MilitaryReview

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Since 1922, Military Review has provided a forum for the open exchange of ideas on military affairs. The publication focuses on concepts, doctrine and warfighting at the tactical and operational levels of war and supports the education, training, doctrine development and integration missions of the Combined Arms Center and the US Army Command and General Staff College at Fort Leavenworth.



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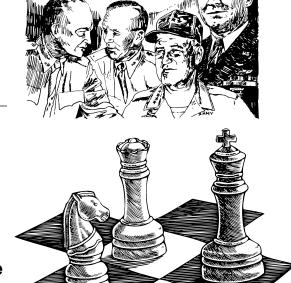
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1997 Military Review Writing Contest

With the long—awaited US Army Field Manual (FM) 100–6, *Information Operations*, finally on the street, and FM 100–5, *Operations*, scheduled for a major rewrite in 1997, aspiring writers with ideas or opinions about where future Army doctrine is headed should consider entering *Military Review's* 1997 Writing Contest. The three winning manuscripts will be published in *Military Review*, and their authors will receive cash prizes of \$500 for first place, \$250 for second and \$100 for third place.

Entries should focus on new ideas about battle command and future operations or the impact of new technologies, concepts and doctrine on the tactical and operational levels of war. Manuscripts should also specifically address some aspect of either FM 100–5 or FM 100–6. Entries that do not meet contest theme or submission parameters will be returned without consideration.

Deadline for submission of manuscripts is 1 July 1997. All contest manuscripts will be considered for publication, provided they are original and have not been previously offered elsewhere for publication. Manuscripts should range from 2,000 to 3,000 words and be typed and double–spaced. A *Military Review* writer's guide is available upon request. Send inquiries or entries to: *Military Review*, 290 Grant Ave., Building 77, Fort Leavenworth, KS 66027-1254, or call Mrs. Billie Hammond at (913) 684-9334 or DSN 552-9334 for additional information.

Foreword

I am very pleased to introduce this historic 75th Anniversary edition of *Military Review*. As the US Army's professional journal, it has enriched and broadened the scope of intellectual thought for thousands of military leaders over the years. This edition features reprints of articles by some famous authors, many penned early in their careers. Articles such as these have long served as the foundation for the exchange of ideas on military affairs and the doctrinal development of our professional Army. I want to thank the editors and staff of *Military Review*, past and present, who over the last three-quarters of a century have created a professional military journal that we are all truly proud of.

This is also a perfect opportunity to thank those who have written and submitted articles for publication. Their contributions have generated important debate on leadership, strategy, doctrine, technology and operational art. From their work, we have learned the enormous value of the continued participation of all military professionals in sharing thoughts, lessons learned and ideas.

As we stand on the threshold of the new millennium, we also find ourselves in an era of unprecedented change. The Cold War environment that gripped the world after World War II has literally evaporated. For our Army, the 21st century really began in 1989 when the Berlin Wall came down. Today, we are confronted with a less dangerous, but much more complex, threat environment. During the Cold War, we built a *threat-based* force. Our doctrine, training and equipment were driven by the Soviet threat. All that changed with the fall of the wall.

Today, we continue to adhere to our time-honored values of courage, loyalty, honor, respect, selfless service, integrity and duty, but our Army is changing as it plays a major role in our new national security strategy of engagement and enlargement. We are now a *capabilities-based* force, relevant to the new needs of the nation. Our new national security strategy is supported by our four capabilities: to compel our nation's enemies, to deter potential enemies, to reassure our friends and allies and, in domestic crisis, to support the nation.

Today more than ever, we must tap into the perspectives and ideas of our young leaders—the torchbearers destined to lead our information age Army, unmatched in capability, quality and service to the nation. Over its 75-year history, *Military Review* has been a valuable spokesman and a beacon of knowledge, permitting our Army's leaders to grow intellectually and giving us an Army envied around the world.

Soldiers are our credentials!

General Dennis J. Reimer
United States Army Chief of Staff



From the Editor

Going through back issues of *Military Review* brings to life both the journal's proud heritage and the US Army's distinct lineage. Many authors who wrote for the journal as captains, majors and colonels later show up in print as generals. Some *Military Review* authors became famous in their own right without ever wearing a uniform. That so many well-known military and civilian authors chose *Military Review* as the venue for publishing their ideas lends credibility to the journal and the US Army.

The selection process for articles in this 75th Anniversary Edition focused on authors who achieved a degree of greatness among their peers. This criterion should explain why so many general officer articles were chosen. Originality also was a key element in the selection process. An editor's note at the beginning of the original article proclaiming that the author's views were his alone and did not represent the views of the Department of the Army was a lightning rod for attention by the *Military Review* staff. Our intent was to capture the thinking of a future flag officer before he had his own staff or speech writers. Selected articles also had to have some relevance to current affairs.

Some names are conspicuously absent from the article index. If a senior general officer's name does not appear in this anniversary issue, it is probably because he never submitted an article to *Military Review*. Some senior general officers' articles previously published in *Military Review* were discounted, because they appeared to be adapted from speeches or taken from other publications. In most cases, only one article per author was selected for this special journal edition. These criteria were deemed essential to limit the edition to about 200 pages, a decision based on cost and editorial staff size. I herewith acknowledge responsibility for any omissions and solicit letters to the editor from those wishing to point out such errors. We will publish your letters in future issues.

Our comments precede most articles as well as each of the thematic sections, and an updated biography of each author appears at the end of the article. Biographies of deceased authors usually have more information than those of living authors. To maintain a feeling for the period when the articles were written, we did not change punctuation or endnote styles, both of which have evolved over the years.

I would be remiss if I did not take this opportunity to thank the key people whose contributions were paramount in bringing this Anniversary edition to fruition. To Colonel Richard M. Bridges, former *Military Review* editor in chief, thanks for your vision and considerable guidance in getting this project off the ground. We could not have done it without you! To Lieutenant General L.D. Holder, the Combined Arms Center commander and US Army Command and General Staff College (USACGSC) commandant, and Brigadier General Joseph R. Inge, USACGSC deputy commandant, thanks for providing the resources to publish this special edition. Your joint stewardship and insight are always appreciated. Last but certainly not least, to the *Military Review* editorial staff for their energy, creativity and perseverence-you done real good! We hope you enjoy this journey through *Military Review*'s history as much as the staff did putting it together.

GLH

Americans have traditionally eschewed large standing militaries, and the concept of the citizen-soldier under civilian authority is thoroughly grounded in our Constitution. The earliest American military forces were militias that could be called upon as needed-a role today's Reserve Component continues to fulfill, but in an expanded sense. In World War II's aftermath, the need for larger, better-equipped and better-trained forces capable of rapid mobilization and deployment became apparent, and the "call to arms" became the "draft."

The Selective Service Act of 1948 served the United States into the Vietnam era. However, by the end of that war, the draft was in disfavor, and the country and Army were reassessing the Army's basic role in society. An All-Volunteer Force (AVF) was established with the draft's end in 1973 but not without further controversy that extended into the next decade. The draft, in theory, had fulfilled a perceived need for the Army to reflect society at large. But would an AVF fight if called upon? Would it become elitist and lose touch with the US public it served? Or would it become a haven for the illiterate and poor? As our Army's professionalism and success have shown, these issues were not a cause for concern.

The US Army has been and is America's Army. Despite changes in how a young man or woman entered the Army, today's soldier is just as much an American as he or she is a soldier. A common theme that runs throughout the articles in this section is that a set of common values-patriotism by another name-still cements the bond between America's Army and the public it serves.

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Selective Service 1948

The Honorable Kenneth C. Royall, Secretary of the Army

At World War II's end, the US Army quickly drew down from a high of some 14 million men to less than 1 million by 1948. Then Secretary of the Army Kenneth C. Royall wrote this lead article for the October 1948 edition of Military Review, outlining the structure and standards for the Selective Service System that would be the Army's manpower source through the Vietnam era. Royall's comments on discipline being based on the "willing obedience of the informed soldier" and on the need to provide "character guidance" to make the soldier "a better citizen" are worth recalling as one reads the other articles in this section.

Act directly affects the Army, Navy and Air Force, for the first few months of the operation of the law practically all of the selectees will be assigned to the Army. The somewhat limited immediate requirements of the Navy and Air Force will probably be met by voluntary recruitment under existing procedures. Since the Army will be the national defense agency which will receive the great majority of the men inducted under the law, it seemed appropriate that I should give a general outline of the plan for the training and utilization of the men to be allocated to the Army.

Personnel Requirements

The present strength of the Army is 542,000. Under the authority of the new Selective Service Act it may be increased to 837,000, by means of voluntary enlistments and inductions under the new law. However, 1949 appropriations limit the total number to 790,000 between now and 1 July 1949. In addition to this number, the Army is authorized to accept 110,000 18-year-old volunteer trainees for one year's active training and service.

Men inducted by Selective Service will serve 21 months. Regular volunteers will be accepted for varying terms, but it is hoped to secure as many long-term enlistments as possible.

Army Organization

When the Army is brought fully up to its new authorized strength we will be able to organize for the first time since the close of hostilities a really effective mobile striking force, small, but still effective. This force will consist of twelve Regular Army, National Guard and fully organized units of the Organized Reserves. The divisions will be completely organized, maintained at full strength and will have such priority in training and supply as to make them immediately available for use. The National Guard and Organized Reserve units will not be on active duty in Federal service, but the state of their training and equipment, as far as possible, will be such as to permit their immediate utilization on call of the president.

In addition to the divisions, the force will include antiaircraft artillery and other supporting combat and service troops to enable it to function as a balanced D-day force.

These troops would be prepared in an emergency to protect some of our most vital military installations in the United States, and in conjunction with our Navy and Air Force, to seize and occupy overseas areas from which air attacks could be launched against our cities and essential industries. The capabilities of such a force are strictly limited by its strength. However, if war should come, this force would be of the greatest importance as an effective mobile striking force during the vital days of initial hostilities while our Armed Forces are being mobilized.

The Regular Army Divisions in the United States included in this force are:

2d Infantry Division, Fort Lewis, Washington.

3d Infantry Division, Fort Benning, Georgia.

8th Infantry Division, less one Regimental Combat Team, Camp Campbell, Kentucky. This combat team will be at Fort Devens, Massachusetts.

• 82d Airborne Division, Fort Bragg, North Carolina.

Leadership in our Army is based upon better understanding of basic human relations, a development of mutual respect and trust between the leader and the soldier who performs the many and varied tasks of the army. ... Discipline is based upon the willing obedience of the informed soldier who, acting with his comrades, accomplishes his tasks because of his intelligent understanding of their necessity rather than through external compulsion or fear.

• 2d Armored Division, Camp Hood, Texas.

There will be a sixth division in the United States an Airborne division—whose identity and station has not yet been determined.

The six National Guard Divisions will be:

- 26th Infantry Division, Massachusetts.
- 28th Infantry Division, Pennsylvania.
- 31st Infantry Division, Alabama and Mississippi.
- 43d Infantry Division, Connecticut, Vermont and Rhode Island.
 - 45th Infantry Division, Oklahoma.
 - 49th Armored Division, Texas.

Supporting combat and service units of varying size will be from the Regular Army, National Guard and Organized Reserves.

For the elements of this mobile striking force on active duty in this country and the necessary troops to man various installations and to provide the administrative and supply overhead in continental United States, 550,000 men will be required. The remainder of the Army will continue as occupation troops in Europe and the Far East and to provide garrisons for Panama, Hawaii, Alaska, Puerto Rico and other overseas stations.

Procurement of Personnel

Under the terms of the Selective Service Act, inductions can be started on 22 September, 90 days after approval by the president. It is expected that the first inductions will probably be about that time. Both before and after this date the Army will continue its intensive recruiting campaign with a view to securing the maximum number of volunteers.

Subsequent to the passage of the law by the Congress and prior to its approval by the president, large numbers enlisted in the National Guard for three years. This has brought the Guard up to approximately the full strength contemplated for the coming fiscal year, and it will not be required as at present to devote a great deal of its attention to recruiting and will thus be free to concentrate all of its energies on training. Practically

all of its units, expanded by the recent influx of recruits, will receive intensive field training during the next two months.

Under the provisions of the Selective Service Act, men who serve less than three years on active duty in the Army (33 months in the case of extended terms of inductees) will be transferred to Reserve components on termination of their active service. This will make it possible to increase substantially the effective strength of our Reserve components and will be a material contribution to national security.

The initial call for inductions will be relatively small. The size of subsequent calls will be controlled by the rate of voluntary enlistments in the Regular Army. Men called by Selective Service will be only in such numbers as are needed to make up the difference between voluntary recruitment and scheduled requirements. The number of Selective Service inductions required each month is estimated to be 30,000—the figure being determined in light of voluntary recruiting experience. These monthly increments as far as possible will be uniform and so planned as to bring the Army up to its full authorized strength by 1 July 1949. To provide for the expanded Army some 20,000 additional officers will be required. Most of these will be captains and lieutenants. These will include Reserve and National Guard officers who volunteer for extended active duty.

Training

Whether soldiers enter the Army by voluntary enlistment or through Selective Service, they will be first sent to recruiting or induction stations near their homes. There they will be given a physical examination and a preliminary interview.

Subsequently they will normally go to one of eight training centers. On arriving at a training center the first few days will be occupied with processing, that is receiving clothing and equipment, taking inoculations, and being assigned to an appropriate training unit. Some, particularly those with prior military service, will then be assigned directly to units for training, while the remainder will remain at the centers to complete basic training.

At each training center there will be stationed a training division, charged with providing basic training for all assigned recruits. The schedules will include first aid and personal hygiene, physical conditioning, tactical training, signal communications, intelligence training, map and aerial photo reading, maintenance and field firing of weapons, and vehicle maintenance and operation.

Training Divisions now in operation consist of:

• 4th Infantry Division, Fort Ord, California.

- 5th Infantry Division, Fort Jackson, South Carolina.
 - 9th Infantry Division, Fort Dix, New Jersey.
 - 3d Armored Division, Fort Knox, Kentucky. New Training divisions will be:
- 10th Infantry (Mountain) Division, Fort Riley, Kansas.
 - 5th Armored Division, Camp Chaffee, Arkansas.
- 101st Airborne Division, Camp Breckenridge, Kentucky.
- 17th Airborne Division, Camp Pickett, Virginia. In addition there will be combat units of less than division size as well as service and supporting troops training at Fort Bliss, Texas; Camp Carson, Colorado; Fort Meade, Maryland; Camp Cooke, California; Fort Devens, Massachusetts; and Fort Worden, Washington.

After completing eight weeks of basic individual training, which is the same for all recruits, the soldiers will either be continued on duty in the United States or sent overseas. However, no 18-year-olds, volunteering for one year, will be sent outside the United States. On completion of their basic training some soldiers will be given advanced technical training in such specialties as clerical work, cooking and mess management, mechanical work, operation of radios and various supply and administrative duties. Selected soldiers with special aptitudes will be sent to technical schools for advanced training in military specialties. Those who are sent to units will be given advanced individual and unit training in the branch to which assigned.

Principles learned in World War II and developed at the Universal Military Training Experimental Center at Fort Knox, Kentucky, have been incorporated into basic and advanced training. These principles lie in the field of leadership and discipline. Leadership in our Army is based upon better understanding of basic human relations, a development of mutual respect and trust between the leader and the soldier who performs the many and varied tasks of the army. Our concept of discipline is based upon the willing obedience of the informed soldier who, acting with his comrades, accomplishes his tasks because of his intelligent understanding of their necessity rather than through external compulsion or fear. The objective of the training will be to produce a well-coordinated, physically conditioned, mentally alert, thoroughly trained soldier, capable of efficiently performing any task to which he may be assigned.

In order to develop the individual as a soldier and as a citizen it is essential that he be given the maximum amount of personal liberty consistent with the proper performance of his duty. His training will seek to promote his individual initiative and resourcefulness, and it is our intention that these qualities not be handicapped or restricted by harsh or unnecessary discipline.

There will be opportunities for the qualified soldier, whether he enters the Army as a volunteer or through the Selective Service system, to earn promotion to any noncommissioned grade, and to be considered for an Officers' Candidate School. Successful completion of an Officers' Candidate Course will lead to a commission in the active Reserve. Officers so commissioned will serve for the same periods of active duty and in the Reserve as other inductees. Up to 10 percent of those completing OCS training may be designated as distinguished graduates and will be eligible for direct

Subsequent to the passage of the [new Selective Service Act] by the Congress and prior to its approval by the president, large numbers enlisted in the Natronal Guard for three years. This has brought the Guard up to approximately the full strength contemplated for the coming fiscal year, and it will not be required as at present to devote a great deal of its attention to recruiting and will thus be free to concentrate all of its energies on training.

appointment as second lieutenants in the Regular Army.

The military equipment for training will be largely that used or developed in the recent war. Many of the latest types of weapons will not be immediately available in sufficient quantities for the Army. However, limited funds will be utilized for rehabilitation of weapons and other equipment, which will be ample in quantity and quality for training a modern army in methods and techniques, utilizing the lessons learned in the recent war and the most up-to-date concepts of the nature of warfare in the immediate future. The training doctrine is flexible and its application will be geared to the foreseeable progress of scientific developments of new weapons and other equipment.

The 18-year-old volunteers for one year's training and service, like other recruits and selectees, will be sent to training centers for processing. The first groups of these trainees will then go to major combat units for eight weeks' basic training. Insofar as possible they will remain with these combat units during their one-year term of active service. At the earliest practicable date, when facilities for this purpose become available, subsequent groups will receive their basic training at the regular training centers, after which they will go to selected combat, supporting and service units for the remainder of their year of active service. They will

be given the same training and opportunities as other members of the Army, except that they will not be sent out of the United States. On the expiration of a year of active service these volunteers will be transferred to the Organized Reserve for a period of six years.

Off-Duty Facilities

Off-duty facilities will afford soldiers ample opportunities for recreational, educational and religious development. Every effort will be made through character guidance to encourage the strengthening of the moral fiber of the soldier and to make him a better citizen.

Facilities for competitive sports at appropriate seasons will be provided both indoors and outdoors. Educational advantages in organized classes and through correspondence courses will be continued. These will be designed to fit directly into future educational plans of the soldiers. Most of these courses are accredited by civilian high schools and colleges.

All soldiers will be encouraged to attend the church of their choice and to participate in religious services and activities. Chaplains of the various faiths will be assigned to all training centers and other stations and will devote their services to the spiritual well-being of the soldiers.

Health and Welfare

Housing is available or will be provided to furnish reasonably comfortable quarters for the expanded Army. There will be no extensive rehabilitation of existing facilities to provide unnecessary conveniences and there will be no luxuries. We will not coddle but we will provide adequacy. Simple quarters with adequate heat, light and ventilation will be available. There will be ample, well-cooked, nourishing meals of a simple,

wholesome character. Adequate medical care and hospital accommodations will be provided.

Conclusions

In addition to strengthening the active forces, the Selective Service Act initiates a long-range program for the development of the Reserve components of the Army. The objective of the one-year volunteer program is to furnish trained members to the Organized Reserves in which they are obligated to serve six years. The selectees on active duty for twenty-one months will also serve in the Organized Reserves for varying periods of time.

The Organized Reserve, in addition to its important mission in supporting the mobile striking force, in time of national emergency will form the foundation upon which the manpower of the nation may be mobilized.

Full implementation of the new Selective Service Law will be difficult. There are many problems which can be readily foreseen and others will undoubtedly arise during the operation of the law. The experience gained by the Army during two World Wars will aid in solving these problems. The necessity for rigid conservation of funds and resources will limit our operations to those most essential to the training of the soldiers.

Basic plans for the expansion have been largely completed and preliminary steps have been taken for the opening and rehabilitation of camps and other installations. This work will be pushed as rapidly as is consistent with efficiency and economy. Several new organizations will be formed immediately and other units will be organized later in the year as they are required. Every effort has been made to anticipate difficulties and to make appropriate plans to obviate them. **MR**

Secretary of the Army Kenneth C. Royall (1894-1971) was born in Goldsboro, North Carolina, on 24 July 1894. He served as a field artillery lieutenant from 1918 to 1919 with the American Expeditionary Forces during World War I. After the war, he returned to Goldsboro to practice law. In 1942, he was commissioned a colonel and named chief of the Army Service Forces (Services of Supply). In 1943, he was promoted to brigadier general and named deputy fiscal director of the US War Department. From 1944 to 1945, he served as the special assistant to the secretary of war. He later served as undersecretary of war and then as secretary of war until his appointment as secretary of the Army in September 1947 under a restructuring program instituted by the National Security Act that unified all branches of the armed forces under the National Military Establishment (later the Department of Defense). In April 1949, he retired from government service and practiced law until 1967. He died on 2 May 1971 in Durham, North Carolina.

ROTC: An Academic Focus

Major George A. Joulwan, US Army

Then Major George A. Joulwan recounts his experiences as an associate professor of military science at Loyola University during the Vietnam era in this article from the January 1971 edition of Military Review. The Army's application of "Track C" to its Reserve Officers' Training Corps (ROTC) program in 1970 was a reasoned response to calls for change, some of which equated "change" with abolishing ROTC from campus.

Political science credit given for Reserve Officers' Training Corps (ROTC) courses? ROTC cross-listed under another discipline? Non-ROTC students enrolling in military science classes? Military officers lecturing in other departments? Officers voluntarily teaching at night in an off-campus "Free University" with half the participants members of the Students for a Democratic Society? That sounds absurd if one believes media reports that all ROTC units, particularly those in large urban areas, are under attack, are being downgraded or are struggling for their very existence. Actually, many university Army ROTC programs are thriving--even in the turbulent milieu of large metropolitan areas. One such program exists at Loyola University in Chicago.

Officer education began at Loyola in 1948, and, for nearly 20 years, the university offered a general military science curriculum patterned after either the standard Track A or the modified Track B course outline. But beginning with school year 1968-69, Loyola University, along with 10 other universities nationwide, instituted a new developmental curriculum called Track C.

Mershon Committee

This new curriculum option, however, did not just materialize in 1968. And, most importantly, it was not a reaction to the dissidents who, in 1968, were calling for the abolishment of ROTC on college campuses. Rather, Track C is the product of civilian and military educators working together to design a curriculum which best utilizes the ROTC students'

time. This group was under the direction of the Mershon Center for Education in National Security, and held its first conference in June 1960 at Ohio State University, Columbus. The tone of the conference was set by the remarks of John U. Monro, dean of Harvard College, Cambridge, Massachusetts, in a paper titled "Strengthening the ROTC Curriculum." He said, "... the colleges' own programs are getting stiffer, and better, and we must look for the soft spots in ROTC, and shrink them out ... we must strive to develop academic courses that are useful to both sides."

To "shrink out" the soft spots in ROTC, a second meeting of the Mershon Committee was held in 1964. This meeting resulted in a report which outlined a dramatic new direction for the ROTC curriculum. It was the committee's belief that there was . . . a need for the development of an ROTC curriculum which is designed to be challenging to the student and responsive to credit requirements of colleges and universities and the military requirements of the armed services.

Track C Courses

The concept finally agreed upon was called Track C. Track C consists of a preprofessional division during the freshman and sophomore years and professional training during the junior and senior years of college. Track C stresses broad career and professional development.

At Loyola, for example, two semesters of "World Military History" for freshmen, and "Foundations of National Power" and "National Security Problems" for sophomores, replace the technical military courses such as map reading and assembly and disassembly of weapons. Furthermore, the Track C courses give the student an insight into the rationale behind the military profession, its historical perspective, and the military function in a democratic political system.

In addition, Track C instructors at Loyola have a minimum of a master's degree in either history or political science. With these academic credentials, not only does the military service conform to the standards of the academic community, but it also enhances the quality of education for the ROTC student, better utilizes his available time, and expands his overall college education. But there are also bonus effects which have made ROTC at Loyola a truly viable academic curriculum.

One bonus effect has been the cross-listing of both sophomore courses under political science. At a time when academic credit is being questioned for ROTC courses at other universities, the Loyola student not only fulfills his ROTC requirement, but also receives academic credit toward his political science course requirement. Most important, the cross-listing was accomplished at the request of the chairman of the Political Science Department because he felt the courses added to his department's offerings.

This development is in line with the aims of former Army Chief of Staff Harold K. Johnson. In a 1967 letter to institutions participating in the Track C experiment, General Johnson stated, "Our purpose involves more than merely being responsive to the criticism that the present curricula lack challenge and are too vocationally oriented. Rather, we intend the basic courses of the new curriculum be so designed that there will be no question of their being accorded academic credit on a par with other courses offered by the institution, and fully applicable in any of its degree programs."

Another bonus effect of cross-listing has been the enrollment of non-ROTC students. This mix of students provides for interesting and challenging classroom lectures. In fact, the editor of the student newspaper plus members of the Students for a Democratic Society sat in the same classroom with future Army officers.

Because of their academic and military credentials, military officers at Loyola have also been requested to lecture in other departments. This gets the military officer involved in the mainstream of academic life; he becomes a contributor to the university community. Civilian professors reciprocate and lecture in military science classes. To date, history and political science professors have lectured in the basic course while psychology professors have lectured in the junior classes and sociology professors in the senior classes.

Professor of Military Science Participation

The Loyola Professor of Military Science (PMS) and the Military Science Department are behind this interdisciplinary approach to military science. The PMS and his officers initiate and request, coordinate and plan. The PMS functions as a department chairman and the Military Science Department as a truly academic department. Last spring, Loyola's chapter of the Blue Key National Honor Fraternity so recognized Loyola's PMS by selecting him to receive their annual honorary award. The award read in part: "He has transformed the military science department into a truly academic effort making Loyola a model for other schools' military science departments. The initiation of the 'Option C' program exemplifies the qualities of academic excellence and personal integrity needed of our future Army officers."

Still another bonus effect of Track C is the participation of the Military Science Department in an avant-garde "Free University." The Free University is a voluntary, no-credit program offered in an off-campus coffeehouse whose classroom is a living room. In September 1968, one of the Track C officers was asked if he would give three lectures in the Free University. He agreed and titled his lecture series "The Military Instrument." With such a title, the course drew most of the dissidents on campus. But because of his academic as well as his military background, he was able to hold his own.

Popular Program

In fact, the course became the most popular one offered by the Free University, and the officer actually gave over 25 lectures last school year. Needless to say, the first few sessions were tense, but all parties involved soon grew to respect each other, and the meetings developed into a real learning experience. This involvement has done much to improve the image of the military services and enhance ROTC on campus. It has also given the ROTC student pride in his department, military instructors, and future profession.

ROTC at Loyola University of Chicago is one of the many Army ROTC programs which is progressing and thriving in even these turbulent days. And Loyola's program was not the result of student protest, but the work of concerned civilian and military educators. Let me not be misunderstood. Current criticism of the ROTC program is not necessarily unpatriotic nor is dissatisfaction with the ROTC curriculum necessarily disloyal. On the contrary, critical analysis can be productive. The end result can be a stronger ROTC program.

We must be able to differentiate between those who want ROTC completely off campus because it



"taints" a university and those who desire change in the curriculum in order to bring it up to the standards of the academic community and to improve the college education of the student and the future Army officer. My contention is that the latter group comprises the majority of our college administrators, faculty, and students. It is to this group that the Army must address itself, not just reacting to the actions of a dissident minority, but taking the initiative in meeting the justifiable wants of the concerned majority.

Finally, given the academic credentials, the military officer can contribute to and enhance the over-all university curriculum. We can destroy the allegations of those professors who blatantly state that the military

officer is not equipped to discuss subjects intellectually, is narrow, or lacks freedom of expression. Most important, by our academic as well as our military professionalism, we can motivate college students toward careers in the Army.

All we, as military officers, ask are the means which, in the university community, are the academic credentials. With the credentials, we can structure and teach the type of program which can compete with other professions for quality college students. The costs are relatively low; the benefits in producing better officers and instilling professional pride are high. ROTC at Loyola University of Chicago is a bright example of what can be accomplished. **MR**

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The Army The Army Lieutenant Colonel Frederic J. Brown, US Army

As Vietnam began to wind down, the US Army and its role in society was debated on several planes, not the least of which was the end of the draft in 1973 and the institution of the

"All-Volunteer Force" concept. Then Lieutenant Colonel Frederic J. Brown Jr. assessed the debate from the perspective of a student at the National War College in this lead article for the March 1972 edition of Military Review.

THESE ARE DIFFICULT days for the Military Establishment and particularly the Army. Faced with the need to readjust after a long enervating commitment to a complex, confusing and frustrating war in Vietnam, the Army is seemingly assailed from all sides. Public animosity exceeds that in the previous experience of any of those soldiers presently serving. The fiber of units is stretched by racial stress, drug excess and an environment of hyperactive inquiry if not hostile dissent. In the view of critical observers, the Army not only serves an increasingly questionable social purpose—the use of force in defending the Nation—but also is dysfunctional in that it constitutes a nonproductive, inefficient drain of resources which could be better used to meet pressing social problems.

Critical public sentiment often strikes a responsive chord in the Army. The assertion has been made, within the professional ranks, that the Army must become "meaningful" if it is to continue to exist. The proposition is most often stated to buttress arguments favoring the development of noncombat-related "socially productive" roles which will not only keep the Army active and committed to the mainstream of American life, but also, because of their utility to the Nation, will serve as added justification for the continued existence of the Army.

This proposition is wrong. The greatest current danger to the Army is the stimulus to overinvolvement in efforts to maintain social "relevance" rather than any isolation stimulated by underinvolvement. The evolving nature of the American society constitutes a reasonable guarantee that the problem for the military profession is not lack of social integration; the character of our

postindustrial society will insure that the necessary ties continue to be maintained, even in an all-volunteer force. The Army is already deeply committed to a broad range of social welfare programs. Further, there has been a trend of continually increasing involvement. Isolation is not the problem.

The real challenge to the Army today is to conduct responsible and necessary social welfare programs, while preserving those core values of the military which combine to produce units and men who willingly serve the national defense with "unlimited liability"—to and including the ultimate price. The danger is overcommitment to social welfare programs which can erode the core values and capabilities of unit readiness.

The concern is not that the Army exercises social responsibilities. Many are absolutely necessary for management of the Armed Forces or to perform an essential public service such as disaster assistance or civil defense planning. The problem is to subordinate in a responsible manner the aggregate of such efforts to the maintenance of adequate defense readiness.

Historical Precedent

The Army is engaged today in a broad series of social programs developed over the years in response to general acceptance of an increasing governmental role in providing for the social welfare of individuals and in taking direct responsibility for many other important areas of public life. Current social programs in which the Army is involved have historical precedent in a general tradition of civic assistance provided over the years by the Army.

