent bystanders. I don't know whether there were any people in that group who were really out to do any evil to the ammunition dump or not, but the mayor got involved and it was a big incident before it was over. It turned out all right in the end, I guess. But Haszard knows more about that than I do, so you'll have to get the rest of it from him. They just ran a combat patrol out there and brought all these people in. What else have I got to say about that?

INTERVIEWER: Let me ask one question. I used to serve in the 3d Armored Division. We'll get to the 3d Armored Division in a minute, but when I left the 3d Armored Division, a couple things were impressed on me, and one was the importance of refueling in a hurry.

STARRY: Yes.

INTERVIEWER: And another one was being able to cook meals on the move and feed in the assembly area. I find in reading that these came from General Abrams.

STARRY: Yes, that's right. In the 63d, we were still refueling out of gas cans, and he—well, it was just a habit. Every time we stopped, we gassed up. Of course, we were driving the M26 tank in those days. It was not noted for its long range, I might say. So it was important to gas up every chance that you got. We had a big competition on kitchen trucks. You had to

be able to cook on the move and to drop the ramp and serve hot chow. That system in the 63d started a thing through the whole 1st Division. Reading back through the history, and talking to the other people who were in the 4th Armored Division, all this was apparently General Wood—they all learned from him. General Art West is the same way. I don't know whether you've interviewed him or not, but they all came away from that experience with General John Shirley Wood with all of these things that sort of became, just as they did with those of us who served with General Abrams, the standard.

INTERVIEWER: Is that where the jeep tops came from?

STARRY: Yes, jeep tops. As a matter of fact, for a long time we went around in the 63d with the windshields down, not only the top down but the windshield down. Wow!

INTERVIEWER: There are people around today who don't understand that. I'm not sure that I'm not one of them. But I can remember when Colonel Davison was my combat command commander and General Abrams and General Walter Richardson preached to us, and I figured it must have come from somewhere.

STARRY: It came from General Abrams. I'm sure it did.

INTERVIEWER: Well, maybe we can shift gears then and go to the 3d Armored Division.

STARRY: Yes. I reported for duty in the 3d Armored Division in August of 1960 as a major, newly graduated from Leavenworth. General Abrams had been the assistant division commander the previous year, then had gone down to Heidelberg to be the DCSOPS at USAREUR. Shortly after I got there, sometime in the fall of 1960, he came back to the division as its commander. I was the S-3 of what was then CCC, now the 3d Brigade, and I had that job for about 20 months. The troop situation, my impression of it at least, in Europe then was very much like it is now, as a matter of fact. They had gone through a very bad series of years in the mid-1950s when strategic retaliation was the order of the day, and you may remember there was some question about whether or not we needed land forces at all. General Taylor became, in the *Uncertain Trumpet*, the spokesman for graduated flexible response and all those familiar clichés. But the institution, the Army in Europe, showed the ravages in 1960, to me at least, having been in it and been away from it for eight years. It showed the ravages of those years of neglect and underfunding. The billets were in bad shape; the kasernes were in bad shape. The equipment was not in too bad shape, although we had the M48 tank, the modern counterpart of the M26—and a gas hog.

As an assistant division commander, apparently General Abe had tried to get back into some of the readiness things that we used to do in the 63d. And then, when he came back as division commander, he went full bore on those. I think several things stand out. One is he inherited a set of war plans for the defense of the V Corps sector that, as an S-3, not necessarily a graduate of Leavenworth but an S-3, I just found ridiculous. They were based on the notion that, in one area of the corps sector, we were going to create an "impenetrable barrier" through which the enemy could not come, and we were going to do that with minefields and barbed wire. And so we were going to force the enemy to come into another part of the V Corps sector, where we were going to attack him with some great mobile reserve.

Well, in the first place, there's no such thing as an impenetrable barrier. It was covered by about three thin battalions stretched out over a front of about 50 or 60 kilometers. There

was no way of doing that. And I think he recognized that, as did General Frederic Brown, who had been the division commander and then the corps commander. The two of them, almost the day after the change in command, when General Brown went to V Corps and General Abe came to the division, started changing that. After a year or so we had a fairly decent defense scheme that we thought was workable.

I find myself in the same situation now in many respects. Most of the things I'm doing in V Corps today are simply trying to restore what I watched General Abe and General Brown do almost 15 years ago. So history is repeating itself in that sense. I think that the thing that I admired him most for was his uncanny ability to sit down every time he moved up in the chain of command and figure out for himself what his share of the action was at the level he was now commanding and what belonged to everybody else. And he concentrated on things that in his judgment were important for him to concentrate on as the commander at that level, whatever that level was. I saw him change gears, shift gears, at corps; I saw him shift gears again in Vietnam; and I saw him shift gears again as Chief of Staff of the Army. And he apparently spent a lot of time thinking about that, because what he did was obviously deliberate. I used to get so mad at him, in fact told him so a couple of times, because he wasn't paying attention to things that as a major I thought he should be paying attention to. And his rejoinder in every case was, "That is the property of the brigade commander or the battalion commander. You know, it's not that I don't observe that and report on it in appropriate places like efficiency reports, but that's not my business. I'm not dabbling in their business."

In that same vein, he was the only commander I've ever worked for in a division who really understood how an armored division was supposed to operate. By that I mean the disciplinary, administrative, personnel, and logistics management things went straight from him to the battalion commander. As you remember, the concept of the operation is that the brigade is a control headquarters—it's a tactical headquarters, and even in garrison as a training exercise, he hewed that line very closely. If you had an administrative problem or you screwed up logistically or something concerned you and him in one of the areas where he thought the chain went straight from him to the battalion command, he never called the brigade commander—he called the battalion commander direct. The brigade commander didn't always understand this, and so we had a little difficulty keeping the brigade commander informed from time to time, but he was very insistent on it. That was a good training vehicle, because now we've got a lot of commanders like General Simmons, who is now the 3d Armored Division commander, who was in that division when General Abrams was corps commander and understands the system he left us. That was, as he saw it, part of the training of his outfit. He was almost adamant about what his responsibility was and what belonged to others on down the chain of command. And I think that's great, because what it does is it forces the subordinate commander not to lean on the next guy up the line or two guys up the line, but to pick up his share of the marbles and start playing the game.

INTERVIEWER: Where did your resources come from, your money and ammunition?

STARRY: It all came from him to the battalion commander. He had a kind of a contract. What he would do was this. As a battalion commander, you wrote out your annual training program, but then he would come around and have you tell him about your training program. If

you were a battalion commander, you could spend five minutes or five hours, so long as he was interested in what you were saying—if you were saying something useful and it was apparent that you knew what you were talking about, your option. The minute that he became convinced that you didn't know what you were talking about, he would stand up and leave the room and say, on the way out, "Colonel, I'll come back and talk to you when you figure out what you are doing. Call me." You would sit there with him and you'd say, "Here's what I want to do, here are the goals, and here are the targets and the programs and the number of times I want to go to the major training area" and all the things you wanted to do. "Here are the resources I think I need."

And then he would reach in his pocket and grab a set of cards with all his notes written down, and you'd negotiate a little bit; you'd argue about some gallons and some bullets and one thing or another, then he's say, "Okay, that's good, we'll agree to that and that." He'd go down the line—he had about seven or eight things that he would agree on—how many gallons of fuel he was going to give you, how many miles he was going to let you run your tanks, how many rounds of ammunitions of various kinds you could have, and how many times you could go to the major training areas and that sort of thing. And then he would send you a piece of paper about that, confirming the conversation. I'd never seen that done before, and it hasn't been done since until recently, although we've gotten started on similar kinds of exercises in Europe in the last few years. I now have a contract with all my subordinates—a written contract, 17 of them, with all my community commanders and my division commanders. My division commanders have contracts of one kind or another with their subordinate commands. One division is doing it through the brigades; the other division is doing it straight from the division commander to the battalion commanders, which is the way it ought to be done. But how it's done is the division commander's business. If he wants to do it the other way, that's okay. So that was the beginning. That taught many of us a lot of things about resource management.

He was also a bear about training programs. One of the things we don't do very well is teach our officers at Leavenworth and the schools about resource management at the battalion and brigade levels. We've got a resource management program, but it's mainly aimed at the DA level. Nowhere in our education do we learn about how to draw up training programs or relate goals and resources and the kind of stuff that is the battalion commander's bread and butter. He has to do it; to survive, he has to do it, but unfortunately he has to learn it the hard way by doing it. We give him no help at all in terms of education. When General Abrams was a battalion commander, I watched him go through this. One year we did centralized training by battalion committee, and the next year we did it all in the companies, and if he had been in command another year I'm sure he would have tried something else. He was always looking for some way to improve that process, because he recognized that, certainly in his background as well as in the background of the rest of his officers, nobody had had any training in that sort of thing. And we are still fighting that problem today.

INTERVIEWER: Did you command your battalion when he was division commander?

STARRY: No, he left the division, came back to the States and was in DCSOPS, then came back to Europe as a corps commander. It was only about a year. I had been the S-3 of that brigade most of the time that he was the division commander. He wanted me to come and be the G-3 exec with the idea in mind, according to him, that he would later make me his

G-3. There was a board sitting and I was due, if everything went well, to be on the lieutenant colonel's list very shortly. But I wanted to stay in the brigade, because I wanted to go to that battalion and I thought, if I got promoted, I wanted to be in a battalion when that happened so that I could get command of it quickly. And that's the only thing I ever asked him for, to let me stay in the brigade and move to that battalion. In fact, he had orders already issued, or about to be issued, and so I went to him and appealed the decision. I said, "I want to stay in that brigade because I want to go to that battalion, be the exec for awhile, and if the promotion thing works out right, I can move right into command." And he grumped around a little bit and said, "Well, let me think about it."

And about three or four days later, he called the brigade commander and he said, "All right, tell Donn he can go to the 32d." Well, that was a great favor; neither one of us realized it at the time, but that was a great favor. So I went into the battalion and spent about eight months or so as the exec, during the course of which the promotion list came out; then I got promoted, the incumbent left, and I took command. So I spent four years in that one brigade. While I was a battalion commander, he came back as the corps commander, and I commanded that battalion for about a year and a half, so during my last year of command—as battalion commander—he was the V Corps commander, because we left about the same time. I came home to go to the Staff College and he came home to be the Vice Chief.

INTERVIEWER: You mentioned at division level that each time, as he moved up, he seemed to concentrate on a different set of things, and in the division you mentioned training and resource management. Does anything else stick in your mind?

STARRY: Well, the plans—the operational plans were apparently the things that he thought were most important to him as corps commander and, as he did when commanding our division, he concentrated on training and resource management. The rest of it—he had essentially, I think, the same relationship with the NCOs that he had as a battalion commander; he talked to them a lot; they all felt like he was their special, personal friend. Whether or not any of them ever talked to him, he was the guy that they always referred to.

INTERVIEWER: Sir, you mentioned that, when you were in the 63d, he made life quite difficult for lieutenants. When he was division commander, did he also?

STARRY: No, that was not true when he was a division commander. As a division commander he was kind of hard on battalion commanders, although not in the same way that he was hard on the lieutenants. As a division commander, he shifted gears. You know, we've gotten into the business in recent years of the relief of battalion commanders, and we had the thing in Vietnam about a lot of guys in 1st Division being relieved. I studied that in my first tour in Vietnam—I studied that problem somewhat when General DePuy was in the 1st Division. And of the 40 or 50 officers—I've forgotten the exact number—that he relieved, we could only find one case where I thought there was a significant possibility that an injustice had been done. And the things General DePuy was relieving people for were the same things that, just a few years before, I had seen General Abrams as a corps commander and a division commander replace battalion commanders for early. He made no big thing out of it—you are relieved—get out—that sort of thing. It was a different set of circumstances.

We weren't at war, but readiness was a big thing. We thought we might be at war, and so in a way the same sort of pressure was on the battalion commander. He just moved them

on, that's all. The last year that I was in command of my battalion, the other two battalion commanders in that brigade were replaced early, either because they couldn't train the battalion or couldn't manage their resources. And he did it very quietly. There was no conversation about it; it wasn't a rip-roaring thing, but that was part of the bullet that he felt it was his obligation to bite and so he did it. If General Abe had a weakness at all it was that he sometimes was too easy on the same people. He surrounded himself with people who were not as capable as they could be perhaps in a lot of ways. When he was battalion commander, if you had a lieutenant in your company that wasn't doing very well, all you had to do was tell him about it and he would take him off your hands and put him on his staff. And that doesn't mean the whole staff was incompetent by any manner or means, but it did make for problems, which he overcame by using the good people for lots of jobs in addition to their own. When he was a battalion commander, he and his adjutant ran the battalion. He had an adjutant who had been a tank company commander, extremely successful tank company commander, in World War II, an outstanding fellow, and that adjutant was the S-3, S-1, S-everything. He and Abe ran the battalion.

When he was a division commander, he and his G-3 or chief of staff—when Jimmie Leach was his G-3 in one case, and he and the chief of staff when Colonel Chuck Henne was his chief of staff, they ran the division. And if you had a problem child in your brigade or your battalion, captain or a major, he'd take him off your hands and put him on the staff. He did the same thing in Vietnam. And so people have criticized him for that. I'm not criticizing him. He saw that as necessary—part of his share of the pie. And he said to me one time—in fact, in Vietnam, I complained to him about it once. I said, "You've always done that, and it's always made your headquarters something less than what it could be or what some of us think it ought to be." He said, "All it takes is me and one or two good guys to run this thing, and if I can get the good guy I can put up with the rest of that. But it gets the less-than-adequate guys out of the hair of subordinate commanders." Now, that is how far he was willing to go, picking up what he believed to be his share of the pie at whatever level of command he was at. I admire him for it.

But still I got frustrated with him. In fact, so much so that I said so a couple of times, because it meant that you were dealing with his staff—and in a lot of cases, you were dealing with incompetents. And in this case in Vietnam I complained to him about it, and he said, "Why don't you go and do it?" I said, "It is his job." He said, "You just do it and shut up." And so I did. And he said nothing about it, 'cause that was his way of doing the thing. But people criticized him for it. I've heard senior officers criticize the people whom he kept around him as his staff officers in many cases because they were incompetent. It wasn't that he hired incompetents; it was just that he saw that business of taking the people who couldn't cut it and stuffing them away in the organization some place as part of his share of responsibility.

INTERVIEWER: We've seen that remark in other interviews.

STARRY: Really? Well, here again, I'm reluctant to be critical of it, because it reflects the things I've already said. In a way I thought it was a great strength. You had to understand that about him, however, in order to accept it graciously, anyway.

INTERVIEWER: This would mostly be in his immediate headquarters family, then. Would he put up with that kind of incompetence in commanders down the line?

STARRY: No, no, no. He put up with it around him, but he wouldn't put up with it down below. Now, I never talked with him about this—whether he expected other commanders down the line to do the same thing, I don't know. I think he did. I think he felt that, "I'm doing my share; you guys should be doing your share, too." And he didn't expect everybody else to operate exactly the way he did, but the philosophy was about the same. When he was corps commander, of course, I didn't see very much of him. I went down to his house to see him, at his invitation, a couple of times, and I saw him in the field frequently at one exercise or another, but I certainly wasn't able to observe his modus operandi as closely as I had when he was a division commander. He was only commander of the corps for a year, so I really don't know that much about his tour as a corps commander except that the things he did as a division commander he continued as a corps commander when he came back—the training, the readiness, and resource management were again prime considerations.

The only problem he had was a staff that was not competent at all in many cases. They didn't understand him; they didn't understand his method of operation. If you are going to operate that way, what you must have is enough people around you, and it need only be two or three in that situation, enough people around you who understand the philosophy of what you are trying to do to make the thing work. That's why senior people carry others around with them when they go from assignment to assignment, even though that's supposed to be a no no. It isn't that they are comfortable with them necessarily; it is that the juniors know the operating mode and can operate in that framework and it doesn't take a lot of time to get everybody cranked up again when the boss goes from one job to another. General Abe did not have that advantage when he came back as a corps commander, so his staff was not very good.

INTERVIEWER: A completely unrelated question. I understand your headquarters has now been named the "Abrams Building." The I.G. Farben Building. What are the Germans' reactions to that?

STARRY: Well, the Germans like the Abramses very much. They had some very, very good friends in the older, the senior German community, civilians, officials, but mostly the older German civilians who knew them when they were there when he was an assistant division commander, division commander, and corps commander. They still correspond, and some of those people still visit Mrs. Abrams in the States, you know, when they come over and so on. To the Germans, that building will always be I.G. Farben hoch haus, because that's what it was to begin with. However, they certainly don't object to our naming it after General Abe and, in fact, the ones who knew the Abramses well and admire them are very happy with that. But to the average German on the street, who doesn't know the background and that sort of thing, it will always be the Farben Building, even though we call it the Abrams Building now.

INTERVIEWER: Sir, going back to this point you mentioned about people who knew General Abrams' philosophy. Was General Abrams to you, sir, one whom you might say was "short on guidance"? You really had to understand what he meant in terms of the different things he wanted done.

STARRY: Well, that's hard for me to say, because I grew up with the guy. I told him one time—I said, "If I'm a good battalion commander today in the 3d Armored Division, it's because you were a good battalion commander in the 63d Tank Battalion 10 or more years ago,

because the only thing I know about commanding battalions is what I observed you do. What I do in this battalion are the things you did in that battalion. So if you think this is a good battalion, don't credit me. You can take credit for that." And he grumped and growled around about that, but I believe it. And several of us—in fact, General Ennis Whitehead and I were talking about this one time; Ennis was a platoon leader in that same group of lieutenants that had reported for duty in the 63d, and he said to me one time, "The older I get and the more I do this, the more I keep coming back to the fundamental things that he tried to teach us as a battalion commander." And that is true; I did it as a battalion commander, I did it as a regimental commander in Vietnam, and I am doing it as a corps commander, because his fundamentals were so basic to our business that you just have to keep coming back to them. He taught good lessons. Let's see, what else in the division period do you want to talk about? That's about all I have unless you have something specific.

INTERVIEWER: No, unless maybe something on tank gunnery. I can remember tank gunnery as just being "it" when I was in the division.

STARRY: Well, tank gunnery had a variegated career in Europe, not all of it the function, but part of it the function of General Bruce Clarke's presence there off and on over the years, and part of it was General Abe's. We have from time to time overdone it, overemphasized gunnery somewhat, I think. This is true of times gone by, although not nearly as much as a lot of people like to have you believe. It's a competitive exercise; it's competitive when you start shooting at the enemy, so it ought to be competitive on the range. In fact, I have a theory that you ought to train people under stress, because that's what they are going to be under in battle, and I learned that from General Abrams. I've heard him say it many times. We had a big discussion in our division, I remember, when he came back as a division commander and found that no officers, especially battalion commanders, had fired their own tanks, even though we were assigned them in the TOE, you know. And as a battalion commander his philosophy was that officers went down range and did the thing first. The platoon leader was the first guy down range in his tank; the company commander with his; the battalion commander with his; that's the way he operated. And it never occurred to me to be necessary to debate whether or not that should be done. It was just the way I had been brought up.

But when I joined the division in 1960, the 3d Armored Division, there was a big debate going on about whether or not officers should fire. Well, I just saw that as a cop-out on the part of those who were not technically qualified to get in the tank and go do what they were supposed to do, particularly battalion commanders. I didn't care whether the brigade commanders fired or not in the division; it didn't make any difference to me. But the battalion commander should; the company commander should. In 1960 company commanders were not even required to do it. So one of the first things that he did when he came back and took command of the division was to put a stop to that argument; company, battalion, and brigade commanders went out and fired their tanks.

INTERVIEWER: I remember when that happened. I was a young platoon leader. I suddenly got pulled up to the headquarters tank section and made the battalion commander's gunner. I won't tell you who the battalion commander was at that time. And we almost boloed.

STARRY: Well, that's ridiculous. They missed his point. When I took command of the 1st of the 32d I got all of the other tank commanders in the battalion together in a room in the

theater. Nobody else was allowed—motor sergeants were not allowed and the sergeant major was not allowed, and the sergeant major got mad at me for doing this, but all the tank commanders in that battalion. We were getting ready to go to the ROAD organization, and so I had my own four tank companies plus a fifth tank company. I had 89 tanks, because we were going to split and have two battalions out of that one. And I thought about this quite awhile, because we had been through this argument before. General Abrams was not back yet as the corps commander, and I didn't know how this thing would work. After he left as the division commander, the debate about battalion commanders firing a tank returned.

So I got all the tank commanders in the room and I said, "Now there are 89 tank commanders in this battalion; that's all of us in this room. The whole operation of this battalion depends on what we do if the war starts. Some of us are better than others. There are officers, there are sergeants, there are platoon leaders, there are platoon sergeants and so on in this group, and I expect every tank commander, whether he's an officer or a platoon sergeant or whatever, to be just a proficient as the next guy. As a matter of fact, even though you guys do that as a primary duty and I have other things to do, I'm going to beat all of you, and I expect the company commander to beat everybody in his company and the platoon leader to beat everybody in his platoon and so on." Because that's what I had seen him do years ago, and I thought that was a very effective technique.

Well, it was a very effective technique, but it cost me untold hours of personal agony, nights and weekends. I had a crew that was composed of a drunk, a perpetual AWOL, and another guy that had some kind of a problem, a family problem of some kind. And so I'm going to take these guys and go out and beat all those other guys. But I had taken the crew and I wasn't going to fire the crew, so then I bet the rest of them a case of beer. I said, "I'll buy a case of beer for every crew that beats us, a case of beer and a steak dinner." Well, I bought one case of beer and four steak dinners. There was only one crew in that whole battalion that beat me. But there was a lot of anguish up and down the line.

INTERVIEWER: I remember that.

STARRY: Yes, but I think he was right, and I still do, and all the conversation on the part of those who don't want to do it I just see as a cop-out because they feel they can't lick the problem. You see it in the Israeli Army. In the Israeli Army a leader is the leader because he's the best guy in the outfit. The tank company commander is probably the best tank commander in his company. He's also good at putting other tanks together to fight. And battalion commanders are the same way. I just think it's a number one cardinal principal of leadership. Okay. Vietnam?

INTERVIEWER: Think so.

STARRY: Well, there are a couple of Vietnams I ought to tell about. I went to Vietnam out of Carlisle in 1966 for my first tour. Because I was a recent War College graduate and had commanded a battalion already, I was assigned to the USARV Headquarters, a fate worse than death. Subsequently, General Art West came over with his MACOV (Mechanized and Armor Combat Operations, Vietnam) Study Group, and I got hooked up with that in the fall of 1966. I spent about five months of my tour with that study group. I wanted to command a battalion out there, but in December I came out on the promotion list to colonel and obviously wasn't going to command a battalion. I was very frustrated.

General Abrams came out, I guess in about October or so of 1966, on a trip when he was Vice Chief, and I went around with him. We had a good time together, a good trip. We started out, went up with the Marines and all the way down to the Delta, went to see units and people and whatnot, traveled around in an airplane, and I think he really enjoyed himself. He said so, anyway. It was good to see him again, and we talked a lot about what I was doing and wasn't doing and whatnot, and he said, "Just be quiet and do what you are doing and you'll be all right."

And then he came over once again the next spring, the spring of 1967, as the MACOV Study Group was winding up its work. We spent several hours with him telling him what we had decided. He got mad at us because we were trying to put more combat strength into the force. This was a time when everyone was very conscious of the logistics problem, the lack of a base. It was a time in Vietnam when we were having a hell of a time getting the ports going, the logistics structure built up. And he got all mad at us and took us to task because we were concentrating more on putting more combat forces in. In fact, George Patton and I had worked up a scheme where we identified 25,000 logistics spaces we thought could be replaced by combat spaces. He really got all over us over that. Nothing ever came of it. We spent a difficult evening with him lecturing all of us together, me and Patton and Art West and a whole group, about how we operators were screwing up logisticians.

INTERVIEWER: What else was he interested in when he made these trips as Vice Chief? Who did he go to see?

STARRY: Well, we recommended to him where we thought he should go. We went to divisions and brigades on the US Army side and to the Korean Division; we went to see the Marines, Third Marine Amphibious Force Headquarters; went down to see General Bill Desobry in the Delta and went out and watched the big firefight in progress with, I believe, the 7th ARVN Division down there. But what we tried to do was take him to enough places to see enough things so he would get a feel for what was going on in each part of the country, because there were at least four different wars going on over there in each of the four corps tactical zones. And so he would go away with a feel of how the war was being fought in each of those areas and, if they had problems, what problems they were that he needed to know about as the Vice Chief of Staff.

And, of course, shortly before I left to come home in 1967, he came back as DEPCOMUSMACV. I came home and worked on the Army Staff for a while in OSD, then in early February of 1969 I went back to Vietnam, having contrived to have myself reassigned out of the Pentagon as the administration changed. I had arranged with a friend to get me a job on the MACV staff, and I reported to the MACV J-3 section. Through a series of circumstances, I fell heir to some plans that we were making to redeploy first one division, then two divisions, then in March or April we got the directive to prepare the plans to Vietnamize the war. So really, from February 1969 to the time I went to the 11th Cavalry at the end of November, I wrote the plans to Vietnamize the war and, in fact, developed plans that deployed the first two troop increments and wrote the plans for the next three, then turned that over and went out to 11th Cavalry.

That was an interesting time. It started in December 1968. I think he sensed that, with the Nixon Administration coming into office, there would be a move to cut down on the force in Vietnam. I think that came from his experience with Mr. Johnson when he replaced

General Westmoreland. General Abrams told me one time that, at that famous Rose Garden meeting with Mr. Johnson, the President asked him how many new troops he needed to run the war. General Westmoreland had just gone in with a request for 206,000 more to fight the war. In General Westmoreland's memoirs, it appears that was a contingency thing, done in response to an initiative from the Chairman, General Wheeler, but it was misconstrued in Washington as a request for 206,000 more troops, and it was the thing that caused the President to replace General Westmoreland.

General Abe came home at the behest of the President, and the first thing the President asked him was how many troops he thought he needed to press on with the war, and Abe said 25,000. He said, "The reason I say 25,000 is that we've deployed another brigade, a couple of brigades I guess, since we last rounded out the logistics structure, and we need to do that so that we can have a kind of a balance to our structure, and aside from that I'm willing to fight with what we've got and see what happens. I think we've some momentum going, and I think it's beginning to turn our way." He was right, but it was the difference between the 206,000 and 25,000 and the President's perception of those numbers that I think decided the President to pull General Westmoreland out and put General Abe in.

I think it was that experience, coupled with his perception of Mr. Nixon's problems, and the fact that Mr. Johnson had bowed out over Vietnam, that caused General Abrams, almost as soon as the elections were over, and it was apparent that the administration was going to change, to start thinking about what he would do if we had to redeploy troops. And so in late December of 1968 or early January 1969, he began at least thinking about, and in January working on, a plan to redeploy one division. When I got on board, it was one division, then it became two divisions. And, in fact, after the inauguration and sufficient time had elapsed for the administration to get together a National Security Study Memorandum, NSSM 36 was published. It dealt with Vietnamization of the war. I don't think General Abe had had any communication from Mr. Nixon; to my knowledge he had not, but he was perceptive enough to realize that that was probably going to happen and he'd better prepare for it. The message traffic that flowed then about the one division and two divisions started in about January, and it was between General Abrams and the Chairman, General Wheeler. They saw things very, very much alike, those two. In fact, it was a remarkable relationship—message relationship—between the two of them, General Wheeler and General Abrams. General Abe had an uncanny ability to read the Chairman between the lines and to transmit to him between the lines, and they both knew it. It was obvious that there was a very clear reading of all the intent that lay behind those messages.

The whole exercise, during the time I was involved, was run by back channel, so I do not know whether there is an official record of it or not. I kept the back channels in a series in three-ring binders, big three-ring binders, and eventually I hired a captain to sit down and synopsize those binders into a single volume. When I left we had a single volume; it was a synopsis of all that had taken place. What happened to it I don't know, but until the time I left in November, it was all done by back channel. Until about September, it was all run by about five people. The whole redeployment planning exercise began with me and three majors. The four of us and the chief of staff, General Carter Townsend, and General Abrams were the only people who knew what was going on. My boss did not even know what I was doing—what I was telling General Abrams or what he was telling me. General Ed Bautz was the J-3, and apparently Abe just told him, "Okay, they are working on this

thing, and here's the general nature of it and you can forget about it." Eventually, we were able to open it up a little bit and bring more people into it. My plea to him was that, sooner or later, we had to make it a fairly regularized staff operation or we were going to get in trouble. We could deploy a couple of hundred thousand, probably, without upsetting too many applecarts, but eventually we really had to get the staff in on it. And so he thereupon allowed me to organize a little task force. Eventually we were able to kind of regularize it. It was all very secret. We made a decision to redeploy 25,000 at a Presidential meeting on Guam. Then General Abe sent me down to tell the division commander of the redeploying division that he was going to redeploy the 9th Division.

INTERVIEWER: Who was the division commander? Do you remember?

STARRY: General Harris Hollis. So, I had to go tell General Hollis that his division was going to redeploy, after the President had made the decision and before we had ever consulted with General Hollis on it at all. That was a very interesting period. When we wrote the Vietnamization plan, we saw a residual US force of about 200,000 to 230,000. In other words, we thought that, in due course, over a period of three or four years, we could take out all but the last 200,000 or so US troops. But that was the residual force, and at one point I think we said that would have to remain, for as long as we could see, perhaps as long as 10 years. That was in April 1969.

By about June that year it had become apparent to General Abrams and to me, from what the Chairman was saying, that we weren't going to stop at 200,000. We were going to get out completely. We talked about that. I remember General Abe's saying, "All right, if that's what they are going to do, fine, but we've got to do it in an orderly way, in a way that makes sense, and a way that doesn't let the Vietnamese down—doesn't collapse the whole system." So we started a big drive to not just to turn the war over to them, but to get the whole thing organized so that it was orderly and timely and we didn't leave anything uncovered while we were doing this. He was very concerned about that, and I think by and large we did a good job of it. He was the first one to perceive the administration's real intent. He looked at a message one day and he said, "Well, we're going; we're all going, and it's just a matter of time; we don't want to panic." There was a great deal of pressure from Washington in that summer of 1969 to just turn tail and run. And my perception of it, at least, was that the rocks in the stream that prevented that from happening were General Abe, the Chairman—General Wheeler—and the President, even though the President was under a lot of pressure from the State Department as well as the fuzzy-headed liberals, the Ellsbergs, and so on, in OSD, just to turn tail and run.

INTERVIEWER: Who was the CINCPAC then? Was that Sidney McCain?

STARRY: Yes. Admiral John Sidney McCain.

INTERVIEWER: Where did he fit into the relationship?

STARRY: He did not, for a long time, as I recall. In October or November we began to draw CINCPAC in more at General Abrams' insistence. When the thing started there must have been some agreement that they would bypass Admiral McCain. I don't know whether there was or not, but I believe there was, simply because General Abrams, who was always concerned about commanders' prerogatives, bypassed Admiral McCain without blinking an eye. I know he would not have done it had he not had some agreement with him that

that was what was going to happen. In due course he worked to get the Admiral back in the chain of operation. Although the traffic was still direct from Saigon to Washington, we routed information to CINCPAC. Eventually, as I recall, toward late November it began to come through CINCPAC; they had it first and passed it to us.

INTERVIEWER: If I may ask you, General, the back channels were not info copies to CINCPAC.

STARRY: Later they were. At first, they were not. In about October General Abe insisted that we begin to pass it through Admiral McCain. There was still some direct traffic, but he wanted to get CINCPAC in the act. That must have been a very difficult time for him. He knew what had to be done; he was the first really to see the handwriting on the wall and to know that we were going to have to leave completely, and yet his first concern was that we do it in a way that would not let the Vietnamese collapse. He was very concerned about them, and that the United States would come out of it looking like we knew what we were doing and there was a rational, organized effort in the thing.

One of the things we had to do was make an assessment of the enemy situation that would either say to us that we could proceed with another increment of redeployments or that we had to wait. In August 1969 we were due to make a decision about a second increment. The enemy had a little high point of activity in August, and the decision kept getting delayed until finally he came home—I came home with him, on the 12th of September, to a meeting in the White House to make the decision. The enemy's activity delayed that decision by six weeks. And at the end of that conference on the 12th or 13th of September, I believe it was, they made an announcement that we would take out the next increment of troops, which turned out to be 40,500, by the end of the year. And the assessment process was very difficult because there really wasn't anything to go on. You could make anything you wanted to of the enemy activity. It went in cycles; it was seasonal with the weather, the monsoon, and there were great time lags in the movement south between the time the people started in the pipeline and the time they arrived. There were large numbers who fell out from malaria and stayed someplace in the jungles out there until they were either dead or well and got back in the pipeline. It was very difficult to analyze that.

Even if, as we later did, we had taken a systems approach from the beginning and tried to do a sophisticated statistical analysis, it still would have been very difficult. The J-2 worked up for the J-3 a very, very fine cyclical analysis and put some statisticians to work on it to make some forecasts. On the basis of that we made assessments. It was most difficult. We were not only reducing the Army, but we were also reducing Air Force and Navy elements in Vietnam. My most difficult job was to suggest to the staffs of people like Admiral "Bud" Zumwalt and General George Brown that they ought to take this out and that out. The Air Force, I suppose, was a less than totally reluctant dragon because of its rapid deployment capability. But the Navy was just deeply entwined in the water work, especially the brown water Navy in the Delta, which was an enormous operation—all kinds of small boats. I remember having a very difficult time with Admiral Zumwalt and his staff over the size of the redeployment increments that the Navy could afford to stand. Once General Abrams recognized that we were going to go completely, we still got from the Navy staff an inordinately big residual force, so I got some of Admiral Zumwalt's people together and

tried to convince them of what had to be done. I also recall saying, "As a matter of fact, if you want your boss to be the CNO, here's a good way of doing it." Well, that apparently made a convincing case, and they took off. They were giving boats away to the Vietnamese faster than we could count them. And on the basis of that rather spectacular performance, among other things, Elmo Zumwalt became CNO. He was a great guy.

INTERVIEWER: Sir, if you were to go back to a point where a lot of this first started and look at what you perceive as General Abrams' first feelings on the withdrawal or the drawdown, did he originally go to the mat saying we should stay a little longer or was it all in terms of let's just have a gradual, systematized withdrawal?

STARRY: He was a very perceptive observer of the political scene in Washington. He was probably the most perceptive military person I've ever met about that. He had an uncanny—it was almost like his sensing for the enemy—I guess it comes from the same instincts. He sensed, I think, almost as soon as the Nixon Administration was elected, not even inaugurated, he sensed that that was what was coming, so he started preparing it. He was always about a step ahead of them.

I do not believe that, in the beginning, he had any idea that we would leave completely in short order, although I am sure he didn't rule that out. It was apparent to us by the spring of 1969 that we had a real fight on our hands just to keep it orderly and not have it be a big bugout. He said to me when we started, "I do not want to be an obstruction to this thing; it's going to happen whether you and I want it to happen or not. I do not want to be an obstructionist, but I do want it to be done in a way that does not completely bug out on the Vietnamese and leave them flat and unable to defend themselves. I do not want us to do it in a way that it becomes a rout on the part of the Americans and we simply turn tail and run. I do not want the Army or any of the rest of the US services just to throw it all up in the air and leave, because that would be completely counterproductive."

In the end, long after he was gone, I think it took on some aspects of that, but it didn't in the beginning and it could have; it could very well have in the summer of 1969 and, as I say, the only rational voices in that whole area were General Abe and the President and General Wheeler. Mr. Laird apparently listened to General Wheeler, but where Laird was in this thing, I don't know; he never came up on the net. I'm sure he talked with the President, and I'm sure that between General Wheeler and Laird and the President there was some agreement, but the network that I knew about was the President to Wheeler to Abrams network, and the three of them were of one mind. Even though the military guys (Wheeler and Abrams) would probably not have recommended to the President to do what he was doing, when they recognized that he was going to do it, whether they wanted him to or not, they believed their responsibility was to do it in a way that did not leave the United States armed forces and the country looking like a bunch of idiots. And I really think that, to the extent that it was possible, they did pretty well. It was a very, very difficult enterprise to undertake—very difficult.

INTERVIEWER: Sir, would you say it was characteristic of General Abrams over the time he was in Vietnam that he did not want to fight, in that he knew that he would probably lose, such as this particular case? Was that also evident as a battalion commander—division commander? Would he perceive in a very difficult situation that the boss had already made up his mind and so he would not commit his own efforts and resources?

STARRY: No, no, I don't think so. If he believed in something—if he believed strongly in something, he'd fight for it. I've seen him do that many times as a commander, division commander at least. Like the incident with the spare parts, he believed that he was in trouble; he got in the car and went down to Heidelberg and said so. The situation in Vietnam was completely different, and the arena that he had to operate in was completely different. We had the spectacle of General Harkins being summarily relieved, of General Westmoreland being moved on abruptly over the 206,000 thing, regardless of what Westmoreland's memoirs say about it; the perception in Washington of what he was doing was what caused his replacement. General Abrams said to me one time, "There's no way for you and me to tell whether what we are doing is right, because the decision of the rightness of it is not a military decision and so here we are; we sort of have to do the best we can."

I think the answer to your question is that, in the Vietnam situation, the redeployment situation, he himself was operating in a completely different environment. And I think he was very sensitive to the military/political situation. While I think he would have been the last fellow to talk with you and me about political/military affairs, for he did not fancy himself to be a political scientist, he was nonetheless a very realistic guy—realistic about his position, the Army position, the military position in what was happening in our country. And he saw that as his job—to bring that war to whatever conclusion the Commander in Chief had decided upon, and to do that in a military way. I'm just very confident that, if he were here and talking about it, that is the way he would put it. The Commander in Chief decided that that's what we were going to do, and so that is what we were doing. And, in the context of what the Commander in Chief had decided, irrevocably decided, his advice and counsel to the Commander in Chief was that we do it this way.

Based on facts—he was always very careful about how those facts were laid out and presented, careful in the sense that they were not overblown, not exaggerations; where there were exaggerations, things that he or I thought were exaggerations, I had to take them out. He and I would make that judgment. On the 12 September trip, we spent most of that trip on the airplane going over the fact books that he was going to take with him into the cabinet meeting in the White House, making sure that there was not, in those books, something that we thought was an exaggeration or a slanting of the facts in the direction of being obstructionist about the thing. The attitude that he took was, "Look, we understand what you have decided to do. We may not agree with it, but if you want to do it, if that is what you want to do, Mr. President, okay, here is the way you have to do it in order to have it come out with any semblance of order."

So it's a different arena, a new environment in which to operate. But if he believed strongly in something that related to his business as a military man, and I think that if it had come down to—if it had come down to even an argument about, let's say, 150,000 people in the second increment instead of 50,000, I think he would have argued about that, because we could not have done that in an orderly way. We thought we could handle 50,000, but for a number of reasons that we had listed, 150,000 we couldn't have handled. It just would have been too fast. It would have been traumatic. There was just no way of handling it in an orderly way.

INTERVIEWER: Sir, would you comment on when he and you would attend these meetings with senior people, how convincing a salesman he was, how he could make his point?

STARRY: I didn't go to Guam with him. Nobody went to Guam with him. I did not go to the White House with him in September; I came home with him, but didn't go to the White House with him, so I don't know. I never saw him operate in that arena. He reported to me several times on his conversations with General Wheeler, but I had not met with him and General Wheeler. He told me about the meeting at the White House, told me what his perception of it was, and told me what happened. But I wasn't there, so I don't know. I've never seen him operate like that.

The only thing I've seen is him operate with his own commanders in Vietnam and the negotiations and the manipulations about how many of the Navy, how many of the Air Force, and how many of the Army were coming out this time and so on. So I really don't know. My perception of his relationship with General Wheeler is based on my impression of what he told me about their conversations and by message traffic. I spoke of the messages between February, when I started in that job, and November when I left it. We sent or received over 800 back channels, some of them 75 or 80 pages long. We were sending troop lists by back channel. So I have read General Wheeler a lot. General Wheeler obviously didn't write the troop lists, but there were a lot of terse little messages that passed back and forth between them that General Wheeler had obviously written himself. Now, I thought I learned to read, in the Wheeler messages, what General Abe was reading in his remarkable long distance, almost telepathic relationship. I'm sorry General Wheeler is gone, because it would have been interesting to query him about that. They thought very, very much alike. General Abe would sit there and look at a message for a long time, just a couple of short paragraphs, and he'd study it for half an hour or so, and then he'd say, "What do you think?" And I'd say, "Well, here is what I think he is saying," "Okay, that's right." Or he'd put a little different twist on it. I learned from him to read the Chairman's mind, almost, I think, and he was obviously very good at it.

INTERVIEWER: Did General Abrams visit you when you commanded the 11th?

STARRY: Yes, once or twice, I guess. Once we got into some trouble. We had a horrible firefight—the 2d Squadron got into a horrendous firefight up near Bu Dop in Phuoc Long Province. And there was almost a division of North Vietnamese—it was February 1970, and they had a regiment and a half, as near as we could tell, stirring around at Bu Dop. I don't know really what they were trying to do, except that one day they attacked us at Bu Dop and the next day they attacked us down near Loc Ninh, 30 miles away, so apparently they were supposed to be coordinated, but it didn't get coordinated.

The 2d Squadron got in a big firefight at Bu Dop, and it lasted all day. In fact, I was standing in Lieutenant Colonel Brookshire's CP when the thing started, and we were still out there when darkness came, and it was just a good fight, well handled by the squadron commander. The regimental operations center was sitting back at An Loc, listening to the fight and copying down reports. In the course of the day, we got a horrendous body count. Over 200, as I recall. Somebody reported that. Well, you know, it was an estimate. It wasn't even an estimate; it was just what they got from monitoring the message traffic, which was what they were supposed to do. At the time they submitted the report, within the timeframe of the report, we had only counted about 40 or 50 bodies. We hadn't had time to do more, and darkness was coming and we were trying to cut these guys off before they got back to the border and they were about five kilometers from the border.

Well, all hell broke loose. There was apparently a big flap from Washington about, "What are you trying to do, start another war? How many Americans were killed?" and all this sort of thing. I never saw that part of it. I can only sense that it was going on. Everybody got all agitated. The division commander was agitated and the field force commander was agitated, and so, the next day, General Abrams appeared on the scene and calmed the whole thing down. He got the thing straightened out; even though it attracted attention up and down the line, he just stood behind his commanders. He felt that, even if an honest mistake had been made, if you were doing what you were supposed to be doing in the way that it was supposed to be done, and there was no flimflam or chicanery, he would stand behind you, just like a big rock. I had no idea what transpired, but I'm sure there was a lot of traffic. He didn't bother me with that. He just came out and got the division commander and we went around together for awhile, and finally he turned to me and said, "Just keep right on doing what you are doing." Got in his airplane and left. And that stopped the whole thing. Otherwise, it might have been a donnybrook.

I never talked to him about the Cambodian invasion, so somebody else is going to have to tell you the story of whatever assessments were made and reported on back and forth to Washington when they were considering the thing. We had a lot of reports about the area that we were going into—the Fishhook. We had a lot of reports of large enemy fortifications in that area—bunkers, antiaircraft positions, and sliding concrete domes. A "Pentagon," there was supposed to be a Pentagon. The COSVN, the Central Office for South Vietnam, was supposed to be over there somewhere, and everybody assumed that that was in a big building like the Pentagon. As you know, it wasn't any such thing—it was, you know, four or five guys with a radio in a jungle, that was COSVN. The image was of a big building someplace.

But the thing that really concerned us was we didn't know what was there. We had a lot of reports from people who were supposed to go across the line and find things out, but we suspected most of them were fabricated, in fact fabricated to the point that it made us wonder whether or not they had actually gone across and looked. These reports included heavy antiaircraft concentrations, fixed-gun emplacements, antitank guns, tanks, everything. We'd been out on that part of the border for almost three months by the time we invaded. And we were convinced that there wasn't anything there at all except troops, and that they could move troops in, almost at will, down those roads in Cambodia and we would be confronted with whatever it was that they had been able to get together between the time they knew we were coming and the time that we actually attacked, but that there were no concrete emplacements, tanks, pillboxes, or antitank guns. But there was a growing crescendo of nervous Nellies in conversations about, "Well, we're not sure the attack will go and so on." And General Abe sent word out to me the day before the attack, the night before the attack. He wanted to know if—in my judgment—we could make it. And I said, "Yes." And so away we went.

And, as it turned out, we were right. We got hit before we got to the border—we got hit by a battalion before we got to the line of departure, which shows they knew we were coming. And I got wounded the fifth day of that attack. I don't know what transpired then. Somebody else will have to put that together for you.

I'm sure General Abe intervened. They promised to evacuate me. The first thing I saw when I woke up was a funny-looking medical major standing there, and he said, "Don't worry, we'll get you out of here as fast as we can back to the States." And I said, "Look, I don't want to go to the States, I want to go back to Cambodia." And I finally had to get the hospital commander and threaten him with mayhem and I said, "You call." I'm sure that somebody relayed or reported that to him, because General George Mabry, the chief of staff of USARV, came to see me, I think to see how I was doing more than to see me, and apparently reported back what had happened. So I'm sure that, someplace in the negotiations, General Abe had to say, "Okay, he can stay, we want to keep him. Unfortunately, he is going to live."

INTERVIEWER: Sir, we are getting close on time. Can you talk a little bit about when General Abrams became the Chief of Staff and then, particularly, maybe as CG at Fort Knox, any influence he had on the new tank.

STARRY: Well, I was there about six months or so, six or eight months, during his tenure as Chief. It takes that long for a new Chief to get going, new staff coming aboard and that sort of thing, and different, totally different, atmosphere than with General Westmoreland, and so it was a complete change at the top. And so really all I can report on in any detail was our conversation before I went to Knox and what happened after I got there. We talked, at his request, before I went out there. And, as a matter of fact, they were going to send somebody else out there, and General Abe apparently decided, either on his own or on General DePuy's recommendation, that they not do that, so he sent me instead. And we talked about what we thought we ought to do.

General DePuy and I had already talked a lot about what we thought the Army ought to do and how we ought to get it organized and reorganized in tactics and how to get over the Vietnam War and so on. And apparently he had talked to General Abrams about it also, because when I went to see General Abrams, he asked what things we should be doing. How ought we to go about this? And we talked about several things. One—reorganization of units, particularly the cavalry, which we both felt ought to be reorganized. We talked about tactics and about equipment, tanks particularly. And we agreed that—he sort of left it up to me, but we agreed that, as a first order of priority, I ought to tackle the reorganization of the cavalry and, subsequent to that, we would meet again and talk about whether or not we ought to reorganize tank units. That we needed—this was before the October War, that we needed a real sound appraisal of what we thought the battlefield in Europe would look like now, a fresh look at it, because we hadn't had a look at it in a long time. We had been absorbed in Vietnam, and we needed to look at the modern battlefield again, so that became the genesis of what I started on—what eventually came to be called the modern armor battle.

We had just about finished that analysis to my own satisfaction when the October War came along. In that regard, that war was kind of fortuitous for us, because it demonstrated what we thought we had already decided, but that I'm sure we would have had some difficulty convincing people of, particularly in some of its more dramatic implications like the amount of ammunition we expected to use. General DePuy has recounted to me that he reported to General Abrams on what was going on, what we had done about this, that and

the other thing that General Abe and I had agreed upon, that General DePuy and he had agreed on.

The tank thing, I've forgotten how it happened now. He came out to visit us at Knox one time, that was it. This would have been—let me think back over this. It was the spring of 1974. So sometime in the fall of 1973 or in the spring of 1974, the fall of 1973 as I recall, he came to visit us at Knox and he asked me, he said, "I want you and Bob Baer to go around to the other countries in the world and look at their tanks, shoot them and drive them. Because we are going to have to make a decision about XM1 the next year or so and we'd be better informed about what other people are doing." General Baer and I had already talked about this, as a matter of fact. We wanted to go to England, we wanted to go to Germany, and, of course, after the war in Israel, we wanted to go to Israel. So we, General Baer and I, went to Europe in the spring of 1974 and spent a couple of weeks in England and 10 days in Germany.

Meanwhile General Abrams had gone to work to get us entry into Israel, and so, as we were about to leave Germany to come home, he called and said, "I want you to go to Israel." So we spent some days in Israel. When we came back, I called him and I said, "I need to report to you on what we saw, and I don't want to write it down because it would be easier to tell it to you." He agreed, and we sat down in his office one day, me and General Bob Baer and General Hank Miley, who was in charge of AMC, and General Fred Weyand, the Vice Chief, and that was it, I guess. I'll have to look it up, but General Almquist may have been there as the ACSFOR, but I don't believe so. The Chief and the Vice and General Miley and me and Baer, I think that was it. And we just reported to him on what we had seen, the tanks.

The problem that he was faced with was that OSD was talking about the 120mm German smoothbore gun. Already then they were worried about the 120, and we'd been to see the 120. They were talking about several other aspects of the development that they thought they ought to change. And after we had reported on what we had seen and what we recommended, he said, "Well, I let Mr. Schlesinger get too far on this thing with the Germans before I raised my hand." He said, "I'm going to have to figure out somehow in due course to get to him and try to change his mind." And of course, before he could do that, he fell ill and died.