However, in the past, the Army neither saw itself, nor was it seen by others, as possessing enduring responsibilities to conduct programs to improve the lot of any particular individuals in society or to correct social ill, which plagued the Nation.

Since World War II, there has been increasing pressure to commit the Army to social programs involving improvement of the individual. Some programs were necessary for better management of the Armed Forces; others were intended to improve community relations by providing useful public services.

Current Efforts

The rhetoric of leadership has led to the development of a broad set of social welfare programs, most of which are desirable for improvement of personnel management. Yet some programs directly affect the environment and life style of the individual citizen both in and out of military service. Major current efforts are: Domestic Action, Equal Opportunity (minority relations), General Education Development (education), Alcohol and Drug Abuse Prevention and Control, Project One Hundred Thousand and Project Transition.

• Domestic Action. This is a recent Department of Defense (DOD) "carrier" program for most externally oriented social welfare activities conducted by the military services under the guidance of a DOD Domestic Action Council. The program includes manpower efforts such as Project Referral, intended to assist in securing jobs for retirees; Project Value, designed to provide jobs in DOD for over 1,000 hardcore unemployed per year; and the Youth Employment Program, an effort to provide summer jobs for over 40,000 youths per year.

Military procurement is also channeled to minority small business enterprises. Physical resources (equipment, facilities, services and property) are made available on a reimbursable basis where possible. Over 275,000 disadvantaged youth were provided recreational, cultural, educational and training activities during the summer of 1969 in the community relations effort. Lastly, technical knowledge such as low-cost modular housing, aeromedical evacuation and environmental improvement is provided to civilian communities. The sixth element of the program is equal rights which continues longstanding efforts in minority relations.

• Equal Opportunity. Beginning with desegregation in 1948, the services have led the national effort in minority relations. Secretary Robert S. McNamara saw the services as "... a powerful fulcrum in removing the barriers to racial justice not merely in the military, but in the country at large." Consistent with this phi-

losophy, the DOD open housing policy predated the comparable provisions of the Civil Rights Act of 1968. In further extension of this activist social role, places of local entertainment practicing segregation have been placed off limits by the Secretary of the Army. Formal education in minority relations is being expanded for all service personnel. The level of involvement has increased each year.

• General Education Development. The military is the largest vocational training institution in the United States. The rate of turnover of personnel—an estimated 24 million veterans since 1940—and the physical plant required have resulted in a major and expanding national educational system within the services.

Prior to Vietnam, approximately 500,000 individuals left the military services annually for civilian life with an estimated 50 percent having received post-high school occupational and professional education and training. Such Army programs continue to increase dramatically. A \$22.6 million program in 1968 to increase high school, college and postgraduate qualifications of all enlisted and officer grades may expand to over \$40 million for 1973.

More recently, the Modern Volunteer Army Program envisages "... an educational system which provides each soldier the opportunity to acquire, on duty time, civilian-recognized skills or education" so that the soldiers will see the Army "... as an avenue and not as an alternative, to their personal and educational development." A policy of providing veteran benefits to insure that an individual did not suffer as a result of Government service has become a program of providing personal benefit through Government aid and assistance while serving and during duty hours-a new horizon of social responsibility for the Army.

• Alcohol and Drug Abuse Prevention and Control. Although too early to gauge the resource implications of this new program, the principle is clear: The military services are expected to provide professional rehabilitation for individuals discovered to be suffering from addiction during their period of national service. As is the case with educational programs, national service will, through rehabilitation, benefit the individual whether he acquired the disorder before or during service.

In its embryonic stages, the drug abuse program will require over 2,900 specialized personnel and over \$32 million of direct costs for Fiscal Year (FY) 1972, according to DOD FY 1973 budget hearings in October 1971. Unsupported estimates of true cost to include salaries of addicts, guards for facilities, and so forth range up to \$100 million per year for the Army. All that seems certain at this point is that the military has entered

into a new and uncharted area of social responsibility.

• Project One Hundred Thousand. This project was developed by Secretary McNamara to broaden the manpower base and to make the marginally productive civilian into a successful, competitive citizen. He saw the challenge as "a ghetto of the spirit. Chronic failures in school throughout their childhood, they were destined to a sense of defeat and decay in a skill-oriented nation that requires from its manpower pool an increasing index of competence, discipline and self-confidence: Many of these men, we decided, could be saved."²

From 1 October 1966 to 30 September 1971, the Army has accepted over 200,000 of these individuals at an estimated annual cost for FY 1970 of under \$3 million.

• Project *Transition*. The objective of Project Transition is to assist the soldier to secure a job upon completion of service. Begun in 1968, the program consists of job counseling, vocational training, and job placement assistance. By 1970, 240,000 men had been counseled, and 69,000 trained at 55 installations in the United States. Due to the high veteran unemployment problem, a major expansion of Project Transition is now under way. The program is being enlarged in the United States and extended overseas to include Vietnam. Specific job training installations are now being established to provide 60 days of training for combat soldiers without civilian skills. Thus expanded, the program could cost some \$200 million per year.

Broad guidance is evident in the varying objectives, techniques and beneficiaries of these six programs. The range of variation is so broad as to preclude establishment of unequivocal general criteria for evaluation of the suitability of programs. Of these programs, two—Minority Relations and Drug Abuse—address problems which directly affect the military readiness of units, as well as being programs which demonstrate acceptance of Federal responsibility to state and local governments. Two other programs—General Education Development and Project *One Hundred Thousand*—improve individual skills for both service and postservice activity. A third—Project *Transition*—addresses only veteran activity.

Several of the Domestic Action and technical knowledge programs would cost very little and could make useful and necessary contributions to the improvement of life in the United States. Examples would be use of military posts to develop new techniques of low-cost housing construction, mass transit systems, or pollution abatement. Other programs merely serve to open military resources to ghetto or rural poor much as service children have been accommodated in the past—for example, scouting and club activities. Some programs

such as disaster relief are purely humanitarian. In the face of such diversity, program objective seems an inadequate criterion.

The case for Army acceptance of increased social responsibilities rests upon five arguments:

- There are major national social welfare tasks to be accomplished.
- The Army is capable of assisting in their accomplishment through amelioration of social ills.
- Acceptance of social responsibilities by the military will assist in assuring the availability of resources with which to maintain operational readiness to fulfill conventional defense responsibilities.
- Social involvement will serve to disarm traditional critics of military programs.
- Social involvement will help to attract and retain quality personnel.

Social Welfare Tasks

The first premise appears self-evident. There are major social welfare tasks to be undertaken. As income levels rise, education and communication create greater awareness of the need for action. This has been the pattern of the last decade.

The premise that the Army can undertake major new social responsibilities is more controversial. The Secretary of the Army has strongly supported current Army domestic action projects. In fact, after stating that the Army must maintain mission readiness, he called for major expansion: "We must do more, much more.... As long as we limit it to something that will help the soldier in his training mission; as long as we can accomplish our other goals without adding more men or dollars, I see no limitation ... domestic action has to become more and more important."

The activist case appears to rest on two premises: availability of sufficient quality personnel to carry out the programs within the service and presumed ability to institutionalize successful social action programs. The Army does possess extraordinarily capable and dedicated managers. Attracted to public service by the professional nature of military service, the officer and senior noncommissioned officer corps are precisely the action-oriented managers called for by John W. Gardner as he bemoans the "... chasm between the worlds of reflection and action" and calls for "... leaders who can move beyond their special fields to deal with problems of the total community." Quality alone will not solve the problem.

First-rate management talent is limited. There may not be sufficient topflight managerial capability within the Army to maintain ready combat capability while supporting complex social programs. With normal distribution, most of the Army's social welfare projects would be administered by "average" officers and noncommissioned officers.

Complex Programs

If a program is too complex or too innovative to be understood and honestly accepted by average men and women, it may fail despite the most optimistic prognostications of central authority. Racial attitude conditioning and establishment of the environment of discipline based upon mutual trust called for by the Modern Volunteer Army Program are current attempts to institutionalize sophisticated social programs. It is not certain that these programs can be implemented by "average" Army managers.

Requirements for quality personnel, sheer size and the bureaucratic nature of the Army combine to make social action programs difficult to run properly. The Army, as a bureaucracy, may be a blunt instrument incapable of institutionalizing the finesse required to deal with complex social problems at the Federal level. This inability is not unique to the Army; it is a characteristic of large organizations.

The third argument supporting increased social responsibilities is more conjectural. Increased social action may or may not justify the allocation of additional resources to the Army. It is conceivable that there could be major increases in program responsibility without a parallel increase in funds or personnel. For example, the real burden of expanded Project *Transition* training is borne by the unit which must support the project while continuing other missions.

Additionally, even if added resources were provided, they may not be suitable for improved defense readiness. Potential missions in the inner city would provide ill-suited justification for additional maneuver battalions configured and trained for combat operations.

Disarm the Critics

The fourth premise is that increased social responsibilities would help in disarming the most voluble critics of the military—that is, the "liberal establishment" representing the latest in a tradition of liberal hostility toward, and suspicion of, military affairs. Presumably, by its efforts at social improvement, the Army would convince its arch critics that it performs a useful and necessary social function. This seems a problematical non sequitur at best. Gardner, John Kenneth Galbraith, Goldberg and others would appear more likely to insist that the resources be administered by another federal department.

In any event, Army activity in such areas would be subjected to intense critical review by a skeptical The real challenge to the Army today is to conduct responsible and necessary social welfare programs, while preserving those core values of the military which combine to produce units and men who willingly serve the national defense with "unlimited liability"—to and including the ultimate price. The danger is overcommitment to social welfare programs which can erode the core values and capabilities of unit readiness.

audience. There is scant prospect of changing a basic philosophical view of the nature of force in a democratic society by volunteering to accept, or willingly accepting, peacetime social responsibilities. By blurring the limits of its functional responsibilities as the possessor of legitimate force, the Army could well exacerbate the conventional criticism.

Attract Quality Personnel

The fifth premise is that extensive social involvement will attract and retain quality personnel who might not otherwise serve in the Army. Underlying this premise is a belief that, to attract and retain, the Army should have an image as a compassionate, understanding organization accepting and developing the individual as a means of contributing to the resolution of pressing domestic problems. Inferentially, the social value of securing the Nation provides insufficient attraction. This view is evident in the Modern Volunteer Army master program which infers that the citizen's contribution to society comes after his period of military service: "... to fulfill his needs and those of the nation, the Army today must be an institution in which men grow ... and from which they emerge, having served as proud competent soldiers better prepared to contribute to our society."5

For the soldier, the basic contribution to society is his period of military service—a socially acceptable end in itself. This latter attitude appears to be shared by many young Americans. Current national sample opinion polls show the essential traditionalism of most young Americans. Performance of "socially relevant" responsibilities does not appear to motivate young Americans to service in the enlisted ranks as much as basic acceptance of patriotic service—the notion that somebody must defend the Nation. They expect reasonable income, personal improvement, and job satisfaction derived from being a serving participant in military preparedness.

The young college graduate officer may well expect a more active social role based upon the activist

environment on today's campus. The opportunity to contribute to the resolution of ecological or inner city problems may be necessary to retain quality officers, but such activism need not involve military units. One-to two-year sabbaticals permitting a limited number of officers to assist state or local governments would permit individual "activist" roles without committing unit resources.

The Secretary of the Army has strongly supported current Army domestic action projects. In fact, after stating that the Army must maintain mission readiness, he called for major expansion: "We must do more, much more.... As long as we limit it to something that will help the soldier in his training mission; as long as we can accomplish our other goals without adding more men or dollars. I see no limitation."

The myth of the necessity of "meaningful" social involvement throughout the Army may be more real to some of the educated leadership of the Army who are influenced daily by the values of the elite establishment-represented by *The New York Times* and *The Washington Post*—than it is to the Army as an organization composed of average people, with traditional motivations, who stem from middle America.

Reasons for Concern

Conversely, there are substantial reasons for Army concern about acceptance of extensive social action responsibilities. The case rests on four arguments:

- The Army exists to provide military security to the Nation, hence resources should be focused to this purpose.
- Challenged by external criticism and internal review, the Army today is ill-suited to address nonmilitary problems.
- Ongoing social welfare programs are difficult to manage, hence expansion of these programs would compound the problem.
- Domestic social action may stimulate overinvolvement by well-meaning nation-building experts.

The Army exists to provide military security to the Nation—resources should be devoted solely to this purpose. It is a basic proposition that the Army exists to defend the Nation. The Army must be skilled, tough and ready to perform its mission in defending the country, and it must be seen as such by the American people who have a right to expect that several billion dollars per year will produce the necessary units with fully capable fighting troops. If such resources also produce

some form of social benefit, so much the better, but the funds are appropriated to provide the basic military preparedness expected by Congress and the public.

Until recently, the Army has been assigned increased social welfare responsibilities during a period of increasing defense budgets. Today, the situation has changed; budgets are steadily declining in real and absolute terms.

Congressional Acceptance

The major stimulus for allocation of national resources to the Army is, and must remain, basic congressional acceptance of the need for a reasonable level of general defense readiness roughly divided to meet the land, sea and air threats. It appears unlikely that social welfare projects could become a convincing rationale for allocation of additional military resources. More fundamentally, increased social welfare responsibilities could serve to dilute rather than create basic military readiness.

The problem is more basic than just diversion of resources. There is a possibility that assignment of social responsibilities to combat units may blur their role. Diminution or masking of this role could deprive the Army of the purpose, direction and pride which are the roots of combat capability. However, certain combat service support units—medical, transportation, communication and maintenance effectively might perform limited social roles which, by their similarity to wartime missions, could truly enhance combat readiness.

Challenged by external criticism, and internal review, the Army today is ill-suited to address nonmilitary problems. The Army is under serious attack—partially due to Vietnam and partially due to its role as a competitor for resources which might otherwise be available to civilian agencies, for social welfare. Seen as "lax and fat" by some responsible national spokesman such as Gardner, 6 the image becomes far more damaging when changed to that of some youths who view the Army "... as a wicked greedy aggressor conspiring with other vested interests to subvert the American dream."

Disturbing as they are, views such as this will moderate as time and events moderate the current disillusionment caused by Vietnam. Far more serious is the widespread questioning by responsible decision makers. Capable and dedicated Americans are in profound disagreement about the nature of the threat to the United States and the size and composition its Defense Establishment should have.

The external debate has stimulated searching internal review of policies and practices. The Army is undergoing a serious "questioning of confidence" precipitated by Vietnam. There is a lurking sentiment within the Army that the Nation could have been better served.

It is a simple yet fundamental truth that the mission of the Army is to control the land and people who inhabit it. The Army, as an institution, concerns and derives its strength from people—the challenge of the diversity of man—as compared with the attractions of machines, sea or air, which are the lifeblood of the other military services. Due to its intimate relationship with people, the Army must believe that it is accepted as a necessary, if not always popular, profession. This atmosphere of acceptance is lacking in many quarters.

Traditional Capabilities

Today, as in the past, the key to external acceptance and internal satisfaction is proud, capable, confident units prepared to perform traditional missions. The reestablishment of traditional capabilities must take precedence over initiation of beneficial and useful career-attracting programs such as on-duty educational opportunities for the soldier serving in operational units. Until there are fully manned, truly trained and maintained units, hours devoted to on-duty education must detract from the development of honest mission readiness. Particularly at a time of concerned introspection, those tasks which divert resources from unit readiness and job satisfaction within the small unit should be avoided.

Current social welfare programs are difficult to manage. Expansion could compound the problem. Current social welfare programs have been difficult for the military to manage. The normal diversity of situations and requirements faced by the Army, combined with the temporary but vexing problems of Vietnam—such as personnel instability—have required that local commanders manage many social programs.

In many cases, however, local authorities have neither the knowledge nor the resources to deal with complex social phenomena. Conditioning racial attitudes, applying techniques of outpatient drug rehabilitation, and skill training of the marginally productive are examples of challenging problems which strain the limits of current social knowledge, but which essentially are problems that local military commanders have been forced to solve.

Expanded Activities

In many cases, local commanders have had to address these expanded responsibilities with neither a lessening of existing responsibilities nor an increase in resources. Most commanders are understandably cautious about releasing men from military training to attend civilian skill training or expanded educational programs unless there is an explicit change in directed

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missions or priorities. Yet acceptance of such responsibilities has seldom provided a persuasive rationale for a reduced level of unit readiness. The time and effort is often "out of the hide" of already-taxed commanders and units. Under these conditions, expanded personnel activities can become a disturbing stimulant for a hypocrisy of "statistical" performance.

Lastly, the local commander is the cutting edge, innovating at the local level social change which was proposed at the theoretical level. To the average American, the innovator is not Secretary McNamara or Secretary Melvin R. Laird. It is the Army.

Adam Yarmolinsky has observed: "The establishment has assumed a certain responsibility for stimulating social change and has ceased to be contented solely with maintaining the status quo of the society it serves."

He is correct—but the burden is not borne by the "establishment" which comes and goes from public service. It is borne by the average captain and sergeant in the Army year after year.

Domestic social action may stimulate overinvolvement by well-meaning nation-building experts. Another effect of Vietnam has been to make many within the military profession wary of civic action responsibilities. One of the real issues of involvement in Vietnam was the process of overcoming institutional reluctance to commit the Army to the resolution of problems that were primarily social, economic and political. The jump from Special Forces to Regular Army participation in civic action, nation-building, and counterinsurgency was significant. It symbolized the acceptance of social and economic action as a conventional primary Army responsibility. For myriad reasons, the transition was done poorly.

Dismayed by the Vietnam experience in social endeavors, many officers do not want to permit a similar experience in the United States. The Army has thousands of capable advocates who have invested a decade of service in counterinsurgency. Doctrines of nation-building forged in Vietnam are often assumed

to be transferable and applicable to improvement of domestic poverty conditions.

To some, domestic social action projects will at last permit the Nation to gain full value from the special capabilities developed for Vietnam. These advocates see increased social involvement in the United States as a way to maintain the capability and thus the readiness for some future contingency, while simultaneously serving to alleviate the conditions of the ghetto or rural poor. This rationale was evident in a recent study of Army personnel policies for the mid-1970s: A deeper Army involvement will improve our understanding of the causes of insurgency and the means needed for countering them.⁹

A more indirect and disturbing assumption of domestic education and security responsibilities is also inferred in the same document: *The Army social action role is thoroughly anchored in doctrine which dictates that rear areas must be kept secure so as not to divert or weaken the effort at the front.*¹⁰

Allocation of Resources

Another vexing but oft-forgotten aspect of domestic action is the problem of allocation of resources at the local level. While Army motives may be humanitarian and pure, the allocation of resources is a function of political power. Politics is the process of resolving conflicting values and wants. When the Army provides resources to any civilian community, it becomes enmeshed in political processes. It cannot escape a role of direct or indirect influence. For example, are resources to be distributed through Republicans or Democrats? The Army can be placed in a difficult, untenable position.

Special Forces are out today conducting imaginative civic action operations in the poverty-stricken communities of the mountainous areas of North Carolina. The danger of unfortunate involvement is real.

The major and abiding determinant of the proper level and nature of social responsibilities of the Army is the basic relationship of the military profession to the social and political system it exists to defend. This relationship is dynamic—highly dependent upon the perceived needs of the society as a whole and defense requirements placed on the Army.

American Society Changing

One of the more mundane truisms today is acknowledgment that American society is changing at a rapid, if not accelerating, pace. Various descriptions of the change have been advanced, and the more adventurous of the theoreticians have attempted to chart the future—Daniel Bell's postindustrial state, Herman

Kahn's sensate society, Zbigniew Brzezinski's technetronic age—the third revolution, Charles Reich's consciousness III, and the accelerating change of Alvin Toffler's future shock.

Each attempts to chart the dimensions of major change under way in American society, including our sense of values. Each work overwhelms with statistics of change, but is understandably vague about probable institutional responsibilities and relationships in the future. Perhaps the frankest admission of uncertainty comes from Gardner: "We're like a man driving eighty miles per hour in a fog that permits him to see only thirty feet ahead."

The potential impact of such rapid change may be more pronounced for the military than it is for the rest of society. It jars the conservative bias of the military profession and erodes the traditional isolation which has served to preserve the professional ethic. During such a period of change, the challenge to the Army is to modify its policies and procedures to accommodate change, while retaining that essence of order and discipline which enables a unit to succeed in battle. The Army has often met this challenge; but, in the past, change was effected behind the protective barrier of isolation. Samuel P. Huntington has noted that the military profession is: "... probably unique among significant social institutions in the United States in the extent to which it was created independent of American society." 12

Effects of Change

Change in the past was accomplished at a relatively leisurely pace. The Army had ample time to adjust to the new values stimulated by the Industrial Revolution as it dropped from public view in the late 19th and early 20th centuries.

Today, the military appears to be no longer permitted the luxury of such self-paced isolated change. One effect of the "technetronic age" has been to place the Army squarely in the center of the arena of rapid change. The effects of these changes upon the Army's relationship with American society are manifested in numerous ways:

National concern for the welfare of the individual has focused critical attention on the military justice system. Military justice has become a subject of critical public attention to the extent of severely restricting the authority of the commander.

The mass communications media have maintained an unblinking eye on military activities. Griping and grousing by disgruntled servicemen consequently have become nationally advertised dissent.

National concern for equal opportunity for minorities has encouraged creation of racial organizations within

and existing apart from the military chain of command.

The scourge of drug abuse has tied the military unit inexorably closer to the local community. Drug abuse can be met only through the closest coordination of policy and activity between adjacent military and civilian communities.

Civilian Isolation

The problem of the moment does not appear to be military isolation from the civilian community. It is precisely the reverse. Given the apparent tendency of man in the postindustrial state toward increased social involvement and concern, the danger to national security and the military profession is that the unique characteristics and capabilities of the profession may become eroded beyond repair by overimmersion in such a rapidly changing value system.

The Army must seek ways to promote the gradual adjustment to new American postindustrial values which will retain good order and discipline.

The path and rate of institutional change will be difficult to determine. There are numerous detours along the way. Two pitfalls are: a search for national acceptance by redirecting readiness resources to social welfare purposes; and presenting the false image of an institution actively supporting natural social welfare activities in order to gain the transitory support of the "liberal establishment."

Others may suggest such paths in the honest belief that the only way to maintain an Army in the future will be to deliberately blur its functional role in an array of increased general social welfare responsibilities. Such sentiment reflects the implicit fear that an army which retains its traditional image and structure is not supportable in the postindustrial America."

Flexible Posture

Yarmolinsky argues that, if the Army is to survive, it must "assume a lower and more flexible posture." To Yarmolinsky, such a posture would cause a desirable and necessary erosion of military values: "As the miltary character of the military establishment becomes less distinctive, absolutist perceptions may be replaced by more realistic ones. The military may come to be regarded as any other part of government." ¹³

The military character of the Military Establishment is precisely what has been found to be essential to develop the order and discipline necessary to successful performance in war.

The Army must view with caution the understandable pressures for acceptance of greater general social welfare responsibilities. The current Department of Defense and Army action policy is excellent. It is The Army exists to provide military security to the Nation—resources should be devoted solely to this purpose. It is a basic proposition that the Army exists to defend the Nation. The Army must be skilled, tough and ready to perform its mission in defending the country, and it must be seen as such by the American people who have a right to expect that several billion dollars per year will produce the necessary units with fully capable fighting troops. If such resources also produce some form of social benefit, so much the better, but the funds are appropriated to provide the basic military preparedness expected by Congress and the public.

basically conservative of Army resources today due to the unknowns of Vietnam withdrawal and the reduced defense budget.

Unfortunately, the policy may be fragile after Vietnam is resolved. For example, it is subject to substantial erosion if the Army aspires to increased social welfare responsibilities in an attempt to "be liked" and thereby attract volunteers. Further, the guidance may be sufficiently broad to permit well-intentioned erosion by those within and above the Army who believe it necessary to stimulate additional convergence between the Army, and society at large.

Several actions or policy guidelines could serve to reinforce the conservatism of present policy:

- To display the range and costs of involvement, aggregate and publicize the current level of Army participation in social welfare programs. Where possible, include both dollar and personnel costs with particular reference to the impact on the tactical unit.
- Programs which directly, substantially contribute to the tactical readiness, morale, good order, and discipline or combat, combat support, and combat service support units should be encouraged and increased. Examples of programs which could be increased are those to reduce racial and drug abuse problems in all units, off-duty educational and training improvement programs for soldiers and social infrastructure assistance to the civilian community such as aeromedical evacuation or engineer construction projects which are unequivocal, direct applications of wartime combat service support skills.
- Evaluate ongoing or proposed programs on the basis of their impact on the readiness for combat tactical units.
- Programs which serve to reduce directly the combat readiness of units should be reduced to the

essential minimum. Examples of such programs are Project *Transition*—which could be accomplished by the Veterans Administration after the individual is no longer expected to be militarily ready—and Project *One Hundred Thousand*—which could be replaced with non-military pretraining before an individual is expected to be prepared to accept national defense responsibilities.

Decisions on personnel programs with uncertain impact upon unit readiness should be decentralized to the local commander with decision guidance to plan, budget and conduct projects which he believes will contribute to improved unit readiness. Projects impacting on civilian communities would be encouraged after detailed coordination and approval by the local political, business and labor leadership. Examples of projects for decentralized leadership could be Special Forces operations, social action-oriented adventure training or community relations projects such as summer camps. Other, more extensive programs could be undertaken by the Reserve establishment.

This guidance would permit continuation, if not expansion, of a wide range of current projects-which are shown to be demonstrably neutral politically, useful socially and not detrimental to unit readiness. The Army policy theme must be willing acceptance of socially

useful tasks insofar as they contribute to the building of proud, capable units-as perceived by the local commander responsible for unit readiness.

Complex major programs centrally administered and publicized such as race training and drug rehabilitation must be aggressively supported; they genuinely increase unit readiness. Decentralization of other projects to the local commander who is directly and immediately responsible will continue the essential preeminence of traditional roles and responsibilities of the Army. At that level, maintenance of the capability to fight is an instinctive response.

Policies such as these would reflect necessary positive acceptance of responsibility to meet and solve challenging social issues yet preserve the unique nature of the profession. These policies and programs would be strictly subordinated to maintenance of combat readiness. However unpopular or "reactionary" these policies might be, the Army must persevere: "Upon the soldiers, the defenders of order rests a heavy responsibility. The greatest service they can render is to remain true to themselves, to serve with silence and courage in the military way. If they abjure the military spirit, they destroy themselves first and their nation ultimately." MR

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A Careful Look at Defense Manpower

General Bruce Palmer Jr., US Army, Retired, and Curtis W. Tarr

The Army's transition to an All-Volunteer Force in the mid-1970s was not easy. Congress tasked the Defense Manpower Commission in 1974 to look at the future of a force made up of volunteers rather than draftees. This article, published in the September 1976 edition of Military Review, contains a host of findings and recommendations, some of which were acted upon, some with which we still struggle today and some of which, while now no longer an issue, could easily resurface in the future.

Recently, after watching a unit train under grueling conditions, we paused during a break to talk with a sweat-drenched sergeant, a Vietnam veteran with abundant leadership skill to lead his men anywhere. After considering specific aspects of the training, we asked him about the capability of the modern Army. "We're doing fine, but we still have a heap of problems," he responded.

Members of the Defense Manpower Commission (DMC) have observed the armed services intensively for two years and have been studying their methods and requirements. We believe the sergeant summed up the condition of the Army in the All-Volunteer Force (AVF) environment about as well as anyone could, particularly with a "one-liner."

When Congress considered the defense appropriations for Fiscal Year (FY) 1974, Senators Howard Baker and Lloyd Bentsen asked that a commission be formed to study the rising personnel costs of the services, particularly for retirement, to analyze how these expenditures would affect defense capabilities of the nation, and to examine the future of the AVF. The Senate agreed, and thus the Defense Manpower Commission was created to examine the entire range of total force manpower problems, the most expansive charter ever given to a group working on this subject.

The commission, an independent and nonpartisan agency composed of seven commissioners (three appointed by the President, four by the Congress), had two years in which to report to the President and Congress after which its charter would terminate.¹

The inquiry would view present problems and those foreseen for the years 1976-85.

The commission organized itself on 19 April 1974 and submitted its 518-page report two years later. In addition to the final report, the commission issued an interim report on 16 May 1975. Before the work of the commission ceases, it will issue five volumes of staff studies. The seven commissioners had the assistance of a professional staff that averaged about 20 persons. During its inquiry, the commission and members of the staff visited defense forces throughout the United States and held hearings in Washington, New York City, Chicago and Los Angeles.

After studying the range of manpower and personnel problems for Active, Reserve, civilian and contract forces, the commission concluded that defense manpower and personnel matters are closely interrelated and must be treated as a system; at the outset, we adopted the total force approach.

The report has particular significance for officers and enlisted personnel in the US Army. The Army has a larger military and civilian force than the other services. The Army's mission requires large numbers of people. Ground warfare generates a higher number of combat casualties than the warfare in which the Air Force and the Navy would be engaged, and thus the Army requires the largest number of combat loss replacements in wartime. Finally, the success of the AVF probably will depend upon the ability of the Army to attract and retain the people it needs to carry out its missions.

We believe professional military education should be linked with advancement on the logic that it either is indispensable (which we believe) or it is frivolous and should be abandoned. ... Reserve officers and NCOs should have greater opportunity to take advantage of professional military education.

The report includes recommendations in a variety of areas that we will review briefly.

Manpower Requirements

The commission did not examine US foreign policy and commitments; such seemed to lie beyond even our broad charter. Accepting these, we then focused upon the manpower implications of them. Since general purpose and support forces account for most of the defense personnel, the commission concentrated its effort there. We found that the services have recovered well from the Southeast Asian war although that recovery is not complete. The Army, of course, had a heavy commitment and thus has had a giant rebuilding task. The failure to mobilize the National Guard and Reserve forces hurt the morale of these units and raised a serious question in the minds of the public about their value to national defense. Partly as a consequence, we found the total force policy far from reality. Many Guard and Reserve units have not received adequate equipment (often because the equipment scheduled for them has been transferred, instead, to a foreign nation). Some of the units are too large to prepare for combat during the time available to do so. Others lack an adequate mobilization assignment.

The Department of Defense (DOD) and the services seek to stabilize their force levels at FY 1975-76 levels, planning to improve combat capabilities without increasing manpower. The recent trend of investing manpower savings into increased combat structure will be continued, but the remaining savings probably will be modest. The commission supports the Active and Reserve forces requested by the Secretary of Defense for FY 1976 and FY 1977 except that the DMC would favor a higher strength for the Naval Reserve (102,000) and a more comprehensive plan for its employment.

We found inadequate data for a comparison of the costs to employ various kinds of manpower. Nevertheless, it is clear that civilians cost less than Active military while National Guard and Reserve personnel are less costly than civilians. Yet we also found that some of the rules of thumb for the costs of Reserve units can be misleading. If one figures the cost of capital equipment

as well as annual operating costs (including the costs of technicians as well as regular Reserve personnel), then a Reserve infantry battalion might cost 13 percent as much as an Active one, an armor battalion 30 percent, and an A7 squadron more than 60 percent. Obviously, the capital costs and the number of technicians required to maintain the unit cause great variations. Generally, a considerably higher level of unit readiness is associated with those higher cost Reserve units like the A7 squadron.

Many citizens have been concerned about combat-to-support ratios, wondering if the United States has invested its defense resources too heavily for frills. With the help of an outside contractor, we examined this issue. It appears that the ratio of Soviet ground forces is moving toward increased support, whereas the US Army ratio is moving toward more combat capability. But this comparison is inadequate because of the difficulties of determining what Soviet forces to include. Furthermore, the location of the combat commitment influences the result; if the Soviets deployed in Eastern Europe, their supporting forces would be an extension of their civilian supply system, whereas their commitment on another continent would impose far different burdens. We concluded that comparisons are not particularly helpful and that we must determine how well US forces are designed and manned to carry out their missions. Probably the most successful effort during this century has been the National Aeronautics and Space Administration's exploration of the moon, an undertaking that required thousands of civilian, military and contract personnel to place three men in space and two of them on the surface of the moon.

The DMC supports the Army 16-division plan, but it recommends a more rational command structure for the three separate brigades now in Germany. Either these should be organized into a division or they should be distributed to other divisions in Europe on a permanent basis. We concluded that the Army's concept of affiliating selected National Guard and Reserve units with Active counterparts is sound. Until results prove otherwise, we do not believe that the new hybrid divisions can be considered to have the same capabilities and readiness as full Active divisions. Army Reserve units without a mobilization requirement should be assigned one. National Guard divisions should be retained intact; but, in wartime to meet an urgent requirement, these could provide either battalions or brigades to committed divisions, and then these units could be reconstituted while the National Guard division prepared for combat. Current plans appear to focus upon a short war to the exclusion of a longer one, causing the nation to neglect important aspects of mobilization.

The support forces offer substantial opportunities for manpower savings, particularly in Base Operating Support (BOS) where one person out of six in DOD, counting Active and civilian personnel, is engaged. All of the services, for political reasons, operate from more bases than they require, even during a mobilization; this basing structure should be realigned on a long-term basis to provide time for proper economic adjustment in the communities affected. We found the possibility for major savings through contracting for BOS, particularly if the services establish contracts to accomplish work to be done but permit the contractor to determine how he will accomplish the objective. Other savings are possible through the use of more civilians and by continuing additions of capital equipment. We believe that BOS management in DOD would improve if that function had a policy focal point in each service as well as in DOD. At the present time, the sound techniques at one base may be known at another only by hearsay.

If the position of the United States in the international community of nations remains much as it is now, then the DMC concludes that Active military forces during the next decade will remain at about 2.1 million, civilian employees probably will decrease by about 70,000 to 1 million (assuming base closures, labor-saving equipment and more use of contract personnel), the Selected Reserve will remain at about 890,000 provided the Navy assigns a mission to its surface Reserve personnel, and private contractors could increase.

Recruitment

We commissioners conclude that the services have made a remarkable transition to the AVF. Unquestionably, the Army had a particularly difficult task. The years 1973-74 produced great pressure on service recruiters. Those from the Army had to recruit large numbers of young people to take the places of draftees being separated after short terms of service and among whom the reenlistment rates were low. Some young people brought into the Army during this time failed to adjust to their new responsibilities, causing added problems. But improved recruiter efficiency, early discharges for those who could not adjust and the recession that has increased the available pool all have improved the situation. The commission made numerous recommendations for further changes in recruiting operations.

The Congress specifically required the commission to look at the socioeconomic composition of the forces. We found that the quality of the Active forces, measured in mental category and educational level, has improved over the draft years; but the Reserve Forces have been affected adversely. More blacks and women have entered all services both in the Active and Reserve

Morale appears to be good, but many people in the services feel dismay and disillusionment. Many frankly admit that they believe the Government has broken faith with them. The implied promises made at the time of their commitment to military service either have been altered or destroyed or are now under attack. National leadership must restore credibility to manpower and personnel policies, closing the communications gap that troubles units in the field.

components. Although data is barely adequate to make a judgment, we see no evidence that this is a "poor man's Army." The services still rely upon the middle class for most of their recruits.

We found no evidence that any unit had been affected negatively by socioeconomic changes, either as to performance or mission capability. Generally, commanders have told us that these are the concerns of Washington, not of the field. Unit performance more frequently is the function of leadership, training, morale and discipline. We considered carefully the possibility of a representational policy and concluded that the better alternative is to make available the opportunities in the services to those who are qualified to accept them.

The commission noted that tests for recruits should measure success on the job rather than success in training for the job. To evaluate selection standards, the commission recommended study of those persons who complete their first-term job assignment successfully; success rates on various jobs can be compared with the people actually assigned. A "least-cost" strategy would maximize retention while minimizing disruption, incentives paid and time lost. As supply and demand conditions change, the future application of this technique appears promising.

The commissioners concluded that the Active forces seem to be setting adequate priorities to their recruitment programs. AVF is working. The services are learning to manage recruitment in this changing milieu even though everyone admits that much remains to be done. The National Guard and Reserve recruitment efforts warrant more attention. These forces may face the more difficult AVF challenge, and thus special attention is needed to improve recruiting success.

Development and Utilization

Under this heading, the commission considered all aspects of training, education and utilization. As a general statement, DMC recommended that DOD and Elements of the 2d Battalion, 66th Armored Regiment, 2d Armored Division, from Fort Hood, Texas, maneuver during *REFORGER IV* near Bad Kitzingen, Germany, 1973.



the services not duplicate facilities to develop skills where civilian institutions already are doing satisfactory work. As a case in point, the commission (in its interim report) recommended against the continuation of the Uniformed Services University of the Health Sciences.

The DMC made several recommendations to improve the management and flexibility of precommissioning programs. We believe improvements as well as savings would result from consolidation of certain flight training programs; we recommended the increased use of simulators. Lateral movement from the civilian sector to a defense agency could be facilitated if common standards for occupations were devised.

Some of us have worried about pressure on officers in the services to seek advanced degrees without apparent professional reasons for doing so. Frankly, a bachelor's degree should be sufficient preparation for a four-star assignment. We believe professional military education should be linked with advancement on the logic that it either is indispensable (which we believe) or it is frivolous and should be abandoned. It cannot be both. Better programs of professional education should be offered to noncommissioned officers (NCOs). Reserve officers and NCOs should have greater opportunity to take advantage of professional military education.

Graduate education should be reoriented toward broad occupational specialties rather than individual jobs, thus eliminating pointless discussions about whether Jones can assume a specific command without an M.B.A. It is more logical to assume that the Army should have a certain percentage of M.B.A.s assigned

to management positions. The Army should support voluntary graduate education programs related to occupational duties.

Without question, the GI Bill has helped recruiters. If that legislation is terminated (and there are valid arguments for ending this historic benefit), then a selective DOD-funded educational program should be established in its place, using this incentive and others to provide the Army with the young people it requires.

Commissioners supported professional growth programs among civil service career personnel. In many agencies and units employing civilians, it is apparent that both military and civilian managers need to better understand civil service rules. Too often, management has operated without the flexibility available under these rules simply because managers were not aware of their management options.

The services have worked harder to improve equal opportunity and race relations than has any other major institution in our society. Despite this important advance, one still finds institutional discrimination, an indication of the magnitude of the problem. Top managers must continue to monitor these programs closely. Particularly, more stress must be placed on the recruitment and retention of minority officers.

The DMC believes that women should be encouraged to enter nontraditional occupations in the services. We do not believe that it would be wise at this time to permit them to accept combat assignments. We found some lack of acceptance of women in the services, hampering an effective utilization of their skills. Equal opportunity for civilian women in DOD inhibits both

entrance and advancement, and we recommend that top managers accept the challenge of breaking down these barriers.

Future Military Career Force

The commission, in one of its most important recommendations, departed sharply from conventional thinking about shaping the career force. We were disturbed about the stability and quality of the force and about burgeoning retirement and other personnel costs.

The system suggested by the DMC is based on requirements tempered by personnel management considerations (rather than the reverse as at present). At the level of 10 years of service, there would be a controlled entry into the career force, after which promotion would not be required for retention. Officers and NCOs would be grouped and managed by broad categories such as combat, technical, administrative and professional. A normal career would be 30 years, perhaps longer. Combat careers could be shorter. Doing away with the failure-oriented "up or out" promotion policy should improve the morale and performance of the career force. Under this new concept, promotion would be dependent on years of service and time in grade although an officer not promoted could command respect for his successful performance as a career officer. We recommend a similar program for Reserve officers.

The military retirement system should reinforce the career force program. The present annuity payable after 20 years of service should be phased out and replaced with an immediate annuity after the normal 30-year career. Combat personnel in combat assignments could earn the annuity as early as 20 years; jobs related to combat could be assigned retirement benefits at some point between 20 and 30 years. Those who separate voluntarily from the career force would receive a deferred annuity at age 65. Involuntary separatees would have the choice of readjustment pay plus a deferred annuity or double readjustment pay.

Compensation

Those who study present and suggested compensation systems for defense personnel know what a difficult, complicated subject it is. Commissioners had no less perplexing an assignment trying to understand the present arrangements and then attempting to suggest more reasonable ones for the future. One cannot isolate military from civilian compensation. Although we found problems in the present linkage of military and civilian pay systems, adopted as a temporary arrangement by Chairman Mendel Rivers, we were not willing to destroy that linkage until we had an improvement to offer. Furthermore, we found serious erosion of the

principle of comparability as it presently is applied.

Primarily, the DMC believes that compensation should be competitive--adequate to attract and retain that quality and number of personnel needed by the services. We accepted the use of comparability only as a guide.

After much study and speculation, the DMC finally recommended the establishment of an independent, permanent Federal Compensation Board with jurisdiction over uniformed military (Active and Reserve) and all government civilian personnel, both of the General Schedule and the Federal Wage System. The Secretary of Defense is by far the largest employer in the Federal Government, with all of the military (except the Coast Guard), 45 percent of the General Schedule and 80 percent of the Federal Wage System employees. Yet he has no control or major voice in the current Federal mechanism for adjusting compensation. Clearly, *all* Federal compensation needs an independent evaluation.

The Federal Compensation Board would be charged with making recommendations to the President and Congress for all levels of compensation within the major pay systems of the Government. The board would require a fairly large staff of specialists to study constantly what payments are required to make Federal compensation competitive.

The DMC looked at the structure of military compensation, aware that each service has a unique force profile that is determined by mission and technology. Because of these differences, a flexible compensation system is essential. Needs will be met best by a uniform pay table, coupled with diverse application by the services of bonuses and special payments to meet particular needs.

The commissioners recommended the conversion of regular military compensation into a fully taxable salary. They believe that institutional benefits (that should not be included in the salary) are most important to morale, with gains from their elimination not nearly equal to the cost of adverse effects. The DMC does not support an explicit payment to all service members to compensate for the "X-factor," the degree to which service life is more demanding and dangerous than civilian employment. Recognition of the "X-factor" should be made in other ways. The commission staff made a comprehensive examination of the military estate program. The commission recommended changes in the current benefits and retirement programs, regardless of the action taken on DMC recommendations relating to the career force and the retirement program to accompany it. We favor a funding arrangement for accruing retired pay liabilities as a part of the budget of each service, thus forcing the services to weigh these costs while making overall personnel management decisions.

The All-Volunteer Force and Its Future

To determine the sustainability of AVF, the commission estimated the size of the 18-year-old male population (from which the services will recruit) in each of the next 10 years. The total numbers will decline during this time, with the 1985 population only 81.5 percent of the 18-year-old population today. Using historical data for recent years, a reasonably valid estimate could be made of that part of this total population susceptible to recruiting offers over the next decade.

Obviously, employment prospects affect recruitment success. Using slow, medium and rapid economic growth projections, employment levels in each year could be projected leaving the "pool" from which the services would enlist recruits. Under slow and moderate growth rates, the study found that the Active forces could meet their needs utilizing present inducements. Rapid economic growth, particularly approaching 1985 with the smaller 18-year-old populations, would force the services to increase pay or enlistment incentives, attract more women, utilize personnel somewhat less qualified or employ a combination of these. The Reserve forces will have a more difficult challenge; under moderate growth, they will encounter stern resistance, and rapid growth will force significant changes.

Sustainability depends upon the attractiveness of service life and the competitive inducements it offers. At present, competitiveness is eroding, and this will seriously hurt sustainability.

The American public must be educated to realize that AVF is a peacetime operating policy. No informed student of manpower yet has suggested that volunteers could meet the emergencies of a wartime commitment. Numbers of individual reservists will decrease as we move into the 1980s because of longer enlistments and higher retention in AVF and owing to the inclination of individual Ready reservists to enlist in units of the Selected Reserve. Thus, the Army will lack the sizable pool it would need for casualty replacements in the event of a major war. The DMC made estimates of the size of the pool, much smaller than those then being accepted at the time in DOD; consequently, a re-evaluation of individual Reserves must be undertaken. Steps that will alleviate but not solve the problem are to eliminate the Standby Reserve and to obligate women for the same Reserve responsibility as men.

Selective Service now has lost its capability to maintain registrations of young people and records that would facilitate inductions in an emergency. The DMC recommended that the Selective Service System be rebuilt to restore the capability to carry out annual registrations, thus having the potential to reinstate inductions within 30 days of a declared emergency. This, we believe, is essential for several reasons including the shrinking individual Ready Reserve.

Managing Defense Manpower

The commission undertook an extensive review of manpower management in DOD and elsewhere in the government including the Office of Management and Budget and the Congress. We examined the budget and appropriations processes now employed.

We concluded that manpower and personnel functions are not defined clearly. Manpower is not managed as an entity but, rather, by both staff officers on a horizontal level and commanders vertically. The sum of the actions of the many people involved in giving advice and direction does not produce a coherent manpower policy. This lack is complicated by the absence of sufficient professionalism, particularly compared to the importance of the human resources that are the heart and driving force of the enterprise. Short tenure only aggravates these difficulties.

Furthermore, three layers of manpower management and direction in DOD seem excessive when those at the Office of the Secretary of Defense and at the staff of the service chief should be ample. Thus, the DMC advised that the manpower function at the service secretariat be eliminated, provided that other same way. We would not want manpower management to be at a disadvantage compared to other functional activities.

We believe that manpower managers should have responsibility for all elements of the total force and for the life-cycle functions. All life-cycle functions should be managed on a total force basis, thus eliminating a separate management system for civilians and Reserve personnel.

The current Planning, Programming and Budget System (PPBS) needs major revision, partly because it is so time-consuming and lengthy. PPBS does not adequately or consistently portray manpower requirements or the associated costs of manpower. Likewise, the budget review process employed by the Congress warrants review, as do the means for controlling manpower authorizations.

Net Dollar Savings From DMC Recommendations

Although the commission was not asked to find savings, the large portion of the huge defense budget recommendations would produce substantial savings within the next decade, any estimate of the actual dollar amount must be a rough approximation.

Our staff members believe that, by the 1980s, our total recommendations could bring about savings each year of \$3 to \$4 billion, expressed in 1975 dollars. By the late 1980s, the annual savings could increase by a billion dollars, again in constant 1975 dollars, if the "one-percent kicker" for adjusting retirement annuities to the cost of living is eliminated as recommended by the commission in its interim report.

Leadership and Human Relations

Leadership in the Army impressed us. We found gaps in the middle grade NCOs as well as shortages of

Morale appears to be good, but many people in the services feel dismay and disillusionment. Many frankly admit that they believe the Government has broken faith with them. The implied promises made at the time of their commitment to military service either have been altered or destroyed or are now under attack. National leadership must restore credibility to manpower and personnel policies, closing the communications gap that troubles units in the field. We can hardly maintain the elan of our forces if the members of our units have lost faith that the Government cares for them and their interests.

One cannot discuss morale without considering unionization. Commissioners and staff members, after extensive travel among units in the field, conclude sadly that unionization is a real possibility. That issue must be faced squarely now by the President, the Secretary of Defense and the Congress.

As the people of the Army know so well, people always have decided battles and they always will. Military history is replete with examples of a smaller force defeating a larger one, and seldom does technology cause the victory. As Stonewall Jackson proved in the Shenandoah Valley; leadership, training and motivation make the difference. In a nation so aware of competitive games, we Americans hardly need reminding that numbers and statistics do little to determine the outcome of an athletic contest. The same is true of ground combat.

Success in land warfare depends upon the action of small, sometimes isolated units—squads, platoons and companies—where performance hinges upon the courage, skill and resourcefulness of the individual soldier. Thus, the people we recruit and then train into teams or crews or units ultimately will determine the kind of defense forces we will have.

With that awareness, we concluded by saying: The overwhelming lesson of this report is that human considerations now have become primary in planning for the nation's defense. It is for that reason that we believe without hesitation that defense manpower is the keystone of our national defense. **MR**

NOTES

 The members were Dr. Curtis W. Tarr, Chairman; Mr. Karl R. Bendetsen, Vice Chairman; Dr. Martin Anderson; Mr. Britton L. Gordon; Mr. Arthur E. Haley; Rear Admiral Lester E. Hubbell, US Navy, Retired; and Dr. Norma M. Loeser (served until January 1976). The Executive Director of the commission staff was General Bruce Palmer Jr., US Army, Retired.

General Bruce R. Palmer Jr., US Army, Retired, lives in Fort Walton Beach, Florida. He served in the Army for more than 38 years. His positions included commander, XVIII Airborne Corps and Fort Bragg, North Carolina; commander, II Field Force Vietnam and deputy commander, US Army, Vietnam; and vice chief of staff and acting chief of staff, Headquarters, US Army, Washington, D.C.

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The American Volunteer Soldier:

Will He Fight?

Colonel Charles W. Brown, US Army, and Charles C. Moskos Jr.

This article appeared in the June 1976 edition of Military Review and reports the results of a survey conducted by the authors of the All-Volunteer Force. The findings concerning soldier values, the importance of education to the force and the improvement in performance and attitude of an informed soldier will come as no surprise to today's reader. The conclusion that the volunteer soldier would fight if called upon would be proved in Grenada, Panama and, once again, on the Arabian Peninsula.

OVER TWO YEARS have now elapsed since the last draftee entered the military and the US Army began its conversion to an all-volunteer force. Today, the Army is composed entirely of volunteers. This conversion has been assessed and facilitated by a variety of pilot projects, studies and surveys. But virtually nothing has been done to answer the most important question of all—will the new volunteer soldier perform well in combat?

The purpose of this article is to present an attitudinal profile of the volunteer soldier in combat units and to try to project these attitudes into some kind of understanding of possible combat behavior. We stress, however, that inferring combat behavior from attitudinal items is an impossible task, for it is only in the immediate circumstances of actual ground warfare that the behavior of combat soldiers can be truly assessed. But, short of such circumstances, there are partial indicators which can give researchers and Army leaders some ideas as to what the volunteer soldier's motivation and performance might be.

As formidable as predictions of combat behavior are, at least until the end of the draft in 1973, the US Army could base expectations on the experiences of a generation-long reliance on the conscription system. But, today, precious little is known about the attitudes of the new volunteer soldier toward possible combat involvement. How much did the turbulent social unrest of the latter years of the Vietnam War affect the values of the contemporary soldier? What is the interaction between societal values and the commitment of young soldiers to military goals? What does the volunteer soldier think about participation in possible future conflicts? To even pose these questions suggests how

elusive—but important—are the answers. We propose that some limited understanding of these issues can be gained by the presentation and interpretation of data we have collected from a survey of volunteer junior enlisted combat soldiers.

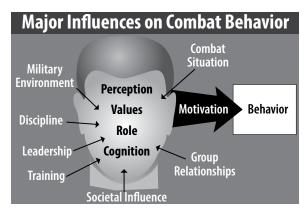
Theories About Combat Behavior

A Historical Perspective. To give a detailed account of theories of combat motivation would take us far afield. But, if we are to examine the attitudes of the volunteer soldier toward combat, we must first refer to some of the more widely known previous writings on the subject. Prior to World War II, Ardant du Picq's Battle Studies: Ancient and Modern Battle—which frontally introduced the notion of soldier morale—had the widest influence over the development of military theory and speculation about combat behavior. Arising out of World War II, two landmark studies appeared which empirically examined American combat behavior in that war. One was S.L.A. Marshall's Men Against Fire: The Problem of Battle Command in Future War, based upon data collected in after-battle interviews.2 The other was the four-volume series entitled The American Soldier: Combat and Its Aftermath which relied upon large survey samples analyzed by the sociologist Samuel A. Stouter and his colleagues.³ The studies of Stauffer and other sociologists (and Marshall implicitly) strongly emphasized the role of face-to-face or "primary" groups and explained the motivation of the individual combat soldier as a function of his solidarity and social intimacy with fellow soldiers at small group levels. Correspondingly, the World War II combat studies deemphasized the values systems of soldiers and, to a lesser extent, formal organizational factors as well. In its more extreme formulation, combat primary relationships were viewed as so intense that they overrode not only preexisting civilian values and formal military goals, but even the individual's own sense of self-concern.

Somewhat surprisingly, there have been only a handful of studies published about the American soldier's combat behavior since World War II. Roger W. Little's participant observations of combat troops in the Korean War revealed that the basic unit of cohesion was a two-man or "buddy" relationship instead of the form of World War II which followed squad or platoon boundaries. Although Little's conclusions were within the framework of the primary group explanation, his study also noted the salience of organizational factors such as Army personnel policies and differences between echelons.⁴

During the Vietnam War, Charles Moskos gathered data on combat motivation, based on his stays with combat units in 1965 and 1967. Among other findings, Moskos stressed the overriding importance of the rotation system as a determinant of combat motivation and the corresponding likelihood for soldiers to see the war in very private and individualistic terms. Moreover, Moskos introduced the concept of "latent ideology" and argued that an understanding of the combat soldier's motivation required a simultaneous appreciation of both the role of small groups and the underlying value commitments of combat soldiers. Moskos concluded that primary groups maintain the soldier in his combat role only when he has an underlying commitment, if not to the specific purpose of the war, then at least to the worth of the larger system for which he is fighting.

A Conceptual Model. Drawing upon the above hypotheses as well as the literature on Army leadership and training, we present in the figure a heuristic model of combat behavior.6 The relevant variables include external factors of both an organizational (policies)



and environmental (for example, societal influences, small group relationships and the combat situation) nature. These factors impinge on a core value system of the individual soldier which include subjective perceptions of the external factors and cognition of the soldierly role. In concert, all these factors determine combat attitude and motivation which, in turn, is directly related to eventual combat behavior.

We are not so brash as to assign weights to these variables, nor even to justify their discrete importance. We are fully aware that life—and especially the—life and death of combat—is too complex to be captured in any schematic model. But we do hold that attitudinal items measuring these variables can suggest relevant considerations in trying to evaluate the propensity of the volunteer soldier to exert himself in combat.

Collection of Data

To gather data on the volunteer soldier's attitude and motivation toward combat, a questionnaire was constructed which tapped the items covered in the schematic model presented in the figure. The focus of the study was on junior enlisted personnel who had direct combat responsibilities. For reasons of manageability and economy, the sample was projected at a total of 400 volunteer soldiers. Four combat units were selected with the objective of getting about 100 soldiers from each unit to complete the questionnaire. The units selected were an infantry battalion, a tank battalion, an airborne infantry battalion and a ranger battalion. In selecting these units, there was a presumption that there might be a contrast between the normal volunteer units—the infantry and tank battalions—and the more elite units—the airborne and ranger battalions. All the units selected were stationed in the southeastern part of the United States, and all were surveyed in April 1975.

Even though the units had busy schedules, the commanders were very interested in our research effort and gave us the utmost cooperation. In preparation for our visit, we requested that the selection of the sample of soldiers to be surveyed be as nearly representative as possible of the total unit. We feel confident that the soldiers who were administered the questionnaire were indeed representative of the volunteer soldier in the surveyed combat units. Thus, for example, comparison of the racial distribution of the unit with the soldiers actually surveyed showed no marked discrepancies. All told, 358 or 91.8 percent of the questionnaires were usable.

The mechanics of the administration of the questionnaire were that each item was read aloud. If required, clarification was given as to the intended

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meaning of the item. In Army parlance, the questionnaire was administered "by the numbers." Additionally, following the completion of the questionnaire proper, small numbers of soldiers-usually a dozen or less-took part in a give-and-take interview session with the researchers.

A Profile of the Sample

Age and Rank. The average age of our sample was between 20 and 21 years. Within our groups, the elite units were slightly younger than the others. Comparison of age to race and education indicated no significant relationship. Virtually all of the surveyed soldiers were of the pay grade E-3 or E-4.

Race and Region. The racial distribution between the units surveyed varied. The infantry and tank battalion samples were over 50 percent Black and about four to five percent other minorities. The two elite units had a higher representation of whites: 63-percent white in the airborne battalion and 84-percent white in the rangers. The high percentage of minorities in the infantry and tank battalions is explained partially by the fact that many of the members were recruited locally. Seventy-one percent of the sample personnel from these units were from the Southern states, compared with 35 percent of the elite units.

Slightly over half of the soldiers in our survey had spent most of their lives in small communities, while slightly over a third came from suburbia or large cities. This is not representative of the distribution of American society in general. But it is to be understood by the fact that the two normal units (for example, the infantry and tank battalions) were largely recruited from the South and many of the Blacks in those units (63 percent) came from rural communities.

Education. Analysis of the education variable reveals some interesting facts. The elite units were the most highly educated: Only 16 percent had not completed high school, and almost one-fourth had attended

college. In our survey, there was no relationship between race and education. The same percentage of Blacks had completed high school as whites, a noteworthy finding considering the area of recruitment.

Attitudes Toward Army Life

Enlistment Influences. In considering what motivates an individual to volunteer for the Army, it must be assumed that more than one single factor will influence his decision. Based on this assumption, our questionnaire listed eight factors and asked the respondents to rank each of them independently on a scale of importance. The highest motivators were "learning a skill or getting an education," which ranked first (73 percent), followed by a chance to "serve my country" (70 percent) and a chance to "travel and get away from home" (64 percent).

The combat arms bonus did not rank as high as expected (49 percent), nor did civilian unemployment (46 percent) except for some of the minorities; this may be misleading, however, as these soldiers entered the service before the current recession. Least important was the influence of joining with a friend, followed by a military career and family influence.

Preferred Location of Assignment. Less than one-fourth of the soldiers preferred their current station of assignment. However, this is not surprising since the best place is always the one a soldier just left or is going to. Most of them (78 percent) wanted to be closer to their hometown or somewhere else in the United States (43 percent). However, few of them were interested in going to Korea (27 percent) and even fewer were interested in Germany (7.2 percent). Comments during the interviews indicated that this adversity to overseas duty was based on rumors about poor living conditions and status or the lack of mobility, boredom and poor morale in units.

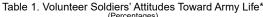
Satisfaction With the Army. Our survey revealed that half of the soldiers liked Army life and slightly over one-third disliked it. The remainder were undecided. The infantry battalion sample disliked the Army the most, followed by the tank and airborne battalions in that order. The rangers liked the Army the most. Somewhat surprising, there was no significant difference between the feelings about the Army of high school graduates and those that had not finished high school. This represents a change in attitude from the pre-Vietnam days when it was found that the higher the educational level, the greater the dissatisfaction with the Army.8 On a related item, as reported in Table 1, the majority of the soldiers in our survey felt that their squad and platoon leaders depended too much upon "threats or harassment to get things done." This feeling was most prevalent in the infantry and tank battalions (70 and 64 percent respectively) and less so in the airborne and ranger units (50 and 45 percent respectively). Although much of this sentiment might be attributed to normal enlisted grousing, the large proportion of soldiers reporting too much harassment deserves continued attention from the standpoint of troop leadership in the all-volunteer context.

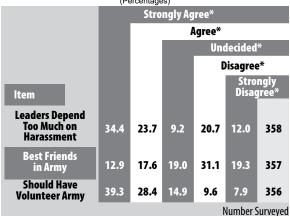
As also reported in Table 1, less than a third of the surveyed soldiers stated that their best friends were in the Army, and we could detect no pattern when comparing units on this item. It does appear that the long-term erosion in Army primary groups since World War II seems borne out by this finding.

When asked if the United States ought to have a volunteer Army rather than the draft, two-thirds of them agreed or strongly agreed. The agreement between the units on this item was practically identical. Less than a fifth of the surveyed soldiers disagreed with the volunteer Army concept.

Social Attitudes

Army Traditions. With the end of the draft, it was anticipated that so too would end the issue of hair length among soldiers. Surely, it was anticipated that, because the volunteer soldier knows the Army policy on haircuts, he would not take as much exception to it as his drafted counterpart. Our survey included items on hair styles in the Army, and it appears that the hair issue is still with us. Close to three-quarters of the surveyed soldiers were in opposition to current Army haircut regulations. In comparing the units on this item, the rangers were the most conservative (that is, favored shorter hair) of the units although even a majority of the rangers favored a relaxation of hair styles. We also found that soldiers who had attended college tended to be slightly more conservative in their hair attitudes when compared to





their lesser educated counterparts.

When asked whether "the Army should try to maintain as many traditions as it can which make it different from civilian life," our sample was about evenly split between agreement and disagreement. The split was fairly uniform among the units except for the rangers who were somewhat more likely to favor an Army with distinguishing traditions.

American Society. In order to assess the volunteer soldier's attitude toward the society from which he stems, we asked our sample how they felt about liberal attitudes and permissiveness in our society. As shown in Table 2, the responses to this question were diffuse and accompanied by a high degree of uncertainty. But, to ascertain more directly the soldier's evaluation of American society, we also asked did they believe "America was the best country in the world." Very significantly, an overwhelming majority agreed with this statement. Similarly, the surveyed soldiers were also strongly supportive of the proposition that America ought to have the best military in the world. Thus, our data indicate there is a profound reservoir of patriotism among today's combat soldiers though it will not be expressed in quite so open terms.