Well, the result of that meeting was the tank special study group that we then convened at Knox under General Glenn Otis to analyze the requirements, because what we were reporting to him was that we thought there were some mistakes in the original requirements document that ought to be changed, and our survey of world tanks, to include the T-62, convinced us that we had made a mistake and we ought to go back and review it. So that's what the tank special study group did. What he said was that, when the time comes to make the decision about the tank, I want the Army to know more about tanks, everybody's tanks, ours, theirs, everybody's tanks, than anybody else in this country, and that is your job. So that is what we set about to do. This was before the memorandums of agreement about standardization of guns and engines were signed and so on.

But I think we can say that we did what he told us to. What he said was, "If anybody screws up this tank program, I do not want it to be the Army. I want it to be OSD, so that when the finger-pointing stage comes, that's where the finger is pointed." And he said, "I'm going to

go over to the Secretary and tell him that." I don't think he did—not at that time, because this was February or March, and we reported to him in either late March or April—it would have been late March or early April at least—and in May he fell ill. I don't think he ever talked to the Secretary about it.

INTERVIEWER: Sir, we've run out of time.

STARRY: What have we not covered that you guys wanted?

INTERVIEWER: I think we covered the important areas.

STARRY: I can talk all day about the redeployment thing—I think we've covered the essential features of it.

INTERVIEWER: Well, thank you very much, sir.

3. Experiences as a Commander

TRADOC Oral History Interview
Conducted by Dr. Henry O. Malone Jr., Mr. Richard P. Weinert Jr., and Mr. John L. Romjue
29 July 1981

MALONE: General Starry, during your four years here you have had the opportunity to see and be a part of new developments in the Army, and these organizational developments, particularly those that are taking place now, go back to the Army decision in the early 1970s to eliminate the field armies or echelons above corps. What have been the consequences of this Army deletion of echelons above corps in the early 1970s from your viewpoint?

STARRY: It would be difficult for me to list consequences, but let me review that decision and some of the problems it has caused us. The decision was made as a result of a lot of pressures that were present in OSD, as well as on the Hill, at the time about too many headquarters. The allegation was that services, particularly the Army, tended to be all headquarters and hindquarters and there was nothing in between and, in response to that, General Abrams took the decision to eliminate those headquarters echelons. Now the problem with that decision is—and was—that nothing in the combat service support structure, which is largely what those headquarters are responsible for, was eliminated at the same time the headquarters were eliminated, so you had an enormous amount of structure left in the Total Army, particularly in the US Army Reserve, that had no management or directive headquarters provided for it by organizational structure. The result of that has been a series of ad hoc arrangements in which DARCOM, as the commodity manager, the deliverer of things to the field, has been required to extend itself more and more into the theater of operations. So you now have DARCOM straddling the oceans, as it were, to try to provide the necessary management for those combat service support activities that were originally managed by those headquarters which we eliminated with that echelons above corps decision.

I am not saying it was a wrong decision or a right decision; it was a decision that was taken in response to a lot of pressure and we never went ahead and did to the rest of the structure what the decision implied, and that is pare down the structure and rearrange a way of supporting it. We never prescribed or figured out, for example, how we were going to do those functions that those headquarters represented, if in fact the functions had to continue. So we never completed the loop. Part of it is our own fault for not recognizing that problem. So today we are beset with a series of essentially ad hoc arrangements that are different in every theater, and we have required DARCOM to do something which, by law and regulation, DARCOM is not charged with doing. So we still have a very difficult circumstance out there. We have tried to cope with that in our study of and revision of the doctrine for operations at echelons above corps. Whether we have been successful or not, we will not know until we get that organization in place and see if it works.

MALONE: Could you sum up the strengths and weaknesses of Division 86, Corps 86, and the echelon above corps concept, and also what problems the light division has?

STARRY: The strength of the heavy division and the corps work in Division 86, in my view at least, comes from the fact that we did an enormous amount of consensus building in the development of those organizations. We did the work at Leavenworth, not here, as had been

the case of times gone by, and we involved all the school commandants. You recall, looking back at the history of that, the work was done by task groups, each one of which was headed by one of those school commandants. Some school commandants served on more than one task group as members and so on, and the organization that we produced as a result of that whole exercise is a reflection of an awful lot of thought, work, and participation by all the members of the TRADOC community out there in the schools or centers.

Philosophically, it's essential that you do that. In my view, at least, if you sit here at TRADOC and, no matter how good the organization you may draw up is—it could be perfect (there is not any such thing as a perfect organization, but let's suppose there were)—it could be perfect, but if you don't do a little consensus building out there among the people that have to write about it, use it, employ it, develop it, and so on, in its finite detail, it's not going to get very far.

We saw that with the division restructuring study, and that's why, when we sat down with Division 86, I made the determination that, in spite of the fact it took longer, required more effort and a lot more work on my part, at least, and on the part of the staff here, it was necessary for us to do it in the consensus-building mode. Echelons above corps also reflects a little bit of that, although we didn't have time to do quite as much consensus building in that arena as we had done with the division organization, and in fact I don't know that it was necessary. But we did enough. I think we have got a sound organization. Now it remains for us to lay it down actually in the field and see if it can work.

MALONE: Why wasn't it necessary?

STARRY: There were not as many people involved in it. You see, in the organization of a division, you've got all the senior squad leaders in the Army, who are generals, and all the senior tank commanders in the Army, who are generals, diddling with the organization of every tank, platoon, squad, section, fire team, and so on. Generally that doesn't happen to the same extent in the combat service support arena, so when you started building combat service support organizations, it wasn't necessary to go to that level in detail. The other thing, of course, is that the echelons above corps were not trying to solve that detailed problem at the outset. It was more of a management structure kind of problem, so it did not lend itself well to the kind of detail, finite detail, that it was necessary to go into with Division 86.

Light division, because we didn't take as much time with it, and did not go through as thorough a consensus-building scrubbing of it, the light division is still a tentative kind of thing in many people's minds. It was that tentativeness about it that caused the Chief of Staff to create the 9th Division as a test bed at Fort Lewis, to try to check out whether or not we were about right with the organizations that we drew up in the light division organizational proposals. That is another way of testing the organization or designing new organizations, i.e., saying, "Well, this looks about right," checking it out, with some kind of a test bed, and then saying, "All right, let's change it," and then laying it down. In the heavy division, we had done that testing work in the DRS* division restructuring evaluations long before we sat down to decide what the final organizations were to be. So the light division

---

**Division Restructuring Study* (Fort Monroe, VA: US Army Training and Doctrine Command, 6 vols., 1 March 1977).

is somewhat behind the heavy division in that regard and we are still trying to prove out some of those concepts in the test bed at Fort Lewis.

MALONE: That leads into a question here that really is more of a personal opinion. What is the most important element in the whole Army 86 program that you view as most significant, and which aspect are you personally most satisfied with?

STARRY: Well, you have to look at the whole thing as a system, and you have to realize that the reasons that we went at it the way we did was that we had a whole lot of equipment developments underway which, if they come to fruition, will provide us with some new equipment, ranging all the way from tanks to field jackets almost, and that was going to happen to us whether we looked at organization tactics, doctrine, or anything else. The question is, if all that stuff comes to the divisions of the Army, what should the divisions of the Army then look like? You have to begin anything, any development, of a new organization, new tactics, force modernization—which is what I am talking about—with some framework of operational concepts in which that organization is going to do its business. You must begin with a conceptual notion of what you want the organization to be able to do. Then you should design the equipment, the tactics, the organization, and the training system toward that goal. If you don't do that, you are always wandering in some never-never land and what you are doing may or may not fit into some overall conceptual framework. So the first order of business is to lay down that conceptual framework—how is the battle to be fought?

To do that requires some analysis of the threat. Depending on how far ahead you look, it requires some analysis of the world environment in which threats operate against you and in which your forces then have to operate; it requires some ability to look ahead. How far ahead? You recall when we started Division 86—it was 1978—I said, "Bring me a 10-year threat projection." When we started TRADOC in 1973, we agreed that we would abandon all the Combat Developments Command's far-out studies. The reason we did that was that the old CDC studies dealt very well with the world 25 or 30 years from now, but it was kind of a pie-in-the-sky world, and there was little or no evidence of much, if any, effort dedicated to defining how the Army was to get from here (today) to there (way out tomorrow). And at the same time the concepts of what would happen in the future were not driven by any overall conceptual notion of how the battle needed to be fought out. There was simply a collection of new technology and new weapons systems and so on, and then they really backed out of the weapons and technology circumstance into the other things that they were responsible for and that was the shape of things.

You can't do that, so when we started TRADOC we said, "Okay, we are going to focus on the nearer term. We've got to get the Army out of the Vietnam doldrums, ready to go to war, and that's today, and tomorrow, and the year after that, and we are not going to look too far ahead." We had four years of that, and it was profitable and necessary that we do that. So, when I came, it was with the conviction that we needed to expand that horizon to about 10 years. I said, "Bring me the 1988 threat estimate," and I wanted the approved threat estimate through the National Intelligence System, because if you don't have the approved threat estimate you are dealing in conjecture, always dealing in conjecture, and you can't do that either. You have to have something to tie it to. The only threat estimate they could bring me that was certified by the National Intelligence System was the 1986 threat—not

10 years, but 8 years, and that was the genesis of the 86, that's how 86 came to be. Eighty-six is not a magic year. It just happens to be the furthest-out year in which we could get a validated threat estimate.

And, with all the developments coming along, if you worry about fitting that stuff into some scheme, into your organizations, you have to have some conceptual notion of how you are going to fight the battle and you have to have some kind of transition plan that tells you how you are going to get from here to there. And the purpose of that transition plan is to show how each one of those systems is assimilated—each weapons system, each organizational change, each tactical change, each training change, and so on, is assimilated into the system—divisions, squads, platoons, battalions, brigades of the Army—at what time and in what manner, and in what order of priority, in order to get from where you are to where your objective organization tells you you need to be. In other words, you have to have an objective, structure an objective tactical scheme, an objective training strategy, an objective equipment development strategy laid out for yourself. The farther out you go, of course, the more conjectural it becomes, but we have tried to move it as far out as the intelligence estimate would take us and base it on that.

There is no single element of Army 86, therefore, that I think is stronger or weaker than others. Obviously some of it represents better thought-out and perhaps better quality work than others. In some respects the heavy division is a stronger kind of organization, because of the consensus building that went on, than is the light division, but at the same time you have to look at the whole thing as a system. And the modernization system has to develop from where you are to where you think you ought to be 10 years from now, or however far out you can get an intelligence system estimate. And then, beyond that, you have to have some conjectural work done to get you to, for example, AirLand 2000 or wherever that is, and the farther out that goes the more conjectural that becomes. But there are some ways of handling that that fit into the general framework of the threat estimates that are being done as they, in turn, develop and become certified.

MALONE: This discussion of conceptualization leads into the question here about doctrine. Could you comment on how well it has worked out to have a separate staff function for doctrine, say why you felt it was necessary to have it, and then mention the level at which doctrine should be developed?

STARRY: The purpose of the Doctrine Office in TRADOC headquarters is to develop the operational concepts and to build a consensus about those conceptual notions among the major commands of the Army, Army staff, and so on. The detailed doctrinal work in implementing those concepts is done at Leavenworth and the service schools, the branch schools. This is the Training and Doctrine Command. We have a Deputy Chief of Staff for Training. Why don't we have a Deputy Chief of Staff for Doctrine? Up to the point that we created this office, the doctrine largely came out of my chair and out of the work of my resident thinker who hides out upstairs in that little office, which carries the third chair-occupier or chair-holder. Somebody has to conceptualize the battle, the framework in which the battle is going to be fought and so on. We have never done that very well, really. It requires a breadth of understanding of the total national strategy and the total framework in which the national strategy is laid down; it requires a certain sensitivity to the political environment in which the country is operating; it requires a thorough understanding—a

depth of understanding—of the force structure of the Army, Navy, and Air Force, and of the interrelationship between those, of the joint system, and so on.

When you turn that function over to a group of people working at Leavenworth, for example, they tend to get overwhelmed by the circumstances in which they are living and operating and tend not to understand those broader implications. So it's not the purpose of this office to write detailed doctrine with regard to the employment of forces and so on. It is, however, the purpose of that office to develop the conceptual framework and the operational concepts within which those operations have to be conducted. In fact, my instructions to Brigadier General Donald Morelli when he took that job went something like this: I need a notebook, a loose-leaf notebook which, if someone calls me on the phone and asks what is the United States Army's operational concept with regard to the conduct of—anything, let's say mine-countermine warfare, I turn to the tab in that book that says mine-countermine and there on a page, maybe two—but no more than a page, I would hope—is laid out in very concise language the operational concept with which we intend to fight or conduct that kind of operation—TAC, defense, whatever it happens to be. And when he gets that notebook, he has worked himself out of a job, in effect.

MALONE: You don't have the notebook yet.

STARRY: Don't have the notebook. It's about half full—he's not doing badly. Those concepts then can be used to drive the other work that's done by Leavenworth and the schools. The concepts are important enough in my view for them to be the personal property, or take the personal time and effort and work, of the Commander of TRADOC. And, in fact, in the more important of those concepts, I do that work with the Chief of Staff of the Army. You have to do that. We have never had an organization to do that before. The Combat Developments Command had such an organization—concept framework guys—but, here again, they were always working so far out that it was kind of a never-never land and they never tried to link today with that far-out world that they were working toward. And they, too, were guys who were buried in a staff and sort of surrounded by the bureaucratic environment in which they work. Not that they weren't good guys—I wouldn't question that a bit, but it's just that they were not working in the right framework and the conceptual development was not set at the right level. If you want to run something, if you want to make something work, you've got to give it some guidance from the top. And it's the obligation of the commander of this organization to give it that kind of guidance, and the guidance is those conceptual statements, concept statements.

MALONE: So in actuality, then, you are saying that doctrine needs to be developed at the highest level in its conceptualization.

STARRY: The operational concept, the framework in which the battle is going to be fought, and the details can then be put out by the other parts of the organization.

MALONE: Let me get you into a specific out of the doctrinal notebook. How will, or how has, the Army resolved the disagreement with the Air Force over the question of an Army role in the allocation of air sorties?

STARRY: The only disagreement we have, and I'm not sure it's a disagreement—the Air Staff in Washington is very, very sensitive to anything that smacks of the Army trying

to take over roles and missions of the Air Force. And to some extent the Army Staff in Washington is the same way. At the operating levels, as between ourselves and the Tactical Air Command, we have not got that problem, in my view. When General William DePuy [TRADOC Commander, 1973–1977] and General Robert Dixon [TAC Commander, 1973–1978] started the TAC-TRADOC dialogue eight years ago, seven years ago now, it was with the intent of working within the framework of whatever existing policies the staff wanted to lay down in Washington to improve the procedures by which we asked for and provided tactical air support of all kinds, offensive air support of all kinds, to the Army, to the ground forces operating in the field. And so they started out working on procedures.

There comes a level in procedural work which inevitably causes some staff bureaucrat to say, "Oh, you're back in the roles and missions business." The TAC-TRADOC view of that—I'm certain that no one in TAC, to include General Bill Creech, would contradict me on this—our view of that has been that we haven't got enough of anything, together or separately. There's no way, therefore, for us to provide, either separately or together, enough resources to do all the things that have to be done out there, so we shouldn't be arguing about roles and missions. What we ought to be trying to do is get all we can get out of the existing budgets for both services and make sure that we've got enough of the right kinds of things on the right kinds of platforms to do the total job. And I don't really care, for my own part, what color uniform is worn by the guys who man the platforms. We do not now have enough of anything, and I doubt that there's enough money to buy enough, unless we were willing to continue a high level of spending for 10 or 15 years. Don't forget that we're trying to recover from about 10 or 15 years of accumulated neglect, in terms of weapons systems, organizational changes, tactical changes, and training changes. You don't do that overnight. And so there's going to be a long period—10 years or more in here—where there simply won't be enough of anything. So the time when we need to start worrying about whether or not we're on one another's turf is a long time away.

Meanwhile we've got an enormous amount of work to do, and I get terribly frustrated with people in the bureaucracy who want to slow up, stop, or impede whatever we're doing just because they think someone's on their turf. So we have a reasonable agreement that we reached with TAC; we've sent it in to the Chief of Staff of the Air Force, the Chief of Staff of the Army. Both General Creech and I signed off on it, and it reverses a bureaucratic move that was made at the end of General Dixon's tenure over here which put the allocation business totally back in the hands of the theater air commander, leaving the corps commander no voice in that. We have reasonable accommodations with which I'm satisfied. What we do have to do is speed up the request/reaction, request/response, cycle, and we've worked on that with TAC now for three or four years. We have made some changes in it, but further changes are necessary, because you can't depend on the 24-hour request/response cycle to provide you with the kind of aerial support you need with the kind of battle we think we're going to have to fight today. It is not responsive enough. But that's a procedural thing. The staff guys in Washington will tell you it's a doctrinal thing, roles and missions, but it has nothing to do with roles and missions. It's a procedural thing.

MALONE: Well, looking at Field Manual 100-5, what are the most significant differences between the 1976 and 1981 versions?

STARRY: There are a lot of differences, but there are three that are most important in my mind: We have tried to include in the 1981 version a set of operational concepts that puts us back, first, on the nuclear battlefield, and then on the chemical battlefield. Not that we ourselves intend to initiate that kind of war necessarily—that's a national policy decision, but given the enemy's capability the United States Army and Air Force, fighting out there in that air-land battle, have got to have that capability, particularly with nuclear weapons, but it's also true of chemical weapons. You must conduct your operations in such a way that the enemy's first use, and surprise use, of nuclear weapons or chemical weapons does not for him win the war. And you have to conduct your operations, if you yourself use nuclear or chemical weapons, in such a way that their first use dramatically achieves whatever you wanted them to achieve—whatever you sought to achieve by their use. If you don't do either one of those things, you will on the one hand fritter away your own resources, because it is a limited asset, and on the other hand you're likely to get blown away and have the enemy win if you're not prepared to fight in that kind of environment. Those are the first two important things.

The other thing which is equally important is that in the first edition, the 1976 version of 100-5, much of which I wrote, of course—I must confess that at the time we wrote that, which was 1974 or 1975, I frankly did not understand the second echelon or the follow-on echelon problem. I knew it was a problem, and I knew it was enormous, and I knew we needed to do something about it, but none of us, neither General DePuy nor I, nor the other two or three people who worked on that thing, really had figured out the problem of what to do about the follow-on echelons. And it wasn't until I had reflected on that, first as a corps commander, and then more as I came back here and took up from General DePuy, that we fleshed out the notion of the second echelon, or the interdiction battle, that we're now talking about, and the extended battlefield concept. So the AirLand Battle concept as it's laid out in the 1981 version of 100-5 is a mature conceptual notion of how the battle ought to be fought. It deals with all aspects of the battlefield: the assault echelons and the follow-on echelons; the balance between firepower and maneuver that's necessary for success on the battlefield; the chemical problem; nuclear problems; and it's a much more mature battle-fighting framework than we had at the outset. I guess there are a lot of other things about it, but those are the three things that I think stand out in my mind.

MALONE: Well, in other words, it will be an integrated battlefield concept.

STARRY: What we call the integrated battlefield is in there; what we call the extended battlefield is in there. As you know, we folded both of those concepts, together with a lot of other things, in under the general heading of the AirLand Battle.

MALONE: Are you satisfied, sir, that the new manual is going to have everything in it that it should have in terms of large concepts?

STARRY: Yes. We may still have some criticism of it, and we probably will. In the history of this business I don't think any Army field manual ever got as much attention or publicity or commentary by everybody—civilian, military, and so on—as that book has. Some ways of looking at it, it is an annoyance. But I think it's a good thing that we opened up that dialogue. It has helped us develop the parts of it that we apparently did not express very well the first time. I was surprised at some of the commentary, because I thought we had dealt with that adequately in the original manual. But obviously we didn't say it right, and

so we made an attempt to look at the words very carefully and to make sure that we're expressing the ideas in a way that copes with the problems that our detractors have brought up to us that reflect our inability to communicate with them.

MALONE: When can we expect to see it in the final form?

STARRY: This fall sometime, I think. It's about right; it needs some editing, but the editing is punctuation, syntax, and that kind of stuff. We'll get it out this fall.

MALONE: What role have the allies played in the conceptualization and the development of the doctrine that's reflected in Field Manual 100-5?

STARRY: We've worked very closely and carefully—I have done that personally, as well as had some of the staff working on it—with the British and the Germans, particularly, to make sure that what we laid out in there—from the standpoint first of the integrated battlefield, then of the extended battlefield, then of the AirLand Battle itself, which folds all those in—that we have conceptual agreement, with at least the British and the Germans, over how the battle is to be fought. And once that conceptual consensus was arrived at, then even have agreement with regard to some of the details of how brigades, battalions, and divisions fight under that conceptual umbrella. They've contributed, particularly the Germans. We've worked very closely with them, I suppose because the staff talks with the Germans have been going on longer than others, but also because the bulk of the forces in Central Europe are German. So it's imperative that we reach an agreement. In fact, the way the American corps and the German corps are mixed up in CENTAG there is no way for us to have separate conceptual frameworks in which we're fighting the battle. So we had to have agreement with the Germans. We worked our manual then very carefully with theirs, which is also under revision at this time.

MALONE: Could you characterize the German, British, and French staff talks at the present time?

STARRY: The German staff talks, of course, have always been conducted with the German Vice Chief of Staff as the head of delegation, and with me as the head of our delegation—Commander of TRADOC—as the head of the US delegation as the Chief of Staff of the Army's personal representative. We've changed that framework now and the Amtschef of the Heeresamt [Amtschef des Allgemeine Heeresamtes (Chief of the German General Army Office)], the training establishment of the German Army, will be the head of delegation. He has been given the doctrinal responsibility that they once reserved for the Army Staff in Bonn, so he is more like a TRADOC than anything the Germans have ever had before.

MALONE: Is that why the liaison officer is there at the Allgemeine Heeresamt?

STARRY: Well, the liaison officer has always been there. He's been a go-between, not only between the Heeresamt and TRADOC—because of our 13 liaison people we have in their school system—but also between me and the Fuhrungsstab des Heeres, the Army staff in Bonn. He will continue in that mode, but now most of the work that he does and has done in the past in the doctrinal business will, in fact, be right in the Heeresamt itself, because they more and more are structuring themselves like TRADOC. General Wenner [Generalleutnant Horst Wenner] the Amtschef, and I reached an agreement a couple of months ago that we are going to try to get ourselves, as delegation heads, out of some of the details, excruciating details, that we've had to listen through in times gone by and more into the business of

issues. So we're going to lean more on the steering group which, of course, is run by the Assistant Deputy Chief of Staff for Combat Developments [ADCSCD] here and one of the general officers, brigadier 1evel, in the Heeresamt. We'll lean more on the steering group to resolve the minor issues, and to go through the details of materiel, cooperation, and so on, and we'll reserve for ourselves the broader discussions of the conceptual framework of the battle, broad organizational changes, broad tactical changes, broad equipment development changes, and so on. This November, when we have that set of staff talks with the Germans at Fort Bliss, will be the first time that we have that new system operating, so it remains to be seen how it works, but the understanding of how it's to work I think is pretty clear both in General Wenner's mind and mine. I think General Otis will be able to pick that up with no difficulty at all.

The British talks have never been conducted at the top level; that is, there have been staff talks, honest-to-goodness staff talks that have been conducted at the staff level. The senior Brit has been a brigadier or a major general and our guy, of course, has been the ADCSCD, a brigadier. The British are now trying to get themselves more in the TRADOC mode because they see, having watched us, the advantages of having all these strings come into one hand. So they, within the last year, have re-created the Office of the Director General for Army Training, and they're in the throes of trying to define his operational bailiwick and to bring under his control a lot of the things that have been fragmented out in various parts of the MOD [Ministry of Defence] staff up to now. Just exactly how that will come out I don't know, because it's still in the developmental stage. However, it is their intent to move that more and more under central direction, and the central direction will be the Director General of Army Training. Whether he will, himself, with the TRADOC Commander, then become the head of delegation at the staff talks I think remains to be seen. Part of the problem there is that Sir Robin Carnegie [Lieutenant General Sir Robin Macdonald Carnegie], who is the first Director General of Army Training under this new scheme, took the job only for a brief time to get it organized and will be succeeded by another officer in the spring. The final decision as to whether or not heads of delegation will be at that level he has left for his successor to pick up, so we'll go through another several months, probably, trying to decide how that's to be done.

Talks with the French are at the staff level, and probably will stay that way for some time because of the French reluctance to elevate things to too high a level, thus to become too visible politically and incite the wrath of their political masters, but we've done some good work with them. We, TRADOC, have voluntarily taken on the role of the go-between between all these people. Theoretically, that's work that ought to be done in the SHAPE staff—NATO staffs, but it doesn't work very well because of the committee system, so we've taken on that role of direct go-between. It works fairly well.

MALONE: Still within the realm of international relations that TRADOC has, what is the status of the interoperability initiative that this command has been involved in?

STARRY: We have an enormous number, more than I could even recount for you, of interoperability initiatives of one kind or another going on under the aegis of the staff talks. Some of them involved equipment, that is working together to try to develop either common items or interoperable items of equipment. Some of them involve making equipment that we already have under development work together, for example, TACFIRE—our own

TACFIRE—artillery fire direction system. We have directed our staffs to figure out how to make our fire control system work with the Germans, as well as with the British, and to demonstrate that capability by 1983 or 1984, I've forgotten which now. Same way with the command and control—automated command and control system. We want a demonstration of our ability to interoperate between our system, which is under development, and the ones that they have under development. So those involve not just hardware linkages, but software linkages, and in some cases protocol linkages as well. That is, the protocols inside the system have to be standard or you can't interoperate the systems, regardless of what else you do. In tactics, the British have no field manual like 100-5. It's all in their little operating handbooks and so on. The Germans do have a series; the 100-series in the German system are the doctrinal manuals. They're the equivalent of our camouflage-covered field manuals. Those have been interoperated, either between the schools that do the work or under the umbrella of the staff talks. I think the most important interoperability initiative that we've taken, one of the most important, was the ammunition study that we had done several years ago when General Blanchard was the CINCUSAREUR. We caused an evaluation to be made, working with him and the staff talks initiatives, to see who can fire the other guy's ammunition. If it's the same caliber, can you fire it out of the other guy's gun?

MALONE: Has that proved to be one of the most difficult aspects?

STARRY: No. In fact, it's very easy. Much to our surprise, we found that common calibers can almost directly interchange ammunition. In some cases you have to bring your own primer, but that's not a problem. So you can theoretically pick up ammunition of almost every caliber, with only a few cases where it's not true. It was an enormous step forward in terms of making our ammunition stocks interoperable.

WEINERT: How feasible is training interoperability? There've been some talks with the allies on this, I know.

STARRY: Training interoperability depends on what you mean by that, but it's essential that you go out and train together—with them. Now whether they train your soldiers or you train your soldiers, I don't think that's important. The important thing is for us to understand how they conduct their operations, and for them to understand how we conduct our operations, and to bring those operating notions more closely together. Our detractors will tell you of cases where there is alleged to be a difference in doctrine, but my experience with that has been that differences are always more apparent than they are real. I'm speaking as a corps commander now. When you get out on the ground and have to make that work, across boundaries particularly, and so on, you just have to make it interoperable. You go out and train that way in your command post exercises and in your field exercises and so on, and that is training interoperability, but it comes about as a result of people out on the ground walking around saying, "All right, here's what we're going to do right here, and you're going to do something here and I'm going to do it over here, and here's how we're going to tie it together. Here's how we're going to report it back to our own headquarters."

In some cases we have had to provide little books. At USAREUR, for example, we've got a little book of artillery words that they can use for calls for fire on either side of a boundary when there is German artillery on one side and American artillery on the other. Once we get an automated fire control system—that's why we're working the interoperability there—you'll be able to call across boundaries for fire as well as maneuver forces. I wouldn't

think that, just as a practical matter, we ought to mix maneuver forces much below the brigade level, but our division commanders and their staffs need to know how to employ American brigades, because their brigades and ours are quite different. They don't need to be different tactically, but you need to understand how the brigade is organized and how it should be employed, and once you do that you've got training interoperability. We worked hard at that. USAREUR's been working hard at that. George Blanchard took the first big initiatives in that area, and I would say that we've come a very, very long way. We have a much better understanding of that equation now than we ever had before.

MALONE: That's been a development in the last four to five years.

STARRY: Yes, five years.

ROMJUE: The standardization aspect the Germans were stressing in the early years of the talks—what caused them to shy away from standardization and begin to emphasize interoperability more? I know there is a controversy over the Roland missile, for example. They seemed really adamant in the early years about Americans buying European equipment. What happened to change that?

STARRY: Some of that, in the early years, particularly in the early years of the Carter administration, but before that as well, some of that was generated by a total misconception on the part of the civilian defense officials in Washington, as well as some on the Hill, about what interoperability and standardization are. Interoperability is a lot more than buying something from the other guy.

It is possible to achieve some standardization, wherein everybody uses identical equipment, but that's very difficult to achieve. There's far more to be gained by procedural interoperability, and by working out arrangements with regard to the bulk commodities that have to be delivered on the battlefield—fuel, ammunition, food, clothing, and so on. In NATO, for example, the policy has been for years that logistics is a national responsibility. Logistics can be a national responsibility, but what NATO really ought to have is a series of commodities centers in which are fuel, ammunition, and so on. Knowing what's interoperable, those commodities centers can serve whatever units they need to serve. You could eliminate a lot of support structure somewhere along the line if you did that, and you could have honest-to-God interoperability.

Several years ago I made a speech about RSI which is worth noting. Nothing has happened in the interim to change my mind. I pointed out, first of all, that interoperability is more than buying something from the other guy. Secondly that, because of unique research and development systems—simple measurement problems like metric versus English, as well as design philosophies about how to make bearings, wheels, almost anything, standardization is very, very difficult to achieve. In the end it is hard to see how it could achieve nearly as much as we could get by interoperating tactical systems, fire control systems, command and control systems, communications systems, and logistics systems. The fact that everybody drives the same kind of a tank around the battlefield doesn't really seem to me to gain that much. There is a perception that it will, but considering the burden of trying to standardize tanks I doubt it. Look at our own experience. We have a lousy track record with standardization and we've paid a terrible penalty trying to achieve it.

MALONE: Moving into the test and evaluation aspect of combat developments, is this new arrangement of a separate DCS for test and evaluation improving matters in your judgment?

STARRY: Well, I think it's too early to tell. It's been in existence a relatively short time. I sense that it's a cleaner command and management relationship, but that's only a sensing, and there's no proof yet. Proof of the pudding is going to be whether or not we can apply the test and evaluation resources, to include the boards, TCATA, and CDEC, more intelligently to the test and evaluation load than we were able to do in times gone by. It does give me a single point of reference; it does give me a single spokesman in the TSARC and other important meetings about test and evaluation. From my own standpoint I'm more comfortable with that arrangement than I was with its predecessor. But I have no demonstrated performance parameters on which to base that statement. I just have a better feeling about it, that's all. It'll take time to see whether that feeling is justified, out of line, or whatever.

WEINERT: Is the TRADOC Operational Test and Experimentation Command concept completely dead?

STARRY: Well, as you know, what we've got now is a compromise. I still think TOTEC was a good idea. It was a particularly good idea in terms of manpower savings that we postulated we could achieve at TCATA by rearranging so as to put the senior headquarters at CDEC. Given our problems with the Texas delegation, and our inability to persuade them that we were doing something smart, we compromised so as to avoid a dramatic drawdown at Fort Hood. Although we will in fact draw down at Fort Hood some amount to create the evaluation cell that Leavenworth in due course will have, that will take place over a couple of years. And, having done that, I think we're obliged to let it alone for two or three years and see what happens. Reorganizations are very disruptive, particularly for larger organizations. You shouldn't undertake them too often, and when once done you shouldn't tinker until there's been time to see whether or not it's going to work. We have a great tendency to be changing things all the time, either for the sake of changing or because we never thought it out too carefully at the beginning. I'm against that.

MALONE: On the subject of organizational structure, what further reorganization of the headquarters staff is needed? For example, Dick Weinert heard General Harkins say last October that the DCSPAL-DCSRM should be combined.

STARRY: This organization works fairly well. I don't see any need to undertake any further reorganizations. And in fact, if you reorganize with the intent of saving manpower authorizations, that is more often than not a futile undertaking. It's difficult to be a good manager in the Army. You are almost always penalized for being a good manager. For example, you're an installation commander. You undertake a big utilities conservation program, save a lot of money, then tell your next higher command about it. They'll take the money away from you and use it for the next higher command activities, as opposed to letting you keep it and do something else with it yourself. That's one of the good things about the TRADOC contract system; it's supposed to prevent that sort of thing. So far as I know it has, because both General Bill DePuy and I have been rather religious about not recalling those resources. But in other commands it doesn't work that way. Nor does it work that way between this command, a major command, and the Department of the Army.

The first year I was here, believing all staffs to be too large, I cut some 250 spaces from the TRADOC staff. My intent was to use those spaces for other activities, other things I thought were more important. But scarcely had we done that than we got tagged for another 286 spaces the following budget year. Some guy in OSD PA&E said, "All headquarters are too big. Take out 286 spaces." When we tried to explain to them that we had just done that last year, the answer was, "Well, that was your problem. Now this is our problem; this is our initiative; you get no credit for what you've done before." So I have stopped trying to be a good manager in that respect; it's self-defeating. No one wants to credit the fact that you've tried to do something on your own initiative, so to hell with them. You should just circle the wagons and guard what you've got, resist intrusions on it, and figure out some way to subvert the cuts if you don't think they're a good idea when they come along.

MALONE: General Jones had the same experience in USAFE in 1972, 1973, 1974.

STARRY: It's a common experience.

MALONE: As a follow-up to that, are you satisfied overall with the organizational structure of the command as a whole, not only this headquarters?

STARRY: Yes. No organization is so perfect that a bunch of "honyocks"[a term the young Donn Starry learned from people of East European background in Kansas City, Kansas, where he grew up, meaning people who can be expected to foul whatever they become involved in] can't screw it up; no organization is so imperfect that a bunch of relatively good guys can't make it work. If we've done something totally dumb, it'll pop out and we can fix that, but I don't believe in big reorganizations all the time. I don't think they accomplish anything. We're about right.

MALONE: Before we discuss training interoperability, moving over to the training side of the TRADOC function, could you describe for us how the Deputy Commander for Training position came to be established and what your role was in that process?

STARRY: Well, General DePuy had struck a deal with General Rogers, when he (Rogers) was Chief of Staff and General DePuy was here, to put a second deputy in TRADOC. The second deputy was to look after the work of those nine training centers. Standardization of training, monitoring of the program of instruction, quality of drill sergeants and cadre, training and instruction of drills and cadre, other parts of the individual training system, the NCO education system were to be his responsibility. In 1976 General Rogers started work to try to get a second three-star position approved for TRADOC. Shortly after I took command, in July 1977, General Rogers reported to me that he could not get the proposal through the JCS. At about the same time, Lieutenant General Frank Camm, who was the deputy here at the time, had elected to retire. So the question was: What to do? We wanted to promote General Thurman, then a two-star commanding CAC at Leavenworth. We wanted also to upgrade that position to three stars. That was all part of the whole two-deputy package. With only one deputy left, then the question is: Do we want the single deputy here or at Leavenworth? The agreement General Rogers and I reached was that we would put the deputy position at Leavenworth and promote General Thurman into that position. That would give us one of the two deputies where we wanted him, but leave a blank here. It's taken four years to realize the second of those positions. Meantime the role General Rogers and General DePuy both foresaw for that deputy has been expanded considerably. This came about as a result of General Meyer's and my conviction that we

need some overall training evaluation system for the whole Army, to standardize training as much as we can, in order to reduce the difficulty when a soldier moves from one unit to the other. We considered trying to do that with the Army IG system—make an Army IG for Training. There would be one in Washington and major commands would each have one; the IG system would add to its function the inspection of training. But, the more we looked at inspection of training by IGs, the less attractive it became. That caused us to develop the notion of simply adding to the role of the DCG for Training at TRADOC, giving him two hats. With one he is inside TRADOC as the evaluator-inspector of individual training; with the other he is evaluator of training for the whole Army. So General Becton's mission as the Deputy Commander for Training is to figure out how to do that. When he gets that figured out, and it may take several months, we must then decide how that needs to be done and what resources it will take. He will need some people—how many, we don't know, and what they'll do we're not sure. Whether or not they are people to do what's already being done someplace else—DCST, the Army Training Board, or whatever—we're not sure. All that needs to be worked out. So what we did try with that letter of instruction for General Becton was provide him with the conceptual framework under which he needs to operate. Now he's out working out the details, and there will have to be some balancing of resources and missions and so on as time goes on.

MALONE: To a certain extent, then, it's a matter of what he can make out of the job.

STARRY: Yes, except that we've told him rather specifically what we want him to do. How he does it, how the evaluation is done, is another matter. We've a lot of evaluating going on out there now. In the FORSCOM we've got a joint evaluation team that goes around from the schools and centers to all Forces Command units, and they turn in reports. That is a mechanism he could use, either as part of or as the basis for his system. Might not want to use that, don't know. How does he evaluate units overseas? We have some platoon evaluations going on as between the Army Training Support Center at Fort Eustis and USAREUR now; they could be expanded. The ideal circumstance, I think, would be for us to evaluate somehow individual training, up to including SQTs in units, and collective training up to and including platoon level in units. In fact we have the individual training evaluation capability now with the computer over at Fort Eustis. With SQT results, we can tell you more about your unit out there in the Army than you really want us to know. Unit evaluation should be done with MILES, up to and including platoon level. The ideal circumstance would be to have a semiannual evaluation for platoons of the Army, a platoon SQT. The evaluation mechanism would be the property of the deputy commander, the DCG for Training. Whether it will come out that way I don't know, but that's what General Meyer and I had in mind when we wrote that memorandum of understanding.

MALONE: There's one difference here between what has been developed here in the US Army and the Bundesheer. The Amtschef in Cologne has that responsibility himself, not his Stellvertreter, or deputy. How does this affect the TRADOC commander's role as the officer in charge of formal training in the Army, if you have a deputy commander that has direct access or is directly responsive to the Chief of Staff?

STARRY: Two things influenced our system design. The German training inspection system was one. The other one, and the model used in writing the letter of instruction for General Becton, was our Aviation Standardization Program. Don't forget that, when Major General

Carl McNair at Fort Rucker writes an evaluation on aviators, he writes it on [Department of the Army] DCSOPS stationery, not as an agent of TRADOC or as the commander of the Aviation Center, but as the agent of the DCSOPS of the Army for Aviation Standardization. Whether we establish the same sort of thing for this fellow or not doesn't really make any difference, but that was the model we were trying to follow. The commander of the Artillery Center does the same for Pershing crew standardization. He is an agent of the DCSOPS, and he writes the Pershing missile crew evaluations in that role.

MALONE: So there's good precedent for this arrangement already?

STARRY: Yes, oh yes. It isn't something new; we had two models. One was the one in our own Army, in the missile and airplane business; the other was the German idea that somebody at the top has to be the Inspecteur for Training. The TRADOC commander, under the present system, is not the Army's training inspector. Whatever he does is based on personal relationships between the TRADOC commander and the other major commanders of the Army. In times gone by, some personal animosities prevented that from happening at all. Today we have between all commands a very fine relationship, but it has not been and cannot be expected to be so always.

MALONE: So this institutionalizes this arrangement.

STARRY: Yes. You shouldn't have to depend on personal relationships between commanders for something as important to us as training evaluation.

MALONE: There are two questions that come out of this on the discussion of the Deputy Commander for Training position. First, how does the Deputy Commander for Training relate to the DCS for Training within the headquarters?

STARRY: Well, I don't know exactly. That's one of the things General Becton's going to have to work out. The Deputy Chief of Staff for Training has some evaluators. So does Major General Bob Sunell at Fort Eustis. So do a lot of other people. We've got some in the branch schools. Is he going to take charge of some overall evaluation network which includes those elements, or are we going to create something new? We don't know; he's just going to have to figure that out.

MALONE: How do the two deputy commanders themselves relate to each other?

STARRY: The Deputy Commander for Training is clearly in the training evaluation business Army-wide. The deputy commander at Leavenworth, whatever we decide to call him, has the combined arms mission—integration of school and center activity with regard to officer and NCO training, combat developments, and training developments. He shouldn't really have anything to do with the individual training of soldiers. He doesn't really need to have anything to do with the individual training of sergeants. Perhaps some look-in at NCO ANOC, because at that point we need to start cross-branch training. I don't see a conflict, even though there'll be some overlap.

MALONE: Do you envision that this position at Leavenworth will be qualified in some way? It's not now. I think the job description refers to the "Deputy Commander for Training" and to the "other Deputy Commander."

STARRY: Well, his proper title is DCG; it has no qualifier on it. We decided to leave that alone for the time being because we couldn't decide just how to qualify it. If you read their letters

of instruction—and you don't have to read them very carefully—it's apparent that there's a vast difference and very little overlap between what they're supposed to be doing. And, for the time being at least, we let it go that way. There may be some problem with rating schemes which we'll have to work out. This will be especially the case in six of the nine training centers, which are on posts where we've got schools. Then the training center commander is also the school or center commander, so there's going to have to be some accommodation. I suppose there's some risk that he may get pulled both ways, but I think we can work our way around that.

MALONE: Moving over to individual training, are you satisfied with the results of the Committee of Nine with regard to initial entry training?

STARRY: Yes, I am. In spite of all the ill-informed comments by a handful who allege all sorts of things that aren't true, it did what we set out to do. You have to look at that system every three or four years to keep it healthy. I would hope that we could look at it more frequently than that with the Deputy Commander for Training. In the early days of TRADOC, General Bill DePuy tasked Lieutenant General Orwin Talbott, who was then the DCG, to do what the Committee of Nine has just done. In those days it was a Committee of—what, Six?

WEINERT: Six.

STARRY: Committee of Six. So the first revision of initial entry training for soldiers in the Army in years was done by Lieutenant General Orwin Talbott, with the training center commanders, of which I was one at the time. For reasons I don't understand, we didn't get nearly as much debate about the first committee and its work. The changes made were far more dramatic than the changes we made this last time. That is so because, when the Talbott group sat down to do its work, a training center commander couldn't change a single hour of instruction without coming back here into TRADOC to the DCSIT—the Deputy Chief of Staff for Individual Training. And the DCSIT controlled that whole training center world out there; there was no flexibility. The center commander had no flexibility to adjust to the local circumstances—the shape of the range, the shape of the ground, to do things differently. It was a very rigid, hide-bound, inflexible system. We changed all that. That was a very dramatic change. Particularly was it dramatic to those of us who were training center commanders at the time. It gave us an enormous amount of flexibility. And, for the first time, we all paid some personal attention to what was going on in that training center, because now we could say what went on out there and could do it without having to argue with some guy five or six hundred miles away and who tended not always to understand the problem. That was a significant change. If ever we made a significant change in this whole system in the early days, that was it.

The Committee of Nine simply reaffirmed that we were still on that track; in some cases we found we weren't. So we had to pull people back in where they had gone off too far. Under any system where you allow your subordinates that amount of flexibility, you have to have some way to check to see how far from the central trend they've gone. Then you bring 'em back in when necessary. Not that anybody is doing anything wrong, it's just that they tend to stray. And that's what started the Committee of Nine. In fact, when the Committee of Six concluded its work, I remember both Bill DePuy and Orwin Talbott said at the time: "We'll have to do this again in another three or four years." And that's what caused me to start the Committee of Nine. The allegation has been made that the Committee of Nine sat here in

splendid isolation and made all those decisions, like not calling the drill sergeants "drill sergeants" anymore. That's not true. The Command Sergeant Major, Frank Wren, and a group that worked with that committee, did an enormous amount of consensus building out there. Everybody who needed to have a responsible voice in making those decisions had that voice.

When it was done, I had a big notebook with all the issues laid out in it. There was unanimity on only one or two of those issues. So decisions had to be made. None were arbitrary, none really overruled the majority view, although in some cases the majority was only a majority of one. Not everybody's going to be happy in a circumstance like that, but every one of those issues needed to be decided on because of some happening that signaled to us it was a problem. We didn't just go out and pick things at random; we picked things that had been identified as problem areas and tried to resolve those problems. And what you're seeing in the commentary about it is that we weren't persuasive enough in convincing the minority vote casters that we had done the right thing—very unfortunate. Some of it is still going on. The *Army Times* published a nasty letter from some sergeant. Most of the time the adverse comments come from people who don't even know what they're talking about. All they are dealing with is rumor or misinformation of the kind that is so frequently published in the *Army Times* about what was decided on. We found some dissent in training centers among drill sergeants about one aspect or the other that simply hadn't been explained to them adequately. In those cases the center commander got the sergeants together to go through the changes one by one, explaining why each was being done. If some local circumstance necessitated his coming in with a plea for relief, that could be done. But in no case did anybody elect to do that. So I'm satisfied with it; it may or may not be that the function of reevaluating individual training like that periodically is part of the Deputy Commander for Training's role. I don't know. We'll have to work that out.

MALONE: Could you speak to the question of the implementation of the Review of Education and Training of Officers recommendations? Do you feel like this is on track?

STARRY: Well, the Chief of Staff and I have reached agreement that we'll leave the advance course alone. One of the RETO proposals was to do away with the advance course. We plan now to leave that alone until we get the Combined Arms and Services Staff School course at Leavenworth going. That'll be a couple more years; then we'll evaluate whether or not we should do away with advance courses. I, myself, believe in the advance courses. And if ever we're to make those center commanders de facto branch chiefs, we have to have the advance courses. It will be five or six years before we really know whether or not CAS3 has done what we intended, and so whether or not it obviates the need for an advance course. I just can't see it, but it may come to pass. So, for the time being, we'll leave it alone.

MALONE: Looking to officer production, will the "Expand the Base Program" meet the officer procurement problem in ROTC?

STARRY: There's every evidence that it will. We added 41 new affiliate universities and colleges last school year. This coming school year we'll add 48 more; 6 of those will be full-blown detachments. Enrollments keep going up, and there's every evidence that if we can get the resources to expand the base, continue to expand the base in accordance with our program, by 1984 we'll have the 10,500 officer yield we need.

MALONE: What about women in ROTC? Is there going to be any need to limit the number that come into ROTC?

STARRY: It's too early to say. A study group in the DCSPER in the Pentagon is looking at that. We have fed into that the conceptual design done for us by Colonel Chuck Hines at Carlisle that describes for us where women should serve. The study group in Washington is now applying those criteria to the numbers so we can see how many numbers of women we should have. At some point in that evaluation we'll have to look at the officer corps as well. Don't know yet, in answer to that question.

MALONE: What is your view of the progress made so far in the implementing of the Military History Education Program within this command, and what is the most pressing need that still must be met in this respect?

STARRY: Well, the military studies of Combat Studies Institute at Leavenworth are a superb success as far as I'm concerned. They've made a tremendous contribution already, just in the handful of these little Leavenworth Papers that they've written, all of which are just first rate. They're doing exactly what we intended, and doing it well. That doesn't solve that problem of the officer corps as a whole. We have to build more history consciousness into our officer corps. To that end we have improved the history module in the ROTC program. Our ROTC instructors are being coached every summer by the military history faculty at West Point on how to teach military history. So that part is on track.

In the Military Qualification Standards Test I, which we've written for precommissioning, the history module is there. We need to get it into MQS II and III as well, and we need more emphasis on the integration of history into the service school curriculums, particularly at the advance courses. The ideal thing, of course, is simply to encourage the officer corps to pursue the study of military history. That can only be done if you lay on demands to produce a product that relates to their understanding of the history of the military art. That will come along with the Military Qualification Standards tests, to some extent with CAS3, and as we redesign the long course at Leavenworth after CAS3 gets fully implemented. The ideal circumstance, of course, is the one in which you weave historical examples and historical background into whatever you're teaching. We're not very good at that and, because we are not, a lot of people haven't paid any attention to military history. You cannot understand this profession unless you understand its history in great depth and considerable breadth. We've ignored that too long, but we've made a lot of progress. A lot more needs to be done, but we've made some initial steps which seem to me to be very necessary and very good.

MALONE: Last spring, at the American Military Institute Conference here at Fort Monroe, you said—in answer to a question—that the emphasis on military history education would continue in TRADOC at least as long as you were commander. What is the best way to ensure that this program is going to continue after you're not commander?

STARRY: I don't know. Brooks Kleber said that first. That was not my idea. In 1974, when we cut the advance course from 39 weeks to 26 weeks, I was the only commander in the TRADOC system who retained military history in the curriculum in his advance course—at Knox. And so it is that history has been taught at Knox, and not at any other school in the system, just because I happened to be there. That was done because I honestly believe that the study of the history of the military art is the single most important means for an Army

officer to learn his profession. The background, the role of military forces as an instrument of national policy, the limits of military power as an instrument of national policy, all those things can come only from a very, very thorough-going and deep understanding of the history of your profession. And there's no other way to do it except to study it. I happen to like it, think it's fun, but it's also a very important, a very important part of our professional makeup—just has to be.

MALONE: Well, that's the challenge probably we face in the TRADOC Historical Office, to help ensure that this is continued by institutionalizing the Military History Program.

STARRY: It'll last awhile, anyway, just because it's there.

MALONE: What is the most significant doctrinal idea or change that TRADOC has given to the Army during your tenure?

STARRY: The three things that I cited in 100-5: the chemical-nuclear battlefield, integration of chemical and nuclear weapons employment into the doctrine; the extended battlefield; and the development of the mature concept of the AirLand Battle which folds all that into a coherent whole. We now have a mature operational concept. We had the parts of it before, but I think we have now figured out how to put in the missing pieces. I think that's the big thing we've done in the last four years.

MALONE: This next question may overlap with that somewhat, but what has been the most important achievement you've had as TRADOC commander in these four years? Or achievements?

STARRY: From the standpoint of long-term needs of the Army, I think that's probably the most important thing. Other things flow from that. We've got the framework for the organization—Army 86; we finally have equipment development lined up in a planned transition from here to where we think we ought to be. We have the product improvement dollars—not under control, but at least we know what's being spent and can relate that to procurement dollars. We have the tactical schemes of our allies and ourselves fairly well tied together. And on the training side, except for the consistent shortfalls in our individual training capability which resulted from the 1977–1978 budget exercise, we're really in pretty good shape. There are some blanks, but we've got the thing all tied together and moving in the right direction. If there is one single big thing that we've done in the last four years, it is the synchronization of all of those things—organizational changes, tactical, doctrinal changes, equipment procurement and development changes, transition plans, and reorientation of training into that same path. The only exception is gross lack of time and resources to train the individual soldiers.

MALONE: To a certain extent, the doctrinal aspect of what you mentioned here might be covered—might encompass also the international, what we might call the international relations in TRADOC.

STARRY: Yes.

MALONE: What has been the big change in TRADOC's foreign relations or international relations?

STARRY: We added staff talks with the French. The British talks have begun and matured. The German talks are entering a new phase. The Germans and the British are more and more

adopting a TRADOC-like framework in which responsibility for operational concepts, tactics, organizations, equipment, and training comes under one head. We weren't trying to export this organizational notion here, but it's taken hold.

MALONE: Did your tenure as the V Corps commander play a big role in preparing the way for you to make these personal contacts?

STARRY: Some. You know I've spent nearly 10 years in Germany. I've watched the country grow from a shambles to a full-fledged, affluent economy. It's been the most marvelous recovery that one could possibly imagine. It's happened all in one lifetime. That's really hard to conceive. So I feel close to the Germans, military and civilian, and their country. I like their country. You can't have lived in a country like that for so long without having some very close ties. So that's part of it. The other part, of course, is what I consider to be the superb personal relationships that we've been able to establish with the Amtschef of the Heeresamt, first General Lemm and now General Wenner, and the Vice Chiefs of the German Army, first General Reichenberger and now General Burandt.

. . .

STARRY: The same thing applies to the Brits, largely in the British case, I think, because of my personal relationship with General Dick Worsley [Lieutenant General Sir Richard Edward Worsley], who is now the Quartermaster General, but who had 1st (British) Corps when I had V Corps. I've become very close with the Vice Chief of the British Army, as well as the Chief of Staff and several of the senior staff guys on the Army board. That has helped a great deal. They have been willing to reciprocate the initiatives that we've tried to take and been very, very fruitful as far as I'm concerned, very rewarding as a matter of fact. The German thing has matured the last four years considerably and we have new initiatives with the French and British and more and more those other armies are beginning to try to structure themselves like TRADOC.

MALONE: As you come to the end of your tenure here, what have been your biggest problems and disappointments?

STARRY: Well, the biggest problem and disappointment is that we have not been persuasive enough to convince people that we should not slice away at the training base the way we have. When we came to the 1977–1978 budget year, the first year that the Carters were in office, TRADOC had reduced itself voluntarily by about 15 to 20 percent, depending on how you add up the numbers—18 percent is a good number, and we did that by reducing some courses. The advanced course decision was one of those, OSUT was one of those, cutting initial entry training back from 16 weeks to 13 weeks and combining it. All of those decisions were made in an attempt to create manpower authorizations, either out of the training and student account or out of the instructor account, in order to make brigades for the active Army. Most of the structure of the 16 divisions, that got us from 12 2/3 to 16, most of that structure came out of the training base. We had already paid that bill, and so now comes the Carter administration—like my example a while ago of the staff cuts—and now the Carter administration wants another 25 percent cut off the top of that. There were some additional things that we wanted to do, some further changes that we could have made to get us some more structure, but they certainly weren't on the order of 25 percent. No one was willing to admit that we had done voluntarily the 18 percent, whatever the

right number was, and no one was willing to give us credit for that, and so we started with a whole new problem.

The total cuts that were assessed against us—we managed to paper over about half of them by transferring the forces at the TRADOC installations [another account], which meant that they now belonged to Forces Command instead of TRADOC. . . . That left us with no flexibility in the training base and, because of the need to train the soldiers and the numbers of people who are still coming in, and because of the summer surge requirements, we have had to take all of those cuts out of the training developments business. And so it is, in training developments, literature production, particularly in the correspondence course program, we are two or three years behind ourselves in trying to produce the products that we owe the field. We were a year behind when I took command. We are three years behind now, just because most of that 1977 APDM cut had to be assessed against the training developments community. So it is true that, while the conversation in Washington is about trillions more for defense, TRADOC is still cutting back. This year we took 2,800 spaces out of the training developments account, and we still owe them 1,000 spaces—900 and something, next year. So everybody's adding on, but we're cutting back. The manpower resources we have gotten in TRADOC under this administration we have had to apply to increasing initial entry training and those skills where we made a mistake in cutting back too far in the first place—signal, mechanics, a couple of other skills where we just flat cut them back too far for the soldierization process to take place, and we're having to add back to those. We need to add about two or three weeks back on all initial entry training, because we are not now providing a trained soldier to the field and I'm having an awful time trying to explain why it is, when we mobilize, we have to add to initial entry training and not decrease initial entry training.

Could we have been more persuasive? I doubt it. I spent almost that whole winter of 1977–1978, and so did Major General John Seigle, who was the DCST at the time, in Washington. Nobody wanted to listen to us. New administration, no credit for what you had done before. "Look, this is our initiative. We don't care what you guys did before." It has been a very miserable and frustrating circumstance, and in spite of the fact that two Chiefs of Staff for the Army have said we are not going to cut away at the training base anymore, anymore means beyond the 1977–1978 APDM. But we can't train the load under surge in the summertime. Last summer was a good example. This summer we are in pretty good shape; next summer we will have a surge in the combat arms again and we'll have difficulty there. And we still owe this enormous bill to the Army, particularly in the correspondence course program and in the other training literature programs. Those therefore have not come along nearly as fast as they should, and in the correspondence course program we keep getting further and further behind. If we move to a draft, one of the things we have to understand is that if we go back to a draft—and I'm neither for that or against it, because that is not the soldier's business, that is the country's business—if we move back to a draft we would have to put back into TRADOC most of the resources that we took out of TRADOC in order to make the 13 divisions, and that is about 30,000 people. We'd have to do that simply in order to accommodate the load we would have to take on in order to train the soldiers. And, if you look at mobilization, we have to bring BNCOC, which we moved out into the P2 account, under the APDM. And here you're looking at an

enormous increase in the TRADOC resources—at least 30,000, probably, military people, and some civilians to take on that added training. That's a hard thing to explain to anybody, given our track record. They have to be willing to understand it if you're going to explain it to them. You have to have somebody sympathetic to that problem.

MALONE: We have asked the questions that we have presented to you. Is there anything else you would like to add to the record?

STARRY: No, I don't think so. We could have gone through the TAC-TRADOC thing a little bit. We've made a lot of progress in that area, although TAC has the continuing problem that General Creech does not have the resource clout with regard to new systems and development that I do, and certainly doesn't have the doctrinal clout that I do except with regard to tactical air forces. The Air Staff guards that very jealously, and so what I hope to do in my new incarnation is, together with the TAC and TRADOC commanders, get a troika going that will develop some joint doctrine for air-land operations.

MALONE: That will be a new role for the Readiness Command commander.

STARRY: Well, somebody has to write joint doctrine. It isn't being written in the JCS; the JCS pubs are there, but they are not—oh, they are sort of doctrinal, but they're not conceptual. They are more procedural than they are conceptual, and somebody needs to describe the conceptual framework of joint operations in the AirLand Battle. We have tried to do that, together with TAC, and if I do it as the REDCOM commander it should give it even more clout, because we need to have at least some limited body of joint doctrinal as well as procedural things laid down for us all through joint operation.

MALONE: TRADOC South.

STARRY: TRADOC South. We had a TRADOC East when I was in V Corps, so now a TRADOC South.

MALONE: Thank you very much, General Starry.

4. *Soldiers* Magazine Interview
"This Is a Tough Business . . ."

Conducted by Lieutenant Colonel Charles G. Cavanaugh Jr.
October 1985

Q: Based on your long career, what do you determine to be the most important qualities of a leader?

STARRY: I keep coming back to those several things that we wrote down several years ago when we were worried about ethics. We categorized them into [competence], commitment, courage, and candor. I would still say that those four things are the guts of what it takes to make a leader. But there are more combinations of those four things than there are people who are leaders.

. . .

Q: What brought you to see this set of values? Was it something you learned at West Point? Was it things that you learned during your career?

STARRY: When I look back and put it together, I remember the first battalion that I reported to as a second lieutenant. It was a tank battalion in an infantry division in Germany in 1949. It was commanded by Lieutenant Colonel Creighton Abrams.

I had grown up wanting to be a soldier. My father was a long-time National Guardsman, and I marched around with his company. So it was a sense of commitment, I suppose, that grew out of that experience—a kind of inherited trait in the family. But the rest of it—commitment to professional and job competence, and courage and candor—I honestly believe I learned that from Lieutenant Colonel Abrams. Here's an example: We were having an awful time with the M-26 tanks we had. We couldn't keep them running. And the company commanders and field leaders were all wringing their hands about the terrible equipment. We were in a training area some distance from Mannheim, where we were stationed.

Lieutenant Colonel Abrams said, "All right, I'll tell you what. That's a good tank. There's nothing wrong with it. And just to show you how good it is, I'm going to get in my tank with my crew, and we're going to drive it home." That must have been a hundred miles or more. In that tank it was a long day's march. Well, he got in his tank with his crew, and they marched home. And when they drove into the gate, he required that we all be there. He got out of the tank and he said, "Well, you see? What's wrong with the tank?" He set the example.

Much later, I served in his division. There was a terrible argument about whether the tank battalion commanders should go down range first and fire first at tank gunnery trials. Someone asked him about that. His answer was something to the effect, "I'm surprised you asked the question. The commander in tank battalions is assigned a tank, so he's a tank commander. All tank commanders qualify. The senior tank commander goes down range first."

Used with permission from *Soldiers* Magazine.

Now that commander may blow it and make a fool of himself, and I've seen people do that. But when he doesn't do it, or when he comes along last and is just part of the crowd, there's all the difference in the world in the performance of the unit. How are you going to grade tank commanders if you're not one yourself? I learned most from my first battalion commander because he was a positive example.

Q: General Abrams made a famous statement, "People are not *in* the Army, they *are* the Army." What do you think he meant?

STARRY: Many people have misinterpreted his "people *are* the Army" to mean he favored coddling the soldiers. He didn't coddle soldiers. To the contrary, he was very tough with them. But he was absolutely fair, and he demanded that the standards for all be high, because he believed that tough training keeps people alive in battle.

If you fell down, he would probably come along and pick you up by the seat of the pants, correct you and get you going in the right direction rather than slicing your head off. You could do that once or twice, but his forgiveness ran out someplace along the line. He was willing to accept mistakes. He recognized the frailties of human nature. And if you were a soldier who fell down and needed another chance, he was quicker to give it to you than to an officer or NCO. He was more demanding of them than he was of soldiers in that regard, because he believed high performance by leaders keeps soldiers alive in battle—and wins the battle. That's what he was talking about.

Q: What do NCOs mean to you?

STARRY: They're the guts of the Army. You only have to look at Vietnam to understand what I mean. We always had inexperienced sergeants and lieutenants—the blind leading the blind. If you looked at those outfits and compared them to others where the NCOs were mature and experienced, the difference was just striking. Many times I stood out in the middle of the jungle with some poor lieutenant commanding a rifle company, very young, sensing he's acting field first sergeant. I thought to myself, "My God, what kind of risks am I putting these kids under, all of them, because we haven't got the experienced, well-trained leadership out here to do the job?" It scared me. We must have trained, mature NCOs.

. . .

Q: How important is education to a soldier?

STARRY: Well, the statistics with regard to all sorts of indicators, disciplinary indicators and others, improved dramatically once we upped the high school graduate content of the Army. I'm not sure that's a function of education necessarily. I tend to believe it was more a reflection of the fact we now had a large group of people who had finished something once that, to them, was tough.

In listening to the young soldiers talk about motivation and why they joined, it seemed we were looking at a larger percentage of finishers as opposed to a larger percentage of quitters. It is not all education, but education had something to do with it, for sure.

Q: Can technology help in making a better soldier?

STARRY: The equipment is getting more complex, but the analogy I've used for a long time is with the basic infantry soldier. At one point, let's say, there were 130 basic skills the

soldier had to perform to be proficient. Out of that, we were only able to give him about 40 in initial-entry training. And yet we told ourselves that about 70 of those skills were really critical and that we ought to somehow figure out how to make him proficient in them before he reported to his unit. Unfortunately, because of our unwillingness to provide adequate resources for initial-entry training, we really turned him over to his new unit with a requirement for continued individual training.

Now comes the Bradley fighting vehicle, for example. It has a fire team and it is not a squad carrier any more. Now that vehicle, and everything about it—the fire team itself, the weapons, new tactics—all that added about 25 or 30 new skills to the basic bag of tricks that soldiers had to know to be proficient. So the required initial-entry training bag has gone up from 70 to, let's say, 90 or 100, of which we're still only able to give him 40 or 50 in initial training. That's complexity.

No single task the soldier has to perform is any more difficult than before. It's just that there are so many more of them to perform. Technology can help you overcome the effects of complexity by making each one of those tasks easier to do. The demand for technology and the development of the system let us do that. And, to some extent at least, I think it's been successful. Technology has not added to that complexity. Technology in my view has helped us overcome some of it.

Q: Two years ago you wrote on the AirLand Battle. What kind of leader is it going to take? Is it going to be a different kind of leader?

STARRY: There are a lot of strat[egic] and operational level of war-art considerations to combat. But the history of small unit battle—battalion, brigade, perhaps division—tells you it's possible to fight and win outnumbered if you know what you're doing. It takes a mindset on the part of the officers, senior ones particularly, that sees the advantages of seizing the initiative—of being willing to move around on the battlefield. Tough to do—if you're defending, you would be sacrificing much of the advantage the defender could make of the terrain. But commanders must learn to strike in some new direction, move quickly, seek the flanks and the rear. That's the kind of battle that they've got to fight. They must disrupt the enemy so that his follow-on forces cannot load up on the battle at the forward line of troops.

I don't think it takes officers, necessarily, or sergeants, who are any smarter than they have been before. I think it does take an early widespread and comprehensive understanding of the battle concept—what we're trying to do and have to do to fight and win outnumbered, particularly in Western Europe.

History tells us not to despair. But history also tells us that, if we're going to win, we've got to do some things very well. We've got to disrupt the follow-on forces in the enemy rear, fight the battle at the forward line of troops, and at the same time figure out how to do something else to completely disrupt the enemy's battle plan.

We're an Army that's prided ourselves on that sort of action. We've some marvelous examples in our military history of leaders who were very good at that. General George Patton was one. So was Stonewall Jackson.

Q: Are there other military leaders from history that you have admired?

STARRY: From the Romans to Eisenhower, Patton—each career has some lessons you can draw from. There are lessons to be learned from the performance of the Germans as well. The Rommels and Guderians are worth studying. Military history is very important. I don't see how we can understand our profession adequately unless we study its history in depth.

Q: As a leader, how do you answer the junior officer, the field grade officer, the sergeant, who says, "Look, I just can't make it on my paycheck. My wife would like to work, because we just don't get paid enough"?

STARRY: I think in many parts of the country, and in many parts of the world, that it's particularly true of the noncommissioned officers. And I think it's something that we ought to rectify somehow. I don't know how you do it. It's aggravated by the turbulence rate in an Army that is essentially overstructured and understrength.

Turbulence is sergeants coming and going from overseas assignments at a rate that borders on the ridiculous. Statistically, it tends to result in a situation in which, about the third time around, the wife says, "You go, I stay. I don't like the overseas school system. I've got a job here, and I'm not sure I can get one over there, and your pay isn't increasing rapidly enough to keep up with the cost of living. I've got to stay and do this job." That whole circumstance costs us a lot of good NCOs.

We started the regimental system to try to overcome some of the effects of that turbulence. When we give the soldier a home station in the United States and a place overseas where he knows some of the people, the effect of turbulence can be somewhat reduced. We need to do a lot more work to try to overcome that problem for our soldiers' families as well. The total answer is not all pay, either—it's in the esprit, the belonging we have tried to create with the regimental system.

Q: Battalion and brigade command time is lengthening. What do you think about that?

STARRY: It does decrease the opportunity for command. I don't necessarily agree there's anything wrong with it, providing we have a system that puts the best person in command in the first place. The system doesn't always do that because the system is on paper. You're evaluating people on paper. There's no way to tell whether you've picked good commanders until you put them in the job.

We haven't got enough battalions in this Army to have average battalion commanders. All have to be at the top of the heap. That's the challenge of leadership—to raise the average. The challenge to the selection system is to somehow select the good leaders—those at the top already or those who can be trained to match those at the top.

There are probably a lot of good people who are not getting a command who would make good commanders. I've known a lot of average folks to whom we have given command of battalions who made outstanding commanders. I've known people with super records as staff officers in the Pentagon who were given battalions and promptly fell flat on their faces. The system should be willing, under a least-retribution or no-retribution policy, to say that this sort of work isn't for that fellow, and in the first six months or so take him out if he doesn't meet the standards.

Q: How does a leader measure his or her effectiveness?

STARRY: That's tough. I think you need to try to measure how well you're doing, but I also think you need to be careful about how you do it because it can be very self-serving. Everybody has to develop techniques for doing that, sensing how well things are going, and those techniques differ with different people.

I always tried to find some sergeant whom I'd known well for a long, long time and find out from him how things were going. Not how I was doing as a leader, but how we were doing collectively. That's what you want to know. Are things good? Are they getting better? If you have a person, particularly an NCO, with whom you have developed some mutual confidence, and if he understands the context in which you ask the question, you'll likely get an honest answer. You may not like it, but it'll be honest.

Q: What is the most difficult leadership lesson you learned in the Army?

STARRY: I think the toughest lesson I ever learned was one Colonel Abrams taught me. I learned to be candid about things, but I was a little too candid one day about something that was wrong in the supply setup in the battalion. And I got a first-rate ass-chewing. At the end of that he said, "Now, I didn't chew you out because I don't believe you. In fact, there's a lot of evidence that says you probably underestimated the problem. The reason I chewed you out is that you only told me the problem. I know about that. What I want is a solution."

Keep your mouth shut about problems until you've worked up a better solution. Never criticize the way things are unless you can also say how they should be.

Q: If you had one message to leave soldiers from every rank, what would it be?

STARRY: I guess it's summed up in the statement, "This is a tough business, a demanding business." It demands a commitment of your life and the lives of your family, the dedication of your family in that sense. It demands a dedication to our country that no other profession demands. You shouldn't have joined for glory or reward, because there probably won't be much of either. You should have joined it out of a sense of dedication to your country and your fellow man.

It's a thankless kind of undertaking. But at the same time it's the most rewarding thing I know, for you're with people who are committed to the same purpose, the same goals. If you take this attitude, and just pitch in and do the very best you can every day, you'll be all right more often than not.

Look for new ways to do the old things better and for new things to do to help out with whatever you're undertaking. You don't do it for personal gain. You don't do it for personal advancement. You don't do it for personal glory. You do it for the good of the organization, the institution that you signed up to serve.

But the real issue is what have I done for the soldier today, because he is the Army.

5. Desert Storm Lessons Learned

US Army Military History Institute Oral History Interview
Conducted by Lieutenant Colonel Douglas V. Johnson,
Colonel Thomas Sweeney, and Colonel Douglas W. Craft
18 September 1991

JOHNSON: Sir, learning lessons has been part of what you have done in your career in the Army, and you wrote a significant article that I think I mention to you every time we come together, which is on how to change an Army. Using that as sort a backdrop, how would you go about taking the past experience and go through a lessons learned process moving toward changing the present Army?

STARRY: I think you have to begin with a couple of baseline notions. One is that the operational concept of how the battle is to be fought, particularly at the tactical and the operational levels, is the all-important feature of whatever you do. I'll come back to that in a minute, because the ops [operational] concept drives doctrine; that is, details of the tactical doctrine and the conceptual framework of how divisions, corps, and higher echelons fight wars in a theater of operations. Doctrine drives requirements for equipment, it drives how you organize to fight, and it drives how you train. It says just how you put all that together. Unless you believe in that framework—start with a conceptual notion of what you are trying to do and use that notion to get the derivatives, which are the tactics, the equipment requirements, the organization, and the training systems, you tend to wander off in all different directions.

The second baseline notion is about the threat and technology. First is the threat that you can expect to encounter or that you anticipate you might have to encounter, depending on the world situation that you see in front of you. It is harder to draw that up now perhaps than it has been in the not too distant past. We'll come back to that in a moment.

The other thing is technology. So you change ops concepts when the threat changes or when technology changes, either in terms of something we have developed that can be used to our advantage on the battlefield or something that the threat has developed to which we have to respond. So there are two sides to the answer to your question. You have a framework of operational concepts and this, I guess, is a matter of conviction. You have to believe that the operational concept drives everything else, or you will for sure wander. In trying to evaluate, I think you have to evaluate what happened in the last war in terms of where you were going in. What did you do the time before last, and how did you then rearrange your operational concepts, tactics, equipment, and so on? How did you arrange all of that, and how well did it do? Did you, in fact, get yourself ready for the next war, or did you get ready for two wars ago? We are, in our country, notorious for getting ready to do over again what we just finished doing, only better. And that may not be the right thing to do. It might be, but it may not be the right thing to do at all.

So the question you have to ask yourself is, where were we going into this thing? And that is anybody's experience, not just ours. What did we learn as the result of experience that either validates, invalidates, changes, alters, modifies, or whatever what we thought we were doing at the outset? What are the lessons that we draw? Where are we going next so that we don't get ready to do Desert Storm all over again, although I suspect that might not

be a bad idea. But what are we likely to have to encounter next? There are some parameters here I'll suggest in a minute that might be useful to look at.

Now, if you believe that, let me tell you a little war story. Just before the Gulf War started, about 18 months ago, Jim Blackwell from CSIS [Center for Strategic and International Studies] asked me to write a chapter for a book CSIS wanted to put together on what future battles might look like. He said, "I would like for you to write a chapter on the 1982 War in Lebanon—Operation Peace for Galilee—and try to draw some lessons that we might be able to use to indicate where we are bound. I wound up with about 14 or 15 reference documents stretched out on the tables in my workplace at home. Tony Cordesman's book; Dick Gabriel's book, which surprisingly (although I have no regard for the man at all) turned out to be one of the better references, not badly written; *From Beirut to Jerusalem*, a very good work; and some official stuff the Army had published. Here were 14 or 15 documents, and I could not make any sense out of them at all. What happened? What factually took place? It is not a question of interpretation. You expect differences in interpretation, but what really happened?

In some cases, it was almost as if these fellows were talking about several different wars. Were they all reporting on the same events? There was no evidence of it at all. Some of the writing was more concerned with weapons systems. Anthony Cordesman is sort of in that mode, although he does take some sidelights into tactics. So I finally went to the Israelis, with whom I think I have a sort of special relationship, and said, "Look, here is the task. I need whatever formal, informal, classified, unclassified, or whatever you can give me that is just a factual accounting of the events that took place—not for the whole 3 years, but for the essential 6 to 10 days of the first part of the war, the part in which the Israeli Defense Forces did what they were sent to do, which was combat operations." The next 2½ years, or whatever it turned out to be, were an aberration in which they probably wished they had never gotten involved. But the first and critical part of the war was when the army and the air force went to do what they had been told to do.

After some conversations among themselves, they finally gave me a document. It was in Hebrew, so I had to get one of my good Israeli friends to translate it, which he very kindly and generously did. It took a lot of time. But, for the first time, I had a decent accounting of what happened. From that you could see where people went wrong in the perspective from which they were reporting in the books and documents that I had. So I finally wrote a paper.

The point to the story is that I tried to look at it in terms of where I knew the Israelis thought they were, coming out of the 1973 War; how they thought the threat had changed and was changing; how they cobbled up their doctrine, equipment requirements, organizations, and training. They made a lot of changes in their military forces after the 1973 War, based on what they thought the lessons of that war were. In the 1973 War itself, they had looked at the lessons of the 1967 War and made modifications to their doctrine, equipment, organization, and training as a result of that. In their case, there is a thread that runs through all of this—there is some consistency to an evaluation based on several major themes: What is the role of artillery versus air? What is the proper mixture? What is the right way to use infantry with tanks? How do you get infantry to battle under armor if they aren't in the

back of a tank like Merkava? Those and other themes run from the beginning of the War of Independence in 1948 through all Israeli operational considerations.

I found that, if you evaluate events in that context, it is much easier to explain, understand, and evaluate operations in Lebanon in 1982. We went to the Gulf with a set of lessons derived from our evaluation of the 1973 War, and the process that we used to get at those lessons was probably unique—certainly in our history it was unique. TRADOC [US Army Training and Doctrine Command] had just been formed in 1973. The war in the Middle East started in October of that year. We had fussed around from June to October trying to figure out what we really ought to be doing. We wanted to make some changes—what were we getting ready for? We realized by October that we had a big problem on our hands if we were going to try to persuade people to believe what we thought we understood about the nature of modern battle. Then, all of a sudden, on 6 October 1973, it was all laid out on the Golan and Sinai battlefields for the world to see. So, from our standpoint, the October War was a fortuitous event. That would be the nicest way to describe it, but it really was a fortuitous happenstance.

The war was over in short order—21days altogether, but 11 were the critical days of the fighting. It is now January 1974. I was the commander at Fort Knox and was on a tour of the UK [United Kingdom] training and materiel development establishment. Bob Baer, who was the program manager, XM1, was with me. The tank didn't even exist. We didn't even have a wooden mockup at that point. He was with me because he and I had been lifelong friends, and we swore when we went, each to his respective jobs, he to Detroit and me to Knox, that whatever happened we were not going to let anybody separate the two of us. For, even then, the M1 was in perhaps not as much trouble as it got into later, but it had its critics. We had just dumped, some years before, the MBT 70 and the proposed follow-on, the XM803. The Chobham armor decision was really just in the making, and we knew we had a problem. If we didn't get together and stay together, we would be wedged apart, and the whole thing would come to naught.

So here we are. We are going around looking at tanks. We went to the vehicle establishment and talked about guns, armor, tanks, and all of that. Then we went to the training establishment. One night the phone rang. It was General Abrams, the Chief of Staff of the Army. He said, "I want you and Bob Baer to go to Israel. I have been several weeks getting this put together, so don't screw it up. There will be a man on your doorstep in the morning with the necessary documents to do this. Unfortunately, you are going to have to send the entourage that is with you home, including your wife; you and Baer are the only guys I can get cleared to go to Israel." So off we went to Israel. We spent a considerable amount of time with General Tal, who was the tank developer and, even then, had a sort of prototype Merkava Mark I sitting on the sands out on a beach firing into the sea. It wasn't what Merkava I eventually became. On this version were a lot of pieces he had taken off of other vehicles; he had put them together just to make the thing work. But it was up and operating. So we spent two or three days with him. We spent several days with the armored corps folks; by then, General Musa Peled was the commander of the Armored Corps. We talked to most of the battalion and brigade and all of the division commanders who had fought. We went to the Golan Heights and to the Sinai. We walked on the ground where the battles had been fought, usually with the guys who had fought them.

What General Abrams had said to me at the end of our conversation was, "I want you to come back and tell me what I, as the Chief [of Staff] of the Army, should learn from that war. The other things will come in due course from other lessons, but I want to know what I should know out of that war. In addition, you and Bob have to come back and tell me what we need to do about the tank, because the program is probably in jeopardy."

There was a great hue and cry in Washington in 1971 and 1972 about the fielding of the TOW [tube-launched, optically tracked, wire-guided missile] and the Dragon, and then came the Soviet-made Saggers in the Sinai in 1973. All of Washington was agog with the notion that the tank was dead; the antitank guided missile had made the tank obsolete. General Abrams had said, "I want to know the truth about that." So we went armed with those two missions: to come back with lessons that the Chief of Staff ought to get from the war—from the Chief of Staff viewpoint—and the truth about the tank versus antitank guided missile situation.

Coming home from Israel, as I recall, I had one sheet of paper on which there were about 8 or 10 things for the Chief. Bob Baer had a sheet of about six or eight things that he and I had agreed on about the tank. He agreed to the tactics on the operational side, and we both agreed to the development side. We reported to General Abrams shortly after our return. General Miley was there from DARCOM [US Army Materiel Development and Readiness Command, predecessor to Army Materiel Command (AMC)], and General Stilwell, the DCSOPS [Deputy Chief of Staff for Operations and Plans] was there. We unloaded. At the end, we gave the Chief a copy of our papers. I don't know what kind of a grade I got because I never got it back.

The chunks I picked out of the operational side went something like this: A handful of lessons really stood out on the modern battlefield. First was the density of the battlefield in weapons systems at the places where a decision was sought. That has always been the case, I suppose, but it appeared to be even more so in this case. There were tanks at close range firing point blank at one another in some parts of those battlefields. There was also the intensity of the fight where that density was present and the striking lethality of modern weapons systems. My perception of it was that the density/intensity/lethality equation was much more acute than it had ever been before. Anything that was exposed, or seen, could be shot at and hit, and if it was hit, then it could be killed. I think we said that in the earlier edition (1976) of FM [Field Manual] 100-5.

The air war over the battlefield was every bit as intense as the ground fight, and it could be predicted that the air battle would be even more so with the advent of attack helicopters, which, of course, hadn't come on by that time. There was enormous risk of extremely high losses in a very short period of time, because of the lethality/density/intensity equation. If you weren't careful, you could lose most of your force very quickly. In fact, that happened several times.

Next was the fact that, in that environment, command and control was ever more difficu1t—difficult not just because of the nature of the battle, but because of the numbers of Soviet-made radio-electronic combat systems employed in the battle. Perhaps these were not employed very well, but they were there and they interfered with communications, and that made command and control infinitely more difficult. So, just at the time when you

need better command and control, you are denied command and control because of the technology that has been applied to the battle—numbers, sophistication, and so on.

One final lesson, the fact that, more often than not, battle turns out in some way that defies the force ratios that existed in the beginning. You have all heard this before, but more often than not, tactically, it is not the side that is outnumbered or outnumbering that wins necessarily. It is not the side that attacks or defends. Those things really have nothing to do with it. It is the guy who somewhere in the course of the battle seizes the initiative and hangs on to it until the end, even though he may be defending as opposed to attacking, or outnumbered as opposed to outnumbering.

The thing that really drove that home to me was the story of the battle on the Golan Heights. There were two brigades there when the war began, the 7th Brigade and the 188th—the Barak Brigade. The Barak Brigade basically got wiped out in the first hours of the Syrian attack. As I recall, the brigade commander and his deputy were both killed, or one was killed and the other wounded. Anyway, they were both casualties. All of the battalion and company commanders were killed or wounded within hours.

The commander of the reserve division charged with the defense of the southern part of that area was Musa Peled, who was on the road with his division moving north. Musa appeared at the Northern Command command post above Kuneitra about noon, if memory serves me right, on 7 October. There was a big discussion about what to do with his battalions and brigades as they came into the battle. The instant wisdom was to put a battalion here, battalion there, and a brigade this way or that, to shore up the gap left by the demise of Brigade 188. Musa said, "That is not a very good idea for a whole lot of reasons. One is a matter of numbers—we cannot be sufficiently strong anywhere if we piecemeal the division out." He said, "The only way I think for us to solve this is for us to attack, because the gate into Israel is wide open. The bridge of the Daughters of Jacob is not 10 kilometers down the road, and that is the end of Israel. So we should attack."

Well, they discussed that apparently all afternoon. I mean they argued about it. In the end, they called Dave Elazar, who was the Chief of Staff, and he in turn got to Golda Meier, the Prime Minister. Golda sent Elazar and Bar Lev up there that night of the 7th. They argued most of the night, but by about midnight they had finally agreed. Bar Lev overrode everybody else and said, "Let's go with Musa's plan." So Musa then drew up a plan to go around past the southern part of Kuneitra and come up on the flank of the Syrian divisions that were coming down across the Golan Heights.

He attacked about 7:30 or 8 o'clock the morning of the 8th with, as I recall, no more than 280 or 290 of his 360 tanks. By 2 o'clock that afternoon, the Syrians had lost 600 tanks and the defensive line along the Golan had been restored. The whole Syrian attack had turned around to cope with Peled's division. So the pressure was off the 188th. But it was still on the 7th Brigade; there, Avigdor Kahalani and his famous battalion, Courage 77, were whittling away at the attacking enemy. But nonetheless the big threat at the moment, which was the gap left by the defeated 188th Brigade, was taken care of by the attack.

There you are. They were outnumbered. They were defending. The division attacks. They took the initiative, you see. They were outnumbered and were defending, and they seized the initiative and hung onto it until the end. As a matter of fact, they were headed for

Damascus. Yossi Peled, commanding one of Musa's brigades, had lost most of his tanks in that attack. The division was within about 8 or 10 kilometers of Damascus when word came that the Soviets were moving their airborne divisions to the marshaling airfields. The Israelis shut down the attack. As Musa said, "I really didn't want to be the military governor of Damascus anyway, so we stopped."

But they had done, you see, what they had started out to do. They had distracted the whole Syrian attack on the southern flank and had stopped them from moving forward against the gap that was left by the destruction of Brigade 188. Meanwhile, the rest of the forces came up and filled in the gap. And, although they had a stiff, stiff fight, Avigdor did, in fact, save Israel, as has been reported, but it was really Musa, seizing the initiative at a critical juncture in the battle and hanging onto it until the end, that won at the operational level. There is a lot of evidence to support that idea.

I was convinced long ago that we should be looking carefully at a long ago report by Bob Helmbold to a NATO [North Atlantic Treaty Organization] war-games conference in about 1956. In his report was a little chart that was called "A Thousand Battles." It showed force ratios, attacker versus defender force ratios, and corresponding probabilities of victory. The curve was one of those cyma-shaped things which said that, if you are one attacking six, not to bother because you'll lose; but if you are six attacking one, press on because you always win. Unfortunately, most of our war games are based on that kind of calculus. The fact is, in a thousand battles that Helmbold looked at, and it turns out the same for a different thousand battles, it doesn't really make any difference who attacks and who defends. Within reasonable limits, one on six, six on one, let's say somewhere around that area, it doesn't make any difference who outnumbers whom or who attacks whom. It doesn't make any difference. The guy who wins is the one who does what Musa Peled did and takes the initiative.

Much of what came to be called the active defense in the 1976 edition of FM 100-5 was driven by that conviction, that somehow at the tactical and operational levels of battle you had to seize the initiative. How was that to be done?

Well, we looked at the weapons systems and we looked at technology. What did technology provide us with? Antitank guided missiles in considerable numbers. We thought ours were better than theirs. We were fielding them in great numbers, TOW particularly, and Dragon and Milan and HOT in Europe as well. So we built the active defense based on the changed threat that we saw before us out there—more numbers than we had ever seen before, and on the conviction that operationally we could, in fact, win if we could figure out some way to take the initiative.

Taking the initiative meant maneuver. Maneuver meant providing sufficient defense in depth with the antitank guided missiles so that forces, some at least, were free to maneuver. So there is the threat and the technology evaluation. So we put it together in that fashion, and that is what we called active defense.

It fell afoul of a lot of guys at Leavenworth who really didn't understand what we were trying to do. General DePuy was impatient with them, and properly so. In the end, much of the 1976 book was written at Fort Knox, and General DePuy wound up writing a great deal of it at Fort Monroe, both circumstances which aggravated the rest of the combined arms community. The armor guys were trying to seize the initiative, or so it was said.

Although that recitation I just went through drove the active defense, further evaluation of what was needed to cope with the follow-on echelons—in order to keep force ratios from getting out of that little window of one on six, six on one—was what drove the 1982 edition of the book, especially the deep attack part of it. So it was the genesis of AirLand Battle. All right. Now let's look at the Gulf. How did that work? Well, like gangbusters. I am sure there were some hiccups here and there. I am not saying this because I had a hand in that at all. I think Norman Schwarzkopf did an absolutely marvelous job. But the doctrine was there. The equipment that we developed to support the doctrine was there. The organizations were there. And we had trained the troops in places like the National Training Center to fight that kind of war.

Now the question is, how well did we do with that? Take JSTARS [Joint Surveillance and Target Attack Radar System] and ATACMS [Army Tactical Missile System], for example. TRADOC laid down the requirements for what became JSTARS and ATACMS in about 1977 or 1978. So that sucker is about 14 years old, and yet we just barely got an edition of JSTARS onto the battlefield, and thank God it worked. The poor program manager was running around wringing his hands because he had only parts of seven ground stations. He could only put together five of them that worked. He said, "Goddamn it, if they go over there and don't work, I'll lose my program." I can understand the poor man's agitation, but it went and worked. That was 14 years' worth of work. And the ATACMS was the same way. We had some missiles—not quite enough—but they worked like gangbusters too. So all the things that flowed from that train of thought out of the 1973 War went into the front end of the Gulf and came out the back a success.

Now what doctrine and equipment changes do we need to make, along with organization, training, and so on, all that eva1uation? Leavenworth is now doing all of that, and it keeps getting bigger and bigger. Poor General Tom Tait is out there trying to cope with this. He apparently has more audio and video and written material than he can cope with. And so it was in 1973. It took 18 months for Leavenworth to get an evaluation together; it was very useful and helpful at the microlevel of things. But then, as now, the real question is what are the lessons the Chief of Staff of the Army needs to draw from this? So, you see, there are two sides to this. There are tactical- and operational-level details like those we drew from our 1973 evaluation that we put into the Gulf War on the front end. Then there is the set of lessons, no more than a handful, that the Chief and the Chairman and people like that need to know. What are the big chunks in this thing? Do I need now to revise my ops concepts? Well, given what else has happened with the threat, and some technology changes, quite probably yes.

It seems to me there are two areas in particular that are deserving of some considerable investigation. One is the nuclear problem we talked about before you made your introductory remarks on the tape. We may well have seen the last conventional war in the Middle East. This is so for a lot of reasons. If I am Hafez Assad, and look at what happened to my neighbor, I have to say to myself, "Well, I have been buying from the Soviets. They have been selling me all of this stuff. They are not a good supplier anymore. They may be again someday, depending on how things turn out, but they are not at the moment the supplier that they have been. So here I am with 4,000 or 5,000 tanks. If I start being adventurous with them, the Americans are liable to come over here and blow me away. So why should I bother to spend my hard-earned oil bucks buying that stuff? Wouldn't it be better if I just

went out and bought some short-range ballistic missiles, figure out how to stick nuclear or chemical or biological warheads on the front end of the damn things, and scare the hell out of anybody in the region? And the Americans won't even be involved in it, certainly not before the fact. So, what I am going to do is get me some Scuds or CSS2s or whatever I can get on the arms market that are readily available. I have some technicians who know how to fix those things. They fly kind of funny when they get them fixed, if Saddam Hussein's experience is any indication. But the fact is, I can buy them. I can probably afford to buy them. And I can get some weapons of mass destruction. I can have a program going."

I don't know where he is with his program. I am more concerned about Iraq, because I believe they are making weapons-grade material. I don't think the Syrians are, but I don't know. "But, anyway, I can get a nuclear weapon. With that, I will threaten Tel Aviv and other critical areas. I will settle the Palestinian problem." You see, his is a political problem, a political problem for all the Middle East. For the solution to the Palestinian problem, as defined by the Arabs, is to drive Israel into the sea. It is that simple. It is difficult to get anybody in the State Department in this country to confess to that, but that is what is going on. The Arabs talk openly about that, most of them. I think Mubarak is an exception. If somebody were to assassinate Mubarak, as they did Sadat, what would Egypt's position be? I don't know. As I said in the beginning, if you take that protective shell, that deterrence shell, away from the nuclear situation—the shell that has surrounded the US/Soviet nuclear confrontation for all these years—most of the inhibitions that drove that barrier to exist and kept it intact for all those years are gone. You are dealing with irrational—by our standards at least, irresponsible by anybody's standards—human beings, some of whom are bloody mad. I think the possibility of nuclear war, even at the theater level, between two antagonists, without any US involvement in the beginning, is more likely now than it has ever been before. It will become more likely as time goes on toward the turn of the century.

The other thing that I have learned out of not just the Gulf, but trying to look ahead at the threat and technology, is that we are a nation that has become obsessed with our technical ability to see inside the other guy's silos and weapon storage sites and so forth. We do that with a series of very sophisticated sensor systems on a variety of p1atforms, one or more of the 50-some-odd birds now in orbit and controlled by the Air Force Satellite Control Network. A variety of agencies own those things, of course, and their outputs are not necessarily linked together.

We have become almost totally dependent upon technology to provide threat information. In the regions of the world where we can expect more trouble than we may have today, most of what we need to know is not going to be supplied by technology. It can't be. In the first place, we don't have coverage in some of those areas. We could have coverage if we wanted it, but it isn't there now. What do we really need? Let's call it situation awareness. There's a coup in upper Hooby Gooby or some place like that. Who is in charge of the coup? Well, there is this madman who is so-and-so. Time was, before the Vietnam War and until the end of that war, when we had MAAGs [Military Assistance Advisory Groups] and MILGROUPs [military groups] doing a variety of things in foreign countries. Some of them were building bridges. Some of them were medical teams. You are all fairly familiar with that, although you were much younger then. There were about 30,000 people in that joint manpower account. In 1971 and 1972, when I was the keeper of the force structure of

the Army, I was directed to get rid of that manpower account, 30,000 people. It was a joint account. We turned all spaces back to the constituent agency because we weren't going to get involved in these countries. You see, we were coming out of Vietnam. The lesson somebody learned out of that, politically, was that we weren't going to get involved in places like that any more. "Get those people out of there, lest we get ourselves embroiled in something we can't handle. So let's do away with that whole thing."

But, before we did away with the system, we had a situation in which, on almost any given day of the week, you could call someone on the telephone, either in the country or someone in this country who had just been there, and say, "Now look, we have this coup up here in Hooby Gooby. The guy who is running it is a fellow named so-and-so. What do you know about him?" "Well, I know him. He went to the Harvard Business School. I know his wife. He has seven kids. He is supported by the following people and has the following power base. The guy he is trying to depose is a jerk we really should be getting rid of." And so on. You could get that kind of information from some guy who had firsthand knowledge.

We can't do that anymore. We can get sort of a State Department appraisal, but that tends to be couched in terms that you and I probably wouldn't understand. And it doesn't get down to the real nitty gritty levels where you need to have information on which to base a decent action judgment. It requires situation awareness. We probably would have great difficulty going back, given the current and pending manpower constraints. But the idea is there. Aren't there things that we could be doing for these people? Nation building, which we used to call it; that might not be a good phrase to use any more, but the fact is we need a presence of some kind. We need military guys—guys like us—operating at whatever level, in whatever activities we can be useful in, who know the people, speak the language, understand the customs, and know the culture so that, when somebody takes power in some little country, we can get someone on the phone and say, "What do you think about this? What is your evaluation of this?" And he'll say, "Not to worry," or "Worry!" or "Go right now and do something, because this guy is going to do the following next week if you don't do something now!"

We have become so obsessed with technology and the Soviet problem that almost all of our collection assets are highly technical in nature and are focused on a threat that has changed dramatically. I think we need to broaden the scope of our intelligence collection capabilities. We need to change the way in which we evaluate information that has been collected, because it will be coming from a wider variety of different sources now. This is a super time for a reevaluation of the whole intelligence community.

I believe Bill Colby said this yesterday morning on television, and I think he is exactly right. The former CIA [Central Intelligence Agency] fellow who was on with him said, "We ought to do away with the CIA." I don't agree with that at all. I don't think Colby does, either. Indeed, he said so. But he did say, "Now is the time to look at this whole community again to see if we have it put together right." However you organize it, I do believe it is an unnecessarily cumbersome and complicated bureaucracy. I am more concerned with the collection capabilities and what they represent in terms of our ability to be aware of the situation. And in Ruratunga or wherever it is, do that in a timely way so that we don't have a situation like Mrs. Glaspie [Ambassador April Glaspie, US Ambassador to Iraq] got us into in Kuwait. Whatever she may have said about it to the Congress of the United States,

she misled Saddam. The facts are she misled him. I don't think she intended to, but she did.

So, going forward, it seems to me that we should audit the 1973 War lessons and do that through the 1982 War. I was CINCREDCOM [Commander in Chief, Readiness Command] when the 1982 War was going on. I went there but wasn't allowed to go into Lebanon. So General Eitan, the Chief of Staff of the IDF [Israeli Defense Forces], brought all of his senior commanders out of Lebanon, and we spent a whole day holed up in the command post with each one of them going over, for my benefit, what he had done. At the time, we weren't sure we wouldn't have to deploy forces, so I was trying to put together some kind of a back-of-the-envelope scheme of what we might do if that came to pass. They were very generous. To a man, they were people who had fought the 1973 War. I knew them all personally.

As they went through the recitation, they were auditing where they had been, what they had done since lessons of 1973, how that got them into what they were in 1982, and how well they were doing. The infantry question was uppermost. The artillery question was close behind. The air force deployment, and they did have attack helicopters, I found to be very useful. Their attack helicopters are part of their air force. I didn't find anything, and I don't think they had either, that they needed dramatically to change. A somewhat different threat—although, in the end, it wasn't all that different. Here come two Syrian tank divisions south through the Bekka Valley, not much new there. That was pretty standard. Where should we go next? If you just say that we are going to evaluate the Gulf experience, then one of two things happens. You get a Tom Tait and put him in charge of the data flood—I don't know how he is coping with that, or you wait too long and get the kind of thing I encountered when I tried to write the 1982 War story. You have everybody looking at it from a little different perspective, with no consistent thread through it.

It seems to me that the way to look at war in retrospect is to ask where you were going in. What did the war mean in terms of where you thought you were going in, how you came out of it, and what you need to do about that set of comparisons—if anything? Then, what are the big chunks the Chief, Chairman, President, and so on, need to learn from what happened? How is the threat changing, and how is technology changing, going forward? What is the new world in which we may have to live? Some of it is unrelated to the Gulf War, but it changes. And not as much perhaps as some people would like to have you believe that it has changed.

JOHNSON: You will be happy to know that the charge to do that is being drafted now.

STARRY: Well, apparently the Chief of Staff talked to General Stofft [Major General William A. Stofft, Commandant, US Army War College. We spoke about this last night, and he said, "I am surprised that you should say that. General Sullivan, CSA [General Gordon R. Sullivan, Chief of Staff, Army], called me this morning and said, 'What should I learn out of this?'" We may have waited too long. We really have waited longer than we should have to get that evaluation started. Why did General Abrams act as he did? I never talked with him about that. I never asked him. I wasn't smart enough to ask that question. But he was a great one for this sort of thing. He thought about the problem, apparently called General DePuy, and said, "Here is the opportunity! Send the Chief of Armor and the tank developer to Israel." So, before going to see General Abrams when we got back, I talked with General

DePuy. He listened, took some notes, and said, "Okay, go tell the Chief." Then Bob Baer and I went to see the Chief.

Later, then, General DePuy said, "All right, what are we going to do about all you learned?" The "What are we going to do about that?" question generated the active defense. So, with new technology, let's look at what we have to do with the forward battle. And as I have said elsewhere, at least from my standpoint, I felt that we didn't have the whole thing quite right, but we were hurrying and we had to get it out. I thought what we had done with active defense would solve the problem at the forward line of troops. But the real problem was, and is, what to do about the guy coming over the hill. And that led to what became the extended battlefield and AirLand Battle in the 1982 edition of FM 100-5.

SWEENEY: I think it is important to have the Chief's perspective established so that, when you start fixing the squads multiplied by 4,000 squads, it is still affordable and matches where the Chief knows the Army has to fit.