Although we found a marked predisposition for support of the United States and its military among the sample, our post-survey interviews revealed an ignorance of the positive reasons for the global commitments of our country. Few of the combat soldiers could come

Strongly Agree* Agree* **Undecided*** Disagree* Strongly Disagree* ltem Relax Army 61.2 13.7 6.7 12.0 358 Haircut Standards Army Should Maintain 16.3 23.9 18.0 22.8 18.9 355 Traditions People Too 12.7 32.2 34.7 12.4 7.9 354 **Permissive** America Best 54.1 25.8 14.3 3.1 357 2.8 America Has 52.0 30.1 8.7 7.3 2.0 356 **Best Military** Number Surveyed

Table 2. Volunteer Soldiers' Attitudes* (Percentages)

up with reasons as to why we need a strong military establishment-even though they favored it in principle. Yet, when we raised points for their consideration (for example, the stabilizing influence of America on the world scene, the unpredictability of international affairs, the security of the United States), there was strong interest and quick agreement. As we heard over and over again: "Why hasn't anyone ever told us that before?" Our research strongly indicates that American soldiers must know the "why" of their military service if they are to give maximum performance.

Attitudes Toward Combat

Trust and Respect for Fellow Soldiers. More than any other one variable, the relationship of the individual to his group in combat seems to exert the most influence on combat effectiveness. It is also the hardest to measure short of the soldier experiencing combat, for "an individual's combat survival is directly related to the support—moral, physical, and technical—he can expect from his fellow soldiers." Realizing this, it becomes extremely difficult to project the cohesion and role relationships of soldiers from a peacetime environment into combat.

Our survey asked what the soldiers thought of their peers in a combat role. As reported in Table 3, the item concerning "respect" for a fellow soldier who tried to get out of combat brought forth diffuse opinions with a rather high degree of undecidedness. However, in comparing units, the elite units were most severe on combat shirkers.

When asked if they would "trust" the members of their unit in combat, the responses were again diffuse. But, on this item, interunit differences were very pronounced. While only 19 percent of tank and infantry battalions agreed with the statement they would trust their fellows in combat, 71 percent of the airborne and rangers indicated such trust. Again, as on many other items, the elite units reflected the highest degree of trust and respect for their fellow soldiers.

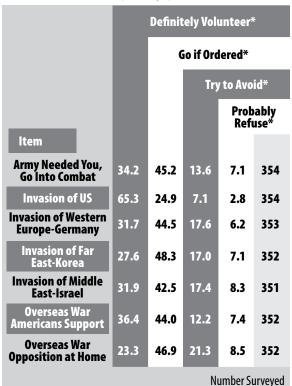
Table 3. Volunteer Soldiers' Trust and Respect of Fellow Soldiers* (Percentages)

	`	·	,			
	Strongly Agree*					
		Agree*				
		Undecided*				
		Disagree*				
Item				Strongly Disagree*		
Respect Combat		١				
Shirker	17.1	16.6	22.8	16.3	27.2	356
Trust Fellow	1					
Soldiers in	16.8	28.2	23.2	14.8	17.0	358
Combat						
Number Surveyed						

Readiness to Participate in Combat. A good portion of our survey dealt with the volunteer soldier's attitude toward a variety of stress situations. The responses to these hypothetical combat situations are shown in Table 4. Using two recent national polls as a benchmark, the volunteer soldier's attitude was compared to the public's attitude in scenarios where a comparison could be attained. It was found that the attitudes of the volunteer soldier did not mirror that of the general public. For example, a Harris Poll revealed that barely one-third of the public was in favor of sending US troops into the Middle East if Israel were being defeated.11 And in a recent California Poll, "almost half" of those sampled did not want US troops fighting in Israel, and only one-fourth supported troops fighting in Korea.12 When given these same scenarios, almost three-quarters of the troops in our survey indicated that they would, "volunteer" or "go if ordered." This is also sustained by the fact that almost the same amount responded positively toward two opposing situations-a war the American people supported and one they did not. Again, in all the situations depicted in Table 4, the elite units, led by the rangers, responded most positively.

As a general item, the soldiers were asked: "Suppose the Army needed people to go into combat. What would you do?" Seventy-nine percent stated they would "vol-

Table 4. Volunteer Soldiers' Readiness to Participate in Combat* (Percentages)



unteer to go" or "go if ordered." Ninety percent of the elite units so responded, compared with 69 percent of the infantry and tank battalions.

Conclusion

The results of our research and provisional analysis suggest that the transition to the volunteer Army has been generally successful. The volunteer combat soldier in today's Army can be expected to perform as well if not better than his counterpart of the early 1970s.

We believe that the conceptual model presented here points out some of the relevant variables which impinge upon the behavior of the soldier in combat. We also found that there was a diverse attitude among the volunteer soldiers on a variety of items. On some social issues—such as hair styles—the volunteer soldier reflects prevailing civilian attitudes. The findings also suggest that the better educated volunteer soldier will be the more committed soldier. It was also found that there is some variation between units with regard to their stated willingness to accomplish their mission or volunteer for dangerous assignments. The elite units—the airborne and especially the rangers—were consistently more likely to report positive statements toward possible combat involvement.

We speculate that primary group determinants will be less salient in explaining combat performance in the future than was the case in the past. Our survey and interviews indicated that the volunteer soldier is more likely to reflect an internalized value system rather than rely primarily on group opinion in his unit. Our finding about the lack of understanding of the role of the American Armed Forces on the contemporary world scene is thus especially to be stressed. That is, while the surveyed soldiers were quite positive in their willingness to defend the United States, they showed a marked drop in their willingness to fight overseas-whether in Europe, the Middle East or the Far East. We propose that an indoctrination program as to the "why" of an American military might be well-considered.

Lastly, we believe that beneath the common veneer of cynicism lies a good soldier with a fundamental willingness to serve his country in the ultimate test of combat. There is certainly a marked trait in that direction, and it behooves all of us to cultivate that trait, for it is not enough just to have an Army as good as we had during the draft. The volunteer Army must be the best possible. Our task is to strive to make the volunteer Army an effective and efficient force in the event of hostilities. **MR**

NOTES

- 1. See The Report of the President's Commission on an All-Volunteer Armed Force (New York: The Macmillan Co., 1970); and Gary R. Nelson and Cathrine Armington, Military and Civilian Earnings Alternatives for Enlisted Men in the Army (Arlington, VA: Institute for Defense Analysis, 1970). There were also the Army pilot projects such as VOLAR 4 (Volunteer Army) and MVA (Modern Volunteer Army). Surveys on All-Volunteer Army issues have also been conducted by the Human Resources Research Organization, the Office of the Deputy Chief of Staff for Personnel, Department of the Army, and the US Army Research Institute for the Behavioral and Social Sciences.
- 2. S.L.A. Marshall, Men Against Fire: The Problem of Battle Command in Future War (New York: William Morrow & Co., Inc., 1964).
- Samuel A. Stouffer et al., The American Soldier: Combat and Its Aftermath, vol. 2 (Princeton, NJ: Princeton University Press, 1949).
- Roger W. Little, "Buddy Relations and Combat Role Performance, "The New Military: hanging Patterns of Organization, edited by Morris Janowitz (New

- York: Russell Sage Foundation, 1965), 194-224.
- Charles C. Moskos Jr., The American Enlisted Man: The Rank and File in Today's Military (New York: Russell Sage Foundation, 1970), 134-56.
- This model is very similar to one developed to explain "influence of behavior in a work situation." See Fremont E. Kast and James E. Rosenzweig Organization and Management (New York: McGraw-Hill Book Co., 1970), 251.
- The elite units—the airborne and ranger battalions—can be considered volunteers on top of volunteers.
- 8. Moskos, 208.
- Edward A. Shills and Morris Janowitz, "Cohesion and Disintegration in the Wehrmacht in World War II," Public Opinion Quarterly, vol. 12 (1948), 280-315.
- 10. Moskos, 145.
- 11. The New York Times (4 March 1975), 12.
- 12. The Washington Post (25 May 1975), A-9.

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Serving the People The Need for Military Power

General Fred C. Weyand, US Army, Retired, and Lieutenant Colonel Harry G. Summers Jr., US Army

This December 1976 Military Review article was published in the wake of Vietnam and congressional passage of the 1973 War Powers Act and examines the relationship between the American people and their military. Retired Army Chief of Staff General Fred C. Weyand and then Lieutenant Colonel Harry G. Summers Jr. emphasize the importance of the nation's military honestly and openly communicating its needs and the rationale for those needs to the American people—the state the military serves.

WE BEGAN our Bicentennial Year in a predicament that our Revolutionary War predecessors would understand—the necessity to convince the American people and the Congress of the need for adequate funds for the national defense.

While this has happened before in American history, for most of us it is a new experience. Our careers have coincided with the era of strong presidents and a powerful executive branch. Since at least World War II, the American people and the Congress had been content to permit the president to determine foreign policy and the military policy required to support that foreign policy. We in the military had to convince one man—the president—to obtain the men, money and material we believed necessary for the national defense. Often during this period, the Congress had to be restrained from giving too much, not too little.

But now we have, in a sense, come full circle. Like General Washington, we now have to convince the entire Congress of the needs—and explaining the need for military force, even in wartime, has never been an easy task. General George Washington observed in 1778 that many governments feared a standing army in peacetime, but only that of the United States had such a concern in time of war. That must not be, he wrote. "We all should be considered—Congress, Army, etc.,—as one people, embarked on one cause, one interest; acting on the same principle and to the same end." And that objective is as valid today as it was 200 years ago.

Military Policy and Foreign Policy

Our military establishment exists solely to serve the political ends of the state—political primarily in the sense of serving as a foundation of foreign affairs and

foreign policy. If that foreign policy dictates making war on another country, the task of the military is to win that war. If the foreign policy dictates carrying on a "peaceful" competition, the task of the military is to support that competition. As General Matthew Ridgway put it, "The soldier is the statesman's junior partner."

I am certain that you are familiar with the observations Alexis de Tocqueville made in 1840 when he wrote: "It is especially in the conduct of their foreign relations that democracies appear decidedly inferior to other governments." The reason, he went on to say, was that aristocracies (today, we could substitute totalitarian governments) "work for themselves and not for the people."

This "defect" was not so pronounced in the 19th and early 20th Centuries when we were still secure behind our great ocean barriers, or so relevant during the past 40 years when the conduct of foreign affairs was left almost completely to the president. From FDR through the beginning of the Nixon administration, the president determined foreign policy and, most important for our case, the military policy necessary to support that foreign policy.

But the state of affairs has now changed. Witness the congressional limitations on involvement in Indochina, on aid to Turkey, on aid to Angola. This change has brought with it the very problem that De Tocqueville anticipated: "A democracy can only with great difficulty regulate the details of an important undertaking, persevere in a fixed design, and work out its execution in spite of severe obstacles. It cannot combine its measures with secrecy or await their consequences with patience."

The truth of De Tocqueville's observation is supported by the fact that, in times of great national

peril—the Civil War, World War I and World War II—the imposition of presidential war powers made the United States somewhat less of a democracy, whereas, during the Korean War and most especially the Vietnam War, the lack of such restrictions and the free reign of democracy enormously complicated the conduct of the war. Alexis de Tocqueville is quoted deliberately since his observations in 1840 are removed from the passions of today. He is quoted not to condemn or to decry the current state of affairs, but merely to point out a fact of life. It is difficult to conduct foreign affairs in a democracy. It is difficult to construct a military policy to support foreign affairs. It makes it no easier to pretend that such difficulties do not exist.

Where We Are

Surprisingly enough, however, as the Army Staff examined where we have been, it found that we have done rather well. After an intensive examination of political, economic, sociological and military trends, and a detailed analysis of existing American foreign policy, it concluded that the world was in rough equilibrium, and that the United States was in a relatively—and I must stress relatively—advantageous position. We are allied with West Europe and Japan, next to the United States the world's economic power centers. Our potential adversaries—China and the Soviet Union—were also adversaries with one another. The United States was still the world's greatest power. The task, as the staff saw it, was to remain in that position of relative advantage.

While some critics complained that all the Army strategists had done was to legitimize the status quo, such comments missed the essential point. As T.S. Eliot once wrote, "At the end of all our exploring/Will be to arrive where we started/And know the place for the first time." And, "knowing the place for the first time," it was a real eye—opener to see that what at first glance appeared to be a haphazard muddling through had been in actuality a fairly sound military policy protecting American interests and furthering American policies. Our forward deployments in Western Europe and in Northeast Asia were doing precisely what they should be doing—reinforcing our foreign policy objectives in these critical areas.

Part of the answer of how we got to where we are is due to the wisdom of the Founding Fathers. Alexander Hamilton and James Madison, for example, in framing the Constitution, insisted that the Army—and, by extension, the other services—should be required to justify to the Congress at least every two years the "evident necessity" of maintaining troops. Because of that Constitutional requirement, the services successfully justified their present sizes and deployments. Those things

that could not be justified—the 500,000—man force in Vietnam, for example—no longer exist. We are, in one sense, where we are today because the American people, through their elected representatives in the Congress, authorized us to be there.

But, as was stated earlier, this is only part of the answer. The Congress authorized us to be where we are largely because it had, in the past, given carte blanche to the president to determine foreign policy and the supporting military policy. Now, it has stopped payment on this blank check. It is no longer sufficient to appear before the Congress and justify requirements with "The president said so." Requirements must be justified on their own merits, and not only the president but the entire Congress must be convinced, as well as the American people whom the Congress represents.

To do this, we must get back to basics. No longer can we get away with the jargon once used to convince the executive branch—"shorthand" based on a whole series of shared assumptions. The extremely complex reasons for military force structures, for forward deployments, for manpower levels, for material needs, for research and development, must be, not so much simplified, since there is a great danger in reducing complex arguments to simplistic slogans, but phrased in terms that the American people can understand.

Point of View

A major complication in explaining the need for military force to the American people is that we argue our case from a multiplicity of points of view.

We need military forces to fight wars. We need military forces to keep the world safe for democracy ... to protect freedom's frontiers ... to deter Soviet and Chinese aggression ... to match the percentage of GNP [gross national product] the Soviets are expending for their military....

The danger of this fragmented approach was pointed out by Karl von Clausewitz when he wrote: "There is upon the whole nothing more important in life than to find the right point of view from which things should be looked at and judged of, and then to keep to that point ... For we can only apprehend the mass of events in their unity from one standpoint."

There is only one point of view from which to judge the American military. "How does the American military serve the American people?" The American military exists—was created—to serve the American people, or another way of phrasing the Clausewitzian dictum that the military exists to serve the political ends of the state since, in America, the people are the state.

Our very oath commits us to support and defend, not a leader or a political party, but the Constitution of the United States. It commits us to serve the people, and serving the people is the only way our existence should be justified. We must explain to the American people how their military serves them. We must explain why they should take a dollar out of their pocket and give it to us. We must explain why that multi-million-dollar tank, airplane or ship is really a good buy for them, that they are getting their money's worth. And that is no easy task. Simplistic arguments about the "threat" won't do it. As General Abrams used to say, "We've got to convince that dirt farmer out in Kansas to take that buck out of his pocket he's been saving for seed grain and give it to us to buy guns with." Now, the task is even harder. We've got to convince that farmer to take the buck he made selling wheat to the Soviet Union and give it to us to defend him from the Soviet Union. And that takes a pretty complex argument, an argument as complex as the real world in which we live, an argument as complex as the American public to whom we must appeal.

Complexities of the American People

While realizing that no generalization is worth much, including this one, there are certain American characteristics that complicate the task of explaining military policy.

As Ulysses S. Grant—who was laughed off the streets of his hometown of Bethel, Ohio, in 1843 for strutting in his brand new Army uniform—could testify, Americans have a long and proud tradition of irreverence toward and distrust of their military. This antimilitarism stems from a number of causes, but suffice it to say that it remains a constant of American attitudes. But there is no use agonizing over it. If we cannot be loved, we can be trusted and respected, and, according to a Harris poll several years ago, we aren't doing all that bad—not quite so good as garbage collectors, but much better than politicians and the press.

One serious effect of this perceived hostility—especially during the Vietnam War—was a tendency for the military to turn inward, to play hedgehog, curl ourselves up in a ball and shut ourselves off from all outside criticism, sometimes to the point where we even stifled internal constructive criticism for fear that admitting any error would give aid and comfort to our "enemies." This tendency is deadly. We cannot do this and serve the American people. We must have the courage of our convictions, the courage to face our critics and argue our case. It appeared for a time that we were giving tacit approval to Georges Clemenceau's famous remark that: "War is too important to be left to the generals" when we should have been reminding people that perhaps it was because France heeded Clemenceau's remark

that it lost its next three wars. If we are to serve the American people, we owe it to them to give them our best professional military advice, even when that advice might not be applauded.

Another constant in American attitudes is idealism. Idealism is a powerful force in America, a force that has caused us to rise above ourselves, to hold America to demanding standards.

But idealism also has a negative side. It can cause us to posture and to preach, with little thought for the consequences of such actions. For example, at a recent Pacem in Terris Conference in Washington, one of the speakers called for us to "challenge" the Soviets to do better, "demand" a halt to Soviet involvement outside its borders, "convince" the Soviets of the error of their ways, "test" Soviet willingness to live up to their agreements, yet this same speaker is one of the most vociferous critics of the American defense budget. This is a paradox that has plagued the military almost since the beginning of the Republic—the idealist strain in the American makeup calling for us to get involved while the antimilitarist strain denies us the means. For our part, we must point out that we can't have it both ways, that there's no such thing as a free lunch.

Yet another strain, often allied with the other two, is isolationism. Protected throughout most of our existence with friendly—and weak—neighbors, our flanks secured by the Atlantic and Pacific Oceans, we saw no need for large standing military forces.

And now, while the strategic situation has changed, the underlying attitudes too often remain; while many accept the modern world intellectually, emotionally they are still in the 19th Century.

That is not to say that the American people will not support a large standing military force. After all, they have done so at great cost since World War II. They have to see hard, concrete, compelling reasons to support such a force—reasons sufficient to override their inherent isolationism.

It is for this reason that foreign military commitments are especially suspect. And we have added to these suspicions in the past by explaining these commitments in altruistic terms—"protecting freedom's frontiers.... keeping the world safe for democracy." As Professor Richard E. Neustadt has pointed out, domestic factors are paramount in foreign affairs: "Men are booed and booted out at home, or cheered and re—elected or promoted there ... priorities are set by their own business. What happens on the other side deserves attention when and as it bears upon their own business. All else is tourism."

To this end, we must scale down the high—flown and pretentious phrases of the past and justify our foreign

commitments with reasons that make sense for the average American. The primary reason, as *The Wall Street Journal* recently editorialized, is that isolationism, far from preventing wars, actually invites them.

And, finally, the last attitude we must consider is the volatility of American public opinion. Attitudes can and do change overnight. Americans can give massive support to a project when aroused, or their emotions can cool. Flexibility, the ability to change direction, to defend the national interest on short notice, is an absolute requirement for the American military.

In considering all of these American attitudes, one could almost make the case that we have done our job too well. We have protected the American people from the horrors of war so well that many believe that such horrors do not exist. They see a perfect, a Utopian, world and fix their anger upon the military as living, breathing proof that the millennium they envision has not yet arrived. But we in the military cannot take such Utopian views. Our duty to the American people demands that we look at the world with a jaundiced eye and that we continue to point out that tigers still roam the earth, tigers that regrettably are not yet on the endangered species list.

We must look at the world, not from a detached academic perspective, but from the view of the interests of the United States. But what are these interests?

Although it is possible to assemble a laundry list of such interests, such a list would be of only temporary value. Some of our interests are transitory, they shift and change with the changes in the modern world. Who would have thought, for example, that today there would be liaison officers from Germany and Japan at the US Army Command and General Staff College and no liaison officers from our World War II allies, the Soviet Union and China. Such a list might even be dangerous because it would give the illusion that our interests could be arranged in rank order, from "vital" interests to interests of little importance.

Interests and Realities

The truth of the matter is that interests of seemingly little importance can suddenly become "vital"—that is, become interests that we will go to war over. If a spy, for example, had broken into the Pentagon, the State Department and the White House, on 24 June 1950, and stolen our most secret and sensitive plans, he would have discovered that the United States had neither the interest nor the intention of defending Korea. Yet the one place he could not break into was the mind of the President of the United States, and, on 27 June 1950, the President decided that Korea was a vital interest, and American troops were committed to action. A "vital"

interest, then, is one that the President says is vital when the time comes that he has to make such a decision—and now, I might add, when the Congress agrees with the President's assessment.

Although at first glance it might seem facetious, it is probably more useful to say that the US interest is to "do good"—to preserve our way of life, to safeguard the values and valuables of our society, to maximize our advantages and to minimize our disadvantages in dealing with other nations.

We are, whether we like it or not, a leader in the Free World, and it is especially important that we maintain and strengthen our cultural affinities with those who share our values and desire for freedom. We also are the primary "have" nation in the world. We have a stake in preserving our trade patterns, our economic freedom of action. Unlike the "have—not" nations who might profit from worldwide disorder and disarray, we have a stake in world prosperity, in world order.

These broad interests have to be considered in the light of the realities of the world situation. As was said, "tigers" roam the world. The relationship among nations, in many respects, borders on a state of anarchy. Although the idealist might wish it otherwise, there simply is no supernational organization capable of keeping—or, more to the point, imposing—order on the international community. This situation is likely to continue since it appears that no nation—state is willing to surrender that degree of their own sovereignty that would be required to make a world government effective. The nation—state, therefore, will remain the principal instrument of power for the foreseeable future.

What this means is that each and every state is responsible for its own defense. Unless the United States makes provision for its own self-defense, we can depend on it that no one else will. This is our first requirement, then: to remind the American people that the defense budget is not the President's budget, or the Pentagon's budget. It is the budget for the defense of the United States and its vital interests.

We must also remind the American people that our foreign commitments, our foreign deployments, are part of that national defense. They ensure that no nation or group of nations acquire hegemony over Europe and Asia and thereby gain superiority over the United States to the point where we become intimidated and lose our freedom of action. This is the reason we fought World War II—to prevent Germany from gaining hegemony over Europe, and Japan from gaining control of Asia. Germany and Japan are still major powers, and our present deployments in Europe and Northeast Asia are in our interests, in Germany and Japan's interests and in

the world's interest to obviate the temptation for either country to again massively rearm, a rearmament that could ultimately include nuclear weapons.

At the same time, these forward—deployed forces also stake out the limits of those nations who share our ideals of democracy and freedom. They signal clearly the areas we are prepared to defend. And such signals are important. As F.S. Northedge of the London School of Economics recently wrote: "Failure to make clear to a hostile state the borderline between what you are prepared to tolerate and what you must resist may lead to a situation in which the opponent does not know what your 'point of no return' is ... In these circumstances, a war which perhaps neither side wanted can come about through failure of the signalling processes..."

There are those critics who would argue that such defensive measures should be replaced by a world rule of law. But not only is such a rule of law impracticable, given the present international order, it also has other disadvantages. Again, Northedge pointed out: "One possible drawback of the attempt to illegalize various uses of force tends to drive states to invent new uses of force which are not illegalized by the ban.... There is little doubt that many forms of force practiced today, such as subversion, insurgency, guerrilla warfare, the hijacking of airplanes, are not necessarily, as they would seem to be, spasmodic acts of violence by aggrieved individuals but acts of state disguised so as to avoid the stigma attaching to illegal acts committed openly in the state's own name."

We are criticized by our emphasis on war—for harping on that fact that we must maintain constant war preparedness. But this is a reality of the modern world. No longer do we have the days, months or even years to mobilize that we had in the past. Reaction time allowed before responding to the first attack, especially one delivered with nuclear weapons, would perhaps be a matter of seconds. This means that continuous consultation with our allies is an absolute requirement.

Another factor is that the high rate of obsolescence of modern weapons in a state of war preparedness means that defense must take a large share of the national budget. Not only does this take a large share of the US budget, it also takes a large share of the budgets of our allies. And, if this burden of defense is to be fairly distributed, this also requires constant consultation among the allies.

No longer can we allow our interests with our allies to decline, to fluctuate, to be in a state of uncertainty. To gain the protection that our allies give us, we lose some of our flexibility.

There is another way of looking at the world—by visualizing all of the nations of the world on a spec-

trum, with "dominance" on one end of the spectrum and "dependence" on the other. Realizing that even the United States and the Soviet Union are dependent to some degree—the United States for energy resources, the Soviet Union for food resources—the nations of the world can still be arrayed in relative rank order in terms of their dominance or dependence.

Power

This is what power is all about—to determine whether the United States will be dominant or dependent in relation to the other nations of the world.

Professor Klaus Knorr of Princeton University defines power as a form of influence—coercive influence based on the threat of penalties. In the international system, power is a relation among states that permits one government to induce another to behave in a way which the latter would not have chosen freely. Power thus permits a degree of control over the environment.

Now, "power" is currently unfashionable. It has an extremely bad press. But it is interesting to note that those who bad—mouth it the most have also been not a bit bashful about using it to gain their own particular ends. The antiwar and antimilitary activists, while agonizing over power in the abstract, were veritable Napoleons when they marshaled demonstrations and organized marchers in the late 1960s and early 1970s in order to coerce the government to surrender to their demands.

One of the forms of a nation's power is military power. Military power in its ultimate form is the power to kill or destroy, to occupy or control. But it is also a form of power that sustains will. As Professor Knorr states: "Explicitly in the form of threats or implicitly through silent calculations, considerations of military power act as counters in diplomatic bargaining so that, in any serious dispute, diplomacy is a trial of influence and strength, including military strength."

It is essential to note that military power is not necessarily the same as military force. Military force consists of concrete things—divisions, tanks, airplanes, rockets, ships, submarines. These are the instruments for generating military power, not military power itself.

Military power, like all power and influence, is relational. It exists only in relation to particular other nations and regarding particular conflict situations. That is to say, one may talk about the relative military power of the United States vis-a-vis that of the Soviet Union in the context of a given scenario (and remember that a scenario is only an approximation

of reality, it is not reality itself). Only the survivors of a US—Soviet war could tell us what the *actual* military power relationships are between the United States and the Soviet Union.

Short of war, what we deal with is not *actual* military power but *latent* military power—the likely power relationships that would exist if particular countries were pitted against each other under particular circumstances. This latent military power has several dimensions.

The first, and most difficult to quantify, is the state's reputation for military power—the power images which rest on the perceptions and expectations of other governments which may or may not be faithful reflections of actual power. For example, in China during the Japanese invasion in the 1930s, the Imperial Japanese Army swept through and occupied a major Chinese city. It stopped short, however, when it reached the French settlement, a settlement held literally by a corporal's guard—a French noncommissioned officer and a squad of Tonkinese infantry. But it was not the squad that held the all—conquering Imperial Japanese Army at bay; it was the prestige of the French Army, then reputed to be the most formidable military force in the world. Events a few years later demonstrated that this reputation was not a faithful reflection of actual power but, at the time, prestige translated into military power.

On the other hand, the erosion of a nation's military prestige means that it must use corps and armies to do what squads and platoons could do previously. It is for this reason that we in the military must guard our reputation jealously, not so much for the sake of reputation, but for the sake of our continued ability to serve the American people. Critics notwithstanding, the American military did not lose the war in Vietnam through defeat on the field of battle. The American military withdrew from Vietnam in good order in accordance with the wishes of the American people—a fact that should enhance, not diminish, our prestige as servants of the American people.

A second dimension of latent military power is military power potential—the resources of the state capable of being mobilized. The dynamics of this dimension have changed in today's world—a change little perceived by the public and not fully grasped even within the military. While before World War I and World War II we could mobilize our resources in a rather leisurely fashion, while the marches were held by our allies, today we do not have that luxury. We must be prepared to fight with the forces we have in being—an eventuality that places a high premium on current readiness.

But, even with the caveat of short reaction tune, the United States does have an enormous military power potential. Our industrial base, the advanced state of our research and development, our natural

Our very oath commits us to support and defend, not a leader or a political party, but the Constitution of the United States. It commits us to serve the people, and serving the people is the only way our existence should be justified. We must explain to the American people how their military serves them.

resources and our trained manpower all put us in a relatively advantageous position. Among the major powers of the world, only the Soviet Union comes close to matching our potential.

A third dimension of latent military power is military power value—the proportion of the potential that is actually transformed into military strength. It is this dimension that is being debated today—how much of our gross national product are we devoting to defense. Our own critics would have us believe that we now have a "record" defense budget, but the facts are in direct opposition to the rhetoric. The Fiscal Year (FY) 1976 defense budget of almost \$100 billion is, in constant dollars, the lowest since the pre—Korean War budget of FY 1950. We must constantly hammer home the effects of inflation on the military budget. The fact is that we are spending more to buy less.

The final dimension of latent military power is *skill*—the way in which military power is directed, politically as well as militarily.

Politically, we must ensure that our civilian leadership is fully informed of the capabilities and limitations of our military power. Part of the problem in the past is that our civilian leaders were misled by our failure to tell them the hard truths, the unpleasant realities, our shortcomings as well as our strengths. "Can Do" is an admirable motto—the 15th Infantry has used it for years—but there are times we must say "can't do ... can't do unless you want these undesirable consequences or these unacceptable risks."

Another part of skill is our technological advantage. This advantage is real, but it can be oversold. To listen to some of the defense critics, one would think that Soviet military skill still consists of illiterate serfs dragging antiquated cannon through the snow. One would think that *Sputnik* never happened, that all of the real Soviet technological advances never occurred. As the Israeli military could testify, the

Soviets have sophisticated modern weaponry. We do have a technological advantage, but, with over half of the defense budget now going to manpower costs, and a large percentage of the remainder going to operation and maintenance to maintain the current force, less and less is being devoted to research and development to maintain our technological edge.

And that technological edge is all-important for the American military. There is an "American way of war," highly sophisticated, material rather than labor intensive, extremely expensive in terms of "things," but relatively inexpensive in terms of men. And, as "things" decline, the shortfall will have to be made up, as it was in the past, with men's lives.

This is not a new problem. General Douglas MacArthur recounted in his autobiography that, while chief of staff of the Army in the early 1930s, he had a violent confrontation with President Franklin Roosevelt over cuts in the defense budget. Convinced the country's safety was at stake, MacArthur finally exploded with: "... when we lose the next war, and an American boy, lying in the mud with an enemy bayonet through his belly and an enemy foot on his dying throat, spits out his last curse, I want the name not to be MacArthur, but Roosevelt."

The President was livid. "You must not talk that way to the President," he roared. MacArthur told FDR

that he had his resignation as chief of staff and turned toward the door. As he reached the door, President Roosevelt said, "Don't be foolish, Douglas; you and the budget must get together on this."