JOHNSON: But, at the same time, when that war was over, the threat was fairly clear. Its dimensions were changing, but it was fairly singular in nature.

STARRY: In 1973? Yes, you are right. I left Europe in 1964, having been brigade S-3 [operations and training officer], battalion exec [executive officer], and battalion commander in the early 1960s. I went back to Europe on a trip, when I came back from Vietnam the second time in 1970, and was struck by how dramatically the threat had changed. There had been a complete equipment change-out in tanks, in BMPs, and there were changes going on in the artillery world that we did not understand, but that, later on, turned out to be a complete revision of the artillery systems over a period of almost 10 years. We thought we had a problem in the early 1960s, but my god, the problem that I saw when I went back over for the first time in late 1970 or 1971 had gone up dramatically.

The other thing that was alarming was that we had used the US Army in Europe as part of a rotation base for the Vietnam War. We have never really admitted in a mea culpa sort of way what we did to ourselves. The Seventh United States Army was just out on its ass. I could go on for hours. When General Abrams came back in 1972 to be the Chief of Staff, he sent for me. So I went toddling over to see him. He said to me, "Have you been to Europe?" I said, "Yes, sir." He said, "Tell me what you saw." I told him in spades. And I said, "Sir, we have to do something. We have to get the . . . Army up and out of the mess that it is in and get it going again." Well, about a year later, he sent for me again and said, "We are organizing TRADOC." This was spring of 1973. "Bill DePuy is going to TRADOC, and he wants you to go to Fort Knox, so you are going to Fort Knox." They had already posted somebody else to command Fort Knox. He said, "You're going to Fort Knox." I said, "Sir, I want to go to Europe and command the 3d Armored Division." He said, "I know that, but I'm telling you that you are going to Fort Knox." So we talked a little bit about what I thought we ought to do. This was before the Yom Kippur War. The last thing he said to me as I walked out of his office was, "I want you to go out there and get the Army off its ass."

Now I'm sure he told that to everybody who came to his office. And every one of us took it as a personal charge. Meanwhile, he had been around and had seen what some of us were talking about, and he was every bit as alarmed as we were. So there were two things in Europe. One, the threat was enormously more capable than it had been before. The Seventh

United States Army was enormously less capable than it had been before. But a third thing was that we had on our hands some new technology that offered marvelous opportunities for improving the defenses of the Central Region in ways we hadn't thought of before. So obviously it was time for a change. The threat had changed, and the technology was available to us.

JOHNSON: So now we find ourselves in a situation where maybe, if the nuclear scenario begins to show some promise, the technology may be the antidote if it is applied properly. But it is a different application than what we had been looking at. Or, on the other hand, we may be moving into a situation where the technology is less important. As we go into some of these strange places that we don't know about, we may be looking more toward the poor overburdened infantryman again.

STARRY: There are several aspects to that that are interesting. If you look at the total picture of the Soviets and the Third World across the spectrum, there are two critical questions. One, is there going to be a central Soviet military command of some kind, certainly central command of the rocket forces? If so, at what rate will the Soviets now modernize their forces, both the central forces and those that may belong to the SSRs [Soviet Socialist Republics]?

They had achieved a modernization rate in armored vehicles and artillery and in some aircraft and in nuclear weapons that was equal to or better than our own. If you take the great artillery leap forward of the 1970s, they were probably outmodernizing us at the rate of about 6 to 1; tanks, BMPs, and BRDMs about 4 to 1. Are they going to continue that? That is a critical question. Will they continue that?

Secretary Stone and I had a conversation about this in January of this year, and he asked, "How do we find out?" I said, "The key to it is in the design bureaus. The way they have achieved the mod rate is by staggering the work of design bureaus. There may be four design bureaus working, each one of which has a life cycle of 15 or 20 years or whatever it turns out to be. But there are four of them. So they stagger the output of the design bureaus and they have a 7- to 10-year mod rate in armored equipment. Are they going to continue that? I don't know." He said, "Why don't you go see what you can find out about that?"

So I went around the world talking to everybody about that. And the first person I talked to who gave me any indication of what was going on was a Soviet immigrant in Israel in May of this year who turned out to have worked in the T-72 tank factory in the Soviet Union. I said, "Why did you leave?" He is a 48-year-old engineer, has a couple of kids in their twenties, and a wife. He was a very nice man. He said, "I left because the work of our factory is coming to an end, and the design bureau that feeds our factory the design for the next generation is being disbanded, or at least we thought it was being disbanded. People were going away and so on. So most of us believed that we would be out of jobs sometime in the next year or so." He apparently was a senior engineer. I said, "What are you doing with the equipment?" He said, "Well, we park it in the yard, and we don't know what happens to it. It is just there and it is building up. But the thing I am concerned about is what is coming in at the back end—from the design bureau—to indicate whether we are going to be making refrigerators or are we going to continue to make tanks?" He said, "Our workforce view of it was that the design bureau was probably going away and we

could expect to be out of business. So we decided to immigrate and take advantage of the program and come to Israel."

That was the first indication I had from anywhere. I had talked to the Brits, the Germans, and, of course, the Israelis and others. Nobody knows. I came back here and talked to the Agency and the Foreign Science [and] Technology Center. To them I observed that the latest, newest five-year plan is, of course, about eight or nine months old. I said, "Well, get out the new five-year plan; let's lay it out on the table and see what they think they wanted to do, anyway." They said, "We don't have it." I said, "Hey, guys, here we come back to this intelligence problem. You can't tell me that in today's world that plan isn't for sale. You can't tell me that we can't get it, and you can't tell me that it isn't essential that we get our hands on it now rather than try to reconstruct it after the fact."

We went through this with armor-antiarmor systems in the 1985 Defense Science Board Summer Study. All we know about the five-year plan is what we can reconstruct in retrospect. It is very interesting retrospect. I won't argue that, had we known at the time what they thought they were doing, we would have done some things dramatically different than what we did. Well, anyway, that is one part of the equation. At what rate do they intend to modernize their own systems?

The second part of the equation is at what rate do they intend to modernize the systems of their client states, if at all? Obviously, because of the current situation and our insistence that they not supply, they have shut down the supplies to Iraq and Syria. On the other hand, if you look at the overhead photography, as you guys well know, there is stuff sitting all over that desert out there east of the Urals. What do you do with it? It doesn't make good tractors. What the hell are they going to do with it? So the two basic questions are: What rate are they going to modernize their own forces at? And that is a function of the number of design bureaus. And, if we see that structure start to come down, it suggests that there may well be a change in that pace. And how, and at what rate, do they intend, if at all, to modernize the equipment in the hands of their client states?

Now your question had to do with client states—perhaps even some of the Eastern European states who have Soviet equipment, but anyway clients. Six years ago, in armor-antiarmor, as a side excursion we looked around the world to see where we could find inventories of armored equipment: tanks, BMPs, BRDMs, artillery, and even attack helicopters in some cases. We found 51 countries in which there was some collection of armored equipment. Some of it was not very substantial. Almost none of it—although some countries have combined arms combinations, as do the Syrians and the Iranians and so on—but almost none of it, with those exceptions, represented a combined arms approach. "Tanks are prestigious, so are airplanes, so we've got to have some of them," or so the logic goes. If the United States, for lack of sealift and airlift, is contemplating sending light forces to any of those 51 countries—and most of them are areas in which there is likely to be difficulty—then we are obliged to provide the light forces with the equipment necessary to cope with the threat that they can expect to encounter. We have not done that.

I have been quoted as being "Mr. Heavy" and antilight. And I am not antilight at all. I am just saying, "If you want to send the poor damn infantryman out there to do that job, it is not fair to him, to the Army, to the country, to send him to do something against a threat

that you haven't equipped him to encounter." It is that simple. It has to do with, in some cases, antitank guided missiles; in some cases, artillery; and in some cases, shoulder-fired or crew-served weapons. It has to do with a whole spectrum of weapons systems that we need to provide our infantry. And we detailed those at the time in the 1985 Summer Study. But we've not done it. So there's the answer to your question.

One of the driving ideas behind AirLand Battle was the notion that General Abrams used to put forth all the time, the notion that it is just damn foolishness on our part to send soldiers out there to do things that we should be sending technology to accomplish instead of getting the soldiers killed unnecessarily in the process. One of the great things that Norman Schwarzkopf did for us in the desert was to make the concept work, and we didn't have the casualties that we could have had. There is a great line from Shakespeare's *Much Ado About Nothing* that says, "A victory is twice itself when the achiever brings home full numbers."

SWEENEY: . . . a commitment by the mechanics in this whole operation that General Vuono [General Carl E. Vuono] really loved the lessons learned business, the CALL [Center for Army Lessons Learned], and the kind of mechanical process.

STARRY: Well, it is necessary. Something like that is necessary; whether they have it built exactly right or not is another question.

JOHNSON: I guess that was one of the things that I was going to throw at you. From what you know of the existing system, what you described earlier was two general officers doing it and then throwing it back to another general officer who translated it into some sort of a program. We now have some sort of a semiformal structure. We do have a thing called the Center for Army Lessons Learned. Most frankly, what it produces is tactical stuff. But for this exercise we satellited a general officer and about 25 colonels and lieutenant colonels. But we still came out mostly with technical stuff, and it hurts me to say that because I was responsible for the strategic pieces. How much of a system do we need? What sort of involvement does each different community really need at large for Center for Army Lessons Learned with teams of people to go here and there? Or will a couple of bright general officers do?

STARRY: Well, the combat development system, of course, is supposed to take care of that. Whether or not you need a Center for Lessons Learned, I don't know. I think I would argue that the individual center commandants, artillery, infantry, armor, and so on, need to have the responsibility for details of their respective branch matters of interest. And, where those matters of interest overlap, come together, or whatever the right word is, then Leavenworth probably needs to at least monitor that. Whether you need a big center at Leavenworth to do that or not is probably an issue that we could discuss forevermore. I think it is more important than lessons learned. This problem won't go away, but it will level off.

We had this before—in 1974 and 1975, and we had a major general in charge of it. I can't remember his name. That will level off. The Combat Studies Institute does this kind of work to some extent. *First Battles*, edited by the now-Commandant of the War College and his friend Colonel Charles Heller, was a good example. I said to then-Lieutenant Colonel Stofft one day, "If we say in the field manual that the first battles are critical to us, then what is our track record in first battles?" And several months later he came back and said, "Sir, we need a book." I said, "Wait a minute. I don't have anything that grand in mind." That

conversation was the genesis of the *First Battles* book. That's a super piece of work. They just did a marvelous piece of work. I think it is interesting to talk to audiences and find how many, or few, people have read that book. It is worth a lot more attention than we are giving it.

I talked to the Commandant yesterday and I asked, "Where is the sequel to it? We have now fought a first battle that we won. It will be the 11th first battle," actually 12th or 13th if you count Grenada and Panama, and those haven't been written yet. But it would be the 11th battle, and there would be only 2 of the 11 that we won hands down.

JOHNSON: I got involved in that discussion earlier with Colonel Heller, who is also here, and I asked the question at that point, "Is this indeed another first battle, or is this the last?"

STARRY: Is it the last battle of the last war or the first battle of the next war? That is the question. I don't know. It may be the last. If there is any truth at all in what I suggest about the weapons of mass destruction problem, it may have been the last battle of the last war. On the other hand, there will be places in the world where you will probably want to send troops from time to time, places where there are significant arrays of fairly modern weapon systems. How modern they will stay over time is a function of the Russian policy in regard to the supply of their client states. I think Cuba will go away. I think Castro will come down in a matter of a few years. What is the fate of Cuba? There is a Soviet brigade there. They have now said, I guess, that they are going to take it out. Even in the summer of 1989, Gorbachev said in a public speech, "We, the Soviets, must now evaluate our policies in regard to the support of military support clients to see what we, the Soviets, can afford." They were in the process of doing that when the revolution unfolded.

I think now, of course, they have not resupplied; as nearly as I can tell, there isn't any major equipment going in to replace Saddam's losses. There is still some spare parts traffic here and there, but not out of the Soviet Union. It is coming from North Korea and other places. It may be that it is being laundered through that process, and it is coming from the Soviet Union. But, based on it, I talked to two or three, not just the one fellow whom I told you about in Israel, but several Soviet engineers who are part of the immigration process. I doubt that they are sending anything. If it is available, it is available on the arms market someplace in the Third World. If, in fact, we have seen the last conventional war in the Middle East, it may have been the last battle of the last war.

SWEENEY: Can China or Brazil, or some other competent producer, take up that slack?

STARRY: Yes. You have to understand that there are several countries in South America with sufficient military force and the capability to have ballistic missiles and nuclear or other mass destruction warheads on them that could be a problem. Not that they are now, but they could be. South Africa is testing a ballistic missile. There are substantial military forces with very capable equipment and very professional armies in several places in the world. That could be a problem. Whether we would get involved or not again, I don't know. But that could be a problem. China is going to be a problem. I don't know how or in what context, but China is going be a problem. Just write that down, because somehow we are going to have to cope with that.

SWEENY: I think you said that in Heidelberg once, too, didn't you, sir?

STARRY: Right, in Frankfurt.

JOHNSON: Let me ask you the first question on this list. To evaluate the effect of Goldwater/Nichols, that also impacts on whether this was the first or the last battle. There has been an awful lot of press about the wisdom of Goldwater/Nichols. Within the relatively limited context, it seemed to be good legislation, but there was only one supported CINC [commander in chief], there was only one theater and, other minor distractions notwithstanding, the competition for resources was negligible in a global sense, which Goldwater/Nichols is supposed to address. How do you see that?

STARRY: Goldwater/Nichols comes in two parts, in my mind at least. One has to do with the command and control arrangements at the top. The other has to do with the acquisition system. What you are asking about is the command and control arrangements. I testified in the spate of investigations by the Congress over the Dave Jones [US Air Force Chief of Staff General David Jones] proposals, some of which led to parts of Goldwater/Nichols, to the effect that I thought that the Chairman of the JCS [Joint Chiefs of Staff] had all the authority he needed. All we needed was somebody with enough guts to use it. Goldwater/Nichols kind of changed all of that, at least cosmetically.

But I'll tell you what. I think it is the personalities involved. Thank goodness for George Herbert Walker Bush, Brent Scowcroft, Colin Powell, Dick Cheney, and, of course, Norman Schwarzkopf. Thank goodness. You don't have to go back too many years in this country to put together five people in office in those positions at that time who would have screwed that thing up beyond all comprehension in the first 15 minutes. So I think we were blessed, absolutely blessed, with a group of people, each one of whom was competent in his own right, but who together represented a group of people who were extraordinarily, and probably uniquely, capable of handling the situation in which we found ourselves. Not necessarily to name names, but all you have to do is reflect on who has had those jobs in the last 10 or 15 years, or even 3 years.

The President, God bless him, because of his background as a diplomat, CIA, and so on, has an absolute remarkable ability to be able to deal with this sort of situation. Scowcroft is a similar sort of person, in spite of the fact that he has come under some fire recently. So, from that level—can you think of trying to run this thing with a Bud McFarland as a National Security Advisor, or a John Poindexter as a National Security Advisor, or a Dave Jones as the Chairman? My God! When I had REDCOM, he would call me. I shouldn't pick on him, because I liked him. He is a nice man, but my God. He would call me up and would say, "Donn, we don't have a plan to send the brigade to Igga Chaboogy." I said, "No, David, we don't." He said, "Well, why don't we draw up a little plan?" I said, "Well, Dave, what do you want to do when they get there? The way this thing works is, you tell me what is going on there and what outcome you would like to have come about as a result of the commitment of military force. My job is to tell you what we can send, and how soon we can get it there, and how we can do something when we get there. I'll do that. It may be a brigade. It may be a division. It may be one marine—or none of the above or all of the above. But please don't call me and tell me that we want to plan to send a brigade to so and so until you tell me what you want to get done." He said, "I'll call you back." Two or three weeks later, he would be on the phone again, asking, "Do we not have a plan to send a division to so and so?" I said, "No, we don't."

We would go through this whole thing over and over again. In one case, I had to go see the Secretary of Defense, Mr. Weinberger, and tell him, "Here is what is going on. I am perfectly willing to do some of these things, but the fact is that the Chairman is not in my chain of command. If the Secretary of Defense has some things he wants done in regard to contingencies—'what ifs' in this area and that area," I said, "I'll be perfectly glad to work on those and come back and say what we might do in response to a statement of what he would like to have done in that part of the world." He said, "I understand what you are doing. Just keep right on doing it, and I'll tell you when I want you." Subsequently he did ask me to do a couple of things. I did and we had a conversation about it. I don't know if he ever told the Chairman or not. I didn't. Now that is what I mean. Some military folks have absolutely no conception of how this thing is supposed to work. The Jones solution is to centralize everything. That is a typical Air Force solution. The Air Force believes in centralization of every function. And Dave Jones is a prime example of that. I think he is wrong about most things. But he thinks I am wrong about most things, too, so that makes two of us. Now that is command and control. Did Goldwater/Nichols help? You could say it helped, I suppose. On the other hand, if you had a turkey as a Chairman, or some fellow in CENTCOM—my God, just think what would have happened if Schwarzkopf's predecessor had been in command of that thing.

CRAFT: I can relate to that.

STARRY: We had a unique combination of personalities—the law aside, of personalities involved in this thing that permitted what happened to happen.

JOHNSON: It appears in some other conversations that we've had that there are positions in the joint world that are uniquely suited to management or control by ground force people. Because of the cultures of the other services, when you have the other services occupying these positions, you have potential for disaster. Is it even conceivable that, in the whole joint education process, we can, in fact, produce a purple-brained person?

STARRY: No, I don't think it is necessary. When my friend Congressman Ike Skeleton was eating up the joint education system, I testified to this effect. He is a good friend of mine and I like him very much. He has been very helpful to me several times. But I told him that I thought it was terribly unfortunate that the Congress was delving to that level of detail in the Joint Staff system. There is nothing wrong with Joint Staff officers or the Joint Staff officers' education so long as the CINC understands the service bias. I think service bias is healthy. I think it is useful to have a Navy viewpoint. I think it is useful to have an Air Force viewpoint. I think it is useful to have a Marine Corps viewpoint. And, as a CINC, I always tried to solicit those viewpoints, because they were always different.

But, being a great fan of the Armed Forces Staff College process, the then-Armed Forces Staff College process, I thought I understood their culture about as well as any Army officer could. And I always listened carefully and tried to lay out that testimony, if that is the right word, in light of what we were trying to get done. Then, we would try to get together and make a decision. I made the decision, but nobody ever got cut out. It was never a purely Army solution. In almost every case it was something that was put together as a result of advice and counsel that I got from some one or more of those people. So the guy you are going to train is the CINC. You can't have a George Crist running something like that,

because George Crist does not understand the rest of the services in any way, shape, or form. And, in my view of him at least, and I have great respect for his rank and so on, he is just not the kind of a guy who is intellectually flexible enough to take that kind of a thing on. So the CINC is the important person.

You get a situation like CINCPAC [Commander in Chief, Pacific], where you almost have to have a Navy fellow in charge, and it is essentially a Navy command. It really is. For the ocean areas involved and whatnot, maybe that is exactly the right thing to do. Do you need a CINC out there who has some appreciation for Army, certainly Marine Corps, but Army and Air Force matters? Yes, you do. Do you always have one like that out there? No, you don't. But there is nothing wrong with the staff officers or the education of the staff officers. As a CINC, I valued that service bias that those folks brought to my conference table. I think it is important. It is also useful if they understand their contemporary counterparts' points of view. Sometimes that doesn't happen, but I always found their arguments around that table to be useful. Sometimes it all comes out, "Those guys are trying to take over this, that and everything." Well, those are useful staff points of view. But the key is the CINC.

JOHNSON: General Trainor has just argued in a piece, and I am not quite sure where it came from, that what in fact has happened with the Goldwater/Nichols thing is that that valuable process has been subverted, that the joint discussion arena has been shoved to the side, and that there is a chief of the general staff, the Chairman, and there is a general staff, and the joint character.

STARRY: Well, he may be right. I don't think it is quite that bad myself. But who knows? It may be moving in that direction. If you did have a single great general staff—now look, this is the thing that has whipped any attempt to bring the military forces of this country together at the top since the beginning. You look back at the history of this. The "man on horseback" is the great image that is thrown up there. The supporting rationale has always included the history of the great German General Staff. I suppose to some extent he is right, although the Joint Staff is not well organized or run. I don't think it ever will be in our time.

CRAFT: The culture is one thing, but as long as you have directors on the CINC staff, they have two choices. They either return to their service or they retire. It is only on that second choice that you may get something other than a service position. I would argue, though, that culturally there isn't a very good appreciation for the other services among the Air Force in particular and the Navy because they have very little dependence on the other services. As for the Marines and the Army, they always depend on everybody else to get where they are going.

STARRY: In the case of the Navy, particularly, they have never put a premium on a progressive education system. They have sent officers to school, and they still do it to some extent, between assignments and so on. The Air Force used to do that until the creation of the Air University system down at Maxwell. The problem with the Maxwell establishment is that the Air Force hasn't used it as a place to develop doctrine. It is just a place where officers go to school. They really have missed a marvelous opportunity. Can you just imagine having all that stuff together in one place, where all you have to do is drive across the base to talk to the other guy? What an opportunity! And they have missed it. They have blown it, because they believe in centralized control of everything at the Air Staff level. I think

Maxwell is a super place. I have great regard and admiration for what they are doing down there, but I think they have missed one of the greatest opportunities in history to make out of it something that will move the Air Force in the directions in which it needs to go without getting it all involved in the bureaucratic entanglements of the Washington arena, which is what the Air Staff always forever is.

SWEENEY: Sir, to follow up on some command and control. The demise of REDCOM, how would that have played out if REDCOM had still existed?

STARRY: If you look at the history of that, that command was put together to solve a problem like we have just faced in the Middle East. In the beginning it was STRICOM [Strike Command]. In the beginning, the CINC was General Paul Adams, who had a reputation for being one of the holy terrors of the whole world. I found him to be a remarkably prescient sort of fellow. He was still alive when I was down there. One of the very first things I did when I went to MacDill was call and ask for an appointment. And he was nice enough to invite me to lunch. We spent all afternoon together, largely because I kept asking him questions. I had been there and visited when I was at the Armed Forces Staff College for six months as a faculty member before I came up to Carlisle in 1965. I was part of a little group of three or four people who were to rewrite AFSC Publication 1, *The Joint Staff Officer's Guide*. There had been a task force sitting on it for 15 years. Every year they would report to the Commandant that they had broken up along service lines.

The Commandant was a neat Air Force general by the name of Stan Holtoner. He was one of the great Air Force test pilots. He flew his own test airplane. He was really a great guy. It was January 1965. I got a phone call the night before graduation from my friend Bob Baer, who was the personnel manager for Armor in those days. He said, "You are going to Carlisle next year. What do you want to do? Do you want to go up to Carlisle for a while and work around or stay where you are?" So I went to my seminar chief, Army, and he said, "I don't really have any advice for you." Signa1 Corps officer, a great guy. Then I went around to see my Navy faculty advisor, who was a marvelous Naval officer named Jim Calvert. He had been skipper of the *Skate*, the first submarine to surface through the ice at the North Pole. Later he commanded the Second Fleet and was Superintendent at Annapolis. He was a super guy. He said, "Well, let's go see the Commandant." So we went to see Stan Holtoner. All this happened at a cocktail party one night.

General Holtoner said, "You two guys don't leave here." He said, "I'll tell you what we are going to do. The three of us, me and you two, are going to write that manual." For some reason or other, it was uppermost in his mind. Somebody had just come to him, apparently, and reported that they had screwed it up for another year in a row. He said, "I'll tell you what. In six months' time, you two and I are going to write that pub." And we did.

In the process of doing that, I went to talk to all of the CINCs all over the world. One of the places I went to was STRICOM. General Adams had quite a remarkable system set up for plans. It was comprehensive. It was well done. It was very professional. He had the command and control arrangements laid out through the Middle East. It was a first-rate piece of business. I came away from there feeling that, whatever his temperament may have been, here was a guy who really knew what he was doing. And he had that place organized. The people were moving things, in spite of the fact that he was known as a kind of a rascal. But he was moving things.

He also told me (and I went back and got the documentation out to see how much he had done) that he saw STRIKE, as I saw REDCOM, as a source for joint doctrine. I raised this with him. I said, "I think there is a need for some joint doctrine—perhaps no more than at the joint task force level, but we have a great problem with the interfaces. We have a great problem with the air defense interface. We have a great problem with the blocking out of the air war interfaces between the Navy, the Marine Corps, the Army, and the Air Force. And I'd like to try to resolve some of that, at least the big chunks that are important to the CINC. I am not going to dabble in Marine Corps or Air Force doctrine. It is the joint doctrine that is important at the interfaces where the systems have to work together jointly."

He said, "Let me tell you about that." So he went on for over an hour or so, describing how he had tried to do this and promptly got blown away by the Chairman and everybody else in Washington. So, he said, "Be careful if you do that. Be careful." He said, "I have some documents." He gave me some papers, and I went and dug some more out of the archives at MacDill, and sure enough he had tried. He had spent about 2½ years trying to do that and, in the end, really got short shrift. It was one of the reasons that they unstruck Strike Command after 10 years. The Navy laid in wait for all those years some time after General Adams left. So in 1972 we unstruck Strike. It was more Vietnam aftermath than anything else, revulsion over the idea that we would project forces anywhere any more. We weren't going to strike anybody. So it was renamed Readiness Command.

But, in REDCOM, there were two joint task forces. One was for the Middle East and Africa south of the Sahara, and the other one was for the rest of the world—for areas not assigned to another unified command. Those task forces were then charged with doing the things that Strike had been doing. It was the reactivation of Joint Task Force 7, the RDJTF [Rapid Deployment Joint Task Force], which led to the creation of Central Command [CENTCOM]. I started in the joint doctrine business cautiously, here and there. I went to see all of the chiefs. Well, it sounded like a good idea. Then I went to see the Chairman and all hell broke loose. The Pentagon Joint Staff descended on MacDill, claiming we were taking over their sacred business. So I said, "Okay," and changed the name of that activity to joint tactics, techniques, and procedures. It was not called doctrine any more, but joint tactics, techniques, and procedures. And we started producing books. The air defense interface was the first thing we tackled. The apportionment of airpower was the second thing. And, because we had changed the name from doctrine to joint tactics, techniques, and procedures, neither the Chairman nor the Joint Staff was smart enough to understand what was going on. But we were in the doctrine business.

Now REDCOM, the doctrine, exercises, tactics, and operational concept—do they work? Are they about right? Do we need some changes here? And again, how do we make the interfaces work? That is important stuff. If you have CENTCOM, you should not give that CINC that mission. He has a geographic responsibility. We are talking about a functional problem now.

What we ought to do is use the Armed Forces Staff College as a place to explore the doctrinal things. They run those big planning problems, at least they did, up there every year. If you have some new trick you want to try, you run it through the planning problems and let those young majors and lieutenant colonels wring that stuff out. What an opportunity! So you

could put the whole thing together. The Armed Forces Staff College could be kind of the joint Leavenworth. You could do a little joint training at Leavenworth and more at the War College. But the real joint stuff, where the guys all get together with their various colored blue and green suits and do it, that's Norfolk. What an opportunity. Well, Ike Skelton was off on his kick about the same time, so we wound up bitching up Norfolk. I think it was one of the best schools we had in the whole system. I've been a great fan of that place, and everything that they do there for a long, long time, and we really screwed it up thanks to my friend Ike.

Is there a role for REDCOM? Absolutely, and that role is joint tactics, techniques, and procedures; test and evaluation of things that happen at the interfaces; joint command and control systems—not just for the Middle East, but for deployment elsewhere in the world. Someone who can look across the whole spectrum of the world. Where are we likely to have to deploy forces? We have tried to solve that problem now by expanding the unified command plan to give Africa south of the Sahara to EUCOM [European Command] and so on. But I will tell you that, unless EUCOM changes its gears dramatically, EUCOM is focused on Europe. It always has been, and that is one of the things we are going to have to change. But there are some things that are going on in these other places in the world like SOUTHCOM [Southern Command], places where someone needs to look across the whole spectrum of threats, technologies, and whatnot from an intelligence standpoint and from a situation awareness standpoint and keep track of what is going on. Can the Joint Staff do that? They might, but they don't.

CRAFT: That is what the J-7 was supposed to do.

STARRY: Absolutely, that is right. But what I found at REDCOM was that almost all the intelligence capability had been stripped out with the demise of the MAAGs and the MILGROUPs in the early 1970s. At REDCOM, in 1981, we were hard put to put together a cell to look at Africa, one to look at South America, and coordinate those with the CINCs. We had a hard time putting together a situation awareness capability. I was only there at REDCOM a couple of years, then went off to do something else. What lasted after I left was the Joint Exercise Simulation System [JESS], which seemed to me to be a useful function that somebody like REDCOM can perform. The technology exists to, from a central location, furnish/provide exercise capabilities, even though it is just a CPX [command post exercise] for commands all over the world. So you can test command war plans in the context of a Joint Exercise Center, which is at MacDill or wherever, and see if the plans all fit, particularly the deployment plans. Suppose you get a war and a half or two half wars or whatever. How does that work? Well, it doesn't work very well, but we didn't have any way to figure out how unwell it was. That was one of the ideas that stimulated the whole JESS business. That stuff can be secured across the satellites, and so you have the technical capability to do that worldwide from a central location where that central person or activity is simply furnishing a service to those other commands.

SWEENEY: And he is doing it from an operational perspective and not from the staff perspective.

STARRY: Absolutely, you are exactly right. So I thought that was a great opportunity. And, there again, you could take the details from some of those plans, take them up to Norfolk, and let the students wring the plan out. Let one class run it through their four or three

planning problems and see how it works. Then come back and do a little evaluation and say, "We probably need to change this, that, or the other thing."

JOHNSON: In describing your focus on tactics, techniques, and procedures, rather than naming a doctrine, it occurred to me that it is possibly an answer to the question bouncing around about whether we need to write coalition doctrine.

STARRY: No, I think what you need to do is about the same thing as you need with the joint problem. I'll just tell you, if you go to the Brits, for example, there isn't an FM 100-5. If you go to the Germans, the 100-5 counterpart is called HDv 100/100. The French don't have any FM 100-5. The Israelis don't have any. So you have a wide disparity in the way that the doctrinal problems are set forth from an allied standpoint. So coalition operations pose essentially the same problem, in my mind, as do joint operations. What are the interfaces? Do the interfaces work? Now, this has a longer audit trail to it than just at the major command level. The V United States Corps for long years stood alongside the Third German Corps, and yet the fire control systems wouldn't talk to one another, despite the fact that, in the requirements document for the US TACFIRE [Tactical Fire Control System], there is a statement that it has to interface with the German fire control system. When taken to task for this, the development community said that there might be classified material involved. The AMC [Army Materiel Command] response to that was, "Classified material going over? We can't let the Germans have access to that!" So the head of the German delegation to the US-German staff talks, when I was at TRADOC, and I, as the US head, decreed that there would be a demonstration of the interoperability of the two nations' fire control systems—TACFIRE and ADLER. It took five years to put the test together—five years! The test was conducted after I left active duty. Five years in spite of the fact that, as I said, the requirements document for TACFIRE stated that it had to work with ADLER. As far as I am concerned, that is unconscionable.

AUTOKO [German Secure Communications System] won't talk to RITA. We bought RITA from the French, and it won't talk to AUTOKO. That is stupid! So there is an audit to the interface thing that goes all the way down to the operator level. The same thing with air defense. It goes on and on. But functionally, you see, those are interface functions: fire control, air defense, apportionment of airpower, and whatnot. So, if you look at it from a functional standpoint, even though it may audit all the way down to the individual forward observer, those are the things that we ought to be working on from an allied standpoint.

SWEENEY: Our efforts in ATP 35, for example, didn't focus on the interfaces as they should. It was more finding universal acceptance for FM 100-5.

STARRY: A solution in some cases is simply to send a liaison team over there with your own radios and work it that way.

CRAFT: That was the solution in the last coalition.

STARRY: But, in today's world, you would hope that that is not necessary. In some cases it is even necessary among close allies like the Americans and the Germans.

JOHNSON: Or like the Army and the Marines.

STARRY: That is right. I have forgotten the nomenclature of that big facility where the screens are and where the Marines bring the fighters in out of the gate. The Army and the Air Force

don't have anything like that. Will the system the Air Force uses to do that interface with the Marine Corps system? No, sir. Should it? Damn right it should! There is a task for a CINCREDCOM. I tried to make those systems work together, but I wasn't there long enough to get it done.

JOHNSON: We had a general officer whom we previously interviewed tell us that all he knew about doctrine were the principles of war and METT-T [mission, enemy, terrain and weather, troops and support available, and time available]. How does that strike you? Is that useful?

STARRY: That is about appropriate for I don't know what level. I read that and I couldn't believe that. Was he joking?

JOHNSON: Absolutely not.

STARRY: I guess that goes back to the question of what officers do in peacetime. For a long time after TRADOC was first organized, there were two really bad splits that probably haven't yet been resolved. Well, one of them has, but the other one hasn't yet. We cut back on the advanced course time from 39 weeks to 19 or 20 weeks across the board. We cut some other stuff out. The school commandants were tasked to do that. General DePuy never said, "Here is what you are going to cut out to make this possible, but here is what you have to work with. You put in what you think." He never told you how to do your job. He just told you what you had to do. Every school in the system, except Fort Knox, took out military history—the study of the history of military art. It stayed at Fort Knox because I was there, and I happen to believe that there is no way for you to address yourself intelligently to your profession in the contemporary sense unless you understand the history of your profession. We were, I must admit, studying, in some cases, history for the sake of going out on the battlefield of Gettysburg, and having a picnic there on a nice day, and so a lot of fun.

So I changed the nature of the history instruction at Knox. We would go over to a little battlefield called Perryville, Kentucky, where two strange forces, commanded by two stranger generals, met one afternoon and did battle with one another. There we would have a terrain walk with the advanced class. Instead of saying, "Here are the Confederates and there the Unions," and all of that, we had a terrain walk. For its weapons systems, ranges, and its battle positions, it's the range of artillery and what the artillery weapons could do in that place out there at Perryville where the Confederates marched two brigades right smack across the front side of a hill in plain sight of the Union forces and didn't suffer a single casualty. The students are standing out there, saying, "How the hell did that happen?" Well, what was the range of the rifles in those times? Those brigades were just outside of effective rifle fire range. Neither could the artillery reach them. Well, that's the kind of stuff you do on terrain walks—even today. Where are the guns? How is he going to come? Are you taking maximum advantage of the ground? So we changed the construct.

But among other places where they took history out of the required curriculum was at West Point. I went up to talk to the seniors (first class) one year when General Goodpaster was the Superintendent. Some historian planted this question, I'm sure. Someone asked, "What do you think about studying history?" I said, "I don't see how you can train Army officers without developing in them some sense of historical perspective, some perception of the urgency of studying the history of the military art over time for the purposes I have

just described in my lecture on AirLand Battle." I never asked General Goodpaster about it. I think it may have agitated him a little bit, because shortly thereafter they put military history back in the required part of the curriculum. I think that is one side of the equation.

How do you extract the lessons? Why hadn't anyone ever asked that question about first battles before? Why did Bill Stofft and Heller and the rest of us have to discover that? You would think that would be a first order of business in Army history studies. But nobody ever talked about it just that way before. I think that is the kind of thing that is professional curiosity. But for someone to say what you just quoted shows that he probably never understood the need to think about operational concepts, threat, and technology, and how that drives the tactics, operational-level doctrine, equipment requirements, organization, and training.

JOHNSON: We have more or less entered the information age, and if we thought that Vietnam was fought on TV, this sucker was fought seemingly at every level except the tactical level on television. What do you see as the impact of that?

STARRY: It's enormous. The fellow who could answer that best is Lieutenant Colonel Larry Icenogle [USAWC public affairs officer]. He probably already has. I think Larry has a pretty good handle on that. I am more inclined to run the press off, just because I don't think you can trust them. But Larry has a much more rational, and I think mature, viewpoint on that than I do. My resentment comes from Vietnam; I can never forgive them for what they did. On the other hand, General Herb Sparrow wrote an article for *Army Times* or *Military Review* not long ago about this in which he said, "They will never understand us and we will never understand them, and you have to work with that set of parameters." I thought it was first-class piece of work. I think it was the *Army Times,* wasn't it, Tom?

SWEENEY: I think, as I recall it. I remember it very well.

STARRY: I thought it was extremely well done. What Herb said was, "We have two totally incompatible cultures."

JOHNSON: But the problem is that, between the stresses of these incompatible cultures, are the expectations and demands of the American public.

STARRY: The American media, not the public. The people in Peoria, Illinois, the people out here in middle America, will admit to you, even bring it up, that there are probably things going on out there on the battlefield that shouldn't be portrayed on television. And they understand that and are perfectly willing to accept it. The drive to tell the people everything is the media thing. Larry brought this up with me again last night, and I had never thought about it this way before. He says that it is the competition syndrome between networks and so on. I believe he is right. I had never really considered it from that context before. They aren't interested in the news. They aren't interested in telling the story. They aren't interested in an objective reportorial laydown for the American people or anything else. They are interested in what ABC gets over CBS over CNN.

JOHNSON: On down to the yellow journalism of 1898.

STARRY: That's right. I'm sure Larry has told you the story about somebody who got in there and started reporting stuff live. They were giving ORBAT [Order of Battle Report] and everything else. I said that is almost the story that I have to tell about the Cambodian

invasion in May 1970. We had about 24 hours' notice. I was allowed to talk to my squadron commanders about 12 hours ahead of time. Shortly after I was given the permission to talk to my squadron commanders (I had known about this for three or four days), the regimental exec comes in and says, "There are 25 reporters out here. They just got off of a hook [CH-47 Chinook helicopter] over here on the landing pad, and they want to go to Cambodia with us." I was only allowed to talk to squadron commanders. We weren't allowed to tell anybody. How did these bastards find out? Anyway, here they are.

So I went over to see them and said, "Look, folks. I am not even allowed to tell you that we are going to, or even admit that we are going to, Cambodia. I don't know how you found out, or what you think you found out, but I'll tell you what. If this happens, then the following things are going to obtain. One is no one is going to fly out there. There are three regiments of ack-ack [antiaircraft guns] lined up in front of those three divisions in front of us. Two up and one back."

I said, "There is no way to fly helicopters out there. We are not going to fly. We are going in on the ground. So every one of you gets a flak jacket and a weapon, and a helmet, and we're going to have practice firing out here tonight, so we are sure you know how to defend yourselves. I am not going to have cavalrymen defending you." That scared a lot of them off. Most of them left. We went through this a couple of times. The exec went down and terrorized them once. The S-3 went over and terrorized them.

So, in the end, we had two guys left, Jim Sturba of the *New York Times* and Don Baker of ABC. Both of them were friends of the regiment and had been with us a long time. They went along and did just exactly what they had been doing. They went up front. They wore their flak jackets and steel helmets. Both of them lost their jobs with their employers because of what I believe to be the objectivity of their reporting. There were no disasters. There were no massacres. There were no incidents of shooting civilians. We lost some soldiers because, in a couple of cases, troop commanders held fire when they weren't sure of what was out in front of them. Here come the refugees. Some of them have uniforms on, and some of them don't. In one case, they opened fire on us, and we lost some people as a result of it. People other than Sturba and Baker would have reported the whole thing quite differently. That is unforgivable as far as I am concerned, on the part of the media.

But, from the perspective that Larry was looking at it from, I think he has a hell of a lot more rational story to tell than I do. On the other hand, I think that we, the Army particularly, need to cover our own stuff better. That is, we need better TV coverage, documentary kind of film coverage, of what is going on. The technology is there for us to do it without all of the movie cameras and all that stuff that we had to use in times gone by. I think Larry would probably agree with this.

I don't think we did that well enough, and certainly not in VII Corps. I was doing some work for Time-Life. They were writing a series on *Armored Fist,* which is a book that has now been published. I am not very happy with my part in it, because I was singularly unable to change the editor's mind-set. We had it done before the war started. So they called it up when the 100 hours was done and said, "We want to write a chapter at the end." So they sent a chapter out for me to look at. It was terrible. There was some stuff about the 24th

Division. There was some stuff about the Marines. There was a little bit about the 101st. There was nothing about the VII Corps. So I got the editor and said, "What the hell is going on?" He said, "Well, those are the only units that we had coverage over." I said, "You mean to tell me that you were going to publish a book that misses the big part of the operation?" Not that these units didn't have a part in it, but that was not the only part and the decision was made by the units who went round the flank. "We didn't have any coverage on that." So I said, "Well, let us call my friend Tom Donnelly who runs *Army Times* and see if he won't let you use the spread that he had." He had just come out with that first article that he wrote about it, which I thought was fairly well done. "You use that?" So they finally wound up using part of that. What a bunch of jerks.

Tom Sweeney will be interested in this. They want to write a book about whatever. They hire some writers. It is almost as if one of the requirements to be a writer in this context is that you don't have any foreknowledge of the subject. But that doesn't matter, because they hire some "gofers." And the gofers go to the library and get the stuff to bring to the writers. They bring it back, literally in cardboard boxes like those you ship wine in, and give it to the writers. And I've seen it! The editor then says to the writers, "You guys have 10 weeks to put this sucker together." What's in the boxes? Do the gofers know anything about the subject? No, they just go to the library and start going through the card files or through the computer rundown. When this book started, there was more in it about the Swedish S tank and the Bofors BILL antitank weapon and a couple more foreign systems, but more of them Swedish than any other systems. I said to the editor, "How did all this Swedish stuff get in? I know the S tank; I've driven and fired it. We had it at Knox; it's 25-year-old technology." So he told me this story about how this stuff is done. He said what happened was, when the gofer went to the library, that's all he could find. He brought it back and gave it to the writers, so that is all the writers knew anything about, so that is what they wrote about. I said, "You have to have it more balanced than that." He said, "That's why we hired you to tell us." I said, "With the time I have spent trying to straighten out these turkeys, I could have written this damn thing myself." So that is the way that stuff gets written. If you read *Armored Fist,* you will see a lot of that in there. It is terrible. I can't believe that they are that slovenly. It is not scholarly by any stretch of the imagination.

CRAFT: Along this line, the same thing as far as the media, did you see their contribution of time compression affecting the way the operational concepts are going to have to be altered?

STARRY: Yes, I think what it says to you is that, whatever you are going to do, you better get in there and do it in a hurry and get it done.

SWEENEY: And AirLand Battle Future says decisive overwhelming combat, which I read as short and intense.

CRAFT: Yes, but if you are going to deploy it, you need something that will deploy massive combat power so you can have a short intense war. We look at the buildup of the Gulf as being something that was stretched out over a time of five or six months. But if you look at what was deployed over there in that period of time, there was more deployed there in that period of time than went into Vietnam over a 2½-year period. It seems to be a major adjustment.

STARRY: The lesson that you draw out of the Gulf is that we were short of lift [strategic air and sea lift]. We knew that. I tried to solve this when I was CINCRED. Those were the days of the 19/SL7 Program, 19 ships. I told Mr. Weinberger, "We don't need 19, we need about 90, if you want us to do all of the things you say we are supposed to do. But I will be the first one to tell you that the United States can't afford 90 SL7s, nor should we build them. So there must be alternative schemes." He said, "Well, you're right." I proposed that we look seriously at organizing a maritime command or agency that would organize the lift situation for us, even to giving them the money. Make them responsible for the ships and build ships that could be used for deployment. In the Gulf exercise, for example, they went up and down the hiring halls on the east coast trying to find sailors who could sail noncontainer ships, bulk-loaded ships. They had an awful time. The maritime workforce in this country does not know how to sail noncontainer ships. The container world is with us, so we shouldn't just ignore that and say we can't accommodate that. We have to have a balance of some kind.

SWEENEY: The Army has always been one of the foot draggers on containerization.

STARRY: Yes, we ought to accommodate. It does say, looking at the lift problem, that we can't afford a whole bunch more single-purpose ships functionally. So there has to be some accommodation in the lift thing. Airlift is never going to get anything there but light stuff, people, and so on. So you have to solve the fast deployment problem. One way to help with that is to just look at smaller, lighter forces. What are smaller, lighter forces? Do you have a smaller, lighter force because you are being cut back on manpower, or do you have a smaller, lighter force because you have figured out some way to do the same job as effectively, perhaps as effectively, with a smaller, lighter force? I will give you an example. Let's go to technology. Let us say to technology, "I want a tank gun. I want a tank launch system that will deliver effective fire at twice the existing range." Now that is technically feasible with electric launch systems. Whether you look at electromagnetic or electrothermal, that is technically feasible. Okay, why do we want to do that? If we do that, if we double the range at which we can kill targets, then we back into the organization, for we have quadrupled the battlespace. We have doubled the range but have really quadrupled the battlespace.

If that is the case, then how many tanks can we ask the platoon leader to command in battle? In the late 1970s we thought three was the right number. When we did Division 86, we compromised at four because we weren't sure if there was sufficient reliability to the Ml engine. It was a mistake now, looking back on it. I should have just shoved three down the Army's throat, because we will never change now. But if you look at it that way, what is the right number? Maybe it is two. I think it probably is.

So how many tanks are there in a platoon? There are two, a commander and a wingman. How many platoons are there in a company? Two or three? You could have a five- or perhaps a seven-tank company, a very light Israeli model platoon and company. You could have a tank battalion of somewhere around 18 tanks, one that would be every bit as effective in terms of firepower and kill range as is today's tank battalion with 30-some-odd tanks. That is a smaller, lighter force. Tanks aren't any lighter, because we don't know how to do that yet. So we should task the technology to figure out how to make the armor lighter, and

in due course we should be working for lighter vehicles. But, until we get lighter vehicles, we should task technology to give us the capability to make the force lighter—not lighter vehicle by vehicle, but the force lighter.

All right. So now you are going to take some battalions and put them on ships, and there are roughly half the number of vehicles involved in each one of those battalions. So you have solved part of your shipping problem. There has to be some kind of coordinated evaluation and weighing out of this whole thing, and some decisions made about what to do—urged on, of course, by the Army's reduction of manpower and force structure. You can keep 16 divisions in the Army. You could have 16 divisions in today's Army, and they would be every bit as effective as they are now. And we would have half the number of tanks that we have now.

SWEENEY: That is the point that we make down at Gettysburg, that on a division line you can now cover that with a 25-millimeter gun on a Bradley.

STARRY: Absolutely! Did you read the article that I wrote in the *Field Artillery Journal* last spring about smaller, lighter forces? At Gettysburg, up there on Cemetery Ridge, there is a piece of that battlefield near the place where General Armistead was killed. I think it was the 20th Ohio Volunteer Infantry that had a piece of that front. And, honest to God, it is not much longer than this table. I looked at that long years ago and I couldn't understand what the hell was going on. So I went and got the records of the 20th Ohio Volunteer Infantry on the day of the battle. I found that the active duty strength was 60 people. On the field, they were organized in three ranks. Twenty guys shoulder to shoulder three ranks deep—a little longer than the table [at which we are sitting], but that was the 20th Ohio Volunteer Infantry.

So now this leads you, if you are studying your history, to ask, "What's going on?" Well, Colonel Johnson takes the 20th Ohio Volunteer Infantry to war. He is a haberdasher from Steubenville, Ohio, let's say. He raises 1,500 men. He gets 1,500 of his fellow citizens. The government gives him the money to pay for the uniforms and food and so forth and off they go. They have a battle. They lose some people. But, unless he has left behind a recruiting station to raise some more volunteers, he is now 1,400 men strong. So, after several years of war, he comes to the battlefield of Gettysburg with 60 armed souls on the morning of the third day of the battle. That really led to the individual replacement system. The industrial revolution mentality overtook us. Now we are going to handle people like we handled things. And if you read my article in the *Military Review*, it all comes together out there somewhere on the great production line—the people and the equipment, and off they go to war. And we furnish replacements to the Army like they were carburetors, spark plugs, or spare tires in order to avoid the thing that happened in the 20th Ohio on that day of battle. And that is a lousy solution for the 20th century, I'll tell you.

SWEENEY: Is the extension of that from a recent experience that we are too enamored with the technological solution?

STARRY: Yes, I think so. I wrote this story in part of the *Field Artillery Journal* article. It deals with redeployment from Vietnam. Consider the 9th Division. We trained them up at Fort Lewis. We got them all ready to go to war. We took them over to Vietnam. Then some personnel manager looked at that and said, "Lordy, if we don't do something about

this division, all these people will go home on the same day. We can't have that." So there ensued a process known as infusion. What you got out of that, in peacetime terms, was instant unreadiness. Why in the world did we organize that division and spend all that time and effort to train it in the United States if we were going to take it to Vietnam and treat it as a replacement pool? And that was not the only one.