But, sad to say, and as the dead at Pearl Harbor, at Bataan and Corregidor, at Kasserine Pass, could testify, the United States did not "get together on this" until well after we were embroiled in World War II. The debate on the defense budget involves more than just words or dollars. Ultimately, it involves men's lives and the future of our country.

The Task Ahead

Former Secretary of Defense James Schlesinger said, "Some years from now, somebody will raise the question why we were not warned, and I want to be able to say, indeed, you were." As military men, if we are to serve the American people, it is our duty to warn them of the need for military power, for an adequate national defense. It is our duty to warn them in terms they can understand, not by rattling the saber and beating the drum, not by apocalyptic visions of world destruction, but by cool, clearheaded explanations of the realities of today's imperfect world. This is the difficult task that we must accomplish if we are to obtain the support we need to do our job of serving the American people. **MR**

General Fred C. Weyand, US Army, Retired, is a trustee to the Estate of S.M. Damon in Honolulu, Hawaii. He retired in 1976 after serving as Army chief of staff since 1974. His other assignments included commander in chief, US Army, Pacific; commander, US Military Assistance Command, Vietnam; commander, US Army, Vietnam; military adviser, US Peace Delegation, Paris, France; and commander, 25th Infantry Division, Vietnam. Immediately after retiring, he served as corporate secretary and senior vice president for First Hawaiian Bank.

Colonel Harry G. Summers Jr., US Army, Retired, is a nationally syndicated columnist with the Los Angeles Times and author of On Strategy, Korean War Almanac, Vietnam War Almanac and Persian Gulf Almanac. When he co-wrote this article, he was working in the Office of the Army Chief of Staff, Washington, D.C. His other assignments included faculty member, US Army Command and General Staff College, Fort Leavenworth, Kansas, and staff member, US Delegation, Four Party Joint Military Team, Vietnam. He has been a frequent contributor to Military Review.

Values and the American Soldier

Secretary of the Army John O. Marsh Jr.

Then Secretary of the Army John O. Marsh Jr. contributed the following article to open the November 1986 edition of Military Review. The secretary addresses "values," the Army theme for 1986, and perhaps explains why the All-Volunteer Force was ultimately the success it is today.

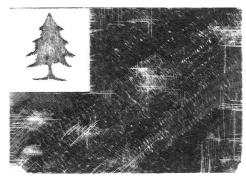
In 1981, we sought to revitalize the spirit of the US Army with the first Army theme: "Yorktown—Spirit of Victory." Succeeding themes emphasized the need for the Army to remain physically fit at all times, the excellence the American public expects of soldiers and our commitment to families and to leadership. Army themes are designed to draw attention to a particular facet of our institution and, each year, earlier themes were "rolled up" into the new theme. Therefore, the spirit of Yorktown continues in today's Army.

That spirit is distinctively American and springs from a fabric of native values that together have produced an Army with special qualities that are its strength and the strength of the nation. To understand such concepts as victory, caring and leadership, one must understand values and be able to make value judgments. Those are two reasons General John A. Wickham Jr. and I chose "Values" as the 1986 Army theme.

Why does a soldier serve? What makes our system of government and our way of life something worth living and possibly dying for? Are we, as a society, any different from other societies around the world? Finally, if we are different, how, in what ways, and what does this distinctiveness mean to our military service? The answers to these questions are wrapped up in this year's theme. Values show us where we have been as a people and help direct us into the future.

We are in the closing years of the 20th century, little more than 13 years to the second millennium. No one believes that, in the year 2000, events in Central America, Africa, Central and Eastern Europe and the Middle East will remain the same as they are today. How they change will be determined, in large measure, by what we do or fail to do within the next few years.

We actually have the capability to influence the course of the next century as we face the struggle of contrasting values between the world's two great social systems. While our country holds the innate worth of the individual and proclaims a nation that is "of the people, by the people and for the people," the Soviets hold the state as supreme.

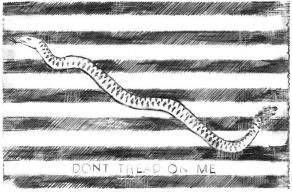


Bunker Hill flag, 1775

As we examine values in our Armed Forces, we recognize two separate tiers. Tier one values are systemic to all military organizations of all nations. Tier two values are distinctly American and make our soldiers unique.

Armies of all nations embrace values such as discipline, stamina, technical and tactical skills, loyalty, duty and courage. During the American Revolution, British soldiers were ordered up Bunker (Breed's) Hill.

Those soldiers, carrying 75 pounds of equipment in hot weather, were ultimately successful despite withering colonial fire. The discipline and stamina they demonstrated are essential values in any military force.



Sons of Liberty flag

Another key value in the military is professional competence—that is, proficiency in tactical and technical skills. Throughout history, soldiers and their leaders have always been expected to know the profession of arms and to be skillful at it.

But the American soldier is different from these soldiers of other lands and other times. The American soldier has embraced these tier one values because of his profession, but he is also an exemplar of what I call tier two values. These values are uniquely American. Our military has its genesis in the American Revolution—a revolution that was not just a political upheaval. It marked a radical change in the social structure of nations and individuals.

The roots of the American experience go back to our Judeo-Christian heritage to such statements of values as the Ten Commandments and the golden rule. In the Beatitudes is the great statement that "the meek shall inherit the earth." That simple statement is not a power doctrine as found in some other nations. In our own country, we have the Declaration of Independence which proclaims that "all men are created equal . . . that they are endowed by their creator with certain unalienable Rights, that among these are Life, Liberty and the Pursuit of Happiness."

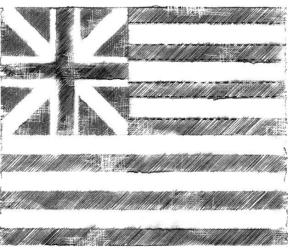
Some 11 years after the Declaration of Independence was signed, the Founding Fathers again met in Philadelphia and conceded the need to "secure the blessings of liberty" in the approved draft of the Constitution. The Bill of Rights established the freedoms of religion, speech and press, and the rights which protect American citizens. These freedoms and rights are values which also form part of the American experience.

The American Constitution is unique in the congressional supremacy it establishes over the executive

branch. The power to declare war and raise armies is vested in the Congress, creating a system of civilian control over the military—a system which is a national value. We have also incorporated into the military justice system—the Uniform Code of Military Justice—unique values which are different from every other nation. The individual in the military is protected in ways that reflect our attitudes toward the individual in the citizenry at large.

The values that impact on the American soldier also establish a national ethic for our country. For instance, the United States is not an aggressive nation intent on national aggrandizement. At Arlington National Cemetery is an inscription which reads: "Not for fame or reward, not for place or for rank, not lured by ambition or goaded by necessity, but in simple obedience to duty as they understood it, these men suffered all, sacrificed all, dared all, and died."

We have not sought to build empires. Also, after engaging in conflict we have historically extended the olive branch to our former foes. For example, Germany was devastated after World War II. Shortly after the surrender was signed, we began a process of rebuilding,



Continental Colors (modified British Red Ensign), 1775-1777

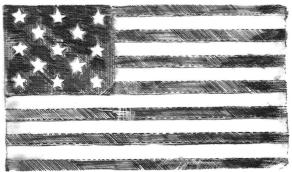
pouring millions of dollars into helping that country rebuild. Today, West Germany is recognized for its strong economy.

Wickham has expressed the values of the American soldier as forming a triangle. On the first leg of the triangle is a soldier's self-development or self-improvement—that is, learning a skill, broadening his educational background and improving himself as a soldier and as an individual. These values are inward and relate to the individual and how he performs.

The second leg of the triangle deals with values that run horizontally and involve a soldier's loyalties

to other people. In no other organization is loyalty to others more important than in the Army, and this is a rich seedbed of bonding. We need that loyalty to others to have interdependent relationships.

Finally, at the base of the triangle, the individual must be dedicated or committed to some higher principle or purpose. This part of the triangle deals with values that run upward and include a soldier's service for his country.



"A new constellation"—flag law of 14 June 1777

Leaders at every level should help their soldiers answer three questions: What do I want to be? Why do I want to be that? How do I expect to achieve that goal?

The reason we want soldiers to consider carefully "what" they want to be is that such a question takes the soldier into areas of goals and achievements. These are value expressions.

Requiring a soldier to answer "why" forces the soldier to reason his choice to himself and be able to defend it. One reason that many people are embarrassed about patriotism or some patriotic act is that they are unable to explain or articulate their patriotism. In today's world of contrasting values and challenges to our ideals, it is important to be able to defend our choices reasonably and logically.

Finally, in considering "how" he achieves these goals, the soldier is again in a values arena. Will the individual achieve his goals through cheating or through determination, perseverance and hard work? The answer to such a question marks the measure of a person's character and ethical position.

Next year, our country will celebrate the 200th anniversary of the signing of the Constitution, a great expression of values. Within its Preamble are a number of essential infinitives—to form a more perfect union, to establish justice, to ensure domestic tranquility, to provide for the common defense, to promote the general welfare and to secure the blessings of liberty to ourselves and our posterity. These are some of the value statements that form the heart of our American experience.

The 40 signers of that document—men who wrestled with the enormous challenges of creating a new government—subordinated many of their interests to achieve the primary goal of creating a strong central government. Twenty-three of those men had served in the militias or in the Continental Army, and the experience of the Revolution changed them.

These military men could have seized the country and imposed their own form of government on it. However, the values held by these men, which were forged by their backgrounds and experience, convinced them that 13 separate, individual states could not survive without a central government that was founded on the principles that are our heritage.

A recruiting song that is being heard around the country sums up many of these values:

If you want to find out who we are,
Just ask us where we've been—
From the frozen fields of Valley Forge
To the trail called Ho Chi Minh.
Through the glory and the sacrifice
We do our job each day.
We are citizens and soldiers
And Army all the way!
When we were needed we were there,
We were there when we were needed,
We were there.
No, it wasn't always easy
And it wasn't always fair,
But when freedom called we answered

We were there!
And, in keeping with our historic values, we will continue to be there. **MR**

John O. Marsh Jr. is chairman of the Department of Defense Task Force on Quality of Life and has a private law practice in Winchester, Virginia. He was secretary of the Army from 1981 to 1989-the longest term of any Army secretary. Other positions he has held include chairman, Reserve Forces Policy Board from 1989 to 1994; congressman, for four terms, from Virginia's 7th District; assistant secretary of defense for legislative affairs; and assistant for national security affairs and counselor to President Gerald R. Ford. He published

one other article in Military Review, in February 1989, titled "Comments on Low-Intensity Conflict."



Leadership for the 21st Century:

Empowerment, Environment and Colden Rule

General Dennis J. Reimer, US Army

This January-February 1996 lead article is one of three Army Chief of Staff General Dennis J. Reimer has written for Military Review. His command philosophy is simple: Leaders should do "what is legally and morally right;" create an environment tolerant of mistakes and free of the zero-defects mentality, where soldiers can achieve their potential; and live by the "Golden Rule," which puts caring, respect and fairness for soldiers first.

T A STAFF MEETING one morning, the colonel reprimanded the post quartermaster because the parade–ground flagpole was not perpendicular. Then, pointing to a lieutenant, he snapped: 'Lieutenant, if I told you to put up a flagpole and get it straight, how would you go about it?' 'I'd say, sergeant, erect the flagpole,'" the lieutenant replied.

The lieutenant in this story, Samuel Sturgis, went on to become a lieutenant general and the chief of Army engineers. This anecdote about him is not unique. Incidents like this happen every day in America's Army and help explain the essence of US Army leadership.

Secretary of Defense William Perry likes to relate a story about General Andrei Nikolayev, deputy chief of the Russian General Staff, when Nikolayev was on a two-week tour of military bases in the United States. After visiting the first base and seeing our noncommissioned officers (NCOs) in action, he told one of his aides, "I know that these men and women wearing sergeants' uniforms are really officers in disguise."²

But as he went from base to base and talked with the NCOs, Nikolayev came to realize they really were not officers. He was stunned and after two weeks told Perry that, "No military in the world has the quality of NCO ... found in the United States." He went on to say, "That's what gives America its competitive military advantage." Our NCOs are one reason we have the best military in the world.

As the Army chief of staff, my fundamental duty is to ensure America's Army is trained and ready to defend the nation's security and freedom. I am also concerned with creating stability within the force after a long and significant draw down. I want to create an environment in which all soldiers can "be all they can be."

Countering "Zero Defects"

Recently, I reviewed the Army Research Institute's (ARI's) command climate assessment, which was based on responses from more than 24,000 Active, Reserve and National Guard soldiers and civilians. While none of us will agree with all the assessment's findings, all of us will be troubled by the perceptions it portrays. Some excerpts from this report follow:

- The state of ethical conduct is abysmal. Few battalion commanders can afford integrity in a zero defects environment. Telling the truth ends careers quicker than making stupid mistakes or getting caught doing something wrong. I have seen many good officers slide into ethical compromise.
- There is a return to the "zero defects" and ticket-punching mentality of the 1960s and 1970s that nearly destroyed the officer corps.

- The Army is a zero defects organization.
- My concern is with some officers' attitudes. The problem is not division of officer and NCO duties. Granted, some duties are and should be interchangeable. Some officers, however, want to do it all. They

Leaders today should be devoted to selfless service. Marshall said, "It is amazing what gets done when nobody worries about who gets the credit." Leaders should take their guidance from the top but focus on their soldiers. If your focus is on soldiers, then you are doing the right thing. Focusing on "the boss" leads to the attitudes we are trying to stamp out today.

want to conduct training, micromanage and have junior soldiers and civilians report directly to them. They are basically giving their NCOs responsibility and titles but not authority. I do not believe they do this because the NCOs or civilians cannot do their jobs. It is more of an officer efficiency report support form thing and crisis management.

These attitudes are disturbing—but not unexpected. The draw down has been difficult for the Army. Since 1989, we have cut 450,000 people (Active and Reserve) out of the force. This has been hard on soldiers and their families. What is amazing is that through the draw down, we have remained trained and ready. We successfully executed missions in Somalia, Rwanda and Haiti and we have not repeated the mistakes of past draw downs. In his 1948 annual report, Secretary of the Army Kenneth Royall noted that "the enormous turnover of personnel made effective unit training virtually impossible."

Creating Positive Leadership

Now, as the draw down ends, we must display positive, creative leadership, stamp out this zero defects mentality and create an environment where all soldiers can reach their full potential. I would like to share some ideas on how to create this leadership environment.

I recommend Major General John M. Schofield's concept of leadership to all leaders. I first learned his concept 37 years ago, and it is as true today as when Schofield said it in 1879. "The discipline which makes the soldiers of a free country reliable in battle is not to be gained by harsh and tyrannical treatment. On the contrary, such treatment is far more likely to destroy than to make an Army. It is possible to impart instruction and to give commands in such a manner and such a tone of voice to inspire in the soldier no feeling but an intense desire to obey, while the opposite manner and

tone of voice cannot fail to excite strong resentment and a desire to disobey. The one mode or the other of dealing with subordinates springs from a corresponding spirit in the breast of the commander. He who feels the respect which is due to others cannot fail to inspire in them regard for himself, while he who feels, and hence manifests, disrespect toward others, especially his inferiors, cannot fail to inspire hatred against himself."³

The fundamental truth, as General Creighton W. Abrams used to say in the mid–1970s, is that the Army is not made up of people. The Army is people. Every decision we make is a people issue. An officer's primary responsibility is to develop people and enable them to reach their full potential. All our soldiers are volunteers. They come from diverse backgrounds, but they all have goals they want to accomplish. We must create an environment where they truly can be all they can be.

Good leaders know their soldiers' strengths and weaknesses. This is the key to success. People's names are important. Commanders should learn the names of their people. Nothing impresses soldiers more than leaders who know their soldiers' names. I recall an incident that impressed me following a battalion change of command several years ago. At the reception, the outgoing battalion commander greeted each soldier, officer and spouse by name. He made a point of asking a question about each soldier's family. The division commander remarked, "He may be the only battalion commander in the Army who can do that.... And I guarantee you that not one member of his battalion will ever forget him, and many will seek to serve under him again."

Taking Care of People

My leadership philosophy is very, very simple. It can be summed up in three basic points. First, if we empower people to do what is legally and morally right, there is no limit to the good we can accomplish. That is all I ask of anyone: Do what is right. Leaders must look to their soldiers and focus on the good. No soldier wakes up in the morning and says, "Okay, how am I going to screw this up today?" Soldiers want to do good and commanders should give them that opportunity. An outstanding soldier, Command Sergeant Major Richard Cayton, the former US Forces Command (FORSCOM) sergeant major, summed up a leader's responsibility this way: "Your soldiers will walk a path and they will come to a crossroad; if you are standing at the crossroad, where you belong, you can guide your soldiers to the right path and make them successful."

The second point of my leadership philosophy is to create an environment where people can be all they can be. Many soldiers enlisted under this recruiting slogan, and we have a responsibility to assist them in



Leaders create command climate. Positive leadership can eliminate micromanagement, careerism, integrity violations and the zero defects mind-set.... Major General James Utino once said that morale exists when "a soldier thinks that his army is the best in the world, his regiment is the best in the army, his company is the best in the regiment, his squad the best in the company, and that he himself is the best damned soldier in the outfit." Our job as leaders is to foster that attitude and morale.

developing mentally, physically, spiritually and socially to their full potential. It is essential that leaders develop the initiative of subordinates.

Our doctrine values the initiative, creativity and problem-solving ability of soldiers at all levels. Valuing these traits has always been the hallmark of America's Army. In the Civil War, General Ulysses S. Grant's instructions to Major General William T. Sherman reflect this concept: "I do not propose to lay down for you a plan of campaign.... But simply to lay down the work it is desirable to have done and leave you free to execute it in your own way." During World War II, Lieutenant General George S. Patton Jr. allowed his subordinates to be all they could be by being tolerant

of their errors. He said, "Never tell people how to do things, tell them what to do and they will surprise you with their ingenuity."

Supreme Allied Commander General Dwight D. Eisenhower's guidance for the invasion of Europe remains the classic example of this concept. He was told, "You will enter the continent of Europe and, in conjunction with the other United Nations, undertake operations aimed at the heart of Germany and the destruction of her armed forces." 5

The third point of my leadership philosophy is to treat others as you would have them treat you. A leader must have compassion—a "basic respect for the dignity of each individual; treating all with dignity and

Treat others as you would have them treat you.... This is a simple restatement of the Golden Rule—but it is a critical issue. Every soldier must feel he is being treated fairly and that you care and are making an honest attempt to ensure he or she reaches full potential. Initiative will be stifled and creativity destroyed unless soldiers feel they have been given a fair chance to mature and grow.

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There is nothing extraordinary about these three points. They are very simple, but I challenge you to think about them.

Building Character

The perceptions in ARI's assessment can only be overcome by positive leadership. The individual leader's character is key to the climate within the command. A good leader must have compassion, courage, candor, competence and commitment. I have already talked about compassion-the Golden Rule. By courage, I mean both physical and moral courage. The history of America's Army is full of examples of physical bravery and courage. Examples of moral courage are equally as important but not as well known.

The perceptions expressed in *Army Assessment* 95 are not new. The fear of delegating authority to subordinates is not a new phenomenon. The zero defects mentality—where a commander feels his command must be error free—is not new. But we must possess the moral courage to deny this damaging philosophy that says it is worse to report a mistake than it is to make one. This lack of moral courage in peacetime can have disastrous results in battle. General Matthew B. Ridgway described this as a challenge of moral courage, saying, "It has long seemed to me that the hard decisions are not the ones you make in the heat of battle. Far harder to make are those involved in speaking your mind about some hare-brained scheme which proposes to commit troops to action under conditions where failure seems almost certain, and the only results will be the needless sacrifice of priceless lives."

Courage. General George C. Marshall, echoing Ridgway's sentiment, described the need for leaders with the moral courage to tell their superiors when they

are wrong. "It is hard to get men to do this, for this is when you lay your career, perhaps your commission, on the line."

Accurate readiness reporting may require a measure of *moral courage*. Nobody is going to tell you how to report your unit's readiness. You must make that call. I ask that you make that report as honestly and realistically as you can. Tell us what is wrong. I can assure you that I read the readiness reports that come up from the divisions.

When I was the FORSCOM commander, three divisions fell below the C2 readiness level. I am not proud of that, but I was proud of a system that allowed those commanders to tell it like it was. They reported readiness as they saw it. They did not compromise their standards and were willing to stand up and set an example. I ask all leaders to do the same.

Candor. Another character trait closely associated with courage is *candor*. Candor is a two-way street. Honesty is as important to a subordinate as it is to a superior. Mentoring and coaching are the best ways I know of to stamp out the zero defects mentality. Soldiers must grow and learn from their mistakes. We must allow subordinates to have the freedom to fail. We must give them the benefit of the doubt if they are honestly trying.

We must coach and mentor our young officers and NCOs and spend time with subordinates, talking with them face-to-face about their performance. Everyone wants feedback. We need to tell soldiers when they make mistakes and then coach them to succeed. There is nothing more important than taking the time to mentor subordinates. General William Creech, a great Air Force innovator and leader, said it best: "The first duty of any leader is to create more leaders."

Part of mentoring is listening to soldiers. You can always learn from them. As a battalion commander, I had a problem in recovery operations. It always took an inordinately long time to refuel all the battalion's vehicles after field operations. One day, the fuel truck driver told me how it could be done in one-fourth the time. His solution was so simple I am embarrassed to reveal it. He suggested that instead of having the fuel truck go through the motor pool to top off each vehicle, the vehicles should drive through a refueling station before going to the motor pool. The soldier closest to the issue solved a major problem.

Competence. As third character trait of good leaders is *competence*. As General Douglas MacArthur said, "There is no substitute for victory." The public trusts us with their most precious asset—their sons and daughters. They do not question what we do with them. They trust us to train them to survive on the battlefield. This is a tremendous responsibility and we, as leaders, must

continue to earn that trust by our professionalism and competence. I count on each leader to not only know your job, but to strive to be the best in their respective fields.

America's Army must be trained and ready for victory, which entails more than defeating the fourth largest army in the world in less than 100 hours. Victory is also providing military support to civilian leadership in other operations. Leaders must conduct tough, realistic training, and we will continue to focus on the National Training Center, Joint Readiness Training Center and Combat Maneuver Training Center. We do not need to get more out of less, but we must get more out of what we do. I would like to do fewer training events but ensure we get the most out of each one we do conduct.

To accomplish our missions, many of our soldiers have had back-to-back deployments and extended separations from their families. On average, American soldiers assigned to a troop unit now spend 138 days a year away from home. Many special units, such as military police, air defense and transportation, have been carrying a heavier load. Operations tempo is high. Thus, leaders must help reduce stress in units. One way to do this is by predictability. The duty roster must be kept in line with US Army Field Manual (FM) 25-100, *Training the Force*. Some soldiers contend they do not know what is going to happen two weeks out because the duty roster has not been published yet. They do not know if they are going to work on the weekend or not.

Leaders must correct this unpredictability. The FM 25-100 training doctrine allows us to plan in advance. We should lock in training events five weeks in advance, and soldiers should know a month out if they are off on a

weekend--and we must honor that commitment to them. Improved predictability for our soldiers must be a goal.

Commitment. The final character trait of a good leader is *commitment*. MacArthur had the best definition of commitment—"Duty, honor, country. These three hallowed words reverently dictate what you ought to be, what you can be, what you will be."¹²

Leaders today should be devoted to selfless service. Marshall said, "It is amazing what gets done when nobody worries about who gets the credit." Leaders should take their guidance from the top but focus on their soldiers. If your focus is on soldiers, then you are doing the right thing. Focusing on "the boss" leads to the attitudes we are trying to stamp out today.

Leaders create command climate. Positive leadership can eliminate micromanagement, careerism, integrity violations and the zero defects mind-set. These attitudes are an unfortunate side effect of the turmoil created by the downsizing of our Army. These attitudes have appeared in the past—but we defeated them. We will do so again.

America's Army is unique in the world. Our advantage is the creativity, initiative and ingenuity of our soldiers. To foster this advantage, we must be willing to underwrite honest mistakes, focus on soldiers and mentor the next generation of leaders.

Major General James Utino once said that morale exists when "a soldier thinks that his army is the best in the world, his regiment is the best in the army, his company is the best in the regiment, his squad the best in the company, and that he himself is the best damned soldier in the outfit." Our job as leaders is to foster that attitude and morale. **MR**

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Leadership, Versatility and All That Jazz

General Gordon R. Sullivan, US Army

Army Chief of Staff General Gordon R. Sullivan wrote several articles for Military Review. This article on leadership presents a unique comparison of General Matthew B. Ridgway and jazz musician Dave Brubeck in addressing professional competency, team building, operational versatility and improvisational genius as necessary leadership elements for our 21st-century Army.

ERSATILITY HAS BECOME the hallmark of America's Army. Our capstone doctrinal manual, US Army Field Manual 100-5, *Operations*, explains that "versatility implies a capacity to be multi-functional, to operate across the full range of military operations, and to perform at the tactical, operational and strategic levels." We consider versatility to be one of the five fundamental tenets of Army operations. It is a recent addition to that short list, but hardly a new concept. It is an attribute that has often been essential in our past, and I expect it to be central to our future.

We strive for versatility in our units. We have designed forces and developed command and control procedures that permit the rapid creation and employment of task-organized units tailored to achieve success under diverse conditions. Employment of those forces also requires leaders with the ability to enter one situation and rapidly adapt to another. We must understand the fundamentals: the capabilities and vulnerabilities of our weapons, our soldiers and our subordinate units. And we must have the ability to read a changing situation and react faster than our opponents. Versatility in leaders, to a large extent, is the ability to improvise solutions in uncertain and changing battlefield conditions.

In battle, versatility allows a commander to act with certainty and decisiveness amid the fog and friction of mortal combat. In training, it spurs us to press the edge of the envelope, to try new ideas, to dare great things and to grow as individuals and as an army. It is a characteristic that springs from a certain knowledge of the basics of our craft. And that certain knowledge gives great leaders the confidence to improvise solutions—to move well beyond the situations we may foresee today. No one can predict precisely what the Army of the future will look like. But based on what is already happening to us, we can say this: Tomorrow's wars and operations other than war will require leaders versatile in mind and will, their perspectives uncluttered by preconceived notions or cookie-cutter solutions.

As I have contemplated the relationship between versatility and leadership, I have been drawn to a simple metaphor. The skill and talent required of military leaders is in many ways akin to the virtuosity of the best jazz musicians. Our military plans have the complexity of orchestral scores, but the certainty of that sheet music does not parallel the changing conditions under which the military leader performs his tasks. Versatility—the improvisation of the jazzman—has been a hallmark of great leaders in our past and is in even greater demand today. Our challenge today is to build on our traditions and to develop a generation of leaders experienced in their craft, alert to an ambiguous environment and confident in their ability to improvise and win.

We may not yet see clearly the face of future war, but we have seen the face of our future brand of leaders. As the commissioned and noncommissioned officers of America's Army look ahead toward the 21st century, we would do well to consider the examples of two Americans of this century who demonstrated the versatility to which we all aspire. Their fields of endeavor differed greatly, perhaps as widely as one could imagine. Yet, the two men shared a common approach to their respective pursuits, and it is that style, that disposition, which demands our consideration.

The first man followed in the footsteps of his father. After studying at several of the more notable institutions of higher education that defined his profession, he also had the opportunity to learn from a pair of recognized masters. So schooled, and in consequence of his own noteworthy abilities, he achieved notoriety as a team builder, known for molding uniquely capable groups under stressful situations. Rising to the top ranks of his calling, he achieved his greatest renown for his performance in a novel environment, one about which he had never been taught, and yet one that perhaps only he could resolve. Truly, he was the right person at the right place and the right time, a point often noted by modern historians.

We can say much the same thing about our second subject. He hewed to the strong example of his mother and older brothers. Following formal education in his chosen vocation, he had the opportunity to deepen his understandings in the company of two distinguished elders, both of whom greatly influenced his early professional development. Well-grounded, conscious of his growing talents, he formed several distinctive, highly capable teams that attained remarkable success in all aspects of their efforts. Singled out as one of the key innovators in his field, he demonstrated consistent ingenuity, devising works so unusual that, in many ways, they now define the outer limits of his profession. He directly affected the course of recent American cultural history.

We know these two men as Matthew B. Ridgway and David W. Brubeck, battle commander and jazz impresario, respectively. You might say that this is an unlikely twosome, the soldier and the musician. But that ignores the deeper ties, the pronounced similarities in how the pair have carried out their lives' works. To understand the connection between Ridgway and Brubeck, it helps to measure the difference between the artistic practitioner and the practical artist, between the conventional general and the master of the battlespace, between the classical orchestra musician and the stylings of the dedicated composer, spinning out clear, cool jazz.

Firm Foundations

Everything, especially the creation of great art (whether operational or musical), takes study and work. People come into this world with varying degrees of talent, but few achieve much without a great deal of diligent effort. It is an old truism that you cannot get something for nothing. This is especially true in trying to develop a versatile intellect. It does not "just happen."

The first step in becoming a leader in any walk of life is easy to say but not easy to do—become an expert. In professional life, knowledge is power, and the capacity to gather, interpret, organize and use available information is one of the major features distinguishing the versatile leader from the time-server. Good leaders, real artists, are experts. They know the fundamentals of their craft.

Ridgway certainly measures up in this regard. Raised in a military family, a 1917 graduate of West Point, a good student at Fort Benning's Infantry School, Fort Leavenworth's Command and General Staff College and the Army War College, Ridgway spent nine of his first 46 years in military educational establishments. He knew the theory behind his job very well.²

Brubeck reflects a similar pattern. With his mother teaching piano lessons and his older brothers working as music educators, young Brubeck began playing the piano at the age of 4. By the time he was 13, he was playing regularly in public and earning some money, too. He studied classical music at the College of the Pacific in Stockton, California, and also took music theory courses at nearby Mills College. Brubeck learned the details of classical music, a background unusual among many jazz players.³ But Brubeck would be more than a jazzman. He would be an innovator. And it started with knowing the great classics—cold.

Along with a strong grasp of the nuts and bolts of one's chosen profession, it also helps to learn everything you can from those who have already been there. In the Army, we often discuss this under the concept of mentorship, the idea that a more experienced soldier should share the fruit of experiences with younger professionals. A prudent leader seeks such insight.

Ridgway definitely acknowledged the value of such personal contacts. His two great mentors could not have been more different. Lieutenant Colonel George C. Marshall, the reserved tactical mastermind of General John J. Pershing's World War I American Expeditionary Force, first met Ridgway when they served together in the 15th Infantry Regiment in Tientsin, China. Ridgway later attended the Infantry School, and under Marshall's tutelage, he learned the latest in combined arms tactics and combat leadership from a colonel determined to go well beyond "the school solution."



[Ridgway] did not allow conventional wisdom to stand in his way. The Army grapevine grumbled that James Gavin was too young to command a division and that Maxwell Taylor was too cerebral. Ridgway thought otherwise, and their superb performance as commanders of the 82d and 101st Airborne divisions in 1944 and 1945 proved him right. In his time, Ridgway selected and trained a generation of Army leaders, most thoroughly imbued with their leader's regard for versatility in action.

If Ridgway perfected his infantry skills under the uncompromising eye of Marshall, he gained invaluable exposure to the political aspects of the warrior's role courtesy of Brigadier General Frank McCoy, who asked Ridgway to accompany him to monitor the 1928 Nicaraguan elections. Fluent in Spanish since his Academy days, Ridgway learned much about the interactions of soldiers and diplomats, the doings of guerrilla chieftains such as Augusto Sandino and the usually porous membrane between politics and military affairs.⁴

Many American generals could claim proudly to be "Marshall Men." Only Ridgway had the benefit Of McCoy's unique political-military insights. Coupled with his military course work and inquiring mind, these experiences laid the foundation for later success in very delicate, dangerous political-military situations.

Brubeck, too, sought the wisdom and counsel of mentors. He attended several presentations by Arnold Schoenberg of Austria, a giant of early 20th-century classical music. Working with Schoenberg, Brubeck learned to discipline himself to read and write complex music, to understand melody, harmony and rhythm, the

basic components of musical construction.

At Mills College, Brubeck also had the good fortune to meet and work with a composer who went beyond purely classical music—Darius Milhaud of France, a contemporary of Maurice Ravel and Igor Stravinsky. Milhaud had been so unimpressed by the American jazz movement that he produced some early works of jazz-classical fusion, and he enthusiastically encouraged Brubeck to continue in this relatively uncharted realm of musical experimentation. Schoenberg honed Brubeck's classical, symphonic instincts, but Milhaud showed him how to build on those ideas, to pioneer the uncharted boundaries that had previously separated American jazz and the likes of Beethoven or Brahms. The Frenchman so impressed Brubeck that the American named one of his sons Darius, a tribute to Milhaud.

Just as Ridgway was both a well-educated infantryman and a budding soldier diplomat, so Brubeck saw himself as "a jazz musician who wanted to learn composition." Both men refused to be dabblers or dilettantes. Rather, they started at square one, learned their respective trades and sought the advice and assistance of sympathetic older professionals to expand

their horizons. There would be plenty of ingenuity to come, but for these two gentlemen, it all arose from a solid bedrock of expertise. Versatility starts here.

Building Great Teams

It is one thing to be a solo performer, a single man or woman out on the wire or ahead of the pack. It is quite another to translate singular excellence to a group, to impart a vision and a style so completely that, after awhile, the body begins to act in concert with its leader. In the Army, we say such an outfit is cohesive and combat-effective. And in today's difficult world, sure to be at least as challenging tomorrow, all our forces must truly "be all that they can be." Again, Ridgway and Brubeck show us the way.

Ridgway's organizations always showed a character much like his own: driving, tenacious and imaginative. He imparted his way of thinking to America's airborne formations in World War II and on the Eighth Army in Korea. Paratroopers groused that "there's a right way, a wrong way and a Ridgway," but their combat record demonstrated that the "Ridgway" amounted to applying brain power and aggressiveness, not outdated rule books, to wartime challenges. Units trained and led by Ridgway from the 82d Airborne Division of 1943 and 1944 to the entire Eighth Army in 1951, consistently displayed a high degree of battlefield savvy. All of that started from the top, with Ridgway's example, the chief team builder of them all.

Ridgway left plenty of room for others with character traits as unusual as his own. Indeed, he sought them out and encouraged them. He did not allow conventional wisdom to stand in his way. The Army grapevine grumbled that James Gavin was too young to command a division and that Maxwell Taylor was too cerebral. Ridgway thought otherwise, and their superb performance as commanders of the 82d and 101st Airborne divisions in 1944 and 1945 proved him right. In his time, Ridgway selected and trained a generation of Army leaders, most thoroughly imbued with their leader's regard for versatility in action.

It might seem strange for soldiers to look at Brubeck as a team builder, but jazz by definition builds around the session, the small collection of musicians who experiment, practice and perform together. No composer can accomplish much if a viable session does not come together. Brubeck, as a pianist, followed in the tradition of Jelly Roll Morton and Duke Ellington, and assembled a series of sessions to pursue his interest in introducing classical elements to jazz. Brubeck's more famous bands include his eight-man Jazz Workshop Ensemble (1946- 1949), his trio of 1949-1951 and his quartet of 1951-1967, usually considered to be the

classic Brubeck-inspired session. He has formed others since, including a partnership with sons Darius, Chris and Danny. But always, the bands featured Brubeck's determination to mix in classical melody and harmony with what he termed "rhythmic experimentation."

Brubeck's sessions emphasized teamwork and team learning, as his scores were always heavily influenced by classical forms and thus not easy to learn. Surely a "Brubeck way" existed, and just as the "Ridgway" sought to maximize the diverse talents of others, the jazz composer encouraged the abilities of his fellows. Brubeck stretched all of the old borders and did so deliberately.

He recruited an African-American, the brilliant double-bass, guitarist Eugene Wright, in the middle 1950s, a move that segregationist diehards claimed would ruin Brubeck, then ascending in popularity. Brubeck stood by his fellow musician, even canceling numerous lucrative dates in Southern states rather than work without his bassist. Wright played bass with the session for a decade, including his work on *Take Five*, the first jazz record to sell a million copies.

Most Americans have heard *Take Five*, in many ways the signature Brubeck piece. Yet, in fact, Brubeck did not compose it. The group's superb alto saxophonist, Paul Desmond, actually wrote the music, yet the work is so essentially Brubeck that only a few aficionados know this.⁷ That is the Brubeck style, to pass the lead as jazz players must do, but to pass on his knowledge and perceptions to others, as well. Today's jazz has a lot of Brubeck in it, and that is no accident. The artist saw to it.

The greatest mark of team building is to create an organization that can continue to function without a hitch when the originator moves onward. Both Ridgway and Brubeck accomplished this repeatedly over their careers. Despite their ambition—and both had it, as do most true artists—neither man inflated his own ultimate importance. Both willingly deferred to others when that made sense, "passing the lead," in jazz technology. To those who inflated their own role, Ridgway offered this advice: "When you are beginning to think you're so important, make a fist and stick your arm into a bucket of water up to your wrist. When you take it out, the hole you left is the measure of how much you'll be missed."

Brubeck might have said much the same thing. Our legacy is not what we do today, but what we teach those who follow us, those who will lead our Army into the future. You know, the battalion commanders of 2010 are today's lieutenants. Like Ridgway and Brubeck, we owe them our most candid, consistent coaching. We must pick the best and not let ourselves be bound

by outmoded ways or "the conventional wisdom." Building tomorrow's Army, our future team, is already under way. Ridgway and Brubeck offer us some good ideas on how to get this right.

Improvising on a Theme

At some art schools and in sports, one hears talk of "compulsory figures," the equivalent of blocking and tackling, of mortar crew drill or of basic arithmetic. Interestingly, many prominent people, including some in uniform, never get beyond the school figures, the approved solution. A decade ago, against a relatively predictable foe in a fairly obvious theater, a soldier could get by with that sort of behavior. Today, tomorrow and the day after tomorrow, pat answers and the "way we have always done things" will not cut it.

Both Ridgway and Brubeck proved to be adept at improvising around a basic theme. Ridgway practically invented modern airborne operations out of whole cloth, building on rumors from hostile Germany and small-scale efforts by the British. Marshall trusted him to carry out his ground-breaking airborne campaigns in company with a galaxy of tremendous subordinates, and Ridgway proved eminently suited for this daunting task. His later service as the commander of Eighth Army in Korea electrified a dispirited multinational force, instituting tactics and techniques to address the specific frustrations which marked that difficult conflict.

In some ways even more deserving of credit, Ridgway left the field of battle to assume overall command in the Far East during a critical period in the Korean War. General of the Army Douglas MacArthur had been removed from command, and American soldiers, citizens and political leaders all looked to Ridgway. Did he, too, favor a wider war against Communist China, a World War II-style insistence on total victory? MacArthur had lost his job over this issue. Now Ridgway stepped up to the plate.

The school solution learned at Forts Benning and Leavenworth and practiced in northwest Europe in 1944-1945 would have argued for a drive to victory or withdrawal. But Ridgway understood that nuclear weaponry made such a finish fight impossible, at least without severe damage to America itself. He recognized the need to prosecute a limited war, a fight to be settled at the truce table, not in the hills of Korea and definitely not in Manchuria. Just as important, he knew he had to limit America's losses in "this kind of war," in T.R. Fehrenbach's memorable phrase.9

That Ridgway did so reflected well on his broad-mindedness, his willingness to deal with each new reality as he found it. The same general who had once personally stalked German snipers in the Normandy hedgerows also arranged armistice talks with his ruthless enemies in Korea. It was a different war and a different time. Ridgway knew that. More important, he was conditioned by years of study, thought and practice to respond that way, to improvise on a theme rather than stick to the same old dirge.

Brubeck, of course, epitomizes the concept of improvising on a theme. As you listen to his music, especially various recordings of the same compositions, you hear subtle nuances and distinctions as Brubeck modifies his musical score to match the audience, the skills of his other players and his own continuing exploration of rhythm, melody and harmony. He knows how to compose and he and his partners know how to play-not what to compose, and not what to play.

This explains Brubeck's incredible longevity as an entertainer. Working from his classical repertory and his jazz evolutions, Brubeck has been in the public eye since 1933. His works include two ballets, a musical, an oratorio, four cantatas, a mass and countless jazz pieces. He has made the cover of *Time* (1954), participated in great jazz festivals at Monterey (1962 and 1980) and Newport (1958, 1972 and 1981). He and his session played at the White House in 1964 and 1981. These varied marks of public acclaim tell us something. This artist is no flash in the pan. Even a cursory review of musical literature reinforces Brubeck's distinctive place in our culture.¹⁰

He earned every bit of his reputation, the same way as Ridgway earned his—by improvising on a theme. The world has changed tremendously since he began playing during the Great Depression, but Brubeck has had the perception to stay current, to adapt, to pay attention to his surroundings. He never does the same thing twice, because situations are never quite the same—yet, his work always displays his own unmistakable style.

Many people think that improvising in the Brubeck way simply means doing something different, whatever that something may be. But a closer look at the examples of Ridgway and Brubeck suggest otherwise. Uneducated improvisation, trying things on a whim, represents gambling, shooting in the dark, which is not wise when American lives are involved. Like all real professionals and genuine artists, soldiers must have the discipline to build on a theme, to work from the known to the unknown. As we improvise solutions in our operations around the world, our goal is constant—not merely to do something, but to do the right thing.

Leaders for a Learning Organization

The Ridgway and Brubeck stories remind us of what can spring from the diverse richness of the Amer-

ican people, an ever-fresh well of vitality, ingenuity and boundless enthusiasm. While Ridgway clearly reflects that part of our populace which serves the Republic in uniform, we should note that Brubeck also answered his country's call as a soldier in 1944. He and his band played in Europe, no doubt entertaining some of Ridgway's paratroopers and glider forces in the process. ¹¹ Both have worn Army green, and they and the men and women like them tell us much about the quality of the citizens who served in our ranks in the past, those who serve now and those who will join our Army in the days to come. We have a lot of great talent in America's Army.

Ridgway and Brubeck, of course, are exceptional personalities, historic figures of some prominence. At least in that respect, they are far different from most of us who carry out our duties without any particular public notice, let alone fanfare. While we can rightly attribute part of the pair's performance to the workings of individual chemistries, we should also be clear about some of the things that make them so outstanding among this century's Americans.

Absolute expertise in professional matters, commitment to team building and a preference to improvise based on known concepts—the general and the composer share these three traits. As Margaret J. Wheatley points out, America's Army is a learning organization, "rich in connections and relationships that make it possible to *know* what it knows." Ridgway and Brubeck showed that degree of situational awareness; they developed it over years of study and effort. They

understood themselves, their professions and the world around them. Equally important, they knew how to translate those insights into positive action.

When you think about it, that is what Army leaders strive to do every day as they meet the challenges of our volatile world. Without doubt, we are already making great strides in creating a leadership climate that nurtures organizational and personal growth. When we sent American soldiers into Kurdistan in 1991 and when we deployed the 10th Mountain Division into Somalia in 1992, we asked them to function in very ambiguous, dangerous and difficult environments. Our leaders in these operations, and many others, reinvented their forces to meet changing situations. We call that "tailoring" or "task-organizing based on METT-T (mission, enemy, troops, terrain and weather, and time available)." It is a fundamental aspect of our current professional education.

That kind of approach would be very familiar to Ridgway or Brubeck. It reflects the Army's institutional, doctrinal manifestation of versatility. Our Army teaches this concept in our schools, practices it in our training centers and encourages it in our leader development process. We are working to inculcate versatility, endeavoring to infuse all of our men and women, all potential leaders, with the characteristics that made Ridgway and Brubeck so effective. Their examples light the way to our 21st-century force, an Army characterized by a commitment to learning leadership, with a premium on operational versatility and the improvisational genius that defines our military equivalent of jazz artistry. *MR*

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Leadership:

A Return to Basics

General Edward C. Meyer, US Army

The late 1970s and early 1980s were trying times for the US Army as it struggled to recover from Vietnam and establish a credible All-Volunteer Force. During these years, Army senior leaders tried various leadership theories and slogans. By 1980, however, they returned to more traditional leadership methods. In this July 1980 lead article, then Army Chief of Staff General Edward C. "Shy" Meyer reflects this shift as he distinguishes between leadership and management. While acknowledging a place for management in the Army, Meyer clearly stipulates the primacy of leadership in soldiering.

HEN I BECAME CHIEF OF STAFF, I set two personal goals for myself. The first was to ensure that the Army was continually prepared to go to war, and the second was to create a climate in which each individual member could find personal meaning and fulfillment. It is my belief that only by attainment of the second goal will we ensure the first.

The most modern equipment in the world is useless without motivated individuals, willingly drilled into cohesive unit organizations by sound leadership at all levels. Expert planning, Department of the Army pamphlets, regulations and field manuals will not of themselves rescue the disaffected soldier from apathetic performance of his or her duty. Neither the soldier nor his comrades will survive the first challenge of either the modern world or of the battlefield outside a climate of active and concerned leadership. Because we are a community, a way of life, we cannot isolate our concern to only one of these environments. Our commitment must be complete if we expect dedication returned in kind.

The clear linkage is that our ability to go to war hinges critically on the quality of leadership within the US Army; leadership, what James MacGregor Burns called "one of the most observed and least understood phenomena on earth." 1

Napoleon listed 115 contributing qualities in trying to define the essentials of leadership. We have no way of knowing if his description was complete at number 115 or if he was otherwise distracted. Some authorities focus on three, five or 10 aspects, while others, perhaps

more wisely, begin and end their list with only one, or describe broad theories about leadership. None of these efforts is complete, yet none of them is useless either, if they assist the professional who already has a firm grasp on fundamentals to better understand and practice leadership.

Need for a Renaissance

Is there a need for a renaissance in the art of military leadership today? I think so. Not because I sense an Army starved for adequate example, but because the circumstances have been such over the past several decades that confusing models vie for attention. Some are woefully deficient and totally inappropriate for tomorrow's battlefield.

We need to discuss openly the fact that we have been lavish in our rewards to those who have demonstrated excellence in sophisticated business and management techniques. These talents are worthwhile to a leader, but, of themselves, they are not leadership. We need to discuss openly the impact that six-month command tours in Vietnam may have had on the perception of a commander's commitment. Under the circumstances of that war, it may have been unavoidable. In the process, have we eroded essential values?

We need to recognize that we have lived through an era in which this country enjoyed massive nuclear superiority. Previously, it was possible to accept less than optimal decisions in the certainty that very few things relating to land forces could be of critical consequence. That is, given our massive, nuclear advantage, only a madman would have challenged us directly. That is no longer the case. Today, we need sensitivity and backbone beyond that which the past several decades have demanded.

We need a renaissance in the art and practice of leadership because this country cannot suffer through the same agonies in a future mobilization which time permitted us to correct the last time around.

The early maneuvers of 1940 turned a harsh spotlight on the then current "training weaknesses of the Army: lack of equipment, poor minor tactics, *lack of basic leadership in many units, and some inept command leadership by officers of high rank.*" This despite the pre-1940 emphasis of the Regular Army on leadership, administration and technical skills. What was uncovered was a proficient relationship between the leader and the led, rooted in peacetime administration—but insufficiently developed to withstand the rigor of combat.

General George Marshall's strategy was to correct the weakness "by arduous training and by the more drastic solution of eliminating the unfit." We are precisely on that track today. But the climate is somehow different. The leader of the 1940s was training to go to war with his unit for the duration. There was no certainty that at some point he would be plucked out of his situation in adherence to a rigid career development pattern. His career extended only to the bounds of developing his unit so it could survive in combat. He would likely see it through there or at an echelon or two above that unit, still dependent upon its continued excellence.

We would be wrong today to invoke a "for the duration" mentality which excluded preparing the force for its future. That is an essential. But we need to root out those situations where such progression denies full loyalty and devotion to the soldier and the unit.

Despite some of its narrowness, for there was only one way, "the Army way," the Army of World War II was a professional force of immense energy whose traditions were strong and whose values were clear. Service parochialism and narrowness helped to spawn a revolution under Robert McNamara in the early 1960s which sought to rationalize interservice resource demands by the adoption and adaptation of business-oriented management techniques. The intent was that the Department of Defense could and should operate as effectively and efficiently as private enterprise.

Ironically, some of the techniques were ones developed by the military during World War II to

achieve high-priority goals in specific sectors of our war machine (strategic bombing, weapons development, antisubmarine warfare).

At no time did anyone say, "Let's have an Army of managers—leaders are passé." However, once the system became firmly entrenched, its power and grasp implied to many that the newly arrived technocrat was an attractive alternative career model. Imperceptibly at first, then with a rush, the traditional focus of leadership slipped for many into the abyss as increasing emphasis was placed on management and specialization. Excellence in its theories and principles became for many an alternative to leadership. Unfortunately forgotten was the fact that employees of Sears Roebuck and Company or General Motors Corporation were not asked to give up their lives for corporate cost-effectiveness!

Leadership and management are neither synonymous nor interchangeable. Clearly, good civilian managers must lead, and good military leaders must manage. Both qualities are essential to success. The size and complexity of today's Army, given no overabundance of resources, requires the use of managerial techniques. Their use is essential if we are to maintain and improve our posture.

Accordingly, such training and practice are important. But the leader must know when and how to apply them, never forgetting that the purpose of an Army is to fight. And, to fight effectively, it must be led. Managers can put the most modern and well-equipped force into the field. They cannot, however, *manage* an infantry unit through training or *manage* it up a hill into enemy fire to seize an objective.

Two Lessons

In this context, two lessons are important—first, techniques which work well for the management of resources may prove disastrous when substituted for leadership on the battlefield. Conversely, techniques which work well for the battlefield may prove disastrous when substituted for management. Management and leadership are coequally important—not substitutes for one another.

Strong personal leadership is as necessary today as at anytime in our history. That which soldiers are willing to sacrifice their lives for-loyalty, team spirit, morale, trust and confidence—cannot be infused by managing. The attention we need to invest in our soldiers far exceeds that which is possible through any centralized management system. To the degree that such systems assist efficient operation, they are good. To the degree that they interfere with essential relationships between the unit and its leader, they are

disruptive. Management techniques have limitations which leaders need to identify and curb to preclude destructive side effects.

Just as overmanagement can be the death of an Army, so can undermanagement, which deprives units of essential resources. Leaders need to be active to identify either extreme, for either can impact on the ultimate success of committed forces.

The kind of leadership we need is founded upon consideration and respect for the soldier. That thought is not new. Over 400 years ago, Machiavelli's prince was taught that "... in order to retain his fidelity [he] ought to think of his minister, honoring and enriching him, doing him kindness, and conferring upon him honors and giving him responsible tasks...."

Repeated through the ages by others, the message-like an overworked popular recording-may have lost its freshness. Societally accustomed as we are to discarding the old for the cleverness of the new, we weary of redundancy and look for the new buzz word, the new turn of phrase: VOLAR (Volunteer Army), DIMES (Defense Integrated Management Engineering Systems), Zero Defects, Management by Objective, Organizational Effectiveness, and so forth. Again, let me remind you, these are all good management-related programs, but not if they replace the essence of leadership essential to an effective Army.

There are no tricks or gimmicks in the watchwords of General John M. Schofield, and I commend them to you: "The one mode or the other of dealing with subordinates springs from a corresponding spirit in the breast of the commander. He who feels the respect which is due to others cannot fail to inspire in them regard for himself, while he who feels, and hence manifests, disrespect toward others, especially his inferiors, cannot fail to inspire hatred against himself."

The summation of leadership leaves the reader to supply his personal "tag line." The premise involves a cultivated feeling by the leader for the attitudes, needs, desires, ambitions and disappointments of the soldier-without which no real communication can exist.

Leaders cannot, must not, blind themselves to a one-answer, one-method scientology. They must discover the method best suited to motivate and employ *each* soldier. Time and one's earnest interest are necessary regardless of method. The end result is an organization which is ready and willing to follow despite hardship or adversity.

In our business, these are much more prevalent than elsewhere in our society. There are obvious hardships associated with battle; there are also the hardships of peacetime duty—coping economically in a foreign land, coping with old and run—down facilities, coping with

constraints on training resources, to name a few. All these will be accepted and creatively overcome by units whose members sense their leader's genuine interest and commitment to their welfare. Abraham Lincoln said that "You can't fool all the people all of the time." To that, I would add that *you cannot fool a soldier anytime!* The leader who tries chooses a hazardous path.

Types of Leadership

How concern and respect are manifested by each of us is the essence of leadership. Just as there are two types of diamonds—gem and industrial quality—there are two types of leadership. The first type, the gem quality, is functional if we only desire our leadership to appear beautiful. The second, or industrial quality, though not cleaved, faceted and polished, is the more functional because it uses are creative. The Army's need is for the industrial quality, the creative quality of leadership.

Just as the diamond requires three properties for its formation—carbon, heat and pressure—successful leaders require the interaction of three properties—character, knowledge and application.

Like carbon to the diamond, character is the basic quality of the leader. It is embodied in the one who, in General [Omar] Bradley's words, "has high ideals, who stands by them, and who can be trusted absolutely."⁷

Character is an ingrained principle expressed consciously and unconsciously to subordinates, superiors and peers alike—honesty, loyalty, courage, self-confidence, humility and self-sacrifice. Its expression to all audiences must ring with authenticity.

But as carbon alone does not create a diamond, neither can character alone create a leader. The diamond needs heat. Man needs knowledge, study and preparation. The novice leader may possess the honesty and decisiveness of a General Marshall or Patton, but, if he or she lacks the requisite knowledge, there is no benchmark from which that character can take form. A leader must be able to choose the harder right instead of the easier wrong, as it says in the Cadet Prayer [US Military Academy, West Point, New York], but the distinction cannot be made in practice unless the leader possesses knowledge equal to the situation.

General George Patton, once accused of making snap decisions, replied: "I've been studying the art of war for forty-odd years. When a surgeon decides in the course of an operation to change its objective ... he is not making a snap decision but one based on knowledge, experience and training. So am I."8

To lead, you must know your soldiers, yourself and your profession. The third property, pressure—acting in conjunction with carbon and heat—forms the diamond.

Similarly, one's character, attended by knowledge, blooms through application to produce a leader.

Generally, this is expressed through teaching or training-grooming and shaping people and things into smoothly functioning units. It takes many forms. It begins by setting the example and the day-to-day development of subordinates by giving distinct, challenging tasks and allowing free exercise of responsibility to accomplish the task. It extends through tactical drill, weapons operation and maintenance, operational planning, resource management, and so forth. Finally, it is the imparting of knowledge to superiors, for they must digest the whole of their organizations and rely increasingly on judgments from below.

Individual Growth

These three properties, brought together, form, like the industrial diamond, a hard, durable creative leader. As the industrial stone is used to cut glass, drill for petroleum products and even for creation of the brilliant gem diamond, leadership works to create cohesive, ready, viable units through a climate which expresses itself in its concern for the growth of the individual.

Growth in a single dimension, that limited to excellence in applied military skills, is only part of the challenge to today's leadership. Alone, it runs the risk of buying single-dimensioned commitment. Full dedication comes by providing a basis for rounded individual development pertinent to survival in life in its broadest aspects.

Today's soldiers seek to become capable citizens across the four critical dimensions of man. The Army, through its leaders, can assist their development mentally, physically, spiritually and socially, equipping them for survival in and out of uniform. Each soldier meaningfully assisted toward development as a whole man, a whole person, is more likely to respond with his or her full commitment.

The leader who chooses to ignore the soldier's search for individual growth may reap a bitter fruit of disillusionment, discontent and listlessness. If we, instead, reach out to touch each soldier—to meet needs and assist in working toward the goal of becoming a "whole person"—we will have bridged the essential needs of the individual to find not only the means of coming together into an effective unit, but the means of holding together.

Then, we will have effected a tool capable of fulfilling the purpose for which we exist: our ability to go to war. We can then hopefully influence the decision of those who might be tempted to challenge our nation.

As with all scientific and artistic endeavors, one begins with basics. We must get back to the established basics of leadership. They provide the foundation from which our Army draws its inspiration, its capability and, ultimately, its effectiveness. **MR**

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Leader Development and Control

Lieutenant General Leonard P. Wishart III, US Army

When this 1990 article was written, the US Army had already made some major advancements in training and leader development with the National Training Center, 6 years old in 1990; the Center for Army Lessons Learned, 5 years old; and the Battle Command Training Program, 4 years old. With the world drastically changing in 1990 after the fall of the Berlin Wall, Lieutenant General Leonard P. Wishart III says in this article that more leadership training and more command and control (C^2) improvement are vital for dealing with future military operations. Since 1990, the Army has established its battle labs program and begun other initiatives to work on C^2 issues for today and the 21st century.

VENTS IN EUROPE and around the globe continue to force us to form new perspectives about the future. Emerging prospects are already shaping new concepts in our national military strategy and defense posture and will, undoubtedly, precipitate many changes for our Army. These changes will come about in many forms—force structure, systems development and fielding, concepts for warfighting and training—to name a few.

However, as we shape our Army for the next century, many precepts of the past will remain constant. The "principles of war" and the AirLand Battle tenets of synchronization, depth, agility and initiative will continue to be the foundations upon which our new warfighting concepts will be built.

Two imperatives that the Combined Arms Center (CAC) has recognized as essential for future battlefield success are the development of highly competent, bold combat leaders and the provision of a first-rate command and control (C²) system. Leadership, command and the necessary control systems, coupled with solid, realistic training, are the keys to mental and physical agility. This agility permits the commander to synchronize combat power throughout the depth of any battlefield, operate inside the enemy commander's decision cycle, seize the initiative and decisively defeat him.

The recent liberation of Panama by US Army combat forces as part of a joint operation dramatically demonstrates the results of applying these fundamentals. A synchronized combat assault simultaneously placed joint forces at dozens of different locations, totally fixed the enemy and kept casualties and collateral damage to a minimum. Realistic training prepared the units involved, while superb leadership at all echelons, decentralized command and superior C² systems allowed the swift and decisive execution of this highly successful contingency operation.

Today, we have unique opportunities to improve battlefield C^2 and further leader development by focusing our efforts on specific deficiencies that have been identified in training, during large-scale exercises or on operational deployments. It is possible now because we recognize the increased importance of training in an era of possible "come as you are" conflicts and better understand the impact of technology and command support on leader development and C^2 .

Command and Control

A clear and precise focus on C² is being provided through feedback from force-on-force training exercises conducted at the combat training centers (CTCs). The Battle Command Training Program (BCTP), Fort LeavThe environment of the command will often determine junior leaders' behaviors. A positive environment, which ensures that subordinates know the commander's intent and standards and feel free to exercise delegated authority, is a breeding ground for the bold, audacious leaders our Army requires. Delegation of real authority to the leader at the lowest level capable of routinely executing a task or mission to standard is essential. We know we must operate that way in combat, and we must do the same in peacetime and during training.

enworth, Kansas, is providing the same discrete feedback from division and corps command post exercises. The Army's Center for Army Lessons Learned (CALL), Fort Leavenworth, is developing a data base of observations from all CTCs and from operations such as *Just Cause* and *GOLDEN PHEASANT* (1988 exercise/show of force in Honduras) that will provide improved analysis.

We already know many of our C² deficiencies. Commanders must improve the synchronization of combat power in order to be successful. Commanders at all echelons must speak in a common doctrinal context and use common terms in order to provide a clear understanding of intent and concept. Execution must be decentralized, but consistent with the higher commander's intent.

The analysis and decision-making process must be accelerated so leaders at all echelons can make the right decisions in a timely manner. Commanders must be able to project and anticipate in order to seize the initiative, and their staffs must have decision aids and situation assessment systems that will enable them to accurately "see the battlefield" in real or near real time. Simultaneously, we must deny this information to the enemy. These requirements provide a clear focus for correcting priority C² deficiencies. Battle command integration of the solutions is the key to achieving better C².

C² is not one word, although we often tend to treat the term as such. Command is the art of assigning missions, prioritizing resources, guiding and directing subordinates and focusing the entire command's energy to accomplish clear objectives. Control is the science of defining limits, computing requirements, allocating resources, prescribing requirements for reports, monitoring performance, identifying and correcting deviations from guidance and directing subordinate actions to accomplish the commander's intent.

We must ensure that leaders at all levels understand our intent, but know they are free to operate and command their units to best achieve our objectives. We must control our operations, directing all efforts toward accomplishment of the mission. Command can best be facilitated by developing intelligent, bold, risk-taking leaders, while control is best improved by the application of sound doctrine and the intelligent use of technology.

Leader Development

Our Army prides itself on our leaders, who have grown through a system that combines a formal education process, experience and mentorship, and self-development. Leaders at all levels must concern themselves with their own development and that of their subordinates. Leadership is a constant process, and so is leader development.