In 1969 I was the chief redeployment planner in MACV [Military Assistance Command, Vietnam]. General Abrams called me over to the house one night and said, "How should we do this?" We had a plan to take out a division. We decided it was going to be the 9th, out of Dong Tam. He said, "How should we do this?" He showed me a message from General Westmoreland asking for a recommendation about how to take out the first 25,000 soldiers. I said, "Sir, the only way to do this is to take out that whole division. Take them home. March them down the streets of Washington, DC, or Seattle, or wherever, with flags flying, bands playing, soldiers in battle dress, weapons over their shoulders, with everyone proud that the Army is coming home." He said, "Okay, write that up." I said, "Here's the message." He signed it and we sent it.

Well, the personnel managers got in. "We can't do that." Here are two guys who have only been here three months. We can't let them go. They haven't been here long enough. Here are two more who have been here 10 or 11 months [from a different division], so they should get to go home. Now, what we are going to do is go over here in this other division and get two other people who have been here 10 or 11 months and transfer them over there so they can go home. The 2- to 3-month folks, we'll just swap for the 10- to 11-month veterans. So what we had in the remaining units was instant unreadiness. In the end, the first 25,000 probably didn't have much effect, but I'll tell you the second 150,000 did. What you had out there was all the effects that Savage and Gabriel treated so harshly, and so misinterpreted, in their book on Vietnam, *Crisis in Command*. We had instant unreadiness in the remaining units. We did it to ourselves. We shot ourselves in the bloody foot.

You had, in the end, lieutenants standing up in front of platoons, most of whose soldiers had never seen a lieutenant before, and who had never fought together in battle before. And in the morning they are giving instructions about going out and having a little firefight, hoping it all will turn out well. That is unconscionable in my book. That is a manpower solution to what is basically a firepower problem. That is not fair to the soldiers, the Army, the country, or anybody else. So my plea in this article was for a unit rotation system.

JOHNSON: It goes back to World War I as well.

STARRY: Well, interestingly enough, the senior guys in every war have adversely commented on this: Marshall in World War I as Pershing's G-3, Eisenhower after World War II, and Collins after the Korean War. All of that expert senior testimony at our disposal, and we have totally bloody ignored it.

CRAFT: But, once again, it could be another validation out of the Gulf War. When they needed another unit for Kuwait, out comes the 11th out of Europe and goes over and Skip and his guys were all a team and moved in and went.

STARRY: That's right. My senior artillery advisor, Mike Starry, was the DIVARTY [division artillery] exec in the 1st Cavalry Division. He called up one night from someplace in the desert. He always called me collect. This night he was full of philosophy. He said, "I am

beginning to understand what you have been telling me all of my life." He said, "We have been here five months. I was out watching a bunch of gun crews today, helping them with some navigational problem, and I looked at those guys and thought, 'We are about as good as we are going to get.'" He said, "I really hope the war starts very soon, because these guys have been together day after day for the last five months, the same guys doing the same job over and over and over again. We've had a lot of ammunition to shoot. We've shot it, and these crews are really good. This is the best artillery organization I have ever seen. This is the first time I have really understood what you have been saying." I think one reason we did so well is because those troops had been over there for so long training together, in that environment, and it obviously paid off. So you have the case for unit rotation. I think that would pay off.

JOHNSON: Another issue that seems to be emerging that is related to that has two fairly substantial camps. The general subject is taking care of the soldier. It runs sort of in two directions: taking care of the soldier is best done by training him up to a level that you just described, and the other camp says, "Why in the hell do we have to go through all of this stuff and not be able to provide him with a water heating device on his tank so he can have coffee, a family support system, and so on?" How do you strike a balance there?

STARRY: You do have to strike a balance there. There is no question about that. I guess it comes in two sets of things, really. One is the things that you make the soldiers do in combat, things that they see as useful in keeping them alive to finish the mission. There is another set of things that ease the soldier's mind about the comfort and condition of the family that he has left behind and all the other things that relate to that. And the two are quite related. There is no question about it.

. . .

On the family support side, I went to Germany while the war was going on to visit the 11th Cavalry, which at that time was still in Fulda. The family support system in Europe when the VII Corps deployed was very spotty. At the local level, in the little garrisons like the 11th Cavalry at Bad Kissingen, the regiment took care of the families of the field artillery battalion from VII Corps that deployed from there. They were extremely well cared for. But almost none of the care was furnished by US Army, Europe. The regiment did that for those people. The bigger communities spent a lot of money on buses and that kind of support. General Saint had said, "Turn the buses on again." But it didn't work. Was the community too big? I don't know. There were just a lot of horror stories about things that didn't work.

At the smaller garrisons, where there was a substantial force left behind with people in charge of it who knew what they were doing and had resources at their disposal, it worked very well. And everybody was happy. At the bigger places like Frankfurt, Stuttgart, and so on, it didn't work very well. Not that there wasn't the intention on the CINC's part to make it work. It just didn't work. Large communities just don't do that very well.

I had a case in which one of my former sergeants called me. His daughter, a Europe-stationed soldier, was left behind because she was pregnant. She came home on Christmas leave. She wanted to stay home and have the baby, then leave the baby home with her mom and dad and go back. We were talking about a six-week extension on her leave. The Red

Cross had wired the detachment commander, who happened to be a master sergeant. He wired back to say, "I don't have the authority to give that kind of leave." So I turned that whole problem over to the friendly commandant of the Armor Center, near where her mom and dad lived. I said, "This girl was attached to an armor unit. She is not a tanker, but she is attached to an armor unit. It seems to me the armor community could help with this." And they did. They fixed it. But Major General Foley had to get a hold of Major General Somebody or Lieutenant General Somebody in Europe to get this thing straightened out, when that sergeant should have had the authority to take care of that on the spot. So I found it to be very, very spotty.

There were places, even in VII Corps, where they left a responsible person behind, someone who could say, "I will do that" or "If it makes sense, we'll do it." Then there were places like the one I've described where this master sergeant said, "I haven't the authority to do that." He was right. He didn't. But in units the soldiers have standards—tasks, conditions, and standards. When the soldiers understand that it is the standards that are what keep them alive, and get the job done at the same time, I don't think you will ever have any complaint if they understand that is why it is being done, particularly if you have a demonstrable incident that shows them why it is being done.

CRAFT: When you had coalition forces side by side, and you look at the Brits and see how they approach taking care of their crews and the way the regimental system takes care of their crews, there was some disparity among the way that other national forces. . . .

STARRY: That is why I am a great fan of a regimental system. We tried to start up unit rotation. It is a part of the regimental system. We tried to start it when I was at TRADOC. It got no further than having an honorary colonel and trying to reassign people back and forth to the same unit. So we have made some progress, but we still have not gone to a unit rotation system. As a matter of fact, the system I originally proposed was drawn up for me by my Canadian and British liaison officers. I said, "I don't want any Americans involved in this. You guys have been with me for three years down here. You know as much about the American Army as any foreigner could. I want you to go tell me how to put your system down in our Army without having all the drawbacks that we have agreed are present in your system."

They did a super job. I gave them an unlimited budget. They went and talked to 40 state governors and others. We were going to have a regimental system in which there would be, in the "X" regiment, some battalions in the National Guard or Reserve or whatever and some on active duty. There would be a regimental home in Birmingham or wherever. An honorary colonel would be affiliated with that, an honorary command sergeant major, flag, recruiting center; the state governors would help. And there would be an affiliation with the active Army. In the active Army, we might have a squadron of the 2d Cavalry, let us say, in the training establishment at Fort Knox. There, we would train up a squadron and deploy. They would replace a squadron that had been deployed for two or three years; that unit would come home, train up again and go back, or deploy somewhere else. It is the system the Wehrmacht [German Army] used so successfully in World War II. Some version of that will work. Then, you get soldiers in battle who have worked together every day. "I know him. I never have to turn around and see where he is. I know exactly where he is. I know exactly what he is doing."

JOHNSON: Let me ask you one last question and let you wax eloquent on the proof of AirLand Battle on this exercise as you see it.

STARRY: Well, the proof was in the VII Corps attack around the flank. That is exactly what we told them to do. Proof is in the whole thing. You have to do something about the follow-on echelons. The Air Force was able to do more than we had anticipated in AirLand Battle. They did it extremely well, and thank God for Norman Schwarzkopf and the single-air tasking order. I think we still have to resolve the issue of where the fire support coordination line is, because there are some people who wanted to fire artillery out there who couldn't because Lieutenant General Charles E. Horner, COMAFCENT, had closed them down. It was a mistake. It is something that he apparently couldn't cope with, so he did it the only way he knew how. That was to shut it down. Otherwise they did exactly what the doctrine said we were going to do.

We had to do something about the follow-on echelon so they couldn't come out and screw up the frontline battle. We avoided his strength. We took the initiative at some point and at a time and place of our own choosing. We went deep enough in his formations. He was pointed the wrong way. Mike Starry tells stories about driving up to these positions, and he said, "The guns were all pointed south. They were looking for the 1st Cavalry Division to come out the Wadi Al Battin, and here we come on their right flank." He said, "It is more fun to fire at the right flanks of the T-72s because they blow up easier." It was just masterfully done! Norman Schwarzkopf deserves enormous credit and so, especially, does Frederick Franks, the VII Corps commander. It always helps to have a corps commander during an operation who was present at the borning of the doctrine. Don't forget he was my exec when we were putting the deep attack together.

One of his tasks was to find some of the technology to make deep attack possible; JSTARS was one such technology. So he knew as much about that as anybody on the battlefield, and he did it superbly. Not because I had anything to do with it, but it worked! We got it done without killing a whole bunch of our own people. I don't think we could have done it any quicker. It all matched the little list of rules I used to use as CINCRED. What are you trying to do? What is the political objective? The President blocked that out very specifically, thanks to Brent Scowcroft. Do you have the force to do it? Can you get them there in time?—a little risky in this case. Can you sustain them once they are there? We did it. If you have a coalition, can you hold it together long enough to pull it off and keep the coalition members from wandering off on their own? The President did a superb job with that. Can you sustain public support in the United States long enough to get it done? And the best solution to that is to just do it quickly and get it done with. That is a lesson that we learned from the Israelis. I think the whole force just did a super job. I am just [sorry] I couldn't participate in it.

SWEENEY: Do you think there were more lessons that we didn't learn or have the opportunity to learn, or was the predominance in actual lessons learned?

STARRY: I think there is a strong possibility that we may miss something, Tom, because we were so successful. Is it something critical? I don't know.

JOHNSON: We suggested early on, as the crews at Leavenworth begin their search, that they look for those things that showed cracks but haven't been broken because they weren't stressed.

STARRY: That is important. You could lull yourself into a false sense of security. People argue that we had a cooperative enemy. Well, we did and we didn't. He could have done a hell of a lot more damage to us than he did. You can confirm this, but Mike says that they were looking for an attack up that great Wadi down there.

CRAFT: Sir, I sure as hell hope so, because I was in charge of the deception plan and, if they were, I am glad. That and the amphibious operations were the two things that kept them looking east and south.

STARRY: I think it was completely beyond their intellectual scope to conceive of the fact that we could go around through the desert the way we did, go that far and in that quick a time.

CRAFT: I think they believed that the desert was an enemy for us. It was their ally and we would never go that way. I think that is probably a cultural thing on their part that blinded them. That, plus they didn't have the eyes. We blinded them such that they couldn't see and, even if they could see, they couldn't tell anybody.

STARRY: They were operating on a bunch of lessons they learned in the Iranian War. They were getting ready to fight over again the war they had just finished, but with another enemy, and all of a sudden they had a different enemy with different capabilities.

CRAFT: A lot of people, guys like Doug Johnson and Steven Pelletiere who wrote books, and people who studied out at SAMS [School for Advanced Military Studies], the War College here, and the National [War College], look at that, plus the cultural awareness, even though we didn't have the strength of the people who were experts and we didn't have the HUMINT [human intelligence]. You had a lot of people who were focused on that, trying to do just what you are saying and understand those things. It is very fortunate that you also had all the personalities in the right places, because there are a lot of places we could have tripped.

JOHNSON: Sir, I thank you. It has been tremendously valuable both personally and professionally.

6. Development of Doctrine

US Army Training and Doctrine Command Oral History Interview
Conducted by John L. Romjue
19 March 1993

ROMJUE: General Starry, the Army 86 Studies redesigned the tactical Army for the 1980s and beyond. You worked very hard in the Division 86 and Corps 86 efforts to secure a very strong heavy division design that was rationalized on its concept and on the new 1986 weapons and equipment. What do you regard as the major achievement of Division 86 and of the whole effort? What specific designs and changes do you think were the best and the most significant designs and changes of Division 86 and Army 86?

STARRY: First, I think you have to understand the whole organization problem as we saw it. Division 86 was not a be-all, end-all. Let me describe the background. First of all, you remember that General DePuy started it. He and I, at least, were convinced that we needed more smaller divisions. We thought so in the beginning; our convictions were confirmed by the command and control problems that we saw in the lessons of the Yom Kippur War, problems that started at the platoon and worked up through the division and the corps. We started work when I went to Knox in 1973. We started an investigation of how many tanks there should be in a platoon, in a company, and in a battalion, and how you could command and control those. With my foreign liaison officers, the Germans, the French, and the British, we met for several weeks looking at that problem. Each of those countries, of course, had a different organization than we did at the platoon, company, and battalion levels. We started that work in the summer of 1973 and, in the fall, came the Yom Kippur War.

Well, from our standpoint at least, Yom Kippur was a fortuitous event. It laid out for everyone to see most of the stark lessons that we sensed, at least, in our beginning evaluations that previous summer. Some of those lessons were so dramatic, I might add, that I doubt that we would have been able to persuade the Army as a whole that we needed to go ahead and make them just on the basis of our studies. There would have been a need for some field trials. Even so, with Yom Kippur, General DePuy felt, and I agreed with him, that it was necessary to have some field trials. We couldn't just say, "Well, here it is. The Israelis used it, the British used it, the French used it, we saw it in the deserts in the Yom Kippur War, so it's got to be right for us."

That was the genesis of the Division Restructuring Study (DRS) undertaken on General DePuy's watch at TRADOC. When he left TRADOC, DRS was still ongoing at Fort Hood. I came to TRADOC believing that the doctrine had to go through another revision, that we didn't have the deep battle part of the 1976 doctrine, the active defense, quite right in that regard. So we needed another cycle of 100-5, and if I could reasonably expect to stay at TRADOC for four years or so, we might get most of that done on my watch. But first we needed to finish what General DePuy had started. So I went to Fort Hood to look at how the DRS field trials were doing.

What I found was that they were not going very well. The reason for that was that the art of instrumentation of large-scale field trials was not very well developed in those days. We

were trying out an instrumentation system in which there were rotating lights on a pole on each vehicle. If your vehicle got hit by a signal from an attacking vehicle, that light went on and you were "dead." That was an imperfect system for a lot of reasons. One, the soldiers clearly didn't want to have their vehicles destroyed, so they learned quickly that, if they put a field jacket over the sensor, it couldn't receive the signal from the firing tank and they wouldn't get "destroyed." They would finish the battle. It wasn't their fault, but soldiers, as they will always do, managed to circumvent the system. So what I saw there was a trial in which you could not tell whether you were looking at better organization, better tactics, a better commander, or it was just a nice day or some combination of those factors. You couldn't identify what determined the outcome of the trial. So, after a lot of conversation and thought, and looking at data we had collected earlier and what we thought we learned from DRS, we decided to stop DRS. We closed the test down, finished it out, paid our bills, and just said we thought we knew enough now to proceed with structuring our organizations.

So we gathered the center commanders and parts of the TRADOC staff together at Fort Leavenworth. We met there, I don't remember the frequency, but it was at least once a month, sometimes more than that. The purpose of those meetings through 1978, 1979, and 1980 was to take what we knew about organizations from studies and from the field trial evaluations, put all that together, and arrive at some consensus about what we ought to do about organization.

Overall, I started with a requirement for a threat laydown validated by the intelligence community. It didn't make any sense to me to start a reorganization without first identifying the problem we were trying to solve. For, absent a certified definition of the threat, we could proceed with the whole reorganization, only to have the threat community come along and say, "Look, you've got it all wrong, that's not the enemy problem at all." So I asked the intelligence community, specifically the DIA, the Army ACSI, for a validated threat projection 10 years hence. In other words, what could we expect that world out there to look like 10 years from now? Give us the basis on which to proceed with some confidence. They wouldn't do that. For a lot of reasons, they prefer we find things not so bad as they predicted rather than to predict something, only to have us find things worse than they estimated. Their reputations were at stake. Anyway, I finally tied them down to an eight-year projection. So eight years from 1978 was 1986; that's how come "Division 86." There was nothing magical about 1986. It was just as far out as we could get a certified threat projection. We agreed also to review that estimate periodically. I wanted to do it every three years; they wanted to do it every five years. I guess we never did settle it except to say that, as time went on, we would see what happened on the other side and make our judgment to revise on the basis of whether or not there was something dramatically new. In other words, it might not be wise to just regularize it and say three years or five years, but to do it on the basis of some significant event on the other side.

So I saw Division 86, from the beginning, as an interim exercise between where we were and where we wanted to go with the next organization. It was never designed to be something around which we wanted to pour a lot of concrete and let that be it forever. Unfortunately, that thought got lost in succeeding events of TRADOC and elsewhere. Division 86, and Corps and Army 86, became targets in the Army of Excellence arguments. They were said

to be inappropriate organizations. We knew that, knew we'd find some shortcomings as we used organization in the field, for you can't tell what's going to happen until you try it.

The other problem with it was that it was a compromise. General DePuy and I, at least, started with the belief that we needed more smaller divisions. To us, that meant three tanks in a platoon, perhaps no more than 10 or 11 tanks in a company, maybe 30 or 35 tanks in a battalion, hopefully fewer than that. How many battalions in a division? We weren't too sure, because we really didn't know what the command and control structure could handle. We needed to determine that in another field trial. It never got done. I still think that was a reasonable goal. I'm still convinced that smaller is better. We needed then, and do now, to increase the leader-to-led ratio; that was one of the purposes of Division 86. Every other army in the world has fewer things to be commanded by people at every echelon, and I think we should be no different. Although we did fairly well in the Gulf with the new organization, it was because we had people commanding from battalion to corps who had been through the schools as the doctrine developed; they understood the doctrine and executed it very well, particularly people like Bert Maggart, General Franks himself, and others who were there at the beginning. Had there not been so many of them who were over there at the beginning, I doubt that Desert Storm would have gone as well as it did.

We had to compromise with Division 86 for several reasons. One had to do with the tank itself. The tank, the XM1 at that time, was undergoing field trials in the desert at Fort Bliss. We were having a horrible time with the power train. We couldn't keep the dust out of various compartments in the turbine. We were spending a fortune on air filtration systems trying to get the dust under control. We didn't know whether we were going to succeed or not. So the reliability of the power train in the XM1 was a big question when we sat down to decide how to organize. That was unfortunate, because it drove us to a four-tank platoon, a bigger company, and a bigger battalion than we thought we wanted in the first place. As it turned out, we solved—at a considerable expense, it's true—we solved the turbine problem in the power train. It turned out to be a winner, so I guess I should just have persevered somehow and tried to shove three-tank platoons, smaller companies and battalions down everybody's throat. I doubt that I could have done that successfully because of the troubles with the tank in the test.

ROMJUE: If the tank, the M1, had been further along in development?

STARRY: Yes, if we had known the engine and the power train were going to be winners, then I think I would have taken a stronger position. But, having been to the test at Bliss several times, watching the trials, I was just extremely uncertain about the whole thing. Everyone was uncertain. That reinforced my own personal observations of the situation and led me to be very, very conservative. It was a mistake. However, I do question whether or not we could have succeeded in adopting a smaller organization with the test going the way it was at the time.

Another problem that affected the original concept for Division 86 was numbers—numbers of people in the division end strength, numbers of tanks in the division. The end strength problem probably drove it more than the tank problem did, although we finally came down to saying, for want of a better description, that we'd better keep the number of tanks in the division about the same. I didn't believe that was right at the time, but the strength/structure problem has an unfortunate history.

The current version of strength versus structure begins in 1970–1971. We were redeploying from Vietnam. I was in charge of the force structure in the old ACSFOR organization. One day I discovered that we had no more than about 12 divisions left in the active Army. This happened because we were redeploying from Vietnam by standing down units in Vietnam and just sending the people home as individuals. No one had ever said what structure the Army was to have post-Vietnam. So I went up the hall to see my friend Jack Vessey, who was the Director of Operations in DCSOPS, and asked what kind of an Army—what structure we should be working toward. How big is it, where is it to be stationed, and so forth? He said, "What do you mean?" I told him we had about 12 divisions, about 760,000 people, and there appeared to be no end to the slide. No one had said where to stop. This was the fall of 1972, shortly after General Abrams became Chief of Staff.

So we went to see General Abrams and told him the story. He said, "Well, how many divisions should we have in the Army?" Vessey and I, anticipating that question, had worked out what we thought was the right number—16. So we told him that. Then I reminded him that the last time we had had 16 divisions in the Army was 1968, and there were 986,000 people in the Army at the time.

. . .

So Division, Corps, and Army 86 were really an unhappy compromise. We knew it at the time, but perceived at the time that we would evolve from that directly into the next cycle of organization. Unfortunately for that idea, I left to go command REDCOM. General Otis, who succeeded me at TRADOC, was not there long enough to get another reorganization, so we lost the audit trail.

One of the most important things in reorganizing is to know where you have been. What drove you to the organization you're in now, and is there some unfinished business? There was, in this case, a lot of unfinished business. Did the parameters that restricted you in the first place apply to whatever you're going to do next? If so, take that into account; if not, then do some of the things that you wanted to do before. In this case we knew, by the end of the time I left TRADOC, that the tank power train was going to work all right. I was already beginning to have misgivings about the fact that I had been conservative in regard to the number of tanks in the platoon, which was where it all began.

So, considering how to organize, if doctrine hasn't changed dramatically, if the technology hasn't changed dramatically, given the fact that what we did in the Gulf was about right, that ought to tell you what to do next. That audit gets lost, by and large.

The other unresolved problem in the Division 86/Army 86 reorganization was the light divisions. We set light divisions aside in the beginning, not because we didn't believe we needed to restructure them, but because we believed we needed to restructure the heavy divisions first. Because of the difficulty in shutting down the division restructuring study, assembling the commandants at Leavenworth, and going through that consensus building, Division 86 probably took longer than it should have. We used up most of my time at TRADOC getting that done. General "Shy" Meyer, who was Chief of Staff, and with whom we were working on the light divisions, was in office only two years after I left TRADOC.

General Wickham succeeded him and decided he wanted to have more light divisions, so he bastardized Division 86, in what was called the Army of Excellence, simply to get the manpower for the light divisions. In light of what I said a moment ago about the end strength versus structure, that was a mistake. One reason we left light divisions till last was that we knew that the end strength problem would plague us more with light divisions than with heavy divisions. The light division is essentially a manpower-intensive solution to what is basically a firepower/maneuver problem. So it was a mistake to organize additional light divisions; they strapped the rest of the Army for manpower. We never should have done it.

ROMJUE: Was there any time in the early 1980s when you and other people in the Army leadership thought that the end strength might rise in the Reagan buildup?

STARRY: I never thought it would myself. General Meyer was able to get about 25,000 more people on the rolls, but we didn't need 25,000; we needed an end strength of about 860,000 to restructure the 16 divisions with the Division 86 heavy division as the cornerstone.

General Meyer believed, as you would expect him to, in the usefulness of the light division. I'm not at all as sanguine about that as he was, never have been. Not that I'm against light divisions. As I've said all along, if we want to have light divisions, for whatever reason, then we are obliged to provide them with the means to fight in areas where we can most reasonably expect to have to deploy. We have not done that.

. . .

General Meyer is a light infantryman, an airmobile infantryman, one who has great faith in airmobile infantry. I don't have that faith in airmobile infantry, largely because of my experience with it in Vietnam. So, while he and I never had a violent argument about it, that fundamental difference in our opinions underlay almost everything we did together while he was the Chief and I was at TRADOC.

ROMJUE: So was the Infantry Division 86 design that you finally settled on in September 1980 the one that you preferred, or did it entail compromises?

STARRY: I only had about six or eight months working with that. We weren't far enough along with it at the time I left TRADOC in the summer of 1981 for me to feel comfortable with it. I didn't know if it was right or not. I was trying to get some heavier gear, especially antitank equipment, into the light divisions, and there was not enough lift—mobility. Even the light infantrymen themselves couldn't make up their minds where the lift belonged, all in one subordinate command or parceled out to the using units. We just weren't that far along with it yet. After I left TRADOC, there were other fish to fry at MacDill and REDCOM. I simply didn't pay that much attention to it. "Shy" [General Meyer] left after a couple of years, and Wickham finished it by organizing more light divisions and bobtailing heavy divisions to pay the bill.

ROMJUE: Now in between was the high technology test bed experiment out at Fort Lewis. What did you think of that whole idea, which was essentially General Meyer's?

STARRY: Well, he and I disagree about this—about how to do combat developments. I will say the people at Fort Lewis did a very good job and had a lot of fun. It was a high-interest undertaking for the soldiers involved, as any test always is. Soldiers like that sort of thing,

something new and something different. They had the authority to go around and buy stuff, get things that they couldn't get through the system, and that made them happy. That made them feel they were really doing something.

Some good things came out of it. However, I would say nothing substantive. The reason for that, and this is where "Shy" and I disagree, all that experimenting is really a function of the service schools and centers, and the units that should be doing that are the school troops, the 194th Brigade at Fort Knox and units like that. We did that when I was at Knox. We did a lot of it. Took a couple of weeks or a couple of days, however big the project was, and just find out if we're about right or totally wrong. That way the center commanders, the Chiefs of Infantry, Artillery, Armor, who are the combat developments responsible people, each in his own area, have some control over the process and the perceptions from what they do in field trials cycle back into the combat development process.

The problem with the Fort Lewis experiment was that it took a year to even get a TRADOC observation team out there on the ground to find out what they were doing, let alone feed it back into the combat developments process. It is reminiscent of the famous TRICAP division experiment at Fort Hood years before, which I also thought was a mistake for the same reason. Having observed TRICAP at fairly close hand, I came away convinced that that was not the way to do combat developments.

Indeed, one of the reasons we struck the Combat Developments Command out of the structure when we reorganized and created TRADOC and Forces Command in 1973 was that the Combat Developments Command itself had become divorced from the real doctrinal process, and the combat developments agencies at the schools and centers were not responsive to the center and school commanders. It just didn't work. So, we disbanded it, made combat developments a TRADOC staff function, and gave the agencies off to the respective schools and centers.

Even when we were working on the 1973 reorganization in the Pentagon, General DePuy as A/VICE and I as keeper of the force structure agreed that the combat developments functions belonged to the school and center commanders, particularly if we were going to separate doctrine development from CONARC's Reserve Component duties and have separate commands. Combat development not only belonged with the schools and centers, but it belongs at TRADOC Headquarters, and that was the genesis of the creation of the DCD, Director of Combat Developments, at TRADOC Headquarters. Bob McAlister was the first one and did a super job. Not all the people that followed him were that good.

But combat developments have to be under the control of, and feed back into the thinking process of, whoever is responsible for doctrine, equipment requirements, organization, and training. So it was interesting, the 9th Division experiment. They had a lot of fun, and we learned some little things here and there. But basically it's dysfunctional to do combat developments that way. "Shy" Meyer will tell you a totally different story. He thinks I'm wrong and I know he is, so never the twain shall meet.

ROMJUE: If the Army had seen its way clear to fund it, these vehicles that the 9th Division concept was structured on, do you think it would have been a little more successful?

STARRY: It might have been, I don't know. Hard to say. But remember, first when you tell off a division like that, that division belongs on somebody's TPFDL, somebody's time-phased

force deployment list. It's on somebody's reinforcement list. It's going to Europe, it's going to Korea, it's going someplace. It's a part of somebody's contingency plan. Okay, here they are spread out all over the landscape. They've got a bunch of nonstandard vehicles and nonstandard equipment, nonstandard procedures in many cases. Some of it works, some of it doesn't work. That's why you're having the experiment. Is that division ready to deploy? And, if not, how long does it take to get it in some condition ready to deploy? Once deployed, how does the Army support it? So you basically deprive yourself of one division to do it that way. I would argue that, whatever may be the advantages of doing it that way, they are far outweighed by the disadvantages. So doing combat developments at the centers is just much tidier because the center commanders can watch the experiments closely and quickly see what's going to work.

For example, one of the really great combat developments field trials we did at Fort Knox when I was there was in night-fighting capabilities. The M60A3 came out early during my watch, about 1973. Looking at it, it was quite obvious that we had not thought through the night-fighting problem with that tank. It had a much better night-fighting capability than the earlier M60s, but we didn't have an integrated suite of equipment. So we conducted a little experiment to see if we could fight at night like we did in the daytime if we put the right kind of sights in for the driver, loader, gunner, and tank commander. Shoot as far, see as far to maneuver, understand the terrain as well, all the things necessary to fire, maneuver, and fight the battle at the tactical level—could we do that at night about like in the daytime if we spent a little more money fixing the sights on that tank?

So we took a couple of platoons of school troops tanks, spent about two weeks and no more than $10,000 or so in a combat developments field trial. At the end of two weeks, with some help from the night-vision people at Belvoir, it was quite obvious that we could, in fact, fight at night about like in the daytime if we did a few simple things. All that went into the tank in short order, and the M60A3 became a very good night fighter, as was M1, to which we applied what we learned in working the problem with the M60.

In a noncenter environment, that test would have gone on for months, and it would have been very difficult to feed it back into the rest of the combat developments process. Laying down the requirements for the equipment is properly the responsibility of the school and center commanders. TRADOC is responsible for that.

There are several other examples from the Fort Knox days. In the Yom Kippur War, the Israelis lost a lot of tanks to fire. Anything that penetrated the hull or turret would also rupture the turret hydraulic lines, which contained a red-colored hydraulic fluid [the troops] called "cherry juice," pressured at about 1,100 foot pounds. That's a lot of pressure. When the lines were punctured, that stuff sprayed all over the inside of the turret and caught fire.

We reported what the Israelis were telling us to the Army laboratories. They replied that the fluid was not flammable. So we asked the fellow in charge of that to come to Fort Knox. He came, laid out a pan of the suspect fluid, and threw a lighted match into it. It failed to light. Then our combat developers hooked up a cylinder of the juice, at about 1,100 PSI, punctured a pin-sized hole in the lines, sprayed it out of the hole, lit a match to it, and it shot all the way across the barn like a flamethrower. We did that in an afternoon. Then we set out to find, and finally found, some really nonflammable hydraulic fluid. Now there was

a trial that took an afternoon and cost us 50 bucks. I don't know what the lab fellow's TDY cost, but anyway, in any other organization, not a combat developments-type organization, that process might have taken weeks, months perhaps. We found it out in an afternoon, and we started making changes immediately.

So anyway, there is a host of similar stories to be told. I believe it is dysfunctional to use a tactical unit in a field trial unless it's part of the DRS-type test where there is a TRADOC-run instrumentation system, a TRADOC-run data collection system, a TRADOC-run analysis system to digest the data collected and find out what it is you're trying to find out.

ROMJUE: Let me ask you one question about the Division 86 organization. You are saying the four-tank platoon was actually a kind of compromise, as was the four-company battalion. What about the larger artillery organizations, the eight-howitzer battery? Do you think that was a needed improvement and not too heavy?

STARRY: That came out of the Artillery Center's study of how they thought we ought to fight their artillery. It was based in large measure on the advent of the battery computer system, which had not then been fielded but which they were developing. Their perception was that, with TACFIRE and those eight-gun batteries, each one having the battery computer system, they had sufficient command and control to handle those larger batteries. I don't think we ever proved that out one way or the other. TACFIRE doesn't work very well, but the battery computer system does, so I think the jury may be out on whether or not going to eight guns in the battery is really right.

That was a result of a long debate between General DePuy and the Artillery Center. The first thing he tackled them for in 1973–1974 was the question of why so many people in the gun section? I think there were seven. So they audited that number back in history and found that at least one or two of those fellows were there to hold the horses, literally. Horses gone, the horse holders had not been stricken. The artillery kept them on the basis that they could shoot 24 hours a day and needed the extra people. That all resulted in a long dialogue with General Dave Ott and the people who succeeded him at Fort Sill about how many people should really be in the gun section, how many guns in the battery, and so forth. But largely the decision was a reflection of Ott's conviction, and others, that computerizing fire control was going to make it possible to move to a larger battery.

ROMJUE: I think that we should pass on to AirLand Battle doctrine. Now, when you were TRADOC commander, you were developing Army 86 and AirLand Battle doctrine in overlapping time periods. How did your thinking on Army 86, particularly with the corps, affect the development of the doctrine?

STARRY: Well, the doctrine affected the development of the organization, not the other way around. As you know, I believe doctrine should drive everything else. In this case, operational-level doctrine—corps doctrine, drove everything else. Once I understood the need to attack deep at the same time, or perhaps even before, the battle at the forward line of troops, the imperatives of smaller tactical units became more and more stark. The fact that we needed to fight the deep battle—not just with firepower, but by going deep with maneuver forces as well, starting with attack helicopters, followed up by ground maneuver

forces, much on the order that the Israelis did on the Golan Heights in October 1973—highlighted the deep surveillance-deep fires and command and control needs.

So the notion of an intense battle at the FLOT, having to move units at the FLOT quickly from one battle position to another, hopefully seizing the initiative somehow, and the ability to "see" deep and attack deep at the same time—those two things combined to make it absolutely essential to get smaller, increase the leader-to-led ratio at the FLOT in order to seize the initiative and develop deep surveillance and deep attack capabilities and a coherent intelligence and command control capability. What I saw as the operational need for the next edition of doctrine, which of course became the 1982 original version of AirLand Battle, drove the whole Division, Army, and Corps 86 reorganization.

ROMJUE: Let me ask now, in the 1983 AOE redesign, division assets moved to the corps. Did you think Corps 86 needed these additional assets? Or was it strong enough as it was before what was done in 1983?

STARRY: The corps?

ROMJUE: Yes.

STARRY: That's hard to say. We really did not solve the echelons above division problem. Once we developed requirements for ATACMS and JSTARS, it seemed to me those were both corps systems. That put a different perspective on what should go to corps and what to division in regard to artillery, attack helicopters, and so on.

If the corps was to be the deep battle fighter with the deep battle systems, JSTARS and ATACMS, then what battle was the division commander fighting? Perhaps about two ridgelines ahead of where he is now. We spelled that out in terms of the time it would take the enemy to move to interfere with what the corps commander or division commander was trying to get done. That led to a need to improve division's capability, and so to a multiple rocket system—MLRS. So MLRS and 155 howitzers became the division commander's direct and general fire support capability.

There might be a need for more MLRS at corps. How many more? Well, it depends on the corps artillery structure. Primarily MLRS was a divisional weapon; at corps it would be in a reinforcing mode. Then we needed a cross-corps correlation capability because of the range to which we wanted to attack. This became quite possible with JSTARS ground stations, not just for ATACMS but for other fires (MLRS) and maneuver forces as well.

The other resource in contention between corps and division is rotary wing aviation, particularly attack helicopters. In Division 86 we wanted to make the aviation organization a separate brigade. It could also have maneuver forces assigned, attached, or OPCON, so really there would be four maneuver control headquarters at division.

There was considerable discussion about that. Did we need all four of those? Could the division commander control what amounted to four brigades, or should we have two maneuver brigades and the aviation brigade? We never really resolved that issue. I do believe the corps also needs aviation assets. Just as the corps is sort of the center of focus for fixed-wing close air support, the corps should be the center of focus of attack helicopter support other than what is organic to a division or cavalry squadron. I do believe the division

needs an attack helicopter squadron. The corps needs several such squadrons—not to be employed piecemeal, but as a brigade-sized organization much like the air cavalry combat brigade.

One of the advantages of attack helicopter aviation is that you can get it from one place on the battlefield to the other very quickly. Seems to me, if it is to be moved from division area to division area, it should be a corps force.

ROMJUE: I asked a similar question of General Otis and his response about the movement of assets of division to corps was that surrendering the artillery division to corps is a lot harder than moving aviation.

STARRY: He is absolutely right. Attack helicopter aviation has such an enormous potential, particularly for cross-FLOT operations. There is a need for suppression of enemy air defenses and better reconnaissance, but it's a powerful force if it gets in the enemy's rear. It's so powerful we can't afford not to try to get it there and use it. For a long time our attack helicopter folks believed they couldn't operate across the FLOT, that it was okay for air cavalry perhaps, but certainly not for attack helicopters. Well, they can operate across the front. They have to if we're going to get full use out of them.

ROMJUE: Many observers would say that AirLand Battle was a smashing success, not only militarily for the problems it presented the Soviets in Central Europe but also how it worked out in Desert Storm. But also, along the lines that Colonel Harry Summers wrote about in his recent book on doctrine, that it was a success for the Army intellectually and psychologically. Now, as the primary author of AirLand Battle, looking back on the 1980s origins of the doctrine, what are your thoughts on the advent and impact of AirLand Battle?

STARRY: From the beginning, that is from 1973 onward, when TRADOC started working on what became first Active Defense then AirLand Battle, it was quite clear to those of us who were doing it, and to the Army as a whole, that we had to do something new and different. When we came out of Vietnam, the Army was really in terrible shape in many ways.

The situation in Europe had changed dramatically since we last paid any real serious attention to it. The Soviets were bigger, stronger, better and, in some cases, had fielded three or four generations of new equipment while we were standing still. We ate the Army up personnelwise in the States, as well as in Europe, using it all as a rotation base for Vietnam. Visiting Europe shortly after returning from Vietnam in 1970, I found an Army in the field that looked upon itself as just a bunch of speed bumps on the way to the Rhine as far as the Soviets were concerned. They didn't think they could win. There is nothing more frightening that an army, the American Army particularly, that thinks it can't win.

We had to do something. We probably could have done almost anything as long as it was different and everybody would have seized on it. But AirLand Battle was the end result of about 10 years of working hard on doctrine, on equipment requirements, on organization, on training, and on the education of officers, NCOs, and soldiers. Generals Bill DePuy and Paul Gorman deserve enormous credit for the changes in the training system. Some of those weren't done yet when I came to command TRADOC in 1977. I created SAMS and CAS3 at Leavenworth and changed the long course there to finish what we had started under General DePuy. Here again, as with organization, the audit trail is essential.

So everything had changed. Equipment, doctrine, tactics changed; people went to different kinds of courses. The NCO corps was revitalized under NCOES. The soldiers were going through different kinds of training. People could see that something was happening as a result of everybody's dissatisfaction with the way the Army found itself in the early 1970s. As I said, it may be that almost anything we did, so long as there was a change, would have succeeded. But, in AirLand Battle, there was an audit—a logical sequence of things that go together. The equipment goes with the doctrine, the organization goes with the equipment and doctrine, the training goes with all that. It all made sense as a coherent whole.

That, I think, is General Bill DePuy's greatest legacy to all of us. He had a conception in which all that fit together. A lot of us contributed to it, some more than others, and there were individual opinions about parts of it that weren't quite right, but that was his gift to us. For the first time in its history, the Army reformed itself from within.

. . .

The problem with us is that people change. TRADOC commanders change, Chiefs of Staff change, and, as they do, the organization zigzags. The new guy wants to make his mark, and he zigs off in some new direction. Does it reflect where we were going in the longer term with the work already in place? Sometimes it does, sometimes it doesn't. We lose a lot by not going back and understanding where we came from, and where we thought we were headed.

People come to see me frequently to discuss the work they are doing. Somebody from TRADOC came to see me several months ago, a nice young lieutenant colonel who is working on the officer education system. Well, we had several studies of that in the DePuy years, one of which was the Harrison Study. That study proposed, among other things, to cut out the advance courses at branch service schools. General DePuy and I both resisted that. We didn't feel we were ready to do it. The changes I made at Leavenworth in CAS3, SAMS, and the long course were an attempt to allow us to go ahead and consider those recommendations again, deciding whether or not to do what we said we thought was right for the officer education system in the beginning. That work still hasn't been completed. In this case, the nice lieutenant colonel had no knowledge of the background of it—where we started to try to go. Consistency is the word to describe that.

I would also argue, in the case of the Gulf War, that the Lord was smiling upon us all. We had a unique combination of a President, National Security Advisor, Chairman of the JCS, and a field commander who were all working the problem just about like they should have been working it. Thank goodness for that. You don't have to look back too far in recent history to find a different combination of those four people who probably would have screwed that thing up beyond comprehension in the first 15 minutes. So fate smiled upon us.

ROMJUE: That's a paradigm sentence we ought to freeze in clear plastic. Let me ask you a question about the Reagan buildup and all the things that were happening in the US Army in the 1980s that you have just been talking about. Just what do you think the deterrence factors were in the period of modernization and reform in the US Army that began in the 1970s and carried on through the 1980s? Future historians will ask the question, to what degree was that a deterrence factor with the Soviets? If you were to look at the elements of

that reform, how would you range those in order of consequence and magnitude? In other words, was the doctrine the big deterrent?

STARRY: My personal view is, having read a lot of what the Soviets have written and having watched changes in their organization, equipment, and tactics, that we had a significant impact on them. In the armor-antiarmor business, for example, when we laid down Active Defense they did several things. They changed the timelines they gave their forward commanders—how long they were to have to get to their objectives. They had a very set routine about that. First echelon was to go here, and that was as far as first echelon was to go. Second echelon would come along and go here, and so forth. They changed those timelines and speeded them up considerably.

Apparently what they were fearful of was that, if they didn't do that and do it quickly, if they gave us time to get set in those deeper battle positions with the longer range antitank weapons, TOW, Dragon, HOT, and Milan, that they couldn't make their breakthrough attack succeed. One Soviet officer told me that they did that three times. That is, they changed the timelines three times to speed them up. Further, they simply could not afford to disperse in the rear as their doctrine prescribed. In order to make the new times, they took to closing up tight, fairly close up front, so they could get started quickly and make the objectives, even though they recognized that by doing so they made themselves more vulnerable, not only to nuclear weapons but to longer range conventional weapons if we had any. In Active Defense, they didn't see that we could attack deep.

When Active Defense gave way to AirLand Battle, they looked to AirLand Battle and said, "Oh, my god, they've figured how to target us deep." And in the experimentation we did in trying to decide what kind of sensors we needed on JSTARS and so forth, you could see it. We've got pictures of them clustered back there. We actually went so far as to measure the dwell times in areas where they stayed before they moved on in order to make their timelines. And we built the targeting system in JSTARS against that set of requirements. Well, they were able to follow enough of that to realize that, all of a sudden, they had sort of been flushed out of what they had done to react to Active Defense.

They also looked carefully at Active Defense, which was largely built around large numbers of antitank guided missiles in the hands of the infantry, deepening the defense at the forward line of troops. Then they moved quickly to try to figure out how to defeat the ATGM shaped charge warheads, because it was quite clear that we now had shaped charge out there in great numbers, and it could defeat the armor of anything they had in the field.

So it was that the late model T-64 had some ceramic armor, then of course T-72 with modern armor composites was fielded about 8 to 10 years ahead of the time the defense intelligence folks predicted. Russian officers have told me that they did that on a crash basis because they looked at the battlefield at the forward line of troops and they realized they weren't going to get through with all those tanks if we had all those antitank guided missiles. They needed some way to do that, so they improved their armor. Somebody was arguing the other day that maybe it was one of the things that bankrupted them, trying to cope with our changes. I don't know if that is true or not, but it made them change, clearly at some considerable expense.

ROMJUE: Do you think that was the largest factor, then? Of course modernization went on through the 1980s. What about the new organization, tactical organization?

STARRY: They realized that, organizationally, we were putting more antitank guided missiles into the infantry. No question about that. Organizationally, when the M1 came along, they looked at the smaller organization. They figured we calculated that we had that much more capability and we didn't need five tanks any more in a platoon, we only needed four. They are aware of the fact that we thought we needed three. They couldn't figure out why we didn't settle on three, as a matter of fact.

Once they looked at what we were developing in JSTARS, and they understood ATACMS, they really got nervous. We're talking about being able to "see" 200 or 300 kilometers, and target at those depths. Then here comes a missile system that has nearly that capability, deep in their territory, and here they are all clustered up back there in order to make their timelines. And they got very, very nervous about that whole thing.

ROMJUE: Did General DePuy have any ideas on the deep attack? You've kind of been giving him credit for all these things, and you had a big part in that.

STARRY: He and I never talked about it in this way, the way you have asked this question. I do believe if he and I had a difference of opinion about doctrine it lay in his conviction that, because of the lethality of modern weapons, improvements of fire control, the lethality of the weapons themselves, that whole combination of things, defense was the best way to fight. You see that in Active Defense. Basically I do not disagree with that.

On the other hand, the history of battle instructs that, somewhere in the battle, the guy who seizes the initiative is the guy who wins. Now he doesn't necessarily have to attack to win, although that is one way of seizing the initiative. You can do some things on the defense to achieve surprise and so take the initiative from the other guy. So it isn't just a matter of tactics; it isn't just a matter of maneuvering. A lot of people misunderstood that. A lot of books have been written about maneuver warfare, the theory of maneuver warfare. That isn't what AirLand Battle is all about at all. AirLand Battle is about taking the initiative. If that means attacking and maneuvering, okay. But that's only one way to take the initiative.

The experience that convinced me of the need for AirLand Battle was, as V Corps commander, trying to fit Active Defense (1976) into a real-world defensive array. For months we went through a series of terrain walks and simulations with battalion, brigade, and division commanders trying to figure out if, in fact, we could defend successfully using Active Defense doctrine and the weapons systems we had. It must have taken six of seven months for us to resolve to our own satisfaction that indeed we could.

. . .

Now, what I had to do, as corps commander, was convince myself that I could win. I understood their part of the battle. The division, brigade, and battalion commanders all understood what they were supposed to do. Now what am I, the corps commander, going to do—especially about the follow-on echelons? For they were my problem.

. . .

I also realized that, if that array of enemy forces was laid down in the Fulda Gap, it would extend all the way back across the Thuringerwald, and that there was no way for the corps commander to "see" that deep with then-existing surveillance means, let alone shoot that deep with then-existing fire support means.

That was just a month or so before I returned to command TRADOC, so I came to TRADOC with all this fresh in mind. Fortuitously, one of the first people to come see me was my friend Dr. Joe Braddock, the "B" in BDM. Joe had a contract with the Defense Nuclear Agency, and he was working on deep targeting for nuclear attack. He was actually working on deep targeting for nuclear attack in areas that were just about in the ranges where we could expect to find follow-on forces. He had done an analysis of how the Soviets operated in those areas and of what surveillance technologies were available to find them.

Synthetic aperture radars were really the key to that, in part at least. We were coming on to some moving target indicator technology that looked promising. If we could put all that in a sensor package we could do deep targeting. The Israelis agree that we needed such a sensor package. They bought a couple of remotely piloted vehicles called Scout and Mastiff, put low light level television on them, and got started. We wrote requirements and started a program called Aquila. But, by the time everybody was through putting gadgets on Aquila, it looked like a B-52 and cost twice as much, so we lost the program. We still need one. I guess we're working on it, and maybe we'll have one, probably by the year 2100.

Scout, Mastiff, and Aquila would not, however, solve the problem for deep targets—corps targets. But if we could find nuclear targets, why couldn't we also find targets for conventional attack if we had missile technology that would provide missiles to go that far? The artillery was working on shorter range rocket systems, which later became MLRS. MLRS could take out near targets in that spectrum of deeper targets. So there was yet a need for both, MLRS and a deep attack system. The deep attack system—ATACMS—could probably successfully disrupt, perhaps not destroy deep targets tank by tank, but could disrupt, delay, and hence undo the orderliness of the follow-on attack, and that's really what we wanted to do—delay and disrupt, destroy if possible. The closer follow-on forces come to the FLOT, the more you want to destroy them. And, as they come upon the FLOT, there are forces there that have successfully defended against the first echelon and are ready to tackle the follow-on forces.

ROMJUE: Simultaneously?

STARRY: You have to have that capability. You may want to, as we did in Desert Storm, start the deep battle first. You may want to wait with the deep battle, it just depends. But at least you have the capability and the flexibility to do anything you want.

ROMJUE: I'm afraid I'm trespassing on your time too much. It's getting on toward 12 o'clock.

STARRY: Well, I think the chef is in the kitchen preparing something for us to eat. I hope she is, anyway, so press on if you want to. It's up to you.

ROMJUE: Well, I would like to ask you a few questions about the 1993 doctrine. This new doctrine, of course, has been described as a strategic doctrine, taking the Army into a much more dispersed view of its challenges, its doctrinal challenges. You have read it and discussed it with General Franks and others. Is it your view that it is sufficiently focused and not too general?

STARRY: I have several draft editions of 100-5 and have made comments on all of them. The problem with that book is that, if it is to be the book that drives everything else, then the question is how much detail you need to go into in that book as opposed to the implementing manuals—armor manuals, infantry manuals, aviation manuals, artillery manuals. It needs to set the tone, the 100-5 does, for what's done in the rest of those books. Absent at least some specificity in it, the others wander afield. And, given that they're written at the schools and centers and not at TRADOC Headquarters, that wandering can sometimes get pretty far afield. So, if you write a more general manual, a more general description of the doctrine in 100-5, you have to be willing to pay the price to monitor what is being done at the schools, to make sure that the audit down into the details of how the battle is to be fought follows what was intended in 100-5.