Leader development depends heavily on personal example, environment and accountability. Just as units will perform as they train, junior leaders will follow developmental patterns based upon the examples of their superiors. The environment of the command will often determine junior leaders' behaviors. A positive environment, which ensures that subordinates know the commander's intent and standards and feel free to exercise delegated authority, is a breeding ground for the bold, audacious leaders our Army requires. Delegation of real authority to the leader at the lowest level capable of routinely executing a task or mission to standard is essential. We know we must operate that way in combat, and we must do the same in peacetime and during training. Equally important, leaders must be held accountable for the results. Recognition of mission accomplishment, or substandard performance, must be fair and immediate. The establishment of such an environment does not occur overnight. However, the benefits accrued to the unit and the Army last far into the future, for leaders produced in such an atmosphere will strive to achieve the same environment as they progress in the Army.

Technology

The explosive growth of automation and information management capabilities provides vastly improved control and staff support systems. Increased use of knowledge-based applications, parallel computer architecture, data fusion and information processing, coupled with new communication capabilities, provides incredible techniques for improved C². Our superior technological capability is one of our nation's great strengths. As we exploit this capability, the battlefield payoff can be dramatic. At the same time, we cannot take such superiority for granted. We must be equally prepared to face an enemy of technological parity.

Training

Recent Army initiatives have resulted in modernized training facilities, as well as an enriched training environment. US Army Field Manual (FM) 25-100, *Training the Force*, and FM 25-101, *Battle Focused Training* (Approved Final Draft), for battalion level and lower, provide the clearest training concepts yet published. Unit training is battle focused and oriented on correcting identified deficiencies. The message of these manuals is clearly to emphasize mission-oriented training. Realistically, units do well what they are trained well to do. Train soldiers for their jobs, and they will perform those jobs.

The CTCs provide unique collective training environments, and technology is being used to develop improved training simulations and simulators for commander, staff, unit and crew training at home station. Computer-driven simulations provide realistic, stressful training for commanders and staffs from battalion through corps. Linked simulators permit small units to conduct training on C² tasks at less cost and with less risk. High-fidelity simulators for aircraft, combat vehicles and gunnery systems can train crews and individuals on critical teamwork skills before they put them into practice in the field or on the range.

Command Support

No lasting or dramatic improvements can be made in battle command without the active support, interest and backing of senior Army commanders and officials at all levels. Such support exists today and has been fundamental to the increased emphasis on leader development. Senior Army leaders realize the payoffs that result from preparedness, superior leadership and C². The chief of staff of the Army has personally emphasized leader development, realistic training and battlefield synchronization as keys to a trained and ready Army, now and in the future.

At CAC, the Battle Command Integration Program (BCIP) provides a strategy that will ensure an integrated and focused approach to leader development and C². BCIP also ensures that developers of doctrine, training and system resources are synchronized in efforts toward common priority goals. BCIP is not an organization or activity, nor will it, in itself, produce a tangible product. It is a *strategy* that provides focus, coordination and integration of all existing activities. It pulls together the collective responsibility for C², leader training and doctrinal development, for fielding of C² systems and for providing organization and training to accomplish the battle command mission.

The commanding general (CG) of CAC provides the senior leadership of the BCIP. A general officer

steering committee and a command and control integration council (C²IC) has been established to provide advice and assistance to the CG. All Fort Leavenworth activities concerned with the issues of leadership and C² are represented on the council and play a role in the program. In addition, the major players involved in C² in Army Materiel Command (AMC), the field commands and other agencies are represented. These include Communications-Electronics Command (CECOM), Laboratory Command (LABCOM), Army Research Institute (ARI), Army Tactical Command and Control System Experimentation Site, Information Systems Command (ISC), US Army, Europe (USAREUR) and US Army Forces Command (FORSCOM), to name a few.

The general officer steering committee held its first plenary meeting on 8 February 1990. The theme for that meeting was "Focus on the Commander," in recognition of the reality that leadership and C² transform potential combat capability into actual combat power. The steering committee identified three priority areas on which the C² community must focus in order to assist field commanders:

- See the battlefield.
- Communicate intent.
- Synchronize the battle.

These areas are now being addressed by all organizations involved in C² and leader development. Each organization represented in BCIP strategy has accepted responsibility to work on solutions to improve performance and assist commanders in these three priority areas. The C²IC will monitor progress and provide feedback to the steering committee and commander, CAC.

The Command and General Staff College (CGSC) will concentrate on doctrinal aspects of the problems. Doctrine writers will ensure common terminology and decision-making processes are developed and taught to better allow the communication of commanders' intentions and will stress synchronization in combat operations.

During the Pre-Command Course for selected battalion and brigade command designees, the focus of the Tactical Commanders Development Course (TCDC) is on teaching commanders to see the battlefield and synchronize all available combat power in time and space to defeat the enemy. TCDC was developed as a part of the BCIP strategy to overcome a deficiency identified at our CTCs.

The BCTP is also emphasizing these areas in their after-action reviews and providing feedback to exercising units during the seminar, *WARFIGHTER* exercises and in the sustainment package.

The Future Battle Laboratory (FBL), an element of the Combined Arms Combat Developments Activity (CACDA), provides a "test-bed" experimentation capability where requirements and deficiencies in C² systems can be identified, proposed solutions examined and prototypes evaluated and refined. Activities occur in conjunction with user, combat and materiel developer, industry and national laboratory representatives. FBL will be instrumental in the formulation of doctrinal, training and leader development materials. FBL experts are working on staff aids, identifying a large screen display for tactical use and evaluating potential field reproduction systems. USAREUR and FORSCOM units have been working with the FBL to find acceptable solutions.

The 35th Infantry Division (Mechanized) Headquarters is located at Fort Leavenworth. In coordination with CAC and the Kansas National Guard, a large area in their new headquarters has been set aside to cooperate with the activities in C² improvement. FBL developed a modular standard command post with mock-ups, SINCGARS (single-channel ground and airborne radio system) radio nets, Maneuver Control System equipment and the other items required to run a full-scale division exercise. The National Simulation Center (a part of the Combined Arms Training Activity [CATA] made the joint Exercise Simulation System available, along with the world-class OPFOR (opposing forces) from BCTP, to enable the 35th Division to execute a division-level command post exercise in the standard command post configuration. The exercise was further supported by CGSC subject matter experts, CECOM, ARI and Fort Leavenworth. These tests, or experiments, to seek solutions to C² deficiencies will continue; they give evidence of the synergy and strength the BCIP strategy offers when all interested organizations work together to solve a common problem.

The next step will see CECOM establish a technology assessment center for C^2 collocated with FBL. This will foster prototype development of emerging C^2 systems and allow better integration of materiel and combat developer efforts.

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The bottom line is to achieve a focused approach to solving our most important C² and leader development deficiencies. As the proponent for both, CAC is using the BCIP to provide the strategy to pull together all the many organizations and activities in the Army that have an interest in C² and leader development.

the BCIP to provide the strategy to pull together all the many organizations and activities in the Army that have an interest in C² and leader development. CAC is in a unique location geographically and organizationally to foster the kind of cooperation necessary. CGSC develops and teaches the doctrine that units use to train at home station and at the CTCs; and CATA develops the mission training plan and standards for evolution of combined arms collective training and oversees the observer/controllers at the CTCs. CATA also has access to the CTC data and provides feedback to the field through CALL. CACDA, as the combat developer, represents the users in looking for materiel solutions.

Working through the FBL, CACDA is attempting to focus industry and the AMC laboratories on the most important issues for rapid resolution. Finally, CAC is able to provide rapid feedback to units and to future commanders through the BCTP and instruction in the Pre-Command Course, the Command and General Staff Officer Course and Combined Arms and Services Staff School.

All of the organizations, working together and focusing on the issue field commanders consider their most difficult problems, have the capability to make a difference. BCIP provides the ongoing strategy for achieving that synergy. Through this cooperative effort, C² and leadership on future battlefields will be as effective as we can collectively make them, for it is leadership and C² that enable a commander to synchronize his combat power, to achieve his intent and, ultimately, to win on the battlefield. Leadership and effective C² will remain the keys to success in the next century. **MR**

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Command

General John W. Foss, US Army

In May 1990, the same month this article was published, Mikhail Gorbachev won the Nobel Peace Prize, Boris Yeltsin became the Russian Federation president and the dissolution of the Soviet Union was becoming a clear possibility. Three months after this article appeared, Saddam Hussein's Iraqi forces invaded Kuwait. General Foss's comments are very relevant in light of how quickly the politico-military situation can change.

HE EVOLUTION OF warfare, enhanced by dramatic advances in technology, has led to high demands on mobility, agility and rapid decision making. Technology has prompted not only great demands, but also a myriad of devices to assist the commander. How we command will be the key to our future success. During the coming decade, the Army must stress and reinforce some aspects of command that have always been important, but which now have become even more essential.

We can choose one of two paths-a strong command path or a strong control path. Technology and electronic devices will push us toward control. Such a path is dangerous. Only the command path provides for initiative, the acceptance of risk and the rapid seizure of opportunities on the battlefield. The control path appears safer but leads to caution, a more deliberate manner, and an emphasis on process as opposed to outcome. We must realize, though, that the future battlefield will be less forgiving of slow decisions than ever before. It will not be a place for cautious, bureaucratic centralizers glued to computer monitors waiting for that one additional piece of information which will allow a "sure" decision to be made.

This article argues for a strong command philosophy for the US Army and asserts that we must begin to embed that philosophy throughout the force now. This strong command philosophy empowers commanders with maximum authority to accomplish their tasks, to develop a strong chain of command and to practice command on a daily basis in peacetime training just as we will have to exercise it in war.

Philosophy

A strong command philosophy is essential to how our Army functions in peace and in war. We have had many fine commanders, present and past, who have practiced a strong command philosophy, whether it be:

- When in charge, take charge!—General Maxwell R. Thurman
- Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity.— General George S. Patton Jr.

As an institution, though, we are not consistent in our application of command and command authority. We often send our subordinates conflicting signals-in how we act, what we say, or even what we call things. When we say "C⁴," we tend to place all parts of command, control, communications and computers on an equal basis. However, we all know that control, communications and computers are subordinate to, and support, command.

What does a strong command philosophy entail? It is a total approach to empower commanders with the authority to deal with tasks as assigned in combat or peacetime. We have often referred to this as "mission tactics" or "mission orders" or freedom of action for the commander to execute his mission in the way he sees fit, rather than being told how to do it. To deal with such a concept, we must first place our approach to command in perspective; then discuss the role of control, with communication and computers clearly defined as what they are—components of the control apparatus that supports command.

Command

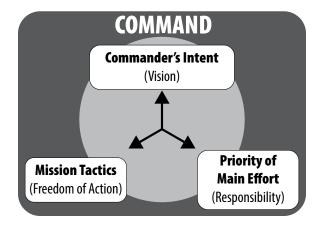
A strong command philosophy is built around three precepts: vision, freedom of action and responsibility. A commander must design a simple command system that will survive the dynamics of combat and is based upon a strong command philosophy rooted in our first precept—mission tactics. Who is better able than the commander on the ground, forward at the decisive point,

to recognize and seize the opportunity? The commander must be empowered to exploit these opportunities and avoid the vulnerabilities of dynamic combat. Only the practice of mission tactics will enable the decisive commander to exercise initiative and, in recognizing opportunity, rapidly accomplish the mission.

The commander must, however, act within the parameters of the overall mission. An understanding of the intent of the higher commander is a prerequisite to mission tactics. Our next precept—"commander's intent"—provides vision and enables subordinate commanders to clearly understand what the larger force must accomplish in order to gain victory. The commander's intent is designed not to restrain, but to unleash a subordinate by giving him greater freedom of action to accomplish the mission. Subordinate commanders view their mission within the context of the higher commander's intent. Should battlefield opportunities arise, the commander can immediately capitalize on them, rather than wait on instructions from higher headquarters.

But the display of initiative and the exercise of freedom of action within the commander's intent also bring attendant responsibilities. These are governed by our third precept—the designation of the main effort. The commander who has been assigned the main effort knows he has greater freedom of action and lesser responsibilities to the rest of the force. Commanders who have been assigned missions other that the main effort know they have responsibilities to support the main effort (for example, protect the flank, provide supporting fires, and the like) and not divert resources from the main effort. In the chaos of combat, an understanding of the main effort provides a common basis for action.

Thus, a strong command philosophy is really a three-legged stool. Mission tactics (freedom of action reinforced by knowledge of the commander's intent (vision) and focused on a main effort (responsibility) constitute the basis of a strong command philosophy.



This synergism results in effective command and a philosophy relevant to any battlefield, in any theater of operations, in any type of conflict.

Control

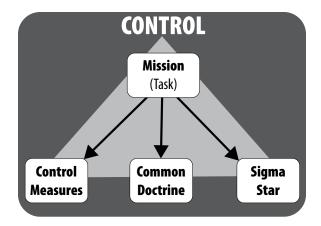
The proper understanding of control is embodied in the axiom, "The more control imposed, the less command applied." Control, by definition, restricts command. This is not to say, however, that control is bad. No one has "total" freedom of action all the time. Some control is necessary to focus the effort. In some complicated actions, a great deal of control is required to ensure synchronization. Therefore, the rule is to apply only those control measures essential to the operation.

The most common form of control is the mission itself. Not only does the mission structure commonality of actions, it focuses the entire unit on the main task at the critical time.

Another control that is automatically applied is the common doctrine adopted by the US Army and instilled in commanders during their formative years in units and in military schools. Higher commanders expect their subordinates to understand, apply and act within the tenets of Army doctrine.

Most controls, however, are not automatic. For example, the operations order (OPORD) is tailored to the mission as are the graphics on the operations overlay. Although optional and situationally dependent, these are, nevertheless, controls and must be reviewed by the commander prior to implementation. Well-meaning staff officers sometimes sprinkle control measures into an OPORD without full cognizance of the impediments placed upon subordinate commanders. The basic rule governing optional control measures is the test of "purpose." Each control measure should have a specific purpose that contributes to mission accomplishment. If a control measure fails the purpose test, do not apply it-it unnecessarily restricts freedom of action. Occasionally, the purpose test will necessitate very restrictive controls. For example, certain night operations or attacks on fortified positions, by their very complicated nature, require a high degree of synchronization among several units and supporting fires. Thus, selective and restrictive control will be required. Once these specific mission are completed and the need for restrictive control abates, the commander should then relax controls and revert back to the minimum control necessary.

Some controls are system oriented. As with operational controls, the commander should specifically review these control systems-such as the Army Tactical Command and Control System (Sigma Star)-to determine their applicability to the mission. This is especially important because without specific direction from the



commander, the system tends to run toward the goal of efficiency rather than effectiveness. But, as we all know, the mission demands effectiveness.

In summary, control is inversely proportional to command. A good commander is like a good horseman; he maintains a strong grip and, at the same time, keeps a loose rein. He allows freedom of action, but is prepared to take control quickly when required. Ultimately, "what," not "how," is most important.

Communications

Communications provide the link between command and control that enables commanders to lead from the front and directly influence the action. A robust communications capability facilitates command by allowing the commander to tighten or loosen control rapidly through some mode of communication other than face-to-face. A strong, flexible communications system allows the staff and subordinate commanders to pass information. Communications systems are tools that facilitate the command and control imposed by the commander, enabling him to issue timely orders directly to subordinates. But even with very sophisticated communications capabilities, the commander must strive to personally issue orders to subordinates face-to-face whenever he can or, failing that, by voice radio. The tone, rate and pitch of a commander's voice will tell more than any graphic or written message could ever convey.

Computers

These remarkable and ubiquitous devices are an aid to help provide information to the staff and commander. This information must then be assessed for its operational relevance by the staff and passed to the commander. The commander must resist the temptation to tie himself to the computer. Although the flow of information is facilitating, most data is input by the staff and is intended for the staff. The commander cannot treat the computer information as totally correct

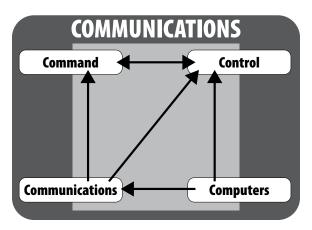
because a computer can be given poor, partial or outdated information on which to compute. The computer also passes on all the trivial data important to only a few individuals, none of whom is a commander. After all, a computer does not question the input. Output must be assessed. Excessive reliance on computers, or a series of computers, can be embarrassing when the computer "crashes."

Properly used in their intended role, computers provide invaluable assistance; therefore, our development of them must continue. They can "mechanically" pass information, orders, data and graphics in almost real time. But the computer is not, nor can it be, a substitute for commanders talking to commanders.

The Commander

Having commanded at every level in our Army, I have learned—usually the hard way—some points along the way that I have developed into my command philosophy. Perhaps the most important thing to know about command is that it is personal. One cannot successfully command through the staff. Nothing communicates commander-to-commander as well as face-to-face. Patton observed that the senior should go forward to visit the junior, rather than the junior back to see him. The obvious exception is when it is necessary to collect several commanders at one location. Notice that Patton said "go forward." He did not say "call," or "communicate" or "write." The value of face-to-face command cannot be stressed enough, especially during critical moments of the battle. What the commander says, and how he says it, is the basis for the unit's actions. In peacetime, when routine activities tend to be turned over to the staff, a commander must constantly speak of the important issues, because staffs tend to treat everything as equal in importance.

Command is more than responsibility; it is also authority and authority must be actively exercised. Thurman's often-stated maxim, "When in charge, take



charge," contains a lot of wisdom—be in charge and practice the authority given to you. Commanders must make decisions. Regardless of the difficulty at hand, a decision must be made in a timely and resolute manner.

Many years ago, I learned to command only one echelon down. This not only contributes to the entire chain of command having maximum freedom of action, it also reinforces the span of control theory. Commanding two levels down violates a fundamental principle of war—unity of command. Commanding one level down maximizes the information flow and increases the opportunity for face-to-face or voice-tovoice command. The commander must keep abreast of what is going on two or more levels down. By contrast, commanding too far down gives one a stereoscopic view, and this tunnel vision inhibits the ability to "see" the overall battle. The absolute worst effect of such a command style is that the chain of command goes into "neutral" and steps out of its responsibilities when a senior commander usurps its authority. That commander then misses the most vital input he needs—a subordinate commander's assessment of his unit's overall capability.

Next, good commanders anticipate. Not only do they anticipate the enemy, they anticipate their subordinates' needs and provide help and support to facilitate overall mission accomplishment. In this regard, the staff plays a key role. They must be forward—looking, helping the commander anticipate.

Successful commanders also have a vision of the task. They "see" the task in its proper perspective; they understand the "what" and "how" of the mission; and they understand the conditions necessary for success. Further, they can articulate those points to others. Good commanders are able to visualize not only the capabilities, but the intended actions of subordinate units in the accomplishment of the larger mission. It is especially important that the commander, not the operations officer (S3/G3/J3), personally articulate the commander's intent portion of the order. If others do this for the commander, the unintentional, yet inevitable, filters are applied and the result becomes not "what the commander intends," but "what the staff officers thought he intended."

Before I conclude, let me offer a few words on peacetime command. If we learned nothing else from the recent operations in Grenada and Panama, we have learned that soldiers fight exactly as they are trained in peacetime. We must command in peacetime as we command in war. We must place the same responsibilities upon subordinates in peacetime that we expect of them in combat. We must foster the same relationships in peacetime as in war. As

commanders, we must demonstrate daily that we will say what to do, not how to do it; and that we will not skip echelons in directing and overseeing tasks, but consistently adhere to the chain of command. We must emphasize the important things and avoid the

A strong chain of command is essential to a successful unit. It implies trust and confidence between echelons of command and develops junior leaders by placing the appropriate authority, responsibility and decision making at each level. Authority, responsibility and decision making must be practiced. Senior commanders must remember that we do not live in a perfect world; they must underwrite subordinates' honest mistakes as part of the developmental process. That is what produces risk-taking, initiative-grabbing and war-winning commanders

trivial. If a commander finds himself or his unit doing something for peacetime only, he should question how this will affect his war-fighting mission. If the answer is: there is no war-fighting purpose to the task, then he should not do it. It is that simple. But if he has no option, then he must convert the execution of the task into an exercise of the chain of command so as to gain maximum benefit from the task.

Just as command personifies the commander, so must the chain of command represent and personify the command system. A strong chain of command is essential to a successful unit. It implies trust and confidence between echelons of command and develops junior leaders by placing the appropriate authority, responsibility and decision making at each level. Authority, responsibility and decision making must be practiced. Senior commanders must remember that we do not live in a perfect world; they must underwrite subordinates' honest mistakes as part of the developmental process. That is what produces risk-taking, initiative-grabbing and war-winning commanders.

Commanders train, teach, coach and develop their subordinate leaders and units to a high standard. One way senior commanders develop subordinate commanders is by watching. The process of watching them leads to training, teaching and coaching in such a manner that both the subordinate commander and his unit can overcome weaknesses and improve performance. While commanders must avoid dictating "how," they must never be afraid to tell a subordinate what to do or even when to do it.

We can choose one of two paths-a strong command path or a strong control path. Technology and electronic devices will push us toward control. Such a path is dangerous. Only the command path provides for initiative, the acceptance of risk and the rapid seizure of opportunities on the battlefield. The control path appears safer but leads to caution, a more deliberate manner, and an emphasis on process as opposed to outcome. We must realize, though, that the future battlefield will be less forgiving of slow decisions than ever before. It will not be a place for cautious, bureaucratic centralizers glued to computer monitors waiting for that one additional piece of information which will allow a "sure" decision to be made.

Good commanders must be willing to take some risks. In combat, commanders operate within the higher commander's intent, tempered by doctrine and procedures. In peacetime, commanders must understand and operate within the same guidelines. The "garrison" exercise of command entails risk just as it does in wartime. The combat requirements of initiative and risk taking are just as applicable in peacetime as they are in war. The commander who makes no mistakes and takes no risks probably does not accomplish very much—nor does he have soldiers with great confidence in the unit or its leaders. The commander who centralizes everything in an attempt to be strong everywhere is, in fact, strong nowhere. But worst of all, his chain of command and his junior leaders will never develop responsibility and initiative.

There is a saying in our Army, "Command is command." Translated, that means command of any unit—combat, combat support or combat service support, in the Continental United States or forward deployed, tactical or non-tactical—is still command, which beats not being a commander. Equally important in that statement is that command—in the field, at one of the combat training centers, in peacetime, during a contingency operation or in war—must be practiced as it will be executed in war.

We have talked about command, control, communications and computers. I have asserted that we must have simple, robust command systems built upon a strong command philosophy. Commanders must be provided the maximum freedom to command and have imposed on them only those control measures necessary to synchronize mission accomplishment. A strong command philosophy recognizes the many tools available to the commander, but emphasizes that tools are no substitute for exercising the personal element of command.

In the next war, the price of failure will be very high and the margin for error grows smaller. We must get the maximum effect from our leaders and our units. At a time when technology and electronic devices appear to offer an easy path to overcome the complexities of modern battle, the Army must empower commanders, embrace the mission tactics and use technology to assist—not take over—the art of command. Most important, we must be an Army that practices strong command on a day-to-day basis in peacetime, so our units are always ready for the demands of combat. The capabilities we now possess in our officer and noncommissioned officers corps say that now is the time to empower leaders to get the most out of this great Army. **MR**

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Some Thoughts on Leadership

Major General Alexander M. Patch, US Army

Major General Alexander M. Patch wrote this December 1943 article primarily to educate junior officers about leadership. Fancy equipment won't win wars, Patch says, but strong leadership-which is based on character-and disciplined soldiers will. When Patch penned this piece, the United States was building its Armed Forces to fight a well-disciplined German army whose morale was high. Here, Patch gives emerging leaders some basic and timeless tips on how to handle troops and, ultimately, march toward victory.

NATION COMMITTED TO combat must have materiel with which to fight and the men to use such equipment. It is unnecessary to discuss the relative merits of these two essentials, for one without the other is valueless.

The equipment of war seems to equalize itself between combatting nations. Let one develop a mortar of new caliber or a field piece of different muzzle velocity and it is only a brief time until his opponent has a similar weapon. Likewise there is a continual race between offensive and defensive weapons. The rocket launcher will stop the tank and the AA is rapidly improving as are the antibomber planes. There is only a temporary advantage in any new effective weapon; the advantage lasting until the opponent has built the same weapon or a defensive one to neutralize it. Our troops are proud of the materiel which the highly ingenious and industrialized forces of the nation have given to them. They feel, with confidence, that the weapons with which they fight will always equal if not exceed those of their enemy.

What has been said of the equalization of equipment is likewise true of tactics. The movements of the armies of Napoleon startled the world until an equal in Wellington appeared. In Africa, Rommel was most successful until Alexander and Montgomery displayed their talents. The strategy of von Schlieffen, Lee, von Moltke and all the rest are thoroughly known. There may be a temporary advantage in the application of one form of maneuver over that of another, and should that move come when the opponent is almost prostrate it may well be decisive. But nations cannot afford to risk their very existence on the hope of evolving a new or more effective form of maneuver.

To what, then, may the nation look for success in this and other wars if it is not to equipment and tactics? The answer can be found in a reply made by a general to Peter the Great: "Success in war does not depend upon the number and size of armament; nor upon movement, least of all upon movement. It does depend upon these and these," at which he pointed to the men in the ranks. Modern equipment and knowledge of the tactics of by-gone years has not lessened one iota the importance of the role of the individual soldier. He is still the supreme factor of success. Without sterling soldiers, the finest equipment is valueless and the best general in the world is helpless. With individual soldiers well led by zealous officers and fortified with a martial ardor, physical stamina, and a mental determination to fight to the end, a mediocre general and equipment of lesser value will win over a superior force.

The task of converting citizens of a free nation to soldiers for the battlefield is the biggest job of the United States Army. Our people, blessed with the bounties of nature to an unequalled degree, have never adopted a philosophy of aggression which is conducive to a strong military program. In fact, these resources with unbounded facilities for commerce and an absence of nearby geographical belligerents have created an anti-war complex which is overcome only when free intercourse and the American way of life is endangered. Thus from an easy-going life of peaceful pursuits we are now required to undergo a quick transition to the tempo of war; a transition which calls for physical hardening, mental readjustment and the building of morale that will fortify individual soldiers upon the field of battle.

"The inherent worth of the soldier is everything," said Hindenburg. Into his very fiber must be woven the principles for which he fights. No one will deny the ferocity with which the German and Japanese soldier have fought. Their spirit in battle is traceable to the teachings of their leaders. When the Ecole Militaire Supérieure in 1877 undertook a study of the German military plan and the causes of their success, they were surprised to learn that it was not a uniform method or a centralized intellectual administration of the German Army, but a philosophy which was a folk possession. On the west were the Dutch, the Belgians, and the French; to the south the Italians and the Balkans; to the east were the Russians and on the north the Scandinavian countries-all of whom were restricting the economic growth and free expansions of the German people. Since the time of von Moltke, the elder, such have been the teachings of the German leaders. It is, therefore, no surprise that twice within one generation the determination to expand the empire has flared in the turmoil of war. The morale, the will to fight-the power that drives the machinery of war-is present in every German and Japanese soldier and it is that which makes them such formidable enemies.

So the events since December 7, 1941, have aligned upon the one side highly disciplined, welltrained, organized, experienced armies, indoctrinated with the necessity of expansion for their survival, against a people on the other hand who desire peace, no territorial expansion, and whose very life revolts against regimentation and compulsion. Having been compelled to commit ourselves to combat, it devolves upon us to develop in the shortest period of time an army well organized, superior in discipline, morale and training to that of our enemies. This in short is the problem of the Army of the United States. It is a challenge of the highest order, and upon the officers of our military forces it places an extremely grave responsibility. Our success over our enemies will depend upon the degree of development of certain essentials of military personnel:

- 1. Skillful and resolute leadership.
- 2. A high morale.
- 3. Well-organized and disciplined troops.

If we have the first of these three we are bound to have the last two and it is for the development of those qualities of leadership that I have the temerity to offer my opinions for whatever they are worth. These remarks are addressed particularly to officers of junior grade.

Many times junior officers feel that they have been handicapped by lack of economic position and educational foundation. But upon neither of these two

is real leadership dependent. Men of great academic accomplishment are often inclined to vacillate while those of lesser degree are much more aggressive and possess a high degree of initiative. I recall recently having observed the workings of a platoon leader who came from a very wealthy family. It was natural to suppose that he, having enjoyed the luxury of wealth, would expect great difficulty in adjusting himself to a soldier's life. Probably he did, but when I saw him he was sharing with his men every known form of hardship. The finest reports were received from his superior officers, and the soldiers of his platoon would follow him anywhere under any conditions. As contrasted with this man of means, I witnessed a corporal, an Italian boy from the eastern shores of the United States. He had known only the barest of necessity and possessed very little education, but he was a leader of the higher order, respected by men and officers alike.

The foundation of leadership is character. Any young officer who possesses the virtues of character or who is willing to cultivate them will have no trouble in acquiring effective leadership. If he does not possess them and is unwilling to develop them, then the quicker he is removed from command the better will the interests of the military be served. I have observed too long to believe that any man can fail to develop these attributes of character which develop leadership if he will only make his mind so to do.

The characteristic which higher command looks for in any officer is honesty. Honesty in thought, word, and deed. No man can dream of becoming a military leader who gives lip service to one God and by action serves another. The officer who will agree with his battalion commander on a certain course of action and quickly thereafter complain to his men and otherwise berates his superior has lost the foundation of leadership. It is true that he will find some officers and some men who will join with him in belittling his commander, but even with these and certainly with the greater majority of his command he has lost respect. Cheerful compliance with the orders of a superior, whether they are to your liking or not, will pay dividends from senior and junior officers and among all of the men of the command.

There is a mistaken idea of many junior officers that being a good scout and sympathizing with the hardships their men must undergo is an indication of leadership. An officer who asks his men to drink with him will find that they are quick to respond, but the next day on the drill field or in garrison, he will learn that they are equally quick to take advantage of that proffered friendship. Discipline is vital for a



Modern equipment and knowledge of the tactics of by-gone years has not lessened one iota the importance of the role of the individual soldier. He is still the supreme factor of success. Without sterling soldiers, the finest equipment is valueless and the best general in the world is helpless.

well-trained unit and it cannot be developed through undue familiarly. Furthermore, an officer who has been unduly friendly may find himself embarrassed when he meets a situation where punishment must be applied. It is most difficult to rebuke a man with whom you have been familiar. The other men of the unit will be quick to sense a degree of partiality, and this will lessen the esteem in which they hold the officer. In dealing

Second to honesty and courage of purpose, I would place an unselfish attitude as the greatest attribute of a leader. An officer who thinks of his own bedding-roll and the regularity of his meals before the comfort of his men is indeed losing a valuable point in the development of leadership. Place the care and the protection of the men first; share their hardships without complaint and when the real test comes you will find that they possess genuine respect and admiration for you.

with men, a junior officer should bear in mind (1) that he must always be courteous but businesslike in his dealing with men; (2) that when they make mistakes, he must correct their fault, but let them know in no uncertain terms that repetition will not be tolerated, and (3) if they are repeated that firm and immediate action will be taken and that there will be no resort to compromise. Such procedures will command respect among the men of any unit whether they like you or not and there is no substitute.