So there are different ways of looking at that problem. One argument against the 1976 edition of 100-5 was that it was in too much detail. I disagree with that. It was in more detail than a traditional FM 100-5. But for that edition at that time, of that doctrine, doing the thing that General DePuy and some of the rest of us wanted it to do, it was probably necessary to write it that way.

In the 1982 edition, we backed off detail at the tactical level but added the deep attack, assuming that most folks understood pretty well how the battle was to be fought at the FLOT. The 1982 edition was a better balanced description and more in the genre of what an FM 100-5 ought to be.

However, the 1982 version was criticized for being too aggressive. A lot of this came from the SACEUR's (General Rogers') comments in Europe. From his comments I concluded that he simply hadn't taken the time to try to understand what was said in the book, and he was deathly afraid of anything that suggested that we were going to cross the East German-West German border.

He and I disagreed about that. We never argued about it openly, but we disagreed about it. He contended that doctrine suggesting such a course of action was too aggressive—too provocative. My contention was that, given Soviet responses to our initiatives, we needed to let them know from the beginning that if they started something in Western Europe, then what they started was going to be decided on the basis of ground rules yet to be announced. If you left it uncertain in their minds about what you were going to do, cross the border or not, that magnified your deterrent capability considerably. In fact it did. Soviet friends, former Soviet enemies, have told me that it was the uncertainty in their minds about what we might do that made AirLand Battle so threatening.

General Rogers and some of his NATO-assigned Germans believed that the purpose of the NATO defense was simply to restore the inner-German boundary. Well, you could restore the boundary in a lot of ways. The best way would be to go across the boundary and destroy

the enemy in his own territory so he understood clearly that the boundary was not his to cross.

In fact, even as these objections were being raised, I was in communication with Chancellor Kohl and his people. Helmut Kohl had been Minister President of Rheinland-Pfalz when I commanded V Corps, a large part of which was stationed in his Lander. He and I had discussed the matter off and on for several years. The German officers were saying, "It's against our government policy." Their Chancellor was saying, "It's not against my policy. We may not want to talk about it too openly, but the fact is we've got to do it about that way." So I think that criticism of the 1982 edition was unfounded; the critics simply did not understand what we were trying to do and didn't understand the enemy all that well. I guess that's enough of that.

ROMJUE: Some of the things you said, about the nature of warfare as influenced by new weapons and some of those things, lead me to believe that you have not agreed with some commentators today who are saying that Desert Storm revealed to us a new face of war. It could be described as technological war. What is your response to that?

STARRY: It is a part of an American psyche to presume that technology is going to win everything. Don't forget that it was the technologists who evoked the nuclear genie as a substitute for enough divisions, troops, tanks, airplanes, and artillery to defend NATO. It was General Eisenhower as SACEUR who said he needed 96 divisions, an enormous number of fighter wings, and support forces. The NATO council of ministers choked on that. So it was not too much later that *President* Eisenhower agreed to some lesser number of divisions and far fewer air wings. Further, 12 of those divisions were to be German—that was the beginning of the German rearmament. And there were to be 15,000 nuclear weapons to take the place of all the other divisions and air wings that weren't there, because technology promised that nuclear weapons would make up the difference.

Technology wins nothing unless it serves some doctrinal purpose. We do have advanced technology; there is no question about that. I'm not demeaning our technical edge at all. The night belongs to us, for example, because of technology. But let's look, for example, at the case of command and control.

One of General Schwarzkopf's complaints about Desert Storm was that there was an enormous glut of information, more information from more sources than ever before, brought by modern technology. But the fact is battalion, brigade, and division commanders could not get their signals out of all that noise. At different levels, commanders don't need to know the same things. The battalion commander doesn't need the same signals as the division commander, and vice versa. But, out of the total system, it is difficult—virtually impossible—for any one of them to find the signals at his level of command.

Now the Advanced Research Projects Agency—ARPA—is spending over $100 million a year trying to speed up information flow in the information systems on the premise that speed is the answer to what is really a distribution problem. No doubt there are some cases in which speeding up information flow will help considerably, I'm sure, but by and large distribution is more important than speed.

. . .

So here are the technocrats in ARPA working on the problem, but the wrong problem. Several weeks ago I talked with General Franks and his folks gathered at Knox, noting that, no matter what, the scientists are going to spend that money. That's a lot of money. That's my money. That's your money. That's our money. That's a lot of money, and they are working on the wrong problem.

So the challenge to the user, to the combat developer, is to get into that and have them use the money for something useful to us and not something that is just high tech for the sake of being high tech. So yes, we have great technology. Yes, in Desert Storm, it provided us with a combat edge, but yes, it provided all that in response to doctrinal requirements about ranges, destructive capabilities, maneuver capabilities, all of that. All of that stuff worked because somebody said what they wanted it to do and got into the development cycle early enough to ensure what was developed responded to requirements.

Fortunately, the seven technical initiatives the DDR&E has taken are related and are fairly well aimed at things that require solving. I'm not sure all of them are right on target, for some of them are wandering astray like the information problem I just recounted. But most are relevant. On balance, I take my technology with a grain of salt.

Perhaps the biggest problem that we have with technology is the problem of developing some kind of symbiotic relationship between what the folks in the laboratories are doing and what the user in the field thinks he needs. It's very difficult for the user to know what's going on in the laboratory. There are many laboratories. They are not centrally controlled. There is no place in AMC where you can identify what we're spending in total on what technology. So the user has to do a broad search to find out what's available, and that takes time.

When then-Colonel Franks and I were together in TRADOC, he did just that. He spent most of his time finding what laboratories were doing. Understanding the developing doctrine, he could then identify what technologies could operationally help the doctrine. That's what has to happen. Traditionally it has not, and I'm afraid it won't. Following the dictums of Goldwater-Nichols, the acquisition system is being centralized in the bureaucracy of the OSD. And if we proceed on that course, in five years the services will be out of the acquisition business, except for handing their money over to some fellow in the acquisition corps.

Well, that truly is making the symbiosis problem much more difficult, making it much more difficult for the user to really find out what's going on in that whole world of technology so that he can try to wrench it around so that it makes sense in terms of what the labs are building to support the developing doctrine. I tried to talk Senator Goldwater out of writing the acquisition corps into his legislation, but it was too far gone by the time I got into it, so it happened. Too bad. We will regret it. The new administration in office is claiming they are going to change the acquisition system once again, so maybe it will work out all right.

ROMJUE: Let's hope they do a lot of meditation on it, on the subject, before. . . .

STARRY: The problem with it is that nobody has ever clearly defined what is wrong with the present system. As a user, I have one view of that. The Congress has yet another view of that. There is another view in the Pentagon. Those three views are widely divergent. Congress, for example. For the last 15 years, perhaps more, the Congress has had three concerns about the acquisition system. First is that somehow defense costs too much. The total thing costs too much, each system costs too much. Second, they are fixed on the idea that somehow we've got to have competition in contracting, even though it dramatically increases the cost in many cases the way we apply it. Finally is the perception that somehow we've got to hold the contractors' feet to the fire and make sure they are ethically correct in their corporate behavior.

Now those are not necessarily the three big things wrong with the acquisition system. The Packard Commission, which led to Goldwater-Nichols, concluded that the problem with the acquisition system was that the defense acquisition system wasn't built enough like the civilian industry acquisition system. Well, I've worked on both sides of that street. I found nothing in the acquisition system in industry to convince me that it was any better than what we were doing in the Defense Department. I think that's a nonargument. Anyway, that's not doctrine, but it is in a way.

ROMJUE: Looking at the 1993 doctrine, the idea of depth and simultaneity at the same time, how do you compare that with the AirLand Battle doctrine?

STARRY: Well, although we didn't write it quite in those words, that's the essence of the deep battle part of AirLand Battle. It's synchronization, that is the important idea. It might not be simultaneous. You may want to start the deep battle first. You may not want to start the deep battle first. You may want to start the close battle first, then wait to see what the enemy does. Let him commit himself before you do anything else. On the other hand, in the case of Desert Storm, we went deep with airpower and did a lot of damage before we ever started the ground war. You can argue it both ways. So synchronization is the better word. Synchronization of those two battles, deep and close, is very important. If you have the technical means, it gives you the flexibility needed to fight AirLand Battle successfully. Consideration of both battles simultaneously as the planning unfolds is essential. Simultaneity therefore is simply another evolutionary step in the direction in which we were moving all along. It's a good thing General Franks is steering this along. He understands it very, very well. Having been a part of the early development of the doctrine, having fought it on the ground, he understands it probably better than anybody, so the Army is indeed fortunate to have him in charge of the doctrine at this time.

ROMJUE: He talks about continuity.

STARRY: It is important. Continuity at the top in large organizations is essential. Otherwise the organization zigzags, as I said before—zigzags all the time. It's true in industry. It's true in government. It's true in the military. There are some jobs where we just shouldn't change everybody every three or four years just for the sake of changing every so often pursuant to some nonrelated rotation policy.

ROMJUE: Well, I think that's the end of my questions. Thank you very kindly. This will be very valuable to our project.

7. Air Force: AirLand Battle

United States Air Force Oral History Program
Interview Conducted by Dr. Harold R. Winton
13 May 1995

WINTON: Sir, when you came back to CONUS after command of the V Corps, it was obvious that your experience in V Corps had affected you in terms of your doctrinal precepts, and it's obvious to me from going through the documents of TRADOC that you and your staff were hard at work not only trying to develop these concepts but to find some appropriate terminology that would encapsulate them. Ultimately, you chose the term "AirLand Battle" as the encapsulation for the doctrinal precepts that you wished to inculcate in the Army. Can you give me some background on why you chose that particular term?

STARRY: Don Morelli chose that term.

WINTON: But it obviously required your sanction.

STARRY: We had quite a debate about it. As a matter of fact, it went on for several months. Obviously it was more an Army-Air Force concept of operations than anything else. I had solicited the advice and counsel of General Bill Creech, the TAC [Tactical Air Command] commander at the time. We agreed, not necessarily on the title, but we agreed that what we were doing was possible and that the two of us should work it and our staffs should work it.

I wanted to include the Navy somehow because we have too much nonjointness in the world and there were a lot of parts of the world, even then, where you could see growing what I've called the militarization of conflict in the Third World. It was quite obvious that we were eventually going to have to go places, particularly the Middle East, where we had not gone before with large forces. When you are moving across a littoral, or when you are supporting operations from the sea or whatever, you need to have the Navy aboard. We had not done any substantial work with Navy staffs over this. I had spoken with the Chief of Naval Operations a couple of times, several times as a matter of fact, about it and he knew what we were doing, but as far as the details were concerned, the Navy was not a part of the dialogue. I wanted to call it—.

WINTON: Extended Battle, I believe, was one of the terms you used.

STARRY: Don't forget the AirLand Battle, for a long, long time, was nothing but a stack of slides. We never wrote down and worked through a book like 525-5, for example. We didn't do that, and we didn't do it for good reason. The combat developments process has a couple of serious pitfalls in it. One of them is that the combat developers, who sit and think all the time, tend to get too far ahead of the guys in the trenches. When they get so far ahead of the guys in the trenches that the people in the trenches can't figure out how they are going to get from where they are to where the combat developers say they need to be 10 years, 20 years, or whatever it is hence, then the phenomenon of nonrelevance sets in and the guys in the trenches ignore them.

. . .

WINTON: You were talking about AirLand Battle only being a series of slides.

STARRY: I refused to write down what we were doing as a 525-5. Once you do that, it takes on all the aspects of that combat developments setup that I just described. It gets into the Pentagon and they pour "Pentacrete" around it, the hardest substance. To change a comma in the paper inevitably requires the—.

WINTON: Coordination of all the staff agencies?

STARRY: —the coordination of all the services, at least all the people in the Army staff, and action by the Chief of Staff. It just is an enormous dilemma. Besides that, I wasn't really too sure what I was doing for awhile. I knew what we had to do, but we weren't quite sure how to do it. To make of the concept a document that has programming lines by it, we weren't ready for that yet. So it was a stack of slides.

One of the reasons I think AirLand Battle was embraced by a lot of people was that it was a briefing and, for the most part, I gave it. Morelli gave it a lot of the time, but I gave it most of the time, particularly to war colleges and staff colleges where I was invited to speak. I gave it in the UK; I gave it in Germany; I gave it in Israel. I gave it anyplace anybody would ask me to talk—along went the slides.

As a matter of fact, they started out at Fort Knox when I was the commandant there, 1973 to 1976. It was called modern armored battle. Then, I guess, when I went to V Corps it became the corps battle. Then, in trying to get it out of the context of a specific level of command and get it more generic, we called it the central battle or the central duel. I'm not sure which came first, the Central Battle or the Central Duel. The speech writer, who was then Lieutenant Colonel Dennis Crumley, later a major general, came in one day and said, "I think it's time to write this down." I said, "Take the last briefing." What we did was, every place we went and gave that briefing, two things happened. One, a lot of people heard it, and many people heard it twice, more than twice. The exec and the aide would sit in the back of the room and take notes. As we left that place to go to the next place, we would decide what we were going to change in the briefing based on the questions that had been asked.

WINTON: So it really was a dialogue as well as a selling action.

STARRY: It was a growing, living, moving thing. You can't do that with a document like a 525-5. The decision to write it down early on is important.

Crumley came in one morning and said, "I think it's time to write it down. The substantive comments on it are getting less and less substantive. A lot of people are talking about it and many people are quoting you, most of them not—."

WINTON: Accurately?

STARRY: But it changed. They were quoting version whatever it was. We took the last briefing I had given which, as I recall, was a speech at the Armed Forces Staff College, and we reduced it to writing. We went over it. I went over it with General Bill Creech. I went over it with General Roy Thurman, who was then at Leavenworth, and we printed it in the *Military Review*. I've forgotten when, but we can look that up. It was called "The Extended Battlefield."

WINTON: Yes, sir, I remember the article.

STARRY: The extended battlefield was not a very sexy name. Then we decided that we had to have a sexier name for it. "Sexy" is not the right word, you understand. It had to have a catchy—.

WINTON: I understand exactly what you mean, a marketable name.

STARRY: Air-sea-land, sea-air-land, which one do you put first? I wanted to get the Navy involved, even though we had not, as I said in the beginning. Morelli came in one day and said, "Look, you haven't got the Navy involved in this. Neither one of us has done the staff work with the Navy. You and I may have talked to the CNO about it, but that word has not filtered down into the ranks of the Navy hierarchy. I recommend that we just keep the Air Force and the Army involved." So then it became a debate over if it was going to be called the LandAir Battle or the AirLand Battle. Morelli finally came in one morning and said, "Boss, I think that 'AirLand' is a catchier name than 'LandAir.' Besides that, it bows to the Air Force. If you just want to do it alphabetically, 'air' comes before 'land.'"

WINTON: A vowel sounds better to begin with than a consonant.

STARRY: I said, "All right, let's do it that way." That was the genesis of the term "AirLand Battle."

WINTON: I don't want to put words into your mouth, but it certainly reflected the strong partnership that had been established between TAC and TRADOC and all the hard work that they had done. In your mind, was one of the benefits of it injecting some airmindedness into Army officers?

STARRY: I suppose so. It was more a matter of our understanding one another. What you need to do if you're going to research this in detail is go back into the details of the DePuy-Dixon agreements.

WINTON: I have read some of them.

STARRY: I don't know how well documented they are. The Creech-Starry agreements are not well documented, except in my notes, I'm sure. I don't know if Creech kept notes or not. DePuy and Dixon had a very close relationship, and so did I with Dixon when General DePuy retired and General Dixon was still at TAC. They created a couple of agencies: ALPO [Air-Land Program Office]—.

WINTON: And then ALFA [Air-Land Forces Agency]. I've got the dates on all those out of the archives.

STARRY: If those organizations left records of what they did, that's the place to get the details of that. I would hesitate to talk about the Dixon-DePuy agreements and what happened as a result of those in those organizations because I just don't know that much about it. I was out of the country much of the time.

WINTON: Quite honestly, in the length of the paper that I'm doing now, I don't have time to go into the, if you will, week-by-week, month-by-month progression of that relationship, but I have documented the fact that there was a very strong institutional partnership formed and that it was aided and abetted, not only by the personal relationships among the commanders involved, but it was also aided and abetted at the departmental level by Generals Abrams and Brown.

STARRY: That's true. The problem that we have with both the Navy and the Air Force, as opposed to the Army, is that the Air Force tactical air doctrine is really written at TAC and in the Air Staff. In the Dixon-Creech tenures at Langley, most of that was done at TAC, largely because of the personalities of the commanders. In the Army, as you know, doctrine is written in the school system. Here we are trying to coordinate Leavenworth, for example, which is responsible for that level of doctrine in the Army, with the Tactical Air Command, a major air command of the United States Air Force. It wouldn't have worked unless it had had General DePuy's personal involvement and dragged Leavenworth back and sat down. Actually some people, as I recall, from Leavenworth went into those organizations that eventually took station at Langley. One of the encumbrances was the difference in the way we do the doctrinal development thing.

WINTON: Do you mind if I follow up on that? One of the things that I've noticed in the process is that, even once you get TAC and TRADOC fairly well married up, talking to each other, and hammering out the tough issues, at this time basic doctrine was being written at the Air Staff for the Air Force. Many, particularly in SAC [Strategic Air Command], and also to a lesser extent in PACAF [Pacific Air Forces] and USAFE [US Air Forces in Europe], felt that while TAC could speak for TAC, it could not in fact speak for the Air Force with the same authoritative voice in doctrinal matters with which TRADOC spoke for the Army. From your perspective, were there any particular problems that you had to wrestle with because of this, what I call an asymmetry in institutional interface? That's a pretty fancy word.

STARRY: If there were differences, I think they are more apparent in the DePuy-Dixon regime than in the Starry-Creech regime, largely because General DePuy and General Dixon were working a different problem. They were trying to work the close air support allocation and apportionment of airpower problem, which still needs to be worked, by the way, and is still a matter of controversy.

General Bill Creech and I were working a different problem. We were trying to work the deep attack problem. While we recognized the need to continue the work that Dixon and DePuy had started, we had a new problem on our hands and an additional problem, I guess, to the whole thing if we were going to extend the battlefield. We concentrated on that, and we let the agencies that we had created go ahead with the details of what they were already working on, but the new thing that General Bill Creech and I had to work on was the deep attack problem. We needed a surveillance system. We needed a missile system or a weapon system of some kind.

I don't think it made any difference to him—it certainly didn't to me—whether the surveillance system was in an Air Force aircraft or in an unmanned aerial vehicle owned by somebody. We really didn't care who owned anything at that point. He and I never had an argument about jurisdiction. The staffs did, because the staff weenies are looking ahead and saying, well, the Army is trying to do this and the Army is trying to do that. I think General Bill Creech and I looked at it as there is something in this for both of us and we begged the issue, quite frankly. We begged the issue of who owns what and of the controversy of this perceived extension of the Army's sphere of influence into battle areas that were normally considered Air Force property and what that portended. We concentrated on the deep attack part of this.

We had to go looking for the technology. I got the idea for it out of some work being done by Dr. Joe Braddock, of BDM, for the Defense Nuclear Agency on nuclear targeting for the deep targets. It was simply a question of can we now find the targets accurately enough to improve the level of destruction that we're demanding of the nuclear weapons with lower yield weapons and perhaps conventional weapons? But they were really looking at it from the nuclear standpoint. That was DNA's purview.

. . .

That was the genesis of the deep attack part of the AirLand Battle. It was an attempt to raise the nuclear threshold, in Europe particularly but elsewhere eventually as well, by substituting for what we had originally thought we needed nuclear weapons for, conventional weapons, with accurate surveillance and target acquisition systems, accurate delivery systems, and accurate fusing and sensing systems, aboard the weapons themselves in many cases.

WINTON: And the fact that that surveillance system would ultimately probably have to be an airborne system was one other thing drawing the Air Force and the Army together.

STARRY: We had to go looking for the technology. We finally found it in synthetic aperture radars. Even though that had been suggested, the window was just opening on synthetic aperture radars. As a result, as well as our longer-range missile systems, we finally found the technologies in the laboratories and poured some money into those programs to bring them along. As you know, it took 10 years to bring JSTARS [Joint Surveillance and Target Attack Radar System] into being. Even when we fielded it in the Gulf War, it was a prototype, particularly the ground station. Once we saw the size and complexity of the synthetic aperture radar system, and once we realized that eventually we needed to put with it a moving target indicator system, the package that we were talking about was so big that it was out of the unmanned aerial vehicle category and was clearly a large Air Force aircraft. The Army didn't have any large aircraft, so it was a large Air Force aircraft.

That didn't bother me necessarily. It was a counterpart to AWACS [Airborne Warning and Control System]. The missile system, of course, what became ATACMS [Army Tactical Missile System], originally had a joint counterpart which was JTACMS [Joint Tactical Cruise Missile System]. They would be the same missile. There was a big argument over the P-22 or J-22 or whatever it became, but the Army finally fielded them. There were very limited numbers of them in the Gulf War. We fired some with great success.

WINTON: I've recently been back to Leavenworth and gone through all the Shoffner group papers and the output of all that stuff, so I've had a chance not only to follow the technology, although that's not my main focus, quite honestly, but I've had a chance to look at the maturity of the operational concepts and really the doctrine for integrating all that. It's an amazing story. There's a fair portion of that that is still classified that I won't be able to use, but there is enough of it that's unclassified that I think I can tell the story of that sort of late 1980's development, what I call institutionalizing the deep battle from the Army perspective. It's quite a story.

STARRY: The classified part of it will deal more with target location accuracies, target delivery accuracies. You don't need those to tell the story.

WINTON: No, sir, you are absolutely right. Sir, I'd like to focus now on a very specific thing that you may or may not have recall on. I believe it's an important part of the story in the

Army-Air Force interface. That was this meeting 11 October 1979, when Generals Allen, Vessey, and Meyer joined you and General Creech for a fairly significant review of where the two institutions were at that time. I have looked through all the TRADOC documents that I could find to try and reconstruct that meeting, and I've done the same on the Air Force side, looking through the TAC histories. I will tell you quite honestly that, for my perceived significance of the meeting, the contemporary documentation was quite thin. If there is anything that you could do in terms of your recollection of the general context of that meeting, why it was called, and where you see it in terms of its significance in bringing the two institutions together, I would appreciate it.

STARRY: I took some notes and I went over them when you sent me your note saying you wanted to talk about this. My notes are pretty sparse as well. It was more an attempt, I think, on the part of General Bill Creech and myself to let our chiefs know what we were doing than anything else. General Lew Allen, being a more scientific fellow than an operational guy, does not have some of the biases that one normally finds in the senior leadership of the Air Force, one way or the other. He is very open-minded. I have known him all my military life, so he was a good friend. General Meyer brought General Vessey along so that he, too, could be a part of whatever was decided.

We didn't decide anything. We talked about air defense in the forward battle area. We talked about the extension of the battlefield and the possibility of what it meant to what we now call the air tasking order [ATO] and what it meant to close air support conceptually. I had been, for some time, trying to persuade the Army aviation community that not only *could* they fly across the forward line of troops [FLOT] to do their work but that they *had to*. In order to do that, we had to figure out some way of organizing what we called SEAD, suppression of enemy air defenses, in such a way that we can create corridors for the attack and scout helicopters to go across the FLOT, do their work, and get back safely by another route, either in conjunction with ground maneuver forces or absent ground maneuver forces.

The most significant question we debated was who is responsible for the suppression of enemy air defenses close in to the forward line of troops? This relates to the general confusion. The NATO categorization of close air support has all this battlefield interdiction, CAS/BAI [close air support/battlefield air interdiction], and where the reconnaissance and security line is and where the Air Force deep attack systems would go against air bases, fixed targets, railroad intersections, and, particularly in Europe, the passes through which the railroads came out of mountains into western Europe from European Russia, which were critical and part of the nuclear targeting system.

General Creech and I, as I wrote down at the time, hadn't progressed far enough yet to make a jurisdictional dispute over who did what possible, but it was quite clear that, if ATACMS worked and if JSTARS worked, we would not only have a different regime in the enemy air defense suppression thing close in, in the CAS/BAI region, for example. We were not talking about CAS anymore. We were talking about SEAD and what is the relationship between CAS, CAS/BAI, and, if you want to extend it into NATO, the suppression of enemy air defenses, particularly in the area where those air defenses can interfere with helicopter cross-FLOT operations. Creech and I had not yet gotten down to that level of detail. I think we were willing to talk to anybody about the techniques for doing that.

WINTON: Well, the technology was still being developed.

STARRY: The technology was being developed. We weren't quite sure what target accuracies we could get out of a JSTARS system or delivery accuracies we could get out of an ATACMS with an extended missile body aboard. We had some general ideas that *we* could work it out. One of the reasons for the meeting was that "we, TAC-TRADOC, can work it out" bothered the Air Staff. I suspect that was one of the reasons that generated the meeting, although I didn't write that down and it wasn't that apparent to me. If the Air Staff was covering it, it was transparent. As far as TAC and TRADOC were concerned, the two commanders walked away feeling that we had an endorsement from our seniors to go ahead with what we were doing, and we did. I haven't helped too much with that one.

WINTON: Yes, sir, you have. The sparse notes make very clear that a lot of the discussion really generated around the SEAD issue. It's the other part of it that I haven't been able to document as well. Let me give you my perspective on it and then perhaps try and take you one step further in what I've been able to document. The Brits, of course, are driving the train in NATO on the air side in terms of this idea of battlefield air interdiction because of their proclivity for large numbers of small-plane sorties and hitting this close area behind the FLOT and not wanting to go as deep sometimes as the United States Air Force did.

STARRY: Well, they can't.

WINTON: Yes, sir, you're absolutely right.

STARRY: You've got to understand, the Brits have the Harrier. The corps commander has the Harrier.

WINTON: Sir, when the tape stopped you were talking about the fact that the British have the Harriers.

STARRY: The Harrier is the corps commander's property. In their perception of this—and this is drawn from my own experience with General Sir Richard Worsley, who was the First British Corps commander when I had the V Corps. He was a very close friend of mine and we talked about this a great deal. The British corps commander—if Worsley is any indication, and I'm sure he is—is absolutely delighted with the Harrier. He owns it.

In our vernacular, it is sort of like the helicopters. It will do, in the NATO BAI region, not all but most of the things that we are going to haul in A-10s, F-16s, or whatever is flying to do for us. He owns that. In the beginning I never perceived necessarily of using helicopters for SEAD, but you can. I'm talking about attack helicopters in that nap-of-the-earth area, sort of operating in a ground battle environment. This idea generated the JAWS [Joint Attack Weapons System] tests that we did out at Hunter Liggett, which was A-l0s and attack helicopters against a Soviet-style array of advanced systems, and it was eminently successful.

The problem with it is it's a very complex problem. It takes a great deal of training, but when it works it is like a rare exotic symphony. It just is marvelous to behold. But it was quite apparent to us when we did the test at Hunter Liggett that, if pilots didn't practice that, particularly the battle captain guy, the battle helicopter, Monday, Tuesday, Wednesday, Thursday, and Friday, it was quite unlikely that the game on Saturday was going to turn out very well.

WINTON: So, like a good chamber orchestra, it required intense preparation.

STARRY: But what a concept. With ordinary units who just come and say here I am, I'm from such-and-such an air base, new to the area, and somebody designates a target with a smoke rocket and they fire on it and go away, you can't do SEAD. I'm talking about SEAD with a stable of A-10s or something like A-10s. We picked the A-10 because it flies a little slower and has weapons systems on it that are a little better for the SEAD mission in some respects than the weapons on the fighter-fighters.

WINTON: It also has a titanium bathtub, which is very reassuring to the pilots.

STARRY: And it's got that marvelous GAU-8 aboard, with depleted uranium penetrators in it. You could watch that array out there. We had this typical Soviet air defense array set up. When you watched the A-10s skip over the trees, you couldn't see them all the time. They would come up and the air defense radars would click on them and away they'd go. They would be below the mask and you couldn't find them. The attack helicopters, meanwhile, would just sort of sit back at flight idle. The radars would get confused. It's like a gyro getting uncaged. The next thing you know everything is flip-flopping all over the battlefield. Where did they go? And whatnot. Once that happens, the helicopters just come up and destroy them, obliterate them. The battle captain is the guy who orchestrates that. He is the conductor of that marvelous orchestra. It's a wonder to behold. We tried to institutionalize a version of it, but, given the apportionment of airpower, the way it's done, the way it's allocated now, it's very difficult to do a JAWS thing in the real world.

WINTON: I want to touch on that because your discussion of the BAI issue, it seems to me, was one of those underlying problems that the Air Force and the Army kept coming together on but never quite getting settled. As I read it, the United States Air Force had no choice but to accept not only the concept of BAI but its articulation as a subcategory of offensive air support that was linked to CAS, which went to the ATAF [Allied Tactical Air Force] commander, and the ATAF commander was really dependent—in his decisions about OAS [offensive air support], and particularly his decisions about how much to give to CAS and how much to give to BAI—was dependent upon the intelligence that originated at the corps level and flowed through the army group.

As I watched the development of this in a series of REFORGERs and Crested Eagles, my impression from watching General Otis work the issue was that he and the ATAF commander, by collocating their CPs [command posts], had formed the kind of institutional fielded force arrangement that TAC and TRADOC had formulated and that, although it was very clear that the OAS sorties were allocated to the ATAF commander, the army group commander was a pivotal player in helping the ATAF commander make his decision on how he should split his OAS sorties out between BAI and CAS. Have I got this about right?

STARRY: That's about right. One, it was NATO-dependent. It was dependent on that whole convoluted structure. Secondly, it's personality dependent. Before General Otis' time in the United States Army, Europe, CENTAG [Central Army Group], I can introduce you to some German ATAF commanders who would have nothing to do with their Army counterpart, who was actually their commander. Unhappily, it's personality dependent.

WINTON: But the key doctrinal point, it seems to me, was that once this institutional arrangement was established in NATO and, in some cases, given efficacy through the force of personality and so forth, the Army began to play a key role in a subform of air interdiction, which it seemed to me institutionally worried some of the more nervous people on the Air Staff who wished to keep the Army sort of out of air interdiction. Marrying the NATO concept and the Air Force doctrinal concepts was a continuing challenge.

STARRY: Those are the people who say that anything across the FLOT belongs to the Air Force. You need some aerial platform ahead of most artillery. They would even like to control some of the artillery-rocket artillery, for example, or missile artillery. If it crosses the FLOT, it becomes a part of the ATO. That issue of CAS/BAI, the fairest thing to say about it is that it was NATO-unique, and it completely confused our attempts back here to resolve it on a generic doctrinal basis just because of the weight of our commitment to NATO. Most of what we did in the war was driven by the NATO air-land battle or air-ground battle, and it sort of subverted anything we wanted to do in a generic, straightforward, fairly clean doctrinal sense. That's the issue that the DePuy-Dixon combination worked heavily. That's why ALPO and ALFA and all those agencies; that's the stuff they were supposed to work. The SEAD experiments at Hunter Liggett came off during my time at TRADOC. As far as I'm concerned, they were eminently successful. I think we were not able to capitalize on that because of the way the apportionment and allocation of airpower takes place. The battle captain, the helicopter unit, and the attack fixed-wing Air Force aircraft need to work together every day in the week, and that will not always happen.

WINTON: That beautiful orchestration, as you describe it, fuses the forces at a level too low.

STARRY: For the Air Force, that's right. The Army could do it, but the Air Force is not allowed anyway.

WINTON: Sir, you have been very helpful on these specific issues. Now I would like to try and get a little more general and philosophical perhaps. In broad terms, what do you think the issues were that the Air Force and the Army found it easiest upon which to agree? What were the things in your box that, given good will and persistence, seemed to sort out pretty easily?

STARRY: I don't know how to answer that. When we got to what we now call the AirLand Battle, the extended battlefield, and we were talking about what became JSTARS and what became ATACMS, the TRADOC staff and the TAC staff really were at a standoff. The Air Force guys in TAC, I think largely reflecting what they knew would be the reaction of their counterparts in Washington on the Air Staff, really had a hard time with extending the battlefield. Don't forget that, when we first conceived the idea, it was a corps or joint task force commander's subsystem. In other words, the corps or joint task force commander was going to own JSTARS and was going to own ATACMS or JTACMS, whichever it was, and they were the corps commanders and joint task force commanders and contingency operation systems for deep attack, extending the battlespace. That really bothered, as you well might imagine, the Air Staff, and the TAC staff simply reflected that concern. I went over one day to Langley, and General Creech and I spent a morning together. I laid the slides out and said, "Here we are. It seems to me there's something in this for everybody. There're some obvious problems with it, but as far as you and I are concerned, they are down range. I'm not trying to dump our problems on somebody else, but we don't know

how it's going to work exactly. Clearly, conceptually this is what we've got to do." I left it with him. He studied it for some time, a couple of days apparently, and got the staff in and said, "Hey, guys, this is good stuff. This is a good idea and we need to support this." How they worked that out internally between the staff guys at Langley and the Air Staff in Washington I have no idea. You might want to go see him. I'll tell you what, we would not have an AirLand Battle had it not been for General Bill Creech. We would not have it because we were at a Mexican standoff with the Air Force guys at Langley.

WINTON: That's very interesting, because I've also looked over the subsequent 31 initiatives, démarche, and it was exactly the same pattern. Gosh, I've lost it.

STARRY: Charles Gabriel and—

WINTON: Yes, sir, General Gabriel and General Wickham. It was very clear that the two of them were able to reach a vision and a common understanding of how institutionally to press forward that would be for the good of the national defense and that would be for the good of both institutions in the long run, but that had the potential to cause some pain for each in the short run. The only way they could get that off the ground was to virtually circumvent the entire staff process and get several trusted agents who were working for their ops deps directly as the vehicle to make that happen. It's fascinating to me that this Mexican standoff, which was resolved by commanders at the departmental level several years later in 1983 and 1984, is exactly the same pattern. That's a very interesting insight. In answering that question, you've answered my other question, the flip side of it, which was what the hard ones were. Sometimes the hard issues turned into easy issues only because commanders got personally involved to settle them.

STARRY: Or begged the detailed coordination and implementation part of the thing that obviously had to follow, but until you knew precisely what the systems were going to do for you, it didn't make much sense to argue over the details. Even if you were able to reach some agreement, it might well be changed by what happened once you saw the system and found what it could do for you. JSTARS worked much better than we had anticipated it would. It was a winner, an absolute bloody winner, so much so, as a matter of fact, that, at the close of the Gulf War, the National Reconnaissance Office wanted to take over JSTARS. We had not anticipated that, but it happened.

WINTON: As you step back and look at this process now, in a historical vein, what do you think were the most important factors that were driving the Air Force and the Army together? Obviously the personalities of key individuals at the right place at the right time are toward the top of the list.

STARRY: I think the thing that bothered me the most, at least, or should have bothered and is still bothering Army people, is the fact that we are the last priority on the Air Force priority list in terms of missions for the Air Force. That's not a criticism; it's just an observation. From an Army standpoint, because of the expansion of the battlespace on the ground made possible by modern weapons, everything from antitank guided missiles to tank guns to actually weapons of all sorts, it's quite clear that the brigade commander or the division commander or the corps commander needs to be able to see over terrain features deeper than those that they have been accustomed to worrying about, simply because their weapons systems can do something about those places now.

The thing that really convinced me on the necessity for getting deep into the battlespace was a trip I made. As a corps commander I got quite concerned over this. We convinced ourselves, I think, based on the active defense doctrine of 1976, which essentially was an attempt to expand the battlespace at the FLOT by integrating large numbers of antitank guided missiles into the force along the FLOT. Particularly in Europe, we didn't have much maneuver room. We certainly didn't have the kind of maneuver room that the Germans had on the Eastern Front in World War II, as a result of which they adopted what we later called mobile defense.

. . .

Now my problem as a corps commander was what about the next echelon? What is left? How long will it take them to get back in battle positions where we think the next battle should be fought, or could be fought, based on how long it takes us to get our stuff together again? I realized at that point that the battle against the follow-on echelons is the corps commander's problem. We've got forces deploying from the States and we've got other forces coming. If they come in a timely way, they'll be here, but not in time. The SACEUR keeps saying, "After 10 days, I've got to ask for nuclear release." From a corps commander's standpoint, we have got to raise the nuclear threshold and be able to fight longer with less until the reinforcements arrive. Just beg the nuclear problem. Get it off the battlefield if we possibly can. That means the corps commander has got to do something about the follow-on echelons, the second echelon, the third echelon. There were four fronts between the inter-German boundary and the boundaries of European Russia, four fronts. These guys out here and whoever comes to replace or reinforce them have got to be able to fight four echelon battles.

What had happened to us in the years that we were away in Vietnam [was that] the Soviet doctrine had changed. In the first place, they deployed more troops. In the 1970s they beefed up their artillery ratios. They had twice as much artillery as they needed to support their operational concept, just in general numbers. They had shortened the timelines for their echelon commanders to reach their objectives. The reason they did that was they believed that they could fight and win at the theater level, with or without nukes. If they did it fast enough and they reached these objectives quickly enough, they would preempt the NATO decisionmaking process and prevent NATO from getting nuclear release and they would have won the battle conventionally on the ground. To do that they needed to speed up things, so they were coming on at a great rate. The problem is how to disrupt and delay them. You notice in AirLand Battle we use the terms "delay, disrupt, and destroy" in that order.

WINTON: Very deliberately chosen.

STARRY: Deliberately chosen in that order. It says that if you *can* destroy some targets back there, just fine, that's great. But the fact is what you really want to do is screw up the momentum of their attack. Don't forget, mass, momentum, and continuous land combat was the operational troika that they were using. They had made dramatic changes, shortening the timelines that they gave their commanders to reach their objectives so the follow-on echelons could come through those people who had already reached their objectives and go for their objectives. You could follow that pattern over the period of 10 years that we had

been away in Vietnam, and it had changed a great deal. The corps commander needed to do something about those deep targets and the follow-on echelons.

[Note: The following three paragraphs were not included in the originally taped interview but were inserted at General Starry's request to provide a more complete historical record of the background of his June 1977 visit to Israel.]

A striking illustration brought the matter into focus. Early morning 10 February 1977, the border ops sergeant of the 11th Cavalry, on duty near OP ALPHA, called to report that he could hear tanks moving on the other side of the border and could see at least some of them in his ground surveillance radar. Visibility was zero-zero through the corps sector. No flying, hazardous driving, it would have been very risky indeed to deploy the corps. Visiting me in Frankfurt was my Israeli friend Major General Musa Peled. Commander of the division that saved the IDF 7th Brigade and the battle on the Golan Heights early in the Yom Kippur War, later commander of the IDF Armor Corps, my tour guide on innumerable trips to Israel, he was, and remains, one of my closest friends. We had planned a day in the corps sector, looking at terrain, discussing defense. Further, I had elected to use the corps commander's mobile command post—a convenient two-car railroad train with full-up communications and spaces to work, eat, and sleep. The train was ready. So we proceeded, a bit early, but straightaway to where the border ops sergeant had reported tanks. There they were! Eventually we accounted for a full division of the Soviet 8th Guards Combined Arms Army. Not there the day before, undetected moving into position. The 11th Cavalry provided command vehicles, and we moved to a position where we were visible, first through the fog, then quite clearly as the fog lifted, to the East German observation tower directly across the border. As the fog lifted several Soviet officers appeared. We spent several hours watching one another through binoculars and other vision devices. Then they moved away. Because of road hazards I elected not to alert the corps, calculating that my personal presence along the border was sufficient if they were just testing to see if we could detect them.

Then we set about to learn if, somewhere in the information noise from border stations, listening posts, radio intercepts, satellites, and other means, we had missed the signals that portended what was actually happening. After several weeks, no luck. May have been there; we couldn't find them. Much later I would learn from a good friend, who was in the US Potsdam Mission at the time, what actually happened. Dresden-based—several hundred kilometers away, that division had moved at night, blacked out, radios silent, for three nights, closing along the border in the morning of the third day. That incident dramatized for me the scope of the corps commander's problem. Musa Peled commented, "You must come again to Israel; we will revisit the Golan battlefield."

That invitation led to my return to Israel in June 1977. We went to the Golan. There division, brigade, and battalion commanders who had fought there in October 1973 described for me one more time how that battle unfolded. They described again the layout of Syrian forces, echelon after echelon after echelon. Just like the Soviets do it.

[End of insert.]

WINTON: It rhymes, doesn't it?

STARRY: In between each echelon a little coil of trucks and stuff that they needed to refuel and rearm the forward echelon, but not much; but some command and control, so it was a vulnerable place. If you hit those, you can do some significant damage. I went back then to Europe and went out to the border. I tried to visualize that array laid down between the border along the V Corps front and the Thüringer Wald, some 60 to 100 kilometers away, across which the follow-on echelons had to move in order to get at the border.

WINTON: Another series of important passes.

STARRY: Now as a corps commander in V Corps, I have got to see behind those terrain barriers. The river lines, as you may remember, run north and south, the Werra and the Ulster and the others in East Germany run north and south. I have got to see into those river valleys across the hill lines that separate them in order to know what's coming and I need to be able to get weapons in there. I need to be able to bring our weapons into the Thüringer Wald to screw up the transit of the forces through the passes in the Thuringian Forest. How do I do that? What are the ranges? What are the distances? What do we have to look through to see that? And all of that condition. I'm still the corps commander by this time, but you look at that and transpose the Golan battle onto that wooded terrain, with all these valleys going the wrong way as far as the enemy is concerned, I think, because he's got to go across the terrain compartment. To do that he's got to come across the barriers between the terrain compartments. When he starts to cross the barriers, you've got him right where you want him, if you can see him and if you can shoot at him.

WINTON: As you point out, the Army-Air Force partnership, if you will, really started during the DePuy-Dixon era. The 1976 edition of 100-5 has a chapter titled "AirLand Battle."

STARRY: It wasn't there yet.

WINTON: From your perspective it was the Army's recognition of the need for depth. It was institutionally driving it to marry with the Air Force. What do you believe was the driving factor in the Air Force to want to make this partnership work?

STARRY: I don't know. You are going to have to look for that in the Dixon-DePuy dialogue. From the standpoint of General Bill Creech and myself, my perception was that the Air Force simply did not have enough aircraft and weapons systems to do this job that I described as the Soviets advanced, echelon by echelon. There weren't enough weapons in the Air Force inventory to kill all those targets. As you know, the Air Force is a service that is largely driven by target count and weapons count. In other words, their share of this battle is so many kills. The whole Air Force is built on that perception—this number of targets takes this number of weapons aboard this number of airplanes and they need to be organized as follows, and so forth. The whole structure of the Air Force is built on that.

WINTON: As I recall, that was one of the items that Generals Allen and Creech discussed off-line, intra-Air Force, during that 11 October 1979 meeting. Do we have the systems to make this work? The answer was clearly no.

STARRY: The problem is the Soviets had changed that, you see. Since we were in Europe before they had altered the number of targets that were being presented over time. The Air Force had built itself, in Europe at least, against target arrays moving much more slowly with fewer targets, and it was simply out of their ballpark. They couldn't cope with it anymore.

WINTON: Perforce, an Army union was—.

STARRY: That's right. My answer to that was to send the helicopters across the FLOT first as kind of an interim measure, so I started to work on the Army air corps to try to get them willing to fly across the FLOT. [They said], "Can't do it. There's too much air defense." I said, "We'll suppress—."

WINTON: Sir, we were talking about servicing targets. When the tape cut, my question is it seems to me that's why JSEAD [Joint Suppression of Enemy Air Defenses] was the key to the whole thing. If there could become Army-Air Force integration in eliminating the air defense targets, first, those were fewer numbers of sorties for the Air Force that had to be delivered to suppress enemy defenses and, once those defenses are suppressed, not only do you get your air corridors, but the Air Force gets some corridors, too, that makes its job easier in force packaging.

STARRY: The other thing was time to allocate and apportion airpower. That 72-hour cycle that we are accustomed to struggling with, to ask for and be allocated airpower, for the apportionment process to take place, and then allocation was not sufficient to cope with the problem as I saw it, given the new Soviet doctrine; that is, the way they had changed their timelines. We had two things, the numbers problem and time.

WINTON: As you know, the timing problem still isn't solved.

STARRY: It still exists, that's right. We have worked for years trying to shorten it. The Air Force, when I was doing this as a corps commander, would say, "Yes, we recognize we have a problem," but you never saw any change. I understand their problem. They've got a stores problem. The air bases are a long way away. They've got a wing loading problem, with the munitions and whatnot. It takes a long time to get off the ground.

WINTON: They have a pilot briefing problem.

STARRY: They've got a pilot briefing problem. All those things, in my view at least, are solvable to some degree.

I watched the Israelis do it in the 1982 War in the Bekaa Valley, for example. The chief of staff of the army and the commander of the air force sat together in front of their TV screen with a menu, a list of the stuff in the Bekaa Valley that they needed to do: "We need to suppress, we need to jam, and we need to attack." Here were the sorties and they would check them off, missions, sorties. They would watch them on the TV from an unmanned aerial vehicle taking pictures, low-light-level television. They would take a picture of it and they'd say, "Well, I think we'd better go back there again," or "Whoops, we see pieces blowing up of that one. Let's check that one off."

They would bring the fighters back into the air base in Israel and they would taxi into the revetments. They would download the cameras and debrief the pilots. The pilots would go off to the head and then get something to eat. Meanwhile, the list would come from the chief of staff of the army or chief of staff of the IDF or the air force commander saying, "Here's your next set of targets." They would have issued instructions for the arming of the airplanes. They would brief up the pilots after they came back from the john and they would launch. I watched them do that in 45 minutes.

WINTON: Incredible.

STARRY: Reapportionment, first of all, and reallocation of airpower and recycle the mission in 45 minutes. It probably took about an hour. Now the flight times were shorter, the distances were far less, the targets were pretty well limited to where they were. They were all in this one valley out there. At the same time, they had a ground station out there from the UAV watching all this, but the ground station guy wasn't making any decisions. He was keeping records. In this critical action—I watched them do it—against those missile sites, the commanders were making the decisions, just as I described them, and recycling airpower. They didn't have that many airplanes and they didn't have that many pilots. On that very critical day against that target array in the Bekaa Valley, some of those pilots flew six and eight times.

WINTON: But the elimination of the enemy ground forces, the raison d'être for the Israeli air force, is a tenet of long standing. I think you're right, but I think their strategic situation is so different.

STARRY: Actually, in our system the Army would have a hard time recycling its helicopters.

WINTON: That quickly. That's a valid observation.

STARRY: You would have to work hard at that. I don't think we've done that quite yet, but at least we've got the Army air corps convinced that they can cross the FLOT, if you suppress the enemy air defenses.

WINTON: Again, taking a broad view and looking back, if the Army's need for depth and the Air Force's recognition of its need to work with the Army in servicing a large target array are forces that are drawing them together, what are forces pulling them apart? What are underlying forces that make it difficult for them to come to closure?

STARRY: I think they are more institutional than real. Horner solved the problem in the Gulf War by shoving the fire support coordination line up against the FLOT and insisting that everything that flew over the FLOT be a part of the air tasking order. That's not reasonable. He had a field fix on a tough problem. He solved the problem that you and I are just talking about with a field fix. That isn't good enough. Whether they resolved the issue by all of them going out to Leavenworth and talking about it or not, I don't know. To the best of my knowledge, it hasn't been solved yet.

WINTON: No, it hasn't.

STARRY: There are some solutions to it in which each side is going to have to give a little bit. As a matter of fact, I really believe that the Germans had a better system than we do. The airspace over the corps battle area up to a certain altitude belongs to the corps commander. To translate that into the joint world, the airspace over the joint task force battle area belongs to the joint task force commander up to a certain altitude.

WINTON: As you know, this whole battlespace debate is, as we speak, the *point d'appui* of the roles and missions discussion between the two services. My own belief—and I'm only speaking editorially here—is that the Army and the Air Force are much further apart on this issue in the year of our Lord 1995 than we were in the year of our Lord 1989.

STARRY: You are probably right. What the Army doesn't realize is—and I don't know whether the Army is making a case for taking over close air support or not, the Army could, perhaps

should—the Army cannot afford to take over close air support as it is now done. The Army doesn't have the infrastructure for that.

WINTON: I agree with that absolutely.

STARRY: All the air traffic control, all the ACCs [air control centers], all that stuff out there, whatever they are called now, the control centers and whatnot, the FAC [forward air control] system, the radio nets, all of that stuff, the Army doesn't own that.

WINTON: Not to mention the labs it required to develop for the next century.

STARRY: That's what I'm talking about, the whole thing from beginning to end, not only in the field but the whole damned thing.

WINTON: Sir, I couldn't agree with you more. That is not the solution.

STARRY: Well, if it is, then the Army has got to understand that it's taking over a hell of a burden and it's going to have to get something else up in order to get control of that.

The other thing the Army doesn't understand is Army airfields are run on a shoestring. This is not a criticism necessarily. By Air Force standards, the Army does not run robust airfields. I'm talking about infrastructure, weapons loading capabilities, the ability to generate airpower off an air base. We don't know how to do that, certainly not the way the Air Force does. If you've ever been on a fighter base while they are cycling fighters in and out, and then you go to an Army airfield and you try to figure out how in the world they are going to do that at this airfield, it's not possible. Not that it can't be done, but we would have to—.

WINTON: We have not yet devoted the assets to do it.

STARRY: We would have to have a considerably expanded air base infrastructure in order to do that. If the Army is willing to pick up the tab for the command and control infrastructure and for the base infrastructure that it would take to give the now Air Force close air support function to the Army, okay, but the Army is going to have to give up a whole lot more than the Army knows about in order to do that. It's probably not a good idea for that reason. But, who knows?

WINTON: Sir, you've covered the waterfront on my Army-Air Force issues. There is one thing that I would like to ask that's purely an internal Army doctrinal matter and I ask it because, first of all, I'm intrigued by it and, second, I think historians who come back and look at the Army of the 1970s and 1980s 20, 30, or 50 years from now may still be interested in it. The issue is continuity and discontinuity between the Active Defense and the AirLand Battle.

It's very clear to me, from everything that you've said every time you came to Leavenworth and I was there, and it's very clear from everything that you've written on the subject and what notes and papers of yours that I've been able to consult, that you see it as a very gradual, very straightforward evolutionary process. It's also very clear to me that there's a completely different perspective of it entertained by some who actually had something to do with the writing and some who were nattering nabobs on the side talking about it, that AirLand Battle represented almost a repudiation of the Active Defense, if not a very significant amending of it. Having been away from this for awhile, but still having been an

active participant in both, I would really like to get your thoughts and perspectives on this issue on the record because I think it's a very important one to the Army.

STARRY: If you take the longer view of it, that is, take two steps backwards and look at the whole thing, the AirLand Battle is Active Defense plus deep attack.

WINTON: You've said that to me before.

STARRY: Extension of the battlefield is what it is. Now, if you want to get down to the question of whether or not General DePuy—by the way, I think also one of the strengths, one of the things that happened to us in the first eight years of TRADOC's existence was that we had two commanders, first DePuy and then me, who thought very much alike about the same problems.

WINTON: That's very evident.

STARRY: There was continuity at the top, no zigzagging. I tried to add to what he had done. I didn't reject it or repudiate it. I tried to add to what he had done and build on the strengths of it and extend it to what I saw as a critical problem, which was extending the battlefield.

It's probably fair to say, I think, that had we come down to discuss the matter in a philosophical vein, General DePuy and I probably had some pretty widely divergent opinions about defense and attack. He—and this is not a criticism at all—fundamentally believed that modern weapons had become so letha1—range, lethality of munitions, target acquisition systems, sensor systems of all kinds—that the defense was the best way to fight. He was further driven to that conclusion by his infantry fighting experience, the horrible example of the 90th Division in World War II.

More than any infantryman I ever knew, he understood the use of armor, and wanted to. He called me one day and said, "Would you take me out to Fort Irwin and let me shoot a tank?" I said, "Okay," and I shipped some ammunition out to Fort Irwin. We went out there one day and he and I alternated as the gunner and the tank commander on the tank. My aide was the driver and I've forgotten who we put in as the loader. We spent all day shooting and moving and whatnot. It was a tutorial on my part for him on how you use tanks. Then we got out and sat on the top of a hill. He said, "Tell me about more tanks." I said, "Here are the targets and the way it works." He was an avid student of armored warfare.

My perception was that you do have to defend, and modern weapons like the antitank guided missile, in Europe at least, gave you a battlespace advantage at the front, the forward line of troops. But, sooner or later, the history of battle tells you that you can't just defend all the time; you've got to do something else. My description of that is you seize the initiative. All the conversation about maneuver warfare that has come up—people have written books about it—is kind of interesting but nonrelevant. You can seize the initiative by maneuvering. You can also seize the initiative by doing nothing.

Once you get up out of the ground as a defender and go on the offense you lose all the two-to-one or three-to-one or whatever it is advantage that the defender historically has and you lose. The best example I know of is Moshe Peled's division on the Golan Heights when they decided to move in and, instead of committing his division piecemeal, to move in on the flank of the Syrian attack.

WINTON: I've read your analysis of that.

STARRY: He took the initiative. He lost a whole brigade doing it, but he took the initiative. Incidentally, by the time they crossed the green line, the Syrians had lost 600 tanks. Moshe lost 200. That was the brigade; that was Yossi Peled's brigade that did the attack. The other two were supporting him by fire. It's a risky operation and you have to understand those risks when you take to attack.

I think he [General DePuy] also, as an infantryman, and having fought as an infantryman in World War II and commanding an infantry division in Vietnam, was more concerned with the individual infantry soldier, the small unit, the not so small unit, but the whole spectrum of infantry combat on the ground and the horrible way that we failed to train our infantrymen and infantry leaders properly and so lost a lot of guys unnecessarily. General Paul Gorman wrote a super paper for IDA [Institute for Defense Analyses] in 1992 on this subject. I don't know if you've seen it or not.

WINTON: No, sir, I haven't.

. . .

STARRY: Ask Roger. It has been reprinted by the Command and General Staff College Press, so ask Roger Spiller what the name of that book is. It has to do with training leaders. It's the best description of General Bill DePuy's approach to the leader training problem and infantry combat problem. He was more seized with that, I think, than anything else just because of his background.

I admit that I was an enlisted man in the infantry. It was an experience that caused me to conclude that, if I ever got to be an officer, I wanted to be in the cavalry or the armored. I had a different perspective on the battle. I had longer-range weapons systems in which the crew was largely protected by armor or something, the ability to move more quickly and in different ways than you moved as an individual infantryman on the ground, different demands on the leaders, the small-unit leaders, the tank commander, and on up the line.

If we had a difference of opinion, we never discussed it, mainly because I didn't feel there was any need to. We had so much to do that there was no sense in arguing: "Do you believe more in defense than I do?" or "Do I believe more in offense than you do?" The hell with that. We had so many problems on our agenda that there was no sense in arguing.

WINTON: There were enough targets to service.

STARRY: That's right, exactly. There was no sense in having a dialogue about that, because it wasn't important for what we had to do. Sooner or later it might have come down to a philosophical discussion, but we never had it. I knew it wasn't necessary. Whether he had the same sensing that I did or not, I don't know. Even as a center commander, he deferred to me in everything that had to do with the mechanized business. That's why I think he called and asked, "Will you take me out there?"

WINTON: Something to the chagrin of the mechanized infantrymen at Fort Benning, I might add.

STARRY: I have been accused of trying to move the mechanized infantry training to Fort Knox. He made the suggestion. He said, "Could you do this?" and I said, "No, I don't have the plant to do it. But if you want me to look at doing it, I'll be happy to, because I believe all of the armored training ought to be done right here. If we're going to buy an infantry

fighting vehicle, as opposed to a partially armored taxicab for the infantry, then we ought to consider seriously doing it at Knox." He actually did a study. "We Ought to Train the Way We Fight" is the name of the study. I still have a copy of it. It had to do with the helicopters as well as the mechanized force.

If there was a difference of opinion, it never came out into the open. My view of it is that the AirLand Battle is simply an extension of most of the things that he started, a logical extension as necessary, by the way, in the world of contingency operations today as it was in the world fighting against the Soviet threat in Europe long, long ago.

WINTON: I was sure that that was your conviction, but you've stated it very succinctly and that's helpful.

STARRY: Not everybody agrees with that.

WINTON: Understood, sir. I don't have any more questions to ask. Is there anything in the general field that you haven't had the opportunity to say that you wish to say?

STARRY: Again, the Army, the nation, the armed forces owe Bill Creech a great, great debt of gratitude. We would not have AirLand Battle had it not been for him. I could not have carried that off by myself.

Glossary of Acronyms and Abbreviations

A

A/L	AirLand
A/VICE	Assistant Vice Chief of Staff
AAFCE	Allied Air Forces, Central Europe
AAH	Advanced Attack Helicopter
AAO	Authorized Acquisition Objective
AARAV	Airborne Armored Reconnaissance Assault Vehicle
AC	Active Component; Armored Cavalry
ACAB	Air Cavalry Attack Brigade
ACAV	Armored Cavalry Assault Vehicle
ACC	Army Communications Command; Air Control Center; Air Component Commander
ACCB	Air Cavalry Combat Brigade
ACE	Allied Command Europe
ACR	Armored Cavalry Regiment
ACSFOR	Assistant Chief of Staff for Force Development
ACSI	Assistant Chief of Staff for Intelligence
ACT	American College Test
ACTIV	Army Concept Team in Vietnam
ACVT	Armored Combat Vehicle Technology
AD	Air Defense; Anno Domini; Armored Division
ADA	Air Defense Artillery
ADAM	Area Denial Artillery Munitions; Artillery-Delivered Antipersonnel Mine
ADC	Aerospace Defense Command; Assistant Division Commander
ADE	Armored Division Equivalent
ADLER	French/German Fire Support Command and Control System
ADMINCEN	Administration Center
ADP	Automatic Data Processing
ADPA	American Defense Preparedness Association
AEF	American Expeditionary Forces
AFCENT	Allied Forces, Central Europe
AFL	Army Force List
AFQT	Armed Forces Qualification Test
AFV	Armored Fighting Vehicle
AG	Adjutant General
AGI	Annual General Inspection
AI	Automotive Industries
AIAA	American Institute of Aeronautics and Astronautics
AIFV	Armored Infantry Fighting Vehicle
AIT	Advanced Individual Training
AK	Soviet Assault Rifle [*Avtomat Kalashnikov*]
ALCM	Air-Launched Cruise Missile
ALCON	All Concerned
ALFA	AirLand Forces Application
ALFI	AirLand Forces Interface

ALLD	Airborne Laser Locator Designator
ALO	Air Liaison Officer; Authorized Level of Organization
ALPO	AirLand Program Office
AM	Amplitude Modulated
AMC	Army Materiel Command
AMSAA	Army Materiel Systems Analysis Agency/Activity
AN/VRC	Army-Navy/Vehicular Radio Communications
ANCOC/ANOC	Advanced Noncommissioned Officer Course
AO	Area of Operations
AORS	Army Operations Research Symposium
APAS	Air-Transportable Protected Antiarmor Assault-Capable System
APC	Armored Personnel Carrier
APDM	Aerial Port Capability/Manpower Simulation Model
APDS	Armor-Piercing Discarding Sabot
APFSDS-T	Armor-Piercing Fin-Stabilized Discarding Sabot-Tracer
APOD	Air Port of Debarkation
AR	Army Regulation
ARCOST	Army Cohesion and Stability
ARI	Army Research Institute
ARID	Army Research Institute Division
ARMVAL	Advanced Antiarmor Vehicle Evaluation
ARPA	Advanced Research Projects Agency
ARSV	Armored Reconnaissance Scout Vehicle
ARTEP	Army Training and Evaluation Program
ARTS	Army Training Study
ARVN	Army of the Republic of Vietnam
ASA	Army Security Agency
ASAP	Army Scientific Advisory Panel
ASARC	Army Systems Acquisition Review Council
ASAS	All-Source Analysis System
ASB	Army Science Board
ASD	Assistant Secretary of Defense
ASD/MRAL	Assistant Secretary of Defense for Manpower, Reserve Affairs, and Logistics
ASH	Advanced Scout Helicopter
ASI	Additional Skill Identifier
ASOJ	Anti-Standoff Jammer
ASVAB	Armed Services Vocational Aptitude Battery
AT	Antitank
ATACMS	Army Tactical Missile System
ATAF	Allied Tactical Air Force
ATE	Automatic Test Equipment
ATGM	Antitank Guided Missile
ATO	Air Tasking Order
ATSC	Army Training Support Center
ATT	Army Training Test
AUSA	Association of the United States Army
AUTOCO	Automated Corps [Communications]

AUTODIN	Automated Defense Information Network
AUTOVON	Automatic Voice Network
AVLB	Armored Vehicle-Launched Bridge
AWACS	Airborne Warning and Control System
AWOL	Absent Without Leave

B

BA	Budget Authority
BAA	Battlefield Automation Appraisal
BAI	Battlefield Air Interdiction
BAMP	Battlefield Automation Management Program
BAOR	British Army of the Rhine
BAQ	Basic Allowance for Quarters
BAS	Battlefield Automated System
BATES	Battlefield Artillery Target Engagement System
BCT	Basic Combat Training
BDM	Braddock, Dunn & McDonald, Inc.
BDP	Battlefield Development Plan
BEMAR	Backlog of Essential Maintenance and Repair
BG	Brigadier General
BIET	Basic Initial Entry Training
BII	Basic Issue Items
BIRS	Battlefield Information Reporting System
BLR	Battle Loss Report
BMP	Soviet Infantry Combat Vehicle [*Boyevaya Mashina Pekhoty*]
BNCOC/BNOC	Basic Noncommissioned Officers Course
BOERFINK	Site of former AFCENT command center
BOI	Basis of Issue
BOQ	Bachelor Officers Quarters
BRDM	Soviet Antitank Armored Scout Car [*Boyevaya Razvedyvatelnaya Dozornaya Mashina*]
BRL	Ballistic Research Laboratory
BSA	Brigade Support Area
BSI	Battlefield Systems Integration
BT	Basic Training
BTM	Battalion Training Model
BTMS	Battalion Training Management System

C

C&C	Command and Control
C2	Command and Control
C3	Command, Control, and Communications
C3I	Command, Control, Communications, and Intelligence
CA	Combat Arms
CABL	Consolidation at Battalion Level; Consolidation of Administration at Battalion Level
CAC	Combined Arms Center
CACDA	Combined Arms Combat Developments Activity

CALFEX	Combined Arms Live-Fire Exercise
CAP	Civic Action Program; Combat Air Patrol
CAPCAT	Capability Category
CAR	Corps Automation Requirements
CAS	Close Air Support
CAS3	Combined Arms and Services Staff School
CBR	Chemical, Biological, and Radiological
CD	Combat Developments
CDA	Combat Developments Activity
CDC	Combat Developments Command
CDEC	Combat Developments Experimentation Command
CE	Chemical Energy
CEB	Cadet Evaluation Battery
CEGE	Civilian Equipment Group, Europe
CEM	Concepts Evaluation Model
CENTAG	Central Army Group
CENTCOM	United States Central Command
CEP	Circular Error Probable; Concept Evaluation Program
CEWI	Combat Electronic Warfare Intelligence
CFA	Call Forward Area; Covering Force Area
CFE	Conventional Forces in Europe
CFV	Cavalry Fighting Vehicle
CG	Commanding General
CGS/C&GS	Command and General Staff
CGSC/C&GSC	Command and General Staff College
CIA	Central Intelligence Agency
CINC	Commander in Chief
CINCPAC	Commander in Chief, Pacific
CINCRED	Commander in Chief, US Readiness Command
CINCSTRIKE	Commander in Chief, US Strike Command
CINCUSAREUR	Commander in Chief, US Army, Europe
CINFO	Chief of Information
CITA	Commercial and Industrial-Type Activities
CLGP	Cannon-Launched Guided Projectile
CM	Commander's Manual
CMAS	Clothing Monetary Allowance System
CMF	Career Management Field
CMMI	Command Maintenance Management Inspection
CNO	Chief of Naval Operations
COA	Comptroller of the Army
COE	Chief of Engineers; Corps of Engineers
COEA	Cost and Operational Effectiveness Analysis
COHORT	Cohesive Operational Readiness Training
COI	Course of Instruction
COMAFCENT	Commander, Air Forces, Central Command
COMSEC	Communications Security
COMUSMACV	Commander, US Military Assistance Command, Vietnam
CONARC	Continental Army Command
CONUS	Continental United States

COPL	Combat Outpost Line
COSCOM	Corps Support Command
COSVN	Central Office for South Vietnam (North Vietnamese)
CP	Command Post
CPX	Command Post Exercise
CS	Combat Support
CSA	Chief of Staff of the Army
CSAF	Chief of Staff of the Air Force
CSI	Combat Studies Institute
CSM	Command Sergeant Major
CSS	Combat Service Support
CSWS	Corps Support Weapon System
CTEA	Cost and Training Effectiveness Analysis
CTRADA	Combined Arms Training Developments Activity
CTZ	Corps Tactical Zone
CVC	Combat Vehicle Crewman
CY	Calendar Year

D

DA	Department of the Army
DACC	Direct Access Communications Channel
DACOWITS	Defense Advisory Committee on Women in the Services
DAMO-RQ	Department of the Army, Military Operations-Requirements
DAMO-SS	Department of the Army, Military Operations-Staff Support
DAMPL	Department of the Army Master Priority List
DARCOM	Materiel Development and Readiness Command
DARPA	Defense Advanced Research Projects Agency
DCG	Deputy Commanding General
DCS	Deputy Chief of Staff
DCSCD	Deputy Chief of Staff for Combat Developments
DCSDOC	Deputy Chief of Staff for Doctrine
DCSIT	Deputy Chief of Staff for Individual Training
DCSOPS	Deputy Chief of Staff for Operations and Plans
DCSORI	Deputy Chief of Staff for Operations, Readiness, and Intelligence
DCSPAL	Deputy Chief of Staff for Personnel, Administration, and Logistics
DCSPER	Deputy Chief of Staff for Personnel
DCSRDA	Deputy Chief of Staff for Research, Development, and Acquisition
DCSRM	Deputy Chief of Staff for Resource Management
DCSROTC	Deputy Chief of Staff for ROTC
DCST	Deputy Chief of Staff for Training
DDG	Draft Defense Guidance
DDRE/DDR&E	Directorate of Defense Research and Engineering
DED	Division-Level Data Entry Device
DEPCOMUSMACV	Deputy Commander, US Military Assistance Command, Vietnam
DEPSECDEF	Deputy Secretary of Defense

DFAC	Dining Facilities Administration Consolidation
DFAE	Directorate of Facilities Engineering
DFE	Division Force Equivalent
DG	Defense Guidance
DIA	Defense Intelligence Agency
DISCOM	Division Support Command
DIVAD	Division Air Defense
DIVARTY	Division Artillery
DLP	Doctrinal Literature Program
DMMC	Decentralized Materiel Management Center
DNA	Defense Nuclear Agency
DOD	Department of Defense
DOE	Department of Energy
DOPMA	Defense Officer Personnel Management Act
DOS-E	Disk Operating System-Enhancement
DPCA	Director of Personnel and Community Activities
DPICM	Dual-Purpose Improved Conventional Munitions
DPS	Data Processing Standards
DRB	Defense Resources Board
DRE	Division Restructuring Evaluation
DRS	Division Restructuring Study
DS	Direct Support; Drill Sergeant
DSA	Division Support Area
DSARC	Defense Systems Acquisition Review Council
DSU	Direct Support Unit
DT	Developmental Test
DUSA(OR)	Deputy Under Secretary of the Army for Operations Research
DX	Direct Exchange

E

EAC	Echelons Above Corps
EBCT	Extended Battlefield Contact Team
ECCM	Electronic Counter-Countermeasures
EFTO	Encrypted for Transmission Only
EM	Electromagnetic; Enlisted Man/Men
EOC	Emergency Operations Center
EOH	Echelons on High (Starry-invented term)
ES	End Strength
ESL	English as a Second Language
EUCOM	European Command (US)
EW	Electronic Warfare; Enlisted Woman/Women
EWI	Early Warning and Intelligence

F

FAAD	Forward Area Air Defense
FAC	Forward Air Controller
FARRP	Forward Area Rearm and Refuel Point

FASCAM	Family of Scatterable Mines
FASTALS	Force Analysis Simulation of Theater Administration and Logistics Support
FEA	Front-End Analysis
FEBA	Forward Edge of the Battle Area
FEMA	Federal Emergency Management Agency
FIST	Fire Support Team
FLIR	Forward-Looking Infrared
FLOT	Forward Line of Troops
FM	Field Manual; Frequency Modulated
FMS	Foreign Military Sales
FO	Forward Observer
FOE	Final Operational Evaluation
FORSCOM	US Army Forces Command
FR	French/France
FRG	Federal Republic of Germany
FSCC	Fire Support Coordination Center
FSE	Fire Support Element
FSED	Full-Scale Engineering Development
FSO	Fire Support Officer
FST	Fire Support Team; Forward Support Team
FTX	Field Training Exercise
FUGAWI	Automated Mapping System
FVS	Fighting Vehicle System
FVT	Field Validation Test
FWMAF	Free World Military Assistance Forces
FY	Fiscal Year
FYDP	Five Year Defense Plan

G

GAO	General Accounting Office (now called Government Accountability Office)
GD	General Dynamics; Thickened Nerve Agent Soman
GDP	General Defense Plan; General Defense Position
GE	German/Germany
GED	General Educational Development
GEMSS	Ground Emplaced Mine-Scattering System
GEN	General
GENSER	General Service
GHQ	General Headquarters
GLCM	Ground-Launched Cruise Missile
GLLD	Ground Laser Locator Designator
GO	General Officer
GOPL	General Outpost Line
GS	General Support
GSFG	Group of Soviet Forces, Germany
GSRS	General Support Rocket System
GVN	Government of Vietnam

H

HE	High Explosive
HEAT	High Explosive, Antitank
HEL	Human Engineering Laboratory
HEP	High Explosive, Plastic
HEROS	German Command and Control System
HET	Heavy Equipment Transporter
HF	High Frequency
HIFV	Heavy Infantry Fighting Vehicle
HIMAG	High Mobility and Agility
HJ	Honest John
HMMWV	High-Mobility Multipurpose Wheeled Vehicle
HMWC	High-Mobility Weapons Carrier
HOT	Hands-On Training; also a French antitank missile
HQ	Headquarters
HR	House of Representatives
HSTV-L	High-Survivability Test Vehicle-Lightweight
HTF	How to Fight
HTTB	High-Technology Test Bed
HUMINT	Human Intelligence
HUMRRO	Human Resources Research Organization

I

I&W	Indications and Warning
ICM	Improved Conventional Munition
ICM-AT	Improved Conventional Munition-Antitank
ID	Infantry Division
IDA	Institute for Defense Analyses
IDF	Israeli Defense Force; Israeli Defense Forces
IET	Initial Entry Training
IEW	Intelligence and Electronic Warfare
IFR	Instrument Flight Rules
IFV	Infantry Fighting Vehicle
IG	Inspector General
IGB	Inter-German Border
IISS	Intelligence Information Subsystem
ILS	Integrated Logistics Support
INF	Intermediate-Range Nuclear Forces
INSCOM	Intelligence and Security Command
INTACS	Integrated Tactical Communications System
IO	Information Officer
IOC	Initial Operational Capability
IPB	Intelligence Preparation of the Battlefield
IPP	Intelligence Production Program
IPR	In-Process Review
IR&D	Industry Research and Development
IRR	Individual Ready Reserve
ISA	International Security Affairs
ISTA	Intelligence, Surveillance, and Target Acquisition

ITAC	Intelligence and Threat Analysis Center
ITDT	Integrated Technical Documentation and Training
ITES	Individual Training and Evaluation System
ITRO	Interservice Training Review Organization
ITV	Improved TOW Vehicle
IZB	Interzonal Boundary

J

JAG	Judge Advocate General
JANUS	Lawrence Livermore Laboratories Force Model
JAWS	Joint Attack Weapons System
JB	Job Book
JCAAD/J-CAAD	Joint Counter Air-Air Defense
JCS	Joint Chiefs of Staff
JCSE	Joint Communications Support Element
JCSM	Joint Chiefs of Staff Memorandum
JDA	Joint Deployment Agency
JDS	Joint Deployment System
JESS	Joint Exercise Simulation System
JMENS	Joint Mission Element Needs Statement
JOPS	Joint Operation Planning System
JPL	Jet Propulsion Laboratory
JREP	Joint Readiness Exercise Program
JRX	Joint Readiness Exercise
JSEAD/J-SEAD	Joint Suppression of Enemy Air Defenses
JSEI	Joint Second-Echelon Interdiction
JSOP	Joint Strategic Objectives Plan
JSTARS	Joint Surveillance and Target Attack Radar System
JTACMS	Joint Tactical Cruise Missile System
JTF	Joint Task Force
JTFS	Joint Task Force Simulation
JTIDS	Joint Tactical Information Distribution System
JTTP	Joint Tactics, Techniques, and Procedures

K

KE	Kinetic Energy
KIA	Killed in Action
KM	Kilometer
KPH	Kilometers Per Hour

L

LANTCOM	Atlantic Command
LANTIRN	Low-Altitude Navigation and Targeting Infrared System for Night
LAW	Light Antitank Weapon
LBSD	Lightweight Battlefield Surveillance Device
LDP	Leader Development Plan
LNO/LO	Liaison Officer
LOA	Letter of Offer and Acceptance
LOC	Line of Communications

LOGC	Logistics Command
LOGSTAT	Logistics Status Report
LOI	Letter of Instruction
LRRP	Long-Range Reconnaissance Patrol
LTG	Lieutenant General
LVW	Leavenworth

M

M	Million
MA	Mission Area Analysis
MAAG	Military Assistance Advisory Group
MAC	Maintenance Administration Consolidation; Military Airlift Command
MACOM	Major Army Command
MACOV	Mechanized and Armor Combat Operations, Vietnam
MACV	Military Assistance Command, Vietnam
MAG	Military Advisory Group
MAGIIC	Mobile Army Ground Imagery Interpretation Center
MAIT	Maintenance Assistance and Inspection Team
MASSTER	Mobile Army Sensor Systems Test, Evaluation, and Review
MBA	Main Battle Area
MBFR	Mutual and Balanced Force Reduction
MBT	Main Battle Tank
MCA	Military Construction, Army
MCS	Mounted Combat System
MECD	Military Equipment Characteristics Document
MEDEVAC	Medical Evacuation
MELT	Minimum Equipment Levels for Training
MENS	Mission Element Needs Statement
METT-T	Mission, Enemy, Terrain and Weather, Troops and Support Available, Time Available
MF	Manpower and Forces
MG	Major General
MHI	Military History Institute
MICOM	Missile Command
MICV	Mechanized Infantry Combat Vehicle
MILES	Multiple Integrated Laser Engagement System
MILGROUP	Military Group
MILPERCEN	Military Personnel Center
MLMS	Multi-Purpose Lightweight Missile System
MLRS	Multiple-Launch Rocket System
MMTR	Military Manpower Training Report
MN	Materiel Needs
MOA	Memorandum of Agreement
MOBA	Mobility Operations in Built-Up Areas
MOBEX	Mobilization Exercise
MOD	Minister of Defense/Ministry of Defense
MOE	Measure of Effectiveness
MOS	Military Occupational Specialty
MOSC	Military Occupational Specialty Code

MOU	Memorandum of Understanding
MOUT	Military Operations in Urbanized Terrain
MP	Military Police
MPG	Mobile Protected Gun
MQS	Military Qualification Standards
MQST	Military Qualification Standards Test
MR	Mission Ready
MRAL	Manpower, Reserve Affairs, and Logistics
MRO	Monroe
MS	Maintenance Service
MSE	Multiple Subscriber Equipment
MTM	McClintic Theater Model
MTOE	Modified Table of Organization and Equipment
MV	Mass x Velocity
MX	Missile, Experimental (LGM-118A)

N

NATO	North Atlantic Treaty Organization
NBC	Nuclear, Biological, and Chemical
NCO	Noncommissioned Officer
NCOB	Noncommissioned Officer Basic
NCOES	Noncommissioned Officer Educational System
NCOIC	Noncommissioned Officer in Charge
NCS	Net Control Station
NET	New Equipment Training
NHSDG	Non-High School Diploma Graduate
NICP	National Inventory Control Point
NLT	Not Later Than
NOE	Nap of the Earth
NOMEX	Flame Retardant Fabric
NORTHAG	Northern Army Group
NOTAL	Not to All
NPS	Naval Postgraduate School
NSA	National Security Agency
NSIA	National Security Industrial Association
NSIE	Network Security Information Exchange
NSSM	National Security Study Memorandum
NTC	National Training Center
NVA	North Vietnamese Army
NVL	Night Vision Laboratory
NWIS	Naval Warfare Integrated Simulation

O

OAS	Offensive Air Support
OBC	Officer Basic Course
OCS	Officer Candidate School
ODCSRDA	Office of the Deputy Chief of Staff for Research, Development, and Acquisition
OE	Organizational Effectiveness
OER	Officer Efficiency Report

OESO	Organizational Effectiveness Staff Officer
OETC	Organizational Effectiveness Training Center
OJT	On-the-Job Training
OMA	Operations and Maintenance, Army
OMB	Office of Management and Budget
OMG	Operational Maneuver Group
OML	Order of Merit List
OP	Outpost
OPA	Other Procurement, Army
OPCON	Operational Control
OPFOR	Opposing Force(s)
OPLAN	Operation Plan
OPMS	Officer Personnel Management System
OPSEC	Operations Security
OR	Operational Readiness; Operations Research
ORBAT	Order of Battle Report
ORSA	Operations Research and Systems Analyst
OSD	Office of the Secretary of Defense
OSS	Office of Strategic Services
OST	One-Station Training
OSUT	One-Station Unit Training
OT	Operational Test
OTEA	Operational Test and Evaluation Agency

P

PAC	Personnel Administration Consolidation
PACAF	Pacific Air Forces
PACOM	Pacific Command
PAE/PA&E	Program Analysis and Evaluation
PALM	Performance and Learning Model
PAO	Public Affairs Office/Public Affairs Officer
PARR	Program Analysis and Resource Review
PBG	Program and Budget Guidance
PCC	Pre-Command Course
PCS	Permanent Change of Station
PDIP	Program Development Increment Package
PDS	Personnel Daily Summary
PERDIMS	Personnel Development and Distribution Management System
PFC	Private First Class
PGM	Precision Guided Missile; Precision Guided Munition
PI	Product Improve/Improvement
PIP	Product Improvement Program
PLL	Prescribed Load List
PLRS	Position Location Reporting System
PM	Product Manager; Program Manager
PMO	Program Management Office
PMS	Professor of Military Science
PNOC	Primary Noncommissioned Officers Course

PNVS	Pilot Night Vision System
POI	Program of Instruction
POL	Petroleum, Oils, and Lubricants
POM	Program Objective Memorandum
POMCUS	Pre-Positioned Materiel Configured to Unit Sets
POS/NAV	Position/Navigation
PPBS	Planning, Programming, and Budgeting System
PPS	Periodic Personnel Summary
PSG	Platoon Sergeant
PSYOP	Psychological Operations
PT	Physical Training
PTARMIGAN	British Combat Communications System
PWRS	Pre-Positioned War Reserve Stocks
PX	Post Exchange

Q

QC	Quality Control
QMG	Quartermaster General

R

R&D	Research and Development
R&R	Rest and Recreation
R3	Redundancy, Robustness, and Resiliency
RA	Regular Army
RAAMS	Remote Anti-Armor Mine System; Route Anti-Armor Mine System
RAC	Research Analysis Corporation
RACO	Rear Area Combat Operations
RAM	Reliability, Availability, and Maintainability
RATT	Radio Teletype
RAWS	Radar Altimeter Warning System
RC	Reserve Component
RD	Revolutionary Development
RDA	Research, Development, and Acquisition
RDAC	Research, Development, and Acquisition Committee
RDF	Rapid Deployment Force
RDJTF	Rapid Deployment Joint Task Force
RDT&E/RDTE	Research, Development, Test, and Evaluation
REALTRAIN	Realism in Tactical Training
REDCOM	Readiness Command
REFORGER	Redeployment of Forces to Germany
REMBASS	Remotely Monitored Battlefield Surveillance System
RETO	Review of Education and Training for Officers
RFP	Request for Proposal
RISE	Reliability Improvements for Selected Equipment
RITA	Rotorcraft Industry Technology Association
RMS	Recruiting Main Station
RO/RO	Roll-On/Roll-Off
ROAD	Reorganization Objective Army Division

ROC	Required Operational Capability
ROK	Republic of Korea
ROTC	Reserve Officers' Training Corps
RPG	Rocket-Propelled Grenade
RPMA	Real Property Maintenance Activity
RPV	Remotely Piloted Vehicle
RR/EO	Race Relations/Equal Opportunity
RSI	Rationalization, Standardization, and Interoperability
RSOP	Reconnaissance, Selection, and Occupation of Position
RSTA	Reconnaissance, Surveillance, and Target Acquisition
RTP	Readiness Training Program
RTT	Radio Teletype
RV	Recreational Vehicle
RVN	Republic of Vietnam

S

S&I	Survey and Investigations
SA	Systems Analysis
SAC	Supply Administration Consolidation
SACEUR	Supreme Allied Commander, Europe
SADARM	Search-and-Destroy Armor Munition
SAG	Study Advisory Group
SAGA	Studies, Analysis, and Gaming Agency
SAILS	Standard Army Intermediate-Level Supply System
SAMS	School for Advanced Military Studies
SAT	Scholastic Aptitude Test
SAW	Squad Assault Weapon
SBA	Small Business Administration
SCOCS	Selective Class of Call Screening
SCORES	Scenario-Oriented Recurring Evaluation System
SEA	Southeast Asia
SEAD	Suppression of Enemy Air Defenses
SECDEF/SecDef	Secretary of Defense
SELCOM	Select Committee
SFC	Sergeant First Class
SHAPE	Supreme Headquarters, Allied Powers Europe
SHAPEX	Supreme Headquarters, Allied Powers Europe, Exercise
SIAF	Small Independent Action Forces
SIAM	Signal Information and Monitoring
SIDPERS	Standard Installation and Division Personnel System
SIGINT	Signals Intelligence
SIMFIRE	Tank Gunnery and Tactical Simulation
SINCGARS	Single-Channel Ground to Air Radio System
SITREP	Situation Report
SL	Skill Level
SLAR	Side-Looking Airborne Radar
SLUFAE	Surface-Launched Unit, Fuel-Air Explosive
SM	Soldier's Manual
SME	Subject Matter Expert
SMI	Soldier-Machine Interface

SOC	Station of Choice
SOP	Standing Operating Procedure
SOTAS	Standoff Target Acquisition System
SOUTHCOM	Southern Command (US)
SP	Self-Propelled
SPLL	Self-Propelled Launcher-Loader
SPOT	Self-Paced One-Station Training
SPR	System Program Review
SQT	Skill Qualification Test
SSC	Soldier Support Center
SSEB	Source Selection Evaluation Board
SSO	Signal Security Office
STAG	Strategy and Tactics Analysis Group
STANFINS	Standard Finance System
STARS	Standard TRADOC Automated Retrieval System
STRICOM	Strike Command
SWA	Southwest Asia
SY	School Year

T

TA	Theater Army
TAA	Total Army Analysis
TAADS	The Army Authorization Documents System
TAC CP	Tactical Command Post
TAC	Tactical; Tactical Air Command
TACAIR	Tactical Air
TACFIRE	Tactical Fire Direction System
TACJAM	Tactical Jammer/Jamming
TACOM	Tank-Automotive Command
TACSAT	Tactical Satellite
TACSIM	Tactical Simulation/Simulator
TAFIG	Tactical Air Forces Interoperability Group
TAMMS	The Army Maintenance Management System
TARADCOM	Tank-Automotive Research and Development Command
TASVAL	Tactical Aircraft Serviceability Evaluation
TBAT	TOW-Bushmaster Armored Turret
TC	Tank Commander; Training Circular
TCATA	TRADOC Combined Arms Test Activity
TCO	Test Control Officer
TDA	Table of Distribution and Allowances
TDO	Tactical Doctrine Office
TDY	Temporary Duty
TEA	Training Effectiveness Analysis
TEC	Test and Evaluation Center
TECOM	Test and Evaluation Command
TGMTS	Tank Gunnery and Missile Tracking System
TI	Technical Inspection
TMA	TRADOC Management Activity
TMDE	Test, Measurement, and Diagnostic Equipment
TNF	Tactical Nuclear Force; Theater Nuclear Force

TOA	Total Obligational Authority
TOE/TO&E	Table of Organization and Equipment
TOS	Tactical Operations System
TOTEC	TRADOC Operational Test and Experimentation Command
TOW	Tube-Launched, Optically-Tracked, Wire-Guided Missile
TPFDL	Time-Phased Force and Deployment List
TRACATA	TRADOC Combined Arms Test Activity
TRADOC	US Army Training and Doctrine Command
TRASANA	TRADOC Systems Analysis Activity
TRITAC	Tri-Service Tactical Communications
TSARC	Test Schedule and Review Committee
TSM	TRADOC System Manager
TSSG	TACFIRE Software Support Group
TV	Television
TWA	"Teeny Weeny Airlines" [Army Aviation]

U

UAV	Unmanned Aerial Vehicle
UCMJ	Uniform Code of Military Justice
UCP	Unified Command Plan
UET	UHF ECCM Technique
UHF	Ultra High Frequency
UIC	Unit Identification Code
UNAAF	Unified Action Forces
UOC	Unit of Choice
UPI	United Press International
US	United States
USAARMC	United States Army Armor Center
USAF	United States Air Force
USAFAS	United States Army Field Artillery School
USAFE	United States Air Forces in Europe
USAIA	United States Army Institute of Administration
USAICS	United States Army Infantry Center and School
USAIS	United States Army Infantry School
USANCA	United States Army Nuclear and Chemical Agency
USAREC	United States Army Recruiting Command
USAREUR	United States Army, Europe
USARV	United States Army, Vietnam
USATDS	United States Army Trial Defense Service
USAWC	United States Army War College
USD	Under Secretary of Defense
USDAO	United State Defense Attaché Office
USDRE	Under Secretary of Defense for Research and Engineering
USMA	United States Military Academy
USMC	United States Marine Corps
USREDCOM	United States Readiness Command
USSR	Union of Soviet Socialist Republics
UTE	Unmanned Threat Emitter
UW	Unconventional Warfare

V

VA	Veterans Administration
VC	Viet Cong
VCSA	Vice Chief of Staff of the Army
VFR	Visual Flight Rules
VHF	Very High Frequency
VISMOD	Visual Modification
VOLAR	Volunteer Army
VRFWS	Vehicle Rapid Fire Weapon System
VTC	Video Teleconference
VTR	Vehicle, Tracked, Retrieval

W

WDC	Washington, DC
WEI	Weapons Effectiveness Indices
WP	Warsaw Pact
WPM	Words Per Minute
WSA	Weapons System Analysis
WUV	Weighted Unit Values
WWI	World War I
WWII	World War II
WWMCCS	Worldwide Military Command and Control System

X

XM	Experimental Model

Z

ZSU	Soviet Self-Propelled Antiaircraft Gun [*Zenitnaya Samokhodnaya Ustanovka*]

Index

Abrams, General Creighton, 279, 1043–1044, 1053, 1163, 1219
and qualifications for command, 483
and tank gunnery, 1183
as Chief of Staff, 25, 111, 397, 455, 472, 482, 580, 644, 855, 975, 1016, 1099–1100, 1101, 1106, 1107, 1109, 1193–1195, 1226
as Commander, V Corps, 1015, 1018
as Commander, 3d Armored Division, 896, 899, 900, 1039, 1041–1042, 1177–1183
as Commander, 37th Tank Battalion, 898, 901, 1068
as Commander, 63d Heavy Tank Battalion, v, vi, 488, 896–900, 983, 995–996, 999, 1008, 1014, 1015, 1025–1026, 1171–1177, 1179, 1181
as Commander, US Military Assistance Command, Vietnam, viii, ix, 425–426, 452, 1005–1006, 1016, 1066, 1087, 1185–1193
as Deputy COMUSMACV, 1186
as Vice Chief of Staff, 456, 1185
guidance on tank development program, ix
leadership philosophy of, 988
remembered by Starry, 1171–1195
Abrams M1 tank, x, 32-33, 1118
impact per Starry, 96–97, 98, 99, 100, 248
acquisition:
cycle compression, 650, 665
reform, 1272–1273
Active Defense, xii, xvi, 27, 122, 300, 324–328, 371, 1229
and AirLand Battle, 1290
German outlook on, 328
Adams, Brigadier General Floyd Cecil, 718
Adams, General Paul D., 428, 1167, 1241
Adan, General Bren, 1110
administration:
consolidated, 539
Advanced Scout Helicopter (ASH), 29, 147
Agnew, Colonel James B., 975
air assault division, capabilities of, 909
airborne forces, 1160
air cavalry:
in Europe, 146
Air Force:
and Joint Army-Air Force issues, 7, 8
and management of air assets, 10, 1200–1201
AirLand Battle, xiii–xiv, 28, 132–134, 365, 372-381, 412–423, 461–465
air defense in forward battle area, 1279–1280
and Army-Air Force cooperation, 9, 1283–1284
and attacking follow-on echelons, 416–420
and command and control, 420–423
and deep attack, 1268–1269, 1273–1278
and derived equipment requirements, 29
and Operation Desert Storm, 1254
and the SACEUR, 400–401

areas of interest and influence, 415–416
Army-Air Force issues regarding, 4–5, 1277–1278, 1282
assessed by Starry, 1265–1266
concept, 140, 414–415
determinants, 448–450, 1229
doctrine, 1263–1264
implementation of, 367, 370
operational concepts, 353–355
reason for name of, 1274–1276
understanding, 391
"AirLand Battle" (speech), xx, 1274–1275
AirLand Battle 90, 359, 1147–1149
air support:
offensive, 6
Alexander, Secretary of the Army Clifford, 989–990, 1145
Algeria, 264–-270
Allen, Lieutenant Colonel Lee, 838
Allen, General Lew Jr. (USAF), 6, 1279
allied cooperation, 357
in staff talks, 366, 1203–1204, 1214–1215
Almquist, Lieutenant General Elmer H. Jr., 1194
American military profession, 530–537
American military thought, 431–437
American way of war, 438–447
ammunition, 520
120mm procurement, 515
Annan, UN Secretary General Kofi, 454
antitank guided missiles, 50–51, 106, 122–123, 124, 127–128, 141, 1226
Armor:
and armor protection on armored vehicles, 77
and electric guns, 141
and establishing a Chief of Armor, 62
development against the threat, 120
developments in US between World Wars, 17
logistics support, 118
on modern battlefield, 140–143
organization, 118, 142
Starry reflections on evolution of, 13–34
survivability, 135–137
tank platoon organization, 54, 56–57
tank unit organization, 55
unit turbulence, 598–600
armor/antiarmor competition, 116–117, 125–134, 136, 228–230
Armored Reconnaissance Scout Vehicle (ARSV), 29, 71
Army:
all-volunteer, 709–712
benefits of Director of the Army Staff, 62
current imperatives, 691–692
integration of the, 997–998

need for post-Vietnam War rebuilding, 25
of the future, 668–672
overstructured, 544–548
reorganization after Vietnam War, 25
showcasing the real, 702
Starry on women in the, 990–991
telling Army story, 930
Army aviation:
and aviator careers and training, 148
issues, 149
problems with, 1114
requirements, 150
trip report, 924
Army Chief of Staff:
and Chief/Vice Chief team, 480
criteria for choosing, 480–481
Army 86 implementation, 358, 1198–1199
Army ethic, 889–892
Army Historical Foundation, xix
Army Training and Evaluation Program (ARTEP), 328
Army Training Study, 792, 799, 812
Army Trial Defense Service, 920
Army units:
effectiveness of, 558–559, 895–903
Army values, 880
artillery, 137-138, 142, 174
rates of fire, 176
Askins, Sergeant First Class, 808
Assad, Hafez, 1229
ATACMS, 28
atomic demolition munitions, 733
Aussaresses, General Paul, 451

Babers, Lieutenant General Donald, 70
Baer, Lieutenant General Robert, x, 70, 650, 921, 1118, 1194, 1241
and mission to Israel, 25–26, 221–223, 1194, 1225
Baker, Don, 1247
balanced forces, 469
Ball, Major General Duard D., 92
Ballantyne, Lieutenant General John L., 908
Bar-Lev, General Haim, 1110, 1227
barrier warfare, 181–183
Bartlett, Lieutenant General Gerald T., 235
Battalion Training Management System, vii, 1039
Battalion Training Model, 812–814
Battle Book, 283
battle drills, 845
battle models, 347–350
and simulations, 758–759, 838, 919

"Battle" simulation, 299
battlefield, 174, 175
air interdiction on, 1280–1281
and continuous land combat, 170–171
and movement, 154–155, 156–157
and winning first battles, 152–154
environmental conditions, 167–168
extending the, 201–212
function terminology, 191–192
in built-up areas, 165–166
integrated, 193, 199–200, 349
interdiction, 184–190, 208–209
jurisdiction issues, 1282
losses, recovery of, 522
of the future, 213–216, 1226
reserves, 303, 308–309
smoke, 162, 169
terminology, 342
values, 881–882
Battlefield Development Plan, 177–178, 179, 180, 194–198, 668, 678, 1161
Bautz, Major General Edward, 1080, 1087, 1186
BDM International, 27, 28
Beauregard, General Pierre G. T., 612
Becton, Lieutenant General Julius W. Jr., 1209
Bellinger, John B. Jr., 542
Benedict, Major General C. P., 300
Bergen, Colonel James P., 1171
Berlin crisis, 160
Berlin Wall, vii
Bible, 932
Birrer, Ivan, 1111, 1126, 1127
Blackett's Circus, 35
Blackwell, Dr. James, 1224
Blanchard, General George S., xii, 149, 150, 179, 540, 551, 730, 778, 779, 907, 1099, 1107, 1131, 1205, 1206
Blanchard, John, 671
Blount, Major General John B., 100, 468, 505, 606
Boatner, Major General James G., 787
BOERFINK, 4
Bonder, Dr. Seth, 298
book, most influential read, 932
Boy Scouting, 935
Braddock, Dr. Joseph V., 28, 476, 1269, 1278
Bradley, Colonel Bob, 1093
Bradley, General Omar N., 878, 879
Bradley Infantry Fighting Vehicle. *See* Infantry Fighting Vehicle (Bradley)
Brady, Major General Morris J., 945, 1111
Braestrup, Peter, 1095
Brammel, General Dwin, 449
Brigham, Colonel Erwin, 160

Brookshire, Brigadier General Grail L., 513, 539, 1008, 1009–1010, 1013, 1014, 1082, 1083
Brown, Lieutenant General Frederic J., 900, 1178
Brown, Lieutenant General Frederic J. III ("Rick"), 567, 792, 799, 900, 902
Brown, General George S. (USAF), 1188
Brown, Secretary of Defense Harold, 933
Brudvig, Lieutenant Colonel Dale K., 55
Brutus (dog), 621
Buckingham, Major General Clay T., 512, 661
Budnick, Herbert J., 595
Burandt, Lieutenant General Eberhard, 343, 760, 1215
Burba, General Edwin H. Jr., 845
Burdeshaw, Brigadier General William B., 175
Burke, Major General William A., 1106, 1107
Burleson, Major General Willard McK. Jr., 1171
Burns, Colonel William F., 340, 690
Bush, President George H. W., 1238
Butterworth, Bill ("W.E.B. Griffin"), 1033

Calhoun, Secretary of War John C., 19–20
Callahan, Professor Leslie G., 571
Calvert, Vice Admiral James F., 532, 1241
Cambodian Incursion, ix, 1069, 1080–1086
Camm, Lieutenant General Frank, 1208
Camp A. P. Hill, viii
Candor, 906
Cantolupo, Captain Louis P., 496
Capper, Senator Arthur, 981
Carey, Lieutenant General Richard E. (USMC), 626
Carlisle Barracks, viii
Carlson, Colonel Lane, 44
Carnegie, Lieutenant General Sir Robin, 99, 249, 936, 1204
Cary, Major Jim, 558
CAS3 (Leavenworth course), 111–112
Casey, Major General George W., 1070
cavalry:
    and tanks for, 67
    armament, 230
    organization, 1151
    primary task, 230
    role of, 45–47
    Starry on the, 987–988, 999–1000, 1028–1029
    vehicles, 91
Cavalry Fighting Vehicle (CFV), 91
Cavanagh, Lieutenant Colonel Charles G. Jr., 1218
Central Battle, The, xii, 312–317, 318–322, 329–333
Central Duel, The, xii
centralization, 549
CFE (Conventional Forces in Europe) negotiations, 140
Chaffee, Major General Adna R. Jr., 17, 108, 113, 244, 394, 482
Chamberlain, First Sergeant George D., 84

Cheney, Richard B., 1238
Christie, J. Walter, 17
Christman, Art, 543
Chu, David S. C., 362, 742
Churchill, Winston, 108, 394
Clark, General Mark W., 259
Clarke, General Bruce C., 231, 255, 482, 483, 538, 769
    at Fort Knox, 71
    at St. Vith, 326, 327
    commanding CONARC, 1057
    commanding Seventh Army, 1054, 1183
    commanding US Constabulary, 57
Clausewitz, Major General Karl von, 609, 743–745
Cleland, Major General John R., 233
Clifford, Clark, 426, 1066
close air support, 1288–1289
Coffman, Colonel Richard, 663
cohesion, improving, 560–563
Colby, William E., 1231
Cold War, vii
Cole, Brigadier General Tupper, vi, 1028
Collins, Brigadier General James L. Jr., 975
Collins, General James Lawton, 901, 1005, 1251
Collins, Colonel John M., 752
Collison, Lieutenant Colonel John, 1171
Combat Developments Command, 1200
    disestablishment of, xv, 111, 397
    Starry views of, xv, 1198
combat mission failure criteria, 641
combat service support, 250
Combat Studies Institute, xvii, xx, 618, 1213
combat support, 250
combat vehicles, 113–119
    light, 135–139
    survivability of, 135–139
Combined Arms and Services Staff School (CAS3), 31
combined arms team, 49–50, 102–103, 132, 229, 231, 243–244, 248
command:
    qualifications for, 483
    selection for, 1042–1043, 1044–1047,1050–1052
    tour length, 551, 1052–1054, 1221
command and control, 256
    and boundaries, 326–327
    and combat information, 255
    and communications issues, 188–189, 294, 667
    and corps battlefield command, 172–173
    and knowledge-based systems, 258–260
    and management, 252–254
    and use of phase lines, 217

of the corps battle, 293–294
of the deep battle, 188, 206–207
measuring effectiveness of, 56
command historian, 628
command post, 255
concepts, 163–164
Command Sergeant Major:
branch qualifications, 504
duties of, 484–485
qualifications, 502
communications, 255–257
and information explosion, 652–655
innovations, 637–639
on company net, 56–57
security, 931
Community Life Program, x, 907–908
computer, systems needs, 661
consolidation:
at battalion level, 540, 541
Cooksey, Lieutenant General Howard H., 234, 235
Cooper, Lieutenant General Kenneth B., 170
Cordesman, Anthony H., 1224
Corps Battle, The, xii, 285–294
Corps 86 (study), xv, 1264–1265
Cosby, Colonel Neale, 796
counterinsurgency:
Starry views on, viii, 451–457
countermine warfare, 75, 89–90, 181–183
Covington, Terry, 81–82
Craft, Colonel Douglas W., 1223
Creech, General Wilbur L. (USAF), xvi, 4, 6, 358, 382, 573, 1149, 1201, 1217, 1274, 1275, 1279, 1283, 1292
Crist, General George B. (USMC), 1240
Crocker, Lieutenant General George A., 924
Crow, Brigadier General John Sherman, 93–94
Crumley, Brigadier General Dennis V., 1275
culture, current Army, 565–567
Cushman, Lieutenant General John H., 276, 295, 1111, 1126, 1127, 1128, 1148
Custer, George Armstrong, 1083

Dallaire, Lieutenant General Romeo, 454
D'Amato, Cadet Marty, 448
Davis, General Bennie L. (USAF), 841
Davis, Colonel Edward P., 54
Davison, General Michael S., 1177
decentralization, 252–254
decision making:
military, 36
deep battle, xvi, 205–206

Defense Nuclear Agency, 28
Defense Science Board, xix
De Gaulle, Charles, 268, 426, 452
DePuy, General William E., xii, 6, 146, 148, 174, 179, 272, 275, 278, 279, 343, 344, 371, 635, 644, 779, 780, 809, 995, 1001, 1002, 1016, 1055, 1099, 1106, 1109, 1128, 1162, 1193–1194, 1256, 1265
and Air Force issues, 1201, 1277
and armor, 482, 1290
and candor, 906
and defense, 1290
and FM 100-5, x, xiii, 27, 1111–1112, 1121, 1125, 1127, 1228
and general officer pre-command course, 825
and infantry, 1291
and organization of TRADOC, 27, 1107
and relations with Israel, 934
and Vietnam War, 1088
as commander 1st Infantry Division in Vietnam, 26–27
characteristics, xiii
commanding TRADOC, 25, 1141
conclusions from World War II, 26–27
importance of, 1163, 1266
interest in tank platoon organization, 54
on Starry's performance, xi
relieving people for cause, 1017–1018, 1055–1056, 1060, 1180
work with Germans, 281
Desert Shield/Desert Storm. *See* Operation Desert Shield, Operation Desert Storm
Desobry, Lieutenant General William R., 1106, 1107, 1108, 1185
Devers, Major General Jacob, 17
Dickinson, Major General Hillman, 651
Diehl, Major William F., 893
Dinneen, Dr. Gerald P., 667
Dirk, Major General Kenneth R., 794
Division Air Defense Gun System (DIVAD) (Sergeant York), 30, 1119–1121
Division 86 (study), xv, 30, 111, 149, 196, 337, 398, 1150–1151, 1152, 1196–1197
operational concept, 336
organization, 1263
significant achievements of, 1256–1260
threat assessment for, 1198–1199, 1257
transition planning, 369
undermined by light division requirements, 1260
Division Restructuring Study (DRS), 30, 111, 196–197, 1256–1257
Dixon, General Robert (USAF), 6, 1148, 1201, 1276
doctrine, x
and Air Force practices, 1277
and effecting change, 279, 394–399, 1223
and fighting outnumbered, 388
and German-American coordination, 282
and materiel, 271
and operational concepts, 338–339

and rationale for change, 272
and studies, 298–299
as influenced by Yom Kippur War, 26–27
as ruling element, 334, 1115–1116
as written under General DePuy, 27, 1116
coalition, 1244
corps and division operations manuals, 297
evolution of, 402–411
evolution of in the armored force, 107–112
for the defense, 275–277
influenced by Israelis, 280
joint, 392, 1242
literature, 278, 323, 356
personnel, 592
revolution, 1161
US and German compared, 335, 340–341
writing, 311, 351
Donahue, Michael J., 978
Donnelly, Tom, 1248
Doolittle, Major George L., 593
Doty, Brigadier General Benjamin E., 888
Doyle, Lieutenant General David K., 62, 855
Dramis, Colonel George J. Jr., 975
Dulles, John Foster, 611
Dunetz, Bryant, 58
Dupuy, Colonel Trevor, xvii, 108, 109, 395
Duty, Honor, Country, alternatives to, 883

Ebert, Major General, 366
echelons above corps, 1196
Edison, Thomas, 35
Eighth Army, vii
Eisenhower Foundation, xix
Eisenhower, General Dwight D., 20, 127, 412, 431, 434, 941, 1005, 1251, 1271
and Project Solarium, 453
Eitan, General Raful, 933, 945, 1232
Elazar, David, 1227
11th Armored Cavalry Regiment, ix
during Starry command in Vietnam, 87, 901, 1112
in Cambodian incursion, 725, 1069, 1080–1086
monument honoring, 722–723
Starry as Honorary Colonel of, xix
Vietnam service of, 724–727
Ellsberg, Daniel, 1187
Elton, Lieutenant General Robert M., 602
Emanski Report, 170
Engler, Lieutenant General Jean, 1064
Enthoven, Dr. Alain, 1065
Estienne, Colonel Jean, 16

ethic(s):
and leadership, 507
and Soldier Support Center, 884
Army, 889–892
military, 893
Europe:
Army outlook in, 160
impact of Vietnam War on Army in, 1121–1123, 1233–1234
readiness posture in, 730
training in, 772
under Kroesen command, 510
Expansible Army, 19–20, 32
expert systems, 260

Fair, Lieutenant General Robert L., 1107, 1131–1133
Faith, Major General John C., 324
Fall, Bernard, 451, 1088
Fehrenbach, T. R., 901
Field Manual 100-1, *The Army*, 110, 364, 397, 743, 893
Field Manual 100-5, *Operations*, x, xii, xiii, xiv, 27, 110, 281, 295, 298, 304, 305–310, 343–344, 352, 397, 1055, 1112–1113, 1149–1151, 1201–1203, 1286
acceptance of (1982 edition), 1161
active defense in, 300–302
and furor concerning (1976 version), 1111, 1125–1126, 1128–1131
and operational level of war, 1094
and the offense, 310, 1228
defense philosophy in, 284
later version assessed, 1270–1271
5th Armored Division, v–vi
V Corps, xi
1st Battalion, 32d Armor, vii, 896
1st Infantry Division, v
Fitzpatrick, Lieutenant Colonel Francis, 998
Flint, Colonel Roy K., 618
force modernization:
and training, 593
force structure, 461–465
after Vietnam War, 1099–1100, 1152–1153, 1154
issues, 470-473
overstructure and end strength, 606, 1100, 1159–1160, 1258–1259
Reagan buildup, 471
strategies for, 466
Forces Command (FORSCOM), xv, 25
forces, highly effective, 795–797
Ford Aerospace, 1120
foreign army contacts, 922
Forrest, Major General Freeman H. (“Mike”), 616
Fort A. P. Hill, 27
Fort Bliss, 30
Fort Eustis, xviii

Fort Holabird, vii
Fort Hood, 21
Fort Irwin, 219
Fort Knox, v, vi, ix–x
Fort Leavenworth, v, vii, xiv
    instruction on offensive operations, 304
Fort Monroe, xiv
    historic preservation at, 621
    proposed closure of, 923
Fort Riley, v, 15
Fossum, Dr. Robert R., 75, 666
Frankfurt High School graduation address, 916–918, 1142–1146
Franklin, Colonel Joseph R. (Ross), 275
Franks, General Frederick M. Jr., 1091, 1093, 1254, 1272, 1273
Frederick the Great, 35
Fuller, J.F.C., 16, 394
Funk, David L., 60
Fye, Major General Robert W., 921

Gabriel, General Charles A. (USAF), 1149, 1283
Gabriel, Richard A., 893–894, 901, 1005, 1224, 1251
GDP (General Defense Plan), 160
General Accounting Office, dealing with, 888
George Washington University, viii
Germany, situation in, 945
Gettysburg, example of battlefield coverage at, 1250
Gingrich, Newt, 1147
Ginsburgh, Colonel Robert N. (USAF), 532
Glanz, Lieutenant General Meinhard, 760
Glaspie, Ambassador April, 1231
Goldwater, Senator Barry, 1272
Goldwater-Nichols Defense Reform Act of 1986, 33, 1238–1241, 1272
Goodpaster, General Andrew J., 618, 1245–1246
Gorman, General Paul F., 311, 769, 779, 1112–1113, 1265, 1291
Grange, Major General David L., 883
Grant, General Ulysses S., 432–433, 610
Griess, Colonel Tom, 618
ground forces issues, 362–363
Guderian, Field Marshal Heinz, 16, 108, 259, 395
Guthrie, General John R., 80, 88, 167, 556, 657, 664, 921

Hackett, Sir John, 190
Haig, General Alexander M. Jr., 161, 281, 371, 730, 739, 933, 1058–1059, 1062–1063, 1163
Haines, General Ralph E. Jr., 782, 1036
Halbert, Lieutenant Colonel Edward, 61
Halleck, Henry W., 610
Hamilton, Alexander, 530
Handy, General Thomas T., 899, 1174
Hardison, Dave, 345
Harkins, General Paul D., 1094, 1190

Harris, General Hugh P., 510
Hart, B. H. Liddell, 16, 394
Hart, Senator Gary, 234, 1125
Hasselback, Colonel Frederick W., 1171
Haszard, Colonel Sidney S. (“Hap”), 895, 898, 1176
Hauck, Ralph, 869
heavy division, 245
    as Heavy Division 86, 389, 390
Heavy Equipment Transporter (HET):
    requirements, 514
Heavy Infantry Fighting Vehicle, 29, 236–239
Heilmeier, Dr. George H., 780
heliborne infantry, 22–23
helicopters:
    antitank, 244
    in Vietnam War, 22
Heller, Colonel Charles, 1236, 1237
Helmbold, Dr. Robert, 110, 1228
Henne, Colonel Charles A., 1181
Henriques, Lieutenant Colonel Richmond, 28
Herbert, Paul, 1112, 1115, 1121, 1148
Herr, Major General John K., 108, 394
Herzog, Chaim, 301
High-Mobility Multipurpose Wheeled Vehicle (HMMWV), 78–79, 246
high technology test bed, 1260–1262
Hildebrandt, Horst, 401, 760
Hilsman, Lieutenant General William J., 649, 837
HIMAG (High Mobility and Agility), 81, 635
Hines, Colonel Chuck, 1213
historic preservation, 621
Hitler, Adolf, 16, 108, 109, 395
Hixon, Major General Robert C., 809
Hixon, Major General William F. Jr., 795
Ho Chi Minh, 267
Hogard, Commandant Jacques, 265
Holder, Lieutenant General Leonard D. Jr., xiii, 28
Holley, Professor I. B. Jr., 625, 627
Hollingsworth, Lieutenant General James F., 235, 400
Hollis, Lieutenant General Harris W., 1187
Holtoner, Major General J. Stanley (USAF), 1241
Horn, Command Sergeant Major Don, 1069
Horner, Lieutenant General Charles E. (USAF), 1254, 1288
Horowitz, Dr. Solis, viii, 1065
How-to-Fight manuals, 327, 352
Howze Board, 22
Howze, Major General Hamilton, 22
Howze, Major Robert L., 22
HSTVL (High Survivability Test Vehicle Light), 81

Hudachek, Major General John W., 845
Huffman, Major General Burnside E. Jr., 580
Hunnicutt, Richard P., 656
Huntington, Samuel P., 530, 911
Hussein, Saddam, 1230

Icenogle, Lieutenant Colonel Larry, 1246
Ikle, Dr. Fred C., 945, 1098
Improved TOW Vehicle (ITV), 78–79, 663
individual replacement, xiv–xv, 279
INF (Intermediate-Range Nuclear Forces) Treaty, 129
Infantry, 229, 1235–1236
    armored vehicles for, 142
    fighting vehicles, 240, 241, 242
    mechanized, 155, 232
    running the Army, 1156
    tasks, 241
    weapons systems, 233
Infantry Fighting Vehicle (Bradley), 29, 174, 1009–1010, 1120
infantryman, fixation on, 18
information explosion, 652–655
intelligence:
    assessment, 476
    dissemination, 477
    for contingency planning, 696
interoperability, 1204–1206
Israel:
    armed forces of, 995
    relations with, 933–934
    situation in, 945
    visits to, 25–26, 27, 221–224, 280, 301, 1285
Israeli Defense Forces, x

Jackson, Lieutenant General Thomas Jonathan ("Stonewall"), 1220
Janowitz, Morris, 530, 535
Johnson, Lieutenant Colonel Douglas V., 1223, 1255
Johnson, General Harold K., 22, 454, 1060
Johnson, President Lyndon B., 454, 1096
Johnston, General Joseph E., 612
Joint Chiefs of Staff system reform, 938–941
joint operations, 382–384, 424–430
Joint Staff, issues, 577
Joint Staff Officer's Guide, viii
Joint Tactical Cruise Missile System (JTACMS) rationale, 693–694
joint tactics, techniques, and procedures, xviii
Jolemore, Brigadier General Kenneth A., 508
Jomini, Baron Antoine Henri de, 20, 432, 438, 609–610, 743–745
Jones, General David C. (USAF), 427, 1096, 1098, 1165, 1238–1239
JSTARS, xvi, 28

Kahalani, Avigdor, 1227
Kansas National Guard, v
Karber, Dr. Phil, 234, 343
Karemaa, Lieutenant Colonel Aadu, 741
Katzenbach, Edward L. Jr., 17–18, 394, 532
Katzenbach, Nicholas, 108
Keith, General Donald R., 640, 657
Kelly, Colonel Ed, 618
Kennedy, President John F., 269, 531, 948, 1116
Kerwin, General Walter T. Jr. ("Dutch"), 68, 167, 235, 515, 541, 683, 790, 792, 858, 874, 1107
Khadaffi, Colonel Muammar, 1097
Khrushchev, Nikita, 269, 403
"Kick in the Grill Doors" (speech), xvi, 85–87
Kingston, General Robert C., 1083, 1098
Kleber, Brooks, xii, xix, 623, 629, 1213
Knowlton, General William A., 1107
Koch, Colonel Oscar, 999
Koehler, Major General John T. Jr., 921
Kohl, Helmut, 449, 1271
Kohlmann, General Doctor, 335
Korea, vii
Korean War,
    and Army quality, 901
    and force generation, 20–21
    and situation in Europe, 21
    effects of one-year rotation in, 901
Kover, Joseph, 935
Kroesen, General Frederick J., 10, 180, 282, 516, 590, 650, 659, 799, 858, 923, 1099
    command in Europe assessed, 510, 1163

LaBerge, Dr. Walter B., 77, 357, 543, 564, 666, 830–831, 880
Laird, Secretary of Defense Melvin R., 480, 1189
Lanchester, F. W., 35, 51
Lanchester Law, xvi, 374
Latham, Donald C., 400, 693
Latham, Major General Willard, 158, 773
Leach, Colonel James H. ("Jimmie"), 101, 860, 1079, 1181
leadership:
    and branch bias, 482
    and ethics, 507
    development, 505
    for AirLand Battle, 1220
    instruction, 503
    lessons from Abrams, 898–899, 1222
    noncommissioned officer, 486–495
    officer, 496
    qualities, 1218
    skills, 497
Leavenworth Papers, 1213
Lee, General Robert E., 432

Lehman, John F. Jr., 757
Lemm, General, 1215
Lemnitzer, General Lyman L., 1165
Lenin, Vladimir, 267
lessons learned, mechanism for collecting, 1236
LeVan, Major General C. J., 30, 155
Lewis, Major General Vernon B. Jr., 1113
lieutenants, advice for, 876–879
light armored vehicle:
    battle losses, 69
light division, 1155, 1197–1198, 1260
    desire for, 1260
    employment of, 1157–1159
    redesign of, 460
light forces, 468
Limited War Laboratory, 23
Lind, William S., 234, 1111, 1125–1126
Living Systems theory, 259, 543, 795
Livsey, General William J., vi, 872
Lodge, Senator Henry Cabot Jr.:
    assisting in branch transfer, vi, 983
logistics:
    in Desert Storm, 32
    planning factors, 519
    readiness, 508
Long, Major General Homer S. Jr. ("Huck"), 273
Long, Admiral Robert L. J., 757
Lucas, Sergeant First Class Willard:
    as mentor to Starry, v–vi, 486–487, 876–877, 897–898
LUCHS, 73
Lupfer, Captain Timothy T., 108, 395
Luttwak, Dr. Edward N., 234, 1111, 1125–1126
Lutz, Major General Joseph C., 718
Lynch, Major General Thomas P., 70, 76, 658, 810

M1 tank. *See* Abrams M1 tank
M60A2 tank, 1116
M113 Armored Personnel Carrier, 73, 235, 240
M114 Armored Command and Reconnaissance Vehicle, 1116
M551 Airborne Armored Reconnaissance Assault Vehicle (Sheridan), viii, 44, 48, 78, 1116
Mabry, Major General George, 1193
MacArthur, General Douglas, 17, 108, 113, 269, 394, 426, 463, 623, 895, 1060
MacDill Air Force Base, xviii
MacDonald, Charles B., 975
Macksey, Kenneth, 108, 109, 395
MACOV (Mechanized and Armor Combat Operations in Vietnam) Study, viii, 23, 1063, 1079, 1088–1089, 1184, 1185
Maddox, Major General William J., 482
Mahaffey, General Fred, 522, 585
Mahan, Alfred Thayer, 757

Mahan, Dennis Hart, 610, 613
Mahler, Lieutenant Colonel Michael D., 280
maintenance:
    for battalions, 523–527
    junior officer training in, 773
    organization, 513
Malenkov, Chairman Georgy, 403
Malone, Colonel Dandridge M. ("Mike"), 558, 796, 889, 977
Malone, Dr. Henry O. Jr., 1196
management:
    centralized, 542
    skills, 538
Mangum, Lieutenant Colonel Bill, 1038
Mannheim, Germany, v
manpower, and managing shortages, 602–603
Mao Tse-tung, 267
Marcos, President Ferdinand, 954
Marines, 363, 1159
Marsh, Secretary of the Army John O. Jr., 469, 870, 1159, 1166–1167
Marshall, Andrew W., 945
Marshall, Lieutenant Colonel Dave, 347
Marshall, Colonel Donald, 107
Marshall, General George C., 259, 869, 901, 1004, 1251
Marshall, S.L.A., 567, 995
Marx, Karl, 267
Massey, Dr. Morris, 892, 1013
Massu, General Jacques, 268
materiel:
    acquisition, telescoping of, 662
    and complementariness of systems, 633
    and new systems being fielded, 196
    and weapons system development, 664
    modernization, 673–676
    top attack systems, 666
McAlister, Lieutenant General Robert C., 906, 1261
McCain, Admiral John Sidney, 1187, 1188
McClintic Theater Model, 758
McDowell, Major General Irvin, 612
McEnery, Lieutenant General John W., 65, 66, 636, 907
McFarland, Robert C. ("Bud"), 1238
McGiffert, Major General John, 67, 588
McNamara, Robert S., 412, 424–425, 536, 542, 1065–1066, 1086, 1089, 1116
McNamara Wall, 651
McNaughton, John, 1087
Mechanized Infantry Combat Vehicle (MICV), 29, 71–72, 234–235
media relations, 1246–1248
Meier, Golda, 1227
Melner, Lieutenant General Sinclair L., 558, 689, 713
Mencken, H. L., 942

Menetrey, General Louis C., 297
Merkava tank, x
Merritt, General Jack N., 364, 736, 758–759, 824
Merryman, Major General James H., 641, 1161
Meyer, General Edward C. (“Shy”), 2, 4, 6, 7, 8, 9, 74, 81, 111, 168, 169, 177, 235, 295, 296, 337, 343, 347, 358, 359, 364, 371, 390, 397, 400, 460, 466, 467, 504, 549, 551, 553, 556, 558, 565, 588, 596, 598, 625, 673, 678, 680, 690, 702, 718, 731, 733, 758, 760, 786, 826, 831, 848, 850, 852, 863, 866, 869, 922, 929, 945, 991, 1052, 1149, 1164, 1259, 1260, 1279
  and Army War College, 1057, 1208
  articulated values for the Army, 886, 889
Mickey Mouse, 875
MILES system, 826–827, 838
Miley, General Henry A. Jr., 469, 1116, 1194, 1226
military history:
  and command historian, 628
  and “historical mindedness” in Army, 617, 623
  importance of, 615, 629, 1221
  in Army schools, 626, 1245–1246
  influence of, 623–624
  in TRADOC, 620, 1213–1214
  lessons of, 616
  research, 608
  ROTC instruction in, 618–619, 1213
  taught at Leavenworth, 627
military service, nature of, 872–873
Miller, Ed, 234
Miller, Dr. James Grier, 259, 543, 558, 796
mines:
  detection of, 75
  use of, 181–183
Minter, General Billy M. (USAF), 945
Mission of the Centurion, vii
mission-type order, 252
mobility, 249
models and methodology, 345, 347–350
“Modern Armor Battle,” x
modernization, 673
  and future close combat vehicle concepts, 681
  and man-machine interface, 683, 689
  and mobile protected gun, 685–686, 687–688
  and proposed test command, 684
  and training as key, 833–836
  and user influence on laboratories, 677
  issues, 678–679
  timing, 690
Montgomery, Field Marshal Bernard L., 256, 259, 431
Moore, Robert A., 165
Morelli, Major General Donald R., 28, 353, 391, 400, 1147, 1200, 1274, 1275, 1276
Morrison, Colonel James, 903

mortars, 245–247
Moskos, Charles C. Jr., 719
Mounted Combat in Vietnam, xx, 975, 978
Mubarak, Hosni, 1230
Multiple Integrated Laser Exchange System (MILES), 30
Mundie, Major General William L., 74
Murch, Gordon, 995, 1018

Napoleon Bonaparte, Emperor, 432, 609, 743–745
Natick Laboratories, 861, 869–870
National Defense Act of 1920:
    and control of tanks, 15
National Guard, 15–16, 18, 31–32
National Training Center, 219, 786, 790–791, 843–844, 898
NATO (North Atlantic Treaty Organization), 127
    strategy, 741
NATO forces:
    strategy, 203–204
    tactics, 204–205
Navy, outlook on officer education, 1240–1241
Nevada Test Site:
    Starry at nuclear weapon test, vi–vii
Newton, Colonel Henry, 1034
Nitze, Paul, 1066
Nixon administration, viii
Nixon Doctrine, 306
Nixon, President Richard M., 1186
NOMEX equipment, 856–857
noncommissioned officer:
    advanced course, 789
    criticality, 508, 1219
    duties, 486–495
    reenlistment, 601
Noncommissioned Officer Education System (NCOES), 30
Norfolk, vii
Norwine, Philip C., 147
nuclear weapons:
    freeze proposals for, 942–944
    tactical, 731–732, 735, 736–737
Nunn, Senator Sam, 234
Nutting, General Wallace H., 628

offensive
    attack of follow-on echelons, 346
officer trust, 874
Omnibus 79 simulation, 347, 348, 349
operational testing, 659–660
Operation Desert Shield, 31, 32, 224–225, 455
    shortages of strategic lift and, 1249–1250

Operation Desert Storm, 31, 32, 34, 224–225, 455, 1223–1255
and AirLand Battle, 1254
and family support issues, 1252–1253
operations:
integrated, 193
night, 636
research, 925–928
operations analysis:
for armor, 35–43
Order of Aaron and Hur, xvii
OSD (Office of the Secretary of Defense) characterized, 564
Otis, General Glenn K., xviii, 7, 78, 162, 245, 283, 389, 391, 460, 505, 573, 594, 798, 852, 865, 945, 1194, 1204, 1265, 1281
Ott, Lieutenant General David E., 163

Packard, Brigadier General Donald, vi
Palmer, General Bruce Jr., 480, 1064
Parker, Alton B., 106
Parrino, Ms. Donna, 932
Parry, Dr. Sam, 345, 388, 780
Parsons, Larry, 1069
Patriot missile concepts, 921
Patterson, Major General Robert, 612
Pattison, Brigadier General Hal, 618
Patton, Beatrice (Mrs. George S. Jr.):
assisting in branch transfer, vi, 983
Patton, General George S. Jr., 256, 259, 1220
Patton, Major General George S. III, v, vi, 91, 284, 859, 895, 896–898, 983, 1020–1022, 1079, 1173, 1185
Payne, Dr. Wilbur B., 69, 162
Pearson, Lieutenant General Willard, 976
Peled, General Musa, x, 221, 242, 1110, 1225, 1227, 1285
Pelletiere, Steven, 1255
"Pentacrete," 1275
Perle, Richard, 1098
Perry, Dr. William J., 650
and acquisition cycle compression, 665
initiatives, 657
Pershing, General John J., 1251
personnel management:
system, 584
Persons, Major General Wilton B. Jr., 920
Phillips, Paul, 356
Piao, Marshal Lin, 269
Pierre, Percy, 929
Pihl, Lieutenant General Donald, 135
Poindexter, Vice Admiral John, 1238
POMCUS issues, 738
Position Location Reporting System, 640, 649

Powell, General Colin, 1238
Principles of War, 609–614, 622, 743–751, 1151
    and "tenth principle," 625
Pugh, Major General John Ramsey, 1041, 1042

Quarstein, Colonel Vernon A., 1034

Rapid Deployment Force (RDF), 78, 83, 363, 740
Rapid Deployment Joint Task Force (RDJTF), 372, 385–387, 1097–1098
Rationalization, Standardization, and Interoperability (RSI), 642–648
Readiness Command. *See* US Readiness Command
readiness:
    and turbulence, 590–591
    rates, 512
    stand-to, vii
Readiness Training Program, 1039, 1041
Reagan, President Ronald W., 944, 1098
REALTRAIN, 826–827
reconnaissance:
    wheeled vehicles for, 71
Record, Jeffrey, 234
recruiting, 580, 582, 594, 705–708
    and retention, 595
    and training, 588–589
    strategy, 596–597
Reed, Governor Clyde M., v, 15
reenlistment of NCOs, 601
regimental system:
    TRADOC concept for, 467, 1006, 1221, 1253
Reichenberger, General Rudi, 165, 166, 401, 760, 1215
Reichert, Lieutenant General von, 281
Renault, Louis, 16
replacement systems, 585–587, 1003, 1007
Republic of Korea (ROK) Army, 295
requirements:
    concept-based strategy for, 528
Research, Development, and Acquisition:
    for Desert Storm, 32
Reserve Components, 31–32, 1160–1161
    and roundout units, 1061
Reserve Officers Training Corps (ROTC):
    program, 604–605, 1212–1213
Revolutionary war:
    French theory, 264–270
Richards, Lieutenant Colonel Art, 347
Richardson, General William R., 28, 217, 241, 345, 356, 367, 370, 460, 520, 592, 617, 618, 619, 620, 657, 689, 738, 895
Richardson, Major General Walter B., 1177
Roberts, Lieutenant General Elvy B., 1087
Robertson, Colonel V. M. Jr., 283

Robertson, Dr. William G., xx
Rogers, General Bernard W., 71, 111, 234, 334, 371, 391, 397, 400, 504, 584, 735, 760, 781, 803, 808, 809, 812, 920, 1145, 1164, 1208, 1270
Romjue, John L., 1196
Rommel, Field Marshal Erwin, 259
Roosevelt, President Franklin D., 433
Roosevelt, President Theodore, 1097
Root, Secretary of War Elihu, 32, 279, 535, 536
Roper, Colonel Dan, 455, 457
Rose, Francis L., 772
Rosenblum, Lieutenant General Donald E., 924
ROTC (Reserve Officers Training Corps):
    expansion, 847
    military history in, 1213
Rusk, Secretary of State Dean, 949

Sammet, Lieutenant General George Jr., 235
Santayana, George, 431, 609
Savage, Paul L., 893–894, 901, 1005, 1251
Sayers, James E., 95
Schecter, George, 165
Schlesinger, Secretary of Defense James R., 24, 1100, 1194
Schildauer, Command Sergeant Major Wayne F., 484
Schneider, Colonel William P., 731
Schnell, General Dr. Karl, 650
School for Advanced Military Studies (SAMS), 31
Schrage, Lieutenant Colonel William K. Jr., 975
Schulz, Lieutenant General, 644
Schurtz, Lieutenant Colonel Jerry, 283
Schwarzkopf, General H. Norman, 1229, 1236, 1238, 1254, 1271
Scott, Lieutenant General Willard W. Jr., 986
Scott, General Winfield, 432, 438
scouts:
    helicopter for, 147
Scowcroft, Lieutenant General Brent (USAF), 1238, 1254
Scribner, Lieutenant Colonel Edward, 297, 311, 1114, 1126
Seaton, Albert, 109, 395
Seigle, Major General John W., 796, 1216
“Sergeants’ Business” (speech), xx, 486–495, 717, 794, 798, 878, 1002–1003
Sharp, Colonel Earl W., 176
Sheridan Airborne Armored Reconnaissance Assault Vehicle, viii, ix
    as critiqued by Starry, 44, 48, 78
Sherman, General William T., 432–433
Shillelagh missile, viii
Shoemaker, General Robert M., 551, 588, 590, 602, 670, 690, 799, 827, 848, 1080
Shoffner, Lieutenant General Wilson (“Dutch”), 135–136
Shugart, Rear Admiral Ken, 841
Sidle, Major General Winant, 48
Simmons, Lieutenant General Charles J., 1178
Sinnreich, Lieutenant Colonel Richard Hart, 28

63d Heavy Tank Battalion, v, vi, 896–897, 983, 992–993, 997
Skelton, Congressman Ike, 1239
Smart, Don, 1047, 1069
Smith, Lieutenant General Dewitt C. Jr., 580, 582
Smith, Major General Homer D., 519
Smith, Major General James, 148
Snodgrass, Charles W., 696
Snodgrass, Major Wilder M., 279
Soldier Support Center ethics, 884
soldiers, 703–704
    an adventure with, 720–721
    and example of redress, 718
    and training, 714–717
    as deciding element, 34
    program manager for, 713
    quality of, 710, 719
    values, 711–712
Sorley, Lewis, 22, 453
Soviet/Warsaw Pact military forces:
    dealing with, 739–740
    deterrence and, 1266–1268
    development of, 114–115, 1233, 1234–1235
    operational concepts, 141–142, 170, 184–185, 199
    second-echelon problem, 185–186
    strategy, 202–203
    threat represented by, 120–124, 125–126, 127–131, 136–139, 195–196, 373–374, 476, 1155–1156, 1233
Sparrow, Major General Herbert G., 1246
Spiller, Dr. Roger, xiii, xvii, 628
Spivy, General Berton E. Jr., 1041
Spruill, Lieutenant Colonel Matthias A., 980
staff work, completed, 568–570
standardization, 1206-1207
    and evaluation, 553–555
Stanier, General Sir John, 449
STAR simulation, 345
Starry, Don A. (father):
    adoption of, 980
    and National Guard service, 15, 18, 980, 986, 1004–1005
    in World War I, v, 13–14, 980
Starry, Donn A. (General):
    and allied officers, 1164
    and flying, 987
    and FM 100-5, xiii
    and military history, xvii
    as battalion commander, vii, 1011, 1025–1026, 1036–1054, 1184
    as cadet, 981–982, 986, 988–989, 996–997
    assessment of M551 Sheridan, viii, ix, 44, 48, 78
    at Fort Holabird, vii, 1033–1035
    at Fort Knox, 1027–1029, 1032
    at Lafayette College, v

attends Armed Forces Staff College, vii, 1035
attends Armor Officer Advanced Course, vii
attends US Army Command and General Staff College, vii, 1035, 1037
attends US Army War College, viii, 1056–1060, 1061–1062
awarded Silver Star, 1093
awarded Soldier's Medal and Purple Heart, ix
branch choice, 998–999
commanding 11th Armored Cavalry Regiment, ix, xix, 87, 722–727, 996, 1013–1014, 1026, 1066–1070, 1072–1089, 1112, 1191–1193
commanding V Corps, xi–xii, 27, 996, 1004, 1019–1020, 1104–1106, 1123–1125, 1131–1134, 1137–1138, 1140–1141, 1215
commanding Fort Knox, ix, 25, 907, 1016, 1033, 1106–1107, 1108–1109, 1112, 1113–1115, 1117, 1123, 1138–1140, 1162
commanding Readiness Command, xviii–xix, 1036, 1058, 1096, 1163–1164
commanding TRADOC, 28, 1006, 1117, 1127, 1141, 1146–1147, 1161–1163, 1196–1217
detailed to Cavalry, vi, 982–983
early life, v, 980–981, 983–984, 987, 1008–1009, 1218
earns master's degree, viii
enlisting, v, 981, 984–985
entering West Point, v, 985
family of, 1169–1170
financial matters, 1021–1025, 1165–1166
in Korea, vii, 1029–1032
in 63d Heavy Tank Battalion, 983, 995–996, 1010–1011, 1014–1015, 1025–1027, 1171–1177, 1218
in 3d Armored Division, 1177–1183, 1218
in Vietnam (first tour), viii, 1063–1064
in Vietnam (second tour), viii–ix, 1066, 1100
initial officer schooling, 999–1000
on Combat Developments Command, xv
on mentors, 1016–1017
organizes Mission of the Centurion, vii
Pentagon assignments, viii, ix, 1065, 1099–1101, 1102–1103
personal style, xvii
promotion to brigadier general, ix, 1103–1104
promotion to colonel, viii
promotion to lieutenant colonel, vii
promotion to major, vii
promotion to major general, ix
redeployment planner in Vietnam, 1066, 1100
religious convictions of, xvii
sent to Israel by General Abrams, x, 25–26, 1016
TRADOC departure message, 509
Vietnam awards of, ix
with father at National Guard camp, 15
wounded in Vietnam, ix, 1091–1093
writing manuals, xix
Starry, Leatrice Hope Gibbs (Letty) (wife), v, 1169–1170
and Community Life Program, x, 907
and "Starry on War," xix
Starry, Colonel Michael (son), 1251–1252, 1254

statistics, negative aspects of, 715–716
Steffen, Randy, 903
Steinmetz, Colonel Rollin T., 503
Stilwell, General Richard G., 1098, 1099, 1226
Stimson, Secretary of War Henry L., 652
Stockfisch, Jack, 659
Stofft, Major General William A., 1232, 1236
Stone, Bob, 841
Stone, Secretary of the Army Michael P. W., 1234
strategic planning, 752–756
strategy:
    European, 760
    for the 1980s, 556–557
    formulation, 742
    issues, 761–765
    maritime, 757
    nuclear weapons and, 121
    traditional American, 121
Stubblebine, Major General Albert N. Jr., 477
Sturba, Jim, 1247
Sullivan, General Gordon R., 1232
Summers, Colonel Harry, 426, 622, 1095, 1265
Sunell, Colonel Robert, 663
survivability, gains in, 635
Swain, Dr. Richard M., xii
Sweeney, Colonel Thomas, 1223, 1248
Swinton, Sir Ernest D., 16, 107, 394

Tackaberry, Lieutenant General Thomas H., 718
tactical air support:
    in Europe, 2–3
    Israeli view of, 2–3
tactical awareness, 158
Tait, Major General Thomas H., 1229
Tal (Talik), General Israel, x, 221, 1110, 1225
Talbott, Lieutenant General Orwin C., 271, 809, 1211
tank duel:
    analyzed, 58–59
tank(s):
    allocation basis, 296
    and agility, 39
    and battlefield mobility, 181
    and gun lay data, 37–38
    and gunnery qualification, 1047–1049
    and night firing, 37
    and trunnion cant, 40–41
    basic task, 230
    companion vehicles, 117
    comparative capabilities of, 154

cooperative development, 680
crew performance, 780
design, 84
development of, ix, 61, 656, 1225
electrical power, 95
fire control development, 63
for cavalry, 67
future utility of, 49–53
futuristic characteristics, 117
gun selection, 68
gunnery competition, 830–831
in World War I and after, 16
light tanks, 81
M60A2 assessment, 74
main gun service ammunition, 88
mine damage, 66
number per platoon, 1258
potential for improvement, 52–53
replacement, 516
Sherman, 656
survivability of, 50
suspension systems, 65
track, 92
versus helicopters, 42
winter track pads, 93–94
XM1 decision, 60, 63
"Tanks Forever" (speech), xx, xxi, 49–53, 113–114
"Tanks Forever and Ever" (speech), xx, xxi, 101–105, 115–116
target servicing, 56–57, 58, 191, 289, 1287
Tarpley, Major General Thomas M., 271, 276, 1112–1113, 1114
Taylor, General Maxwell D., 611, 912, 1177
technology:
advocates, 571
and technocrat mentality, 651
and techno-utopianism, 33
and techno-zealots, 33
and threat, 1223
optimism about, 1271–1272
thermal imaging, 218–219
Tegnalia, Jim, 400
terrain, 159
terrain walks, xi
testing, 254
and evaluation, 1207–1208
operational, 659–660
3d Armored Division:
Starry assigned to, vi, vii
Third Wave concepts, 393
37th Tank Battalion, v, 898, 901

Thompson, Major General E. R., 476
Thurman, Lieutenant General John R., 167, 295, 296, 297, 303, 304, 311, 323, 335, 342, 521, 541, 608, 640, 795, 807, 1126, 1208, 1275
Thurman, General Maxwell R., 556, 597, 847, 929
Todd, Dr. Frederick P., 854
Todd, Major General W. Russell, 89
Toffler, Alvin, 393, 902
TOW missile, 232
Townsend, Major General Carter, 1066, 1186
Toynbee, Arnold J., 887
TRADOC (Training and Doctrine Command), xii, 25
    commanders video conference, 842, 846, 848
    control of information, 318–322
    deputy commander for training, 1209–1211
    doctrinal changes effected by, 1214
    doctrine office, 1199–1200
    first commanders teleconference, xvii–xviii, xx
    functions, 285–294, 925
    impact of drawdowns on, 344
    military history program, 1213–1214
    organization and rationale, 936–937
    problems, 1215–1217
    staff cuts, 1208
    staff procedures, 318–322
    staff structure, 1208–1210
Train, Admiral Harry D. II, 757
trainee abuse, 832
trainees, treatment of, 828–829
training:
    and ARTEP feedback, 810–811
    and Battalion Training Model, 812–814
    and battle drills, 845
    and development, 779
    and force modernization, 593
    and recruiting, 588–589
    and ROTC expansion, 847
    and soldiers, 714–717
    and SQT preparation, 798
    and technology, 1219–1220
    and testing, 783–785
    Army Training Study, 792, 799, 812
    base issues, 781
    basic, 839
    development products, 840
    ethics, 793
    general officer pre-command, 825
    importance of, 1219
    in Europe, 772
    individual and evaluation, 800, 805-806
    initial entry, 787–788, 809, 1211–1212

interservice, 841
issues, 769–771
junior officers in maintenance, 773
management, 774–776, 778
management in units, 815–823
management review, 777
NCO advanced, 808
noncommissioned officer, 794
of Army in the field, 826–827
officer, 837, 852, 1212, 1245
physical fitness, 803–804
pre-command, 807
resources, 782
systems management, 824
target cells, 210
techniques, 849–851
Trainor, Lieutenant General Bernard E. (USMC), 1240
transportation:
planning, 521
Tucker, Al, 841
turbulence in armor units, 598–600

Ulmer, Lieutenant General Walter F. Jr., 544, 558, 825
uniforms:
and Army Uniform Board, 861–862
and tanker's badge, 859
athletic, 865
berets, 854, 855, 859, 863, 866
chemical protective overgarment, 867–868
combat vehicle crewman, 856–857, 858
tanker's, 860
woes, 869–870
unit replacement, xiv–xv, 467, 585, 1253
units, exceptionally good, 707–708
Unmanned Aerial Vehicle (UAV), 30
Upton, Major General Emory, 610, 1004
US Army Assistant Vice Chief of Staff, viii
US Army Command and General Staff College, 398
US Army Forces Command. *See* Forces Command
US Army Intelligence School, vii
US Army Training and Doctrine Command. *See* TRADOC
US Army, Vietnam (USARV), viii
US Cavalry Association, xix
US Central Command, 1168
US Military Assistance Command, Vietnam, viii
US Readiness Command, xiii, 372–381, 1098, 1167–1168, 1242–1243
goals, 697–699
mission, 385–387, 1168
new functions, 572
status, 573–576, 1241–1243

V Corps, 160
and battlefield command, 172
and reserve forces, 301, 303
and the Corps Battle, 285–294
training management review, 777
values, 885–887, 1222
Army, 880
battlefield, 881–882
Valz, Colonel Donald J., 174
Van Voorhis, Lieutenant General Daniel, 17, 108, 244, 394
Vernon, Lieutenant Colonel Edwin T., 980
Vessey, General John W. Jr., 8, 369, 391, 392, 400, 427, 428, 572, 577, 602, 685, 687, 1098, 1099, 1100, 1164, 1279
Viet, Colonel Ha Mai, 456
Viet Minh, 265
Vietnam War, viii
airmobile operations in, 1070–1072, 1079–1080
and Cambodian Incursion, ix, 1069, 1073, 1080–1086, 1192, 1246–1247
and 11th Armored Cavalry Regiment, 722–723, 724–727, 1072–1089
and force structure, 1089–1090, 1100–1101
and mobilization, 21–22
and use of helicopters, 22
and use of mechanized forces, 22
and use of mines, 182
armor in, 968–973
Armored Cavalry Assault Vehicle in, 71, 969
critiqued, 1094–1095
developments in Europe during, 23–24, 1135–1137
fragmentation of units in, 1157, 1250–1251
impact of, 976, 1002, 1265
improved organization and equipment for, 962–967
in latter years, 706, 901–902
lack of strategic concept for, 1087, 1094–1095
observations on, 977
overview, 948–954
MACOV Study of, 955–961, 962–967, 968–973
MACV tasks in, 424–425
M113A1 in, 71, 969
memorialization of, 974
mine damage, 66
monograph on mounted combat in, 975
post-war Army situation, 24–25
post-war Army structure, 24, 472, 1259
problems after, 220–221, 305
redeployment, 452–453, 901–902, 1005–1006, 1188–1189
redeployment planning, viii–ix, 23, 1186–1189, 1251
results, 23
technical innovations, 23
Tet 1968 offensive, 1065
trafficability in, 955–961

Von Senger und Etterlin, General Ferdinand, 760, 945
Vuono, General Carl E., 366, 1236

Wade, Jim, 400
Wagner, General Louis C. Jr., 929
Wagner, Colonel Robert E., 352
Wallace, General Scott, xi, xiii
Warner, General Volney F., 1097, 1167
Washer, Lieutenant Colonel Robert, 303
Washington Institute of Foreign Affairs, xix
Wass de Czege, Colonel (later Brigadier General) Huba, xiii–xiv, 28, 1127
Weckerling, John, 340
Weigley, Professor Russell F., 396
Weinberger, Secretary of Defense Caspar W., 941, 1097, 1098, 1165, 1249
Weinert, Richard P. Jr., 1196
Weisz, Dr. John D., 58, 63
Wenner, Lieutenant General Horst, 760, 1203, 1204, 1215
West, Major General Arthur L. Jr., viii, 456, 955, 962, 968, 1063, 1171, 1177, 1185
Westmoreland, General William C., xiv, 424–425, 426, 480, 1006, 1064, 1086-1087, 1088–1089, 1094–1095, 1101–1102, 1186, 1190, 1251
West Point, 910–915
    and racial integration, 996–997
    as source of commission, 1011–1012
    Borman Commission and, 910
    honor system of, 910
    philosophy of training at, 1012–1013
    purpose of, 910–915
    Starry on women at, 989–990
Weyand, General Fred, 111, 279, 397, 644, 906, 1107, 1128, 1194
Wheeler, General Earle G., 426, 1089, 1186, 1189, 1191
White, General I. D., 1033
Whitehead, Major General Ennis C. Jr., vi, 1183
White House fellow, 929
Whiz Kids, 531, 535
Wickham, General John A. Jr., 1149, 1156, 1159, 1164, 1260, 1283
Wilder, Captain Kathleen M., 718
Wilder, Lieutenant Colonel Samuel D., 282
Williams, Colonel Bruce, 242
Williams, Major General Lawrence H., 920
Williams, Lieutenant General Paul S. Jr., 146, 720–721
Williams, Lieutenant General Robert R., 1099, 1106
Winton, Dr. Harold R., 1274
Women in the Army, Starry on, 991–994
Wood, Major General John S. (“P”), 1171, 1177
Woodmansee, Lieutenant General John W. Jr., xviii, 909
Woods, Arthur R., 35, 56, 550
World War I:
    demobilization after, 13–14
    procurement for, 14
    Tank Corps in, 13

World War II:
and disposition of surplus, 19
demobilization issues, 18–19
Worsley, Lieutenant General Sir Richard, 449, 1280
Wouk, Herman, 499
Wren, Command Sergeant Major Frank, 789, 808, 1212

Xenophon, 903
XM1 tank:
alternative engine programs for, 80
and tank-mounted barrier equipment, 76
issues, 658, 1258
need for, 315
testing, 70

Yerks, Lieutenant General Robert B., 502, 504, 601, 604, 847, 861
Yom Kippur War, x–xi, 25–26, 30, 50, 81–82, 113–114, 131–132, 152–153, 231, 244
Starry analysis of, 272–273, 1110, 1225–1228, 1256
TRADOC analysis of, 220–225

Zumwalt, Admiral Elmo R. Jr., 1188, 1189

About the Editor

Lewis Sorley, a former soldier and then civilian official of the Central Intelligence Agency, is a third-generation graduate of the United States Military Academy who also holds a doctorate from the Johns Hopkins University. He has served on the faculties at West Point and the Army War College. His Army assignments also included leadership of tank and armored cavalry units in Germany, Vietnam, and the United States and staff positions in the Offices of the Secretary of Defense and the Army Chief of Staff.

He is the author of a book on foreign policy titled *Arms Transfers Under Nixon* and two biographies, *Thunderbolt: General Creighton Abrams and the Army of His Times* and *Honorable Warrior: General Harold K. Johnson and the Ethics of Command.* The Johnson biography received the Army Historical Foundation's Distinguished Book Award. An excerpt of the Abrams biography won the Peterson Prize as the year's best scholarly article on military history. In 2007 he received the General Andrew J. Goodpaster Prize for military scholarship awarded jointly by the American Veterans Center and the Bradley Foundation.

His book *A Better War: The Unexamined Victories and Final Tragedy of America's Last Years in Vietnam* was nominated for the Pulitzer Prize. His edited work *Vietnam Chronicles: The Abrams Tapes, 1968–1972* received the Army Historical Foundation's Trefry Prize for providing a unique perspective on the art of command. A second edited work, *Reflections: South Vietnam's Generals Assess Their War*, is currently in press. He has recently completed *Honor Bright: History and Origins of the West Point Honor Code and System*, a book commissioned by the United States Military Academy's Simon Center for the Professional Military Ethic.

Dr. Sorley serves as Secretary of the Board of Directors of the Army Historical Foundation and is Executive Director Emeritus of the Association of Military Colleges and Schools of the United States. During the 2009 spring term he served as the Gottwald Visiting Professor of Leadership and Ethics at Virginia Military Institute. Also in 2009 he was named a Distinguished Eagle Scout by the Boy Scouts of America.