Every officer should realize that in dealing with the men of his command he is dealing with men who have been schooled in the same general philosophy of life as he; therefore, he can expect the same treatment from his men which he, in turn, gives to those who are superior to him. This implies that there must be sincere honesty in every act, tangible and intangible, by the officer if he expects response in kind. He may be able to fool his commanding officer, but he will never be able to fool the men of his unit, and when the men observe an officer displaying a front to a senior and then acting counterwise, they will indeed lose all respect for that individual. As he reacts towards his superior, so may he expect his men to react to him.

There is no standard treatment for all of the men of a unit. The American soldier is indeed an individualist and each must be handled as such. To one man you may make an appeal; to another, firm discipline must be applied. This requires a thorough study of the attributes and qualities of each, and diligent attention to their individual problems. Such treatment will be readily understood by the men and recognized as generally fair.

An attitude of superiority detracts from the effectiveness of an officer. The insignia which he wears upon his blouse is not a recognition of accomplishment, but rather an indication of responsibility and of the faith that his country has in him. It will be through his examples to his men, his unselfish concern for those under him, that he will be fulfilling the obligation which he should feel.

Second to honesty and courage of purpose, I would place an unselfish attitude as the greatest attribute of a leader. An officer who thinks of his own bedding-roll and the regularity of his meals before the comfort of his men is indeed losing a valuable point in the development of leadership. Place the care and the protection of the men first; share their hardships without complaint and when the real test comes you will find that they possess genuine respect and admiration for you. To do otherwise means failure at the crucial moment when the support of your men is essential to the success of battle, or maybe to the preservation of your own life. I recall once visiting a hospital on Guadalcanal where lay the wounded and sick from jungle fever. I came to the cot of a soldier who had been wounded several days before so badly that you could hardly recognize him as a human being. Before I could ask him how he felt, he raised on his elbows and asked me if his commanding officer was still alive and if he had been wounded. He told me the men of that company would go through anything for that officer. For he never commanded any of them to do anything which he himself would not do. This, indeed, to me was a true tribute to real leadership.

By virtue of the insignia which he wears, the men have a right to expect of an officer more than they themselves possess. An officer loses quality when he addresses his unit upon some subject about which he knows very little. The War Department has provided a system of Service Manuals in which all the answers to military procedures and problems can be found. In the instruction of men of a unit, officers are directed to follow the procedures of these Field Manuals and to tell them what they have learned therefrom. The men have the right to expect, when you are consuming their time and engaging their attention on these subjects, not only to know what the Field Manuals state, but what contemporary publications may emphasize. Do not fail them! Every officer must study incessantly that he might give to his men in the few short hours which are permitted for their training the very utmost that his ability will permit.

I am unalterably opposed to the use of profanity by officers in their official relations with soldiers. While it is trite to say it is lack of vocabulary, it is also indicative of lack of self-control and it is usually used to cover deficiencies.

I would like here to quote a maxim from which I think every officer could learn a valuable lesson: "Be more than you appear to be; do much—say little; let your work speak for you."

Another characteristic of a good leader is always to have a plan. This is true upon the training grounds as well as upon the field of battle. Design the program for the day's work with meticulous care so that each minute challenges both officers and men of the unit. Every officer should have a plan devised for any emergency which might arise. This will tend to create confidence in himself and his men. When an outdoor program is suddenly interrupted by inclement weather, a quick transition to indoor training without loss of time and poise by instructor will breed confidence in the men. When the unit arrives upon the field of battle, have a plan by which any expedient will be met. It may be that the plan which was formulated is not the best under the particular circumstances, but the fact that there was a plan, any plan, will develop great confidence. Men who come under enemy fire for the first time are frightened and frozen into inaction. To say otherwise would be dishonest, but if the officer has explained to his noncommissioned officers a plan which they will follow once the enemy bullets begin to fly, and you carry out this plan, you will find that it may be the difference between panic or command

The foundation of leadership is character. Any young officer who possesses the virtues of character or who is willing to cultivate them will have no trouble in acquiring effective leadership. If he does not possess them and is unwilling to develop them, then the quicker he is removed from command the better will the interests of the military be served.

control. A prior plan tends to develop self-control under excitement, and a calm exterior with a matter of fact voice will indeed inspire confidence.

Great military leaders have always possessed undaunted courage. History abounds with stories of leaders who have dared to do those things which their opponents never would dream they would. All young officers should dream of those events which would demand of them courage, fortitude and personal sacrifice and thereby prepare themselves against the day when they will put into practice that of which they dream.

Strong and resolute leadership will result in a well-disciplined Army of the United States. The time to apply it is now, and not after we get on the battlefield. It is not difficult to attain, but can be acquired by all who have the determination to be honest in thoughts, words, and deeds; who have vowed to be impartial in their dealings with men; who possess or have developed self-control; and who have a full appreciation of the responsibilities of their rank. **MR**

Alexander McCarrell Patch Jr. (1889-1945) was born at Fort Huachuca, Arizona, the son of then Captain Alexander M. Patch Sr. He grew up in Pennsylvania and attended Lehigh University for a year before transferring to the US Military Academy, where he graduated in 1913. Patch was the distinguished graduate of the 1925 US Army Command and General Staff School class and served in both World Wars I and II. He has the distinction of forming the Americal Division, the only US division in World War II to have a name, not a number. After forming the division in New Caledonia, Patch took the unit to Guadalcanal in December 1942, where they relieved the 1st Marine Division. Named commander of XIV Corps, which included the Americal and 2d Marine Divisions, Patch led the final offensive against the Japanese on the island. In 1944, Patch became Seventh Army commander, leading the Allied landings in southern France on 15 August-Operation Anvil/Dragoon. In 1945, he became Fourth US Army commander and was appointed to a group to study the US Army's postwar situation. He died of pneumonia within days of completing the study in November 1945.

Notes on Leadership for the 1980s

Major General Walter F. Ulmer Jr., US Army

In this July 1980 article, then Major General Walter F. Ulmer Jr., 3d Armored Division commander, expresses concern about the Army's organizational climate and its impact on leadership effectiveness. He calls for a return to basics-discipline, rewards for excellence, strong physical training-at a time when Operation Desert One, the US attempt to rescue the hostages in Iran, failed, embarrassing the United States and its Armed Forces. In Ulmer's opinion, a healthy organization and sound leadership reinforce each other to the benefit of all.

NECDOTAL MATERIALS ON leadership in the US Army have not changed much over the past 40 years. In the general sense, there have been no "breakthroughs." We have seen the discussions of leader "traits" give way to a broader discussion of leader "behavior" and the leadership "processes" within different levels of the organization.

Such documents as the Leadership Monograph Series (Leadership for the 1970s) produced by the US Army War College (USAWC) and the US Army Administration Center, and the text A Study of Organizational Leadership, edited by the office of Military Leadership (now the Department of Behavioral Science and Leadership) at the US Military Academy, along with the current version of Field Manual 22-100, Military Leadership, seem to provide plenty of background material. However, these comprehensive explorations into theory and practice do not address in detail the impact of the organizational climate on the effectiveness of individual leadership.

Several ongoing excursions—such as the US Army Training and Doctrine Command's Task Force Delta—are exploring the complex relationships and processes within military organizations. Elements within the Office of the Deputy Chief of Staff for Personnel, the USAWC, the Army Research Institute for Behavioral and Social Sciences and others are probing the contemporary organizational climate. And well they should. We may have to spend more of our teaching efforts on the analysis of the climate in which we lead than on individual leadership methods—although all of us need continuing education in both of these subject areas.

We do not have any real options on whether or not we collectively upgrade our individual leadership skills and

improve the climate within which we lead. Motivation, spirit, mutual trust and pride are the real force multipliers. They always have been. Basically, the essentials of good individual leadership have changed little over the ages. Good leadership still does great things. However, it is my contention that poor leadership today is much less tolerable—much more dysfunctional—than it was 30 years ago.

It may be that in studying deeply the mechanics of human motivation and the hierarchy of needs, we have not always remembered that leadership in troop units is accomplished within the context of a disciplined, mission-oriented organization. At least we want the unit to be disciplined and mission-oriented. And, for both pragmatic and moral reasons, we want leaders to be as sensitive as possible to the legitimate needs and expectations of each soldier. But leadership is first and primarily a means of getting the leader's mission done efficiently.

Units today are more complex than they were 20 years ago. Both machines, doctrine and groups of young people are more complicated. The ratio of important missions to materiel and human resources is high-perhaps at an all-time high. The 1980s will challenge leaders at all echelons, and these challenges will be substantially different in magnitude although often of fundamentally the same nature as in years gone by. In order for good leaders to function well for extended periods, the organizational climate must be routinely supportive. The "hostile training environment" and the "environmental alienation of leaders" mentioned in recent studies just will not suffice.

As we attempt to peel away the layers of superficial causality and dig down to the core of the organizational

climate problem, there appear to be four basic elements of concern. These are relatively scarce material resources, an increasingly complex battlefield—even down to the rifle squad level, a growing percentage of soldiers who have difficulty learning and adjusting and some lingering doubts within the officer corps regarding its operative value system.

George Will wrote in a recent editorial: "Never before in this nation's experience have the values and expectations in society been more at variance with the values and expectations that are indispensable to a military establishment."

"Never" is a long time, but, in any case, the leader today cannot assume that the organizational goals are quickly understood and assimilated by all of his subordinates. The leader must *earn* a heavier percentage of the necessary respect than his predecessors of 30 years ago, and he must be supported by a credible organization.

Not only societal values, but the more mundane facts of life impact on the leaders' ability to create an atmosphere of mutual trust and confidence. For example, the spectacle of the world's richest nation not being able to fix the leaky plumbing in the mess hall simply raises soldier doubts regarding the credibility of the entire chain of command. In the same vein, I would guess that a clumsy, erratic class IX supply system as seen from the motor pool end of the pipe has caused almost as much discouragement among young soldiers in recent years as has some of the heavy-handed, callous leadership that pokes its head up here and there.

In a time of complexity and relative austerity, commanders must make definite, clear choices regarding priorities, and then they must support the priorities with more than words. We may be recognizing this need as an institution, with our senior leadership serious about stamping out the "Zero Defects" and "Can Do" syndromes that have delighted the bureaucrats and frustrated the commanders for *years*.

Part of repairing the organizational climate depends on all of our willingness to share the risks and tolerate selected managerial imperfections. There appear to be signs of growing organizational maturity such as neutralizing some of the itinerant inspectors whose terrorization tactics have upset training and discipline priorities for years and recognizing that the best echelon to do something is the *lowest* one that can handle

it. Our efforts to unscramble the stresses and strains at battalion level should reap a great harvest in enhanced leadership effectiveness.

As we attempt to select, educate and then trust our leaders, we must provide them a disciplined environment in which to serve. Our young soldiers keep signaling that they expect an Army to be tough and fair. We are still not responding adequately to their expectations of a well-structured, challenging, no-nonsense environment.

Each time we strengthen the chain of command by dissolving another counsel, insisting that the tank commander inspect his soldiers every day and take necessary corrective action, reward excellence publicly, bar those soldiers from re-enlisting who cannot perform satisfactorily and conduct end-of-the-day remedial physical training, we provide a tonic for good leadership. Leadership and discipline go hand in hand.

Realizing in this day and age that even within a healthy organization the individual leader must establish somewhat independently his own credibility, the portrayal of competence has never been more important. Leaders have to know their job and show it. Although many of our soldiers have remarkably high expectations of what their leaders should be, most do not expect miracles. But they do not tolerate the careless or the vacillating leader very well.

On the other hand, a local leadership reputation of firm, competent and fair is the best (maybe the only) antidote for the pernicious "meltdown of trust" syndrome which is an unfortunate characteristic of contemporary Western civilization. So, in effect, a healthy organizational climate enhances the development of individual leadership, and successful leadership contributes to the robustness of the organizational climate.

A final note is that proper individual value systems within the officer corps are essential both to good leadership and to healthy organizations. The willingness to make sacrifices, to take risks in the interest of the mission and the soldiers, to look deeply inside and figure out what really motivates us are simply key to building a climate of special trust and confidence. In assessing our value systems, we need to address the operative relative priorities of self, superior, subordinate, unit and professional ethics—and try not to kid ourselves as we make the analysis and pledge to move ever closer to what we know is right. **MR**

Lieutenant General Walter F. Ulmer Jr., US Army, Retired, is a private leadership consultant in Moneta, Virginia. Before retiring in 1985, he served as the commander, III Corps and Fort Hood, Texas. His other positions included commander, 3d Armored Division, Frankfurt, Germany; director, Human Resources Development, office of the deputy chief of staff for Personnel, Headquarters, Department of the Army, Washington, D.C.; assistant commander, 2d Armored Division, Fort Hood; commandant of cadets, US Military Academy, West Point, New York; and deputy commander, US Army Armor Center and Fort Knox, Kentucky. He also served two tours in Vietnam.

Education and and Training

Army officers generally agree that training is the glue that holds a unit together. The training task, however, is growing more difficult due to technological advancements and a host of new post-Cold War missions. As technology shrinks the size of the battlefield and speeds the pace of battle, the need for trained and ready forces becomes more obvious. Tactical and technical leader proficiency, and collective soldier proficiency, are vital in accomplishing any unit's mission.

One thing remains clear as the Army enters the 21st century: "Jointness" is key to future mission success. Leaders and units must train as part of the Army's combined arms team and actively seek joint training with sister services. With a smaller force, the Army is finding that jointness, which has been a mandated agenda item for a long time, is just part of a increasingly larger number of training considerations necessary to prepare for future missions. The Army is engaged more and more in coalition or combined operations as we fulfill our role in the national military strategy, which also directs today's leaders to exercise their units with the forces of other nations.

The articles that follow all challenge the Army and our leaders to maintain individual and collective training readiness in joint and combined environments while expanding the training horizon to include a multitude of new requirements.



Training and the Army of the 1990s

General Carl E. Vuono, US Army

This article by then Army Chief of Staff General Carl E. Vuono was prepared on the eve of Operation Desert Storm. Vuono's commitment to training readiness, even in the midst of mandated downsizing and calls for additional cost-saving measures such as "tiered readiness," comes across clearly, emphatically and, considering the success of Desert Storm and a host of other diverse and complex missions, very convincingly.

In no other profession are the penalties for employing untrained personnel so appalling or so irrevocable as in the Army.

-General Douglas MacArthur

N THE SPRING of 1950, the United States was at peace—an exhausted and uneasy peace in which the world was still reeling from the great cataclysm of World War II. Nobody expected another war; nobody wanted one. Yet, on 25 June, the peace was suddenly and violently shattered as the armies of Kim Il Sung swept into South Korea. A small group of American soldiers was hastily organized into an ad hoc task force and was thrust into the breach to try to stem the tide of the North Korean onslaught. These men fought with courage, but they were ill-prepared, poorly equipped and, most importantly, inadequately trained for the tasks they were given. As a result, many of them never came home, and the United States was very nearly run off the Korean peninsula by the army of a backward and impoverished nation.

The lessons of those early days of the Korean War are many and varied, but they all reinforce a powerful message that has been pervasive throughout the history of armed conflict and is of singular relevance to the US Army of today. That message reminds us from across the ages that training is the decisive factor in the outcome of battle and the ultimate determinant of the fate of the nation.

In this article, I want to discuss the significance of training in the Army of today and the "why" and "how"

of training in the Army of tomorrow. For it is training that prepares soldiers, units and leaders to fight and win in combat—the Army's basic mission.

The Army Today. As we enter a new decade, the US Army bears little resemblance to the force of 40 years ago. Indeed, as we have witnessed in a year of great challenge, the Army of 1990 is the finest fighting force this nation has ever fielded and the best in the world today. This is more than rhetorical flourish. It is a reality that has been repeatedly demonstrated in exercises throughout the globe, in the crucible of combat in Panama and in Operation *Desert Shield*—the most complex military undertaking in more than a generation.

This Army did not come about by accident. It is the product of a comprehensive and visionary plan that has as its foundation the Army's six fundamental imperatives—principles that are the benchmark by which we measure every proposal and every program, and form the architecture by which we are building the Army of the future. These imperatives include an effective warfighting doctrine; a mix of armored, light and special operations forces; continuous modernization; the development of competent, confident leaders; and an unbending commitment to a quality force. At the base of each of these is the sixth imperative and the top priority for the Army in the field: tough, demanding, realistic training relentlessly executed to uncompromising standards.

For it is training that brings our warfighting doctrine to life; it is training that gives us the indispensable capacity to integrate the various elements of our mix of forces into packages that are effective against specific threats we face. It is training that enables our soldiers to bring to bear the awesome potential of our modern weapons; it is training that builds the kinds of sergeants and officers that our soldiers deserve. And it is training that makes quality Americans commit themselves to join our ranks and quality soldiers commit themselves to a lifetime of selfless service. In short it is training that undergirds the Army of today, and it is training that

As we marvel at the collapse of the Soviet empire, we also witness the birth of a new era of uncertainty and peril, an era in which the threats we will confront are themselves ill-defined. Although we applaud the political trends that are occurring within the Warsaw Pact, we must also prepare for the implications of the instability and chaos that historically trail in the wake of the collapsing empires. It is, therefore, critical that we retain the high levels of training that we have achieved within the US Army.

we must sustain as we shape the Army of the future.

Why We Train. The fundamental importance of training—a truth that is self-evident to military leaders-is not widely understood by many outside of the profession of arms. In the aftermath of the collapse of the Soviet empire, some have called into question the need to maintain readiness and training within the Army. After all, the argument goes, since the Soviet threat has receded and since the West would have greatly extended warning times of any renewed Soviet military challenge, we can afford to scale back the training and readiness of many of our forces. That is the same argument that we have faced after every war in our history, and the end of the Cold War is apparently no different.

The events of 2 August 1990 have dampened the public enthusiasm for this perspective, but we can expect it to surface again in the years ahead. So it is important that, within our profession, we clearly understand why training will remain so vital in the years ahead, and that we carefully articulate our training rationale to those whose support is so critical to our future.

The training imperative is driven by three basic and interrelated responsibilities: the Army's strategic obligations in the evolving international environment, the Army's requirement to shape the force for tomorrow and our sacred duty to our soldiers. Each of these responsibilities is of central importance to the Army and the nation.

The International Environment. Tough, realistic training has always been crucial to our national success, and in the years ahead, the nature of the international environment will reinforce that importance yet again. As we marvel at the collapse of the Soviet empire, we also witness the birth of a new era of uncertainty and peril, an era in which the threats we will confront are themselves ill-defined. Although we applaud the political trends that are occurring within the Warsaw Pact, we must also prepare for the implications of the instability and chaos that historically trail in the wake of the collapsing empires. It is, therefore, critical that we retain the high levels of training that we have achieved within the US Army, Europe and in those forces earmarked to reinforce our forward deployed units there.

But the days are over in which the major challenges to our national interests rested exclusively on the continent of Europe. The brutal and unprovoked aggression by Iraq against Kuwait is a vivid preview of the nature of the international system in the decade of the 1990s and beyond. Two features of the Iraqi attack underscore the enduring importance of training. First, the attack came with virtually no warning. Had our forces across the entire Army not been trained and ready, the credibility of our response would have been negligible.

Second, we no longer have the luxury of considering the developing world to be militarily insignificant. Iraq struck its neighbor with a sophisticated array of weapons and forces, and with demonstrated capabilities that were once thought to be reserved to the major powers. If we were to deter Iraqi aggression against Saudi Arabia and be prepared to defeat an attack if deterrence proved unsuccessful, our forces had to be trained and ready from the moment they arrived in the Arabian desert. Moreover, they had to be trained and ready to fight and win on a high-intensity battlefield—a battlefield that included the specter of chemical warfare.

Iraq's aggression in the Persian Gulf highlights the perilous nature of the evolving international environment and reinforces the undiminished requirement for the Army to be trained and ready. If the wave of the future is the "come as you are" war, then we must be ready to go at all times.

Reshaping the Army. The mandate for trained and ready forces is reinforced by our plan for reshaping the Army of the future. In response to revolutionary developments abroad and resource constraints at home, we have begun to shape a smaller Army-one with fewer soldiers and fewer units.

But even as we shape the future Army, our strategic responsibilities will continue to span the globe. So every soldier, every unit and every leader within our smaller force structure must be fully trained to fight and win. We cannot afford to adopt a course which some have proposed—a course of so-called tiered readiness in which some of our units are fully trained while others are not. Under such a proposal, it is likely that the forces that are fully trained would be inadequate in number to deter or defeat Iraq-like aggression throughout the world, while short warning times and sophisticated adversaries would deny us the time necessary to bring other forces up to full readiness.

So if we are to be a smaller Army—and we will be—then we can never relax our efforts to establish and achieve the highest standards of training throughout the Army.

Commitment to Soldiers. Finally, we must train with our eyes firmly fixed on our sacred responsibilities to the sons and daughters of this nation who are entrusted to our care. Our soldiers depend upon their leaders to train them in peacetime so that they can fight, win and survive in battle. General "Light Horse" Harry Lee of Revolutionary War fame clearly captured our responsibility when he cautioned that "a government is the murderer of its own citizens when it sends them to the field untrained and untaught." No leader in America's Army must ever be guilty of that most inexcusable lapse of professional responsibility.

So whenever a sergeant takes the extra time to plan his training in precise detail, whenever he spends those extra hours executing his training to exacting standards, whenever he devotes that extra effort to scrupulously assessing his training, he is investing in the lives of his soldiers.

Thus, it is clear that the nature of the evolving international environment, the Army's responsibilities to shape the force for the future and our enduring obligations to our soldiers all require that the Army of tomorrow be as trained and ready as the Army of today. Accordingly, every Army leader—every sergeant and every officer—must understand, attain, sustain and enforce the highest standards of combat readiness through tough, realistic, multiechelon combined arms training designed to challenge and develop soldiers, units and leaders.

How We Train. That is the "why" of training. The "how" is embodied in the Army's comprehensive training strategy. As we confront an environment of constrained resources, we must move forward aggressively to shape our training programs at all levels to make the best use of the assets we are given. Over the past five years, the Army has taken great strides in developing and articulating the training strategy that is presented in US Army Field Manual 25-100, *Training the Force*, and its companion FM 25-101, *Battle Focused Training*. FM 25-100 establishes the Army's training doctrine, and

FM 25-101 applies this doctrine and assists leaders in the development and execution of training programs. Together, they are mandatory reading for every leader, sergeant and officer, in the Army.

The overarching principle that will guide our training in the decade of the 1990s will remain straightforward: we will train as we will fight, and we will train to exacting, uncompromising standards. This is an immutable principle that undergirds the entire Army and applies equally to combat, combat support and combat service support units in TOE (table of organization and equipment) organizations and in our general support forces.

Although conditions may change, our standards will not, for they are the yardstick by which we measure our readiness for combat. This fundamental principle means, at its most basic level, that we will train soldiers, units and leaders in combined arms and multiservice joint operations—the kinds of operations that will be required by an environment growing increasingly complex.

We no longer have the luxury of considering the developing world to be militarily insignificant. Iraq struck its neighbor with a sophisticated array of weapons and forces, and with demonstrated capabilities that were once thought to be reserved to the major powers.... Iraq's aggression in the Persian Gulf highlights the perilous nature of the evolving international environment and reinforces the undiminished requirement for the Army to be trained and ready. If the wave of the future is the "come as you are" war, then we must be ready to go at all times.

Training Soldiers. First, we must develop soldiers who are proficient in battlefield skills, disciplined, physically tough and highly motivated. The training of our individual soldiers is now, and will continue to be, a primary responsibility of our noncommissioned officers—sergeants who, in this first year of a new decade, are the best in our history. Their unparalleled capabilities and unmatched professionalism provide the Army with a vast reservoir of expertise for training our soldiers. Gone are the days in which we had to rely on centralized and inflexible training mechanisms to ensure that standards were being met throughout the Army. Our sergeants are now fully capable of assuming principal responsibility for the development of every soldier.

The training of our soldiers will be focused primarily at home stations and will concentrate on the basics that

win in battle. For proficiency in the basics is an unalterable prerequisite for higher level training in every MOS (military occupational specialty).

Training Units. Well-trained soldiers are, of course, not enough; they must be molded into cohesive, effective units from squad to corps, and in combat, combat

We cannot afford to adopt a course which some have proposed—a course of so-called tiered readiness in which some of our units are fully trained while others are not. Under such a proposal, it is likely that the forces that are fully trained would be inadequate in number to deter or defeat Iraq-like aggression throughout the world, while short warning times and sophisticated adversaries would deny us the time necessary to bring other forces up to full readiness.

support and combat service support units throughout the Army. Collective training begins at home stations where basic soldier skills are integrated into smallunit proficiency. Unit training then builds warfighting capabilities in successively larger organizations while reinforcing the individual and collective skills upon which the entire structure rests.

The centerpiece of collective proficiency at battalion and brigade levels resides in our combat training centers (CTCs), the National Training Center (NTC) at Fort Irwin, California, the Joint Readiness Training Center (JRTC) at Little Rock Air Force Base and Fort Chaffee, Arkansas, and the Combat Maneuver Training Center (CMTC) at Hohenfels, Germany. The CTCs provide us the indispensable capability to synchronize all elements of the combined arms team in an environment that comes as close to actual combat as our technology permits. The value of the CTCs cannot be overstated, and the payoff is measured in the performance of our units in battle. In an analysis of the fight in Panama, commanders repeatedly said that the JRTC was the single most important element in their units' success. And a decade of investment in the NTC has created a level of proficiency in desert operations that is the foundation of deterrence—and the basis for victory if battle should become necessary—on the Arabian peninsula today.

A crucial element in achieving unit proficiency is the training of battle staffs. The battle staff, consisting of primary representatives from all staff and slice elements, must be trained to integrate the seven battlefield operating systems. These major functions must be executed if we are to fight and win in combat.

Special mention must also be made of the Battle Command Training Program (BCTP) which hones critical command and control skills at division and corps levels. BCTP represents the top of the training pyramid that rests upon the foundation of individual soldier skills and forms an Army that is trained and ready to fulfill its strategic mandate worldwide. BCTP is now being used by *Desert Shield* units to reinforce the skills required of commanders and staffs.

Training Leaders. Even as we develop the combat skills of our soldiers and units, we must continue to ensure that our leaders are fully trained at every echelon as an investment in the Army of today and tomorrow. For, in the profession of arms, there is no substitute for the leadership of a team of professionals who are competent in the art of war, responsible for their soldiers and committed to the defense of the nation.

Training of leaders is the primary focus of the Army's leader development program—a progressive, sequential and comprehensive approach that embraces officers, sergeants and civilians. It rests on the three pillars of institutional education, operational assignments and self-development, and has been embedded in a range of Army courses, regulations, field manuals, pamphlets and circulars. In the near future, the Army will promulgate a single, capstone document that will provide guidelines for leaders at all levels to ensure that their subordinates grow into the kinds of leaders that the Army will need in the future.

Our leader development program has already produced legions of leaders—sergeants and officers—who form an unbreakable team and who are competent and confident in leading our magnificent soldiers. Moreover, as a result of our leader development program and the commitment of our leaders today, tomorrow's Army leaders will be even better.

The requirements to train soldiers, units and leaders are no less prominent in our Reserve Components. Indeed, as we have seen in Operation *Desert Shield*, the Total Force concept is fundamental to the defense of our nation in an era of increasing uncertainty and challenge. Today in the Arabian desert, soldiers from the Army Reserve and the Army National Guard are serving shoulder-to-shoulder with their Active Component counterparts and, together, they form a single Army force that has deterred Iraqi aggression and is poised to respond to the call of the president.

The rapid assimilation of Reserve Component forces in *Desert Shield* is a testimony to the standards of training that these units have achieved. In the future, these standards must not be relaxed. To be sure, training in the Reserve Components presents unique challenges that are not faced by Active Component forces. In recogni-

tion of this fact of life, the Army's Reserve Component Training Development Action Plan (RCTDAP) has been specifically designed to focus reserve component training and to help commanders make the best use out of the resources (time and money) that they are given. As in the active forces, the conditions may change, but the standards do not.

Training Mandate. Thus, the Army's training strategy, our "how to" principles, are based on our enduring commitment to train as we fight, and to train each of our soldiers, units and leaders to exacting, uncompromising standards that must be maintained in every combat, combat support and combat service support unit throughout the Army.

As we look to the future, we must build on this strategy, and we must design our training programs to maximize the efficient use of the resources we are given. We must fully exploit the opportunities afforded by simulation technology to polish battlefield skills at all levels while continuing to conduct realistic maneuver and live fire training. We must train with imagination, diligence and innovation, while maintaining a steady course towards our ultimate objective: an Army that is trained and ready to meet the challenges of the 21st century.

Nearly 40 years after the tragedy of those first days of Korea, the Army was again called upon to confront a threat to our nation's security, this time in Panama. But, unlike the Army of 1950, the Army of 1989 was trained and it was ready. Striking with deadly precision and overwhelming force, the Army's airborne, Ranger, mechanized, armor and special operations forces crushed the enemy in a massive, coordinated strike and restored freedom to a people long oppressed.

The overarching principle that will guide our training in the decade of the 1990s will remain straightforward: we will train as we will fight, and we will train to exacting, uncompromising standards. This is an immutable principle that undergirds the entire Army and applies equally to combat, combat support and combat service support units in TOE (table of organization and equipment) organizations and in our general support forces.

Seven months later, that same Army was directed to meet the challenge of ruthless aggression in the Middle East. Responding to a complex requirement with unprecedented success, the Army projected more combat power over greater distances in a shorter time than at any other point in the history of armed conflict. Aggression was stopped and a multinational alliance headed by the United States stood ready to execute any option elected by the president. *Just Cause* and *Desert Shield* were successful only because the soldiers, units and leaders of the US Army were trained to fulfill their strategic responsibilities to the nation. That is the final stand-ard that we, as leaders in the Army today, must achieve in this decade and far into the next century.

Training remains the Army's top priority; it prepares us to fight. As leaders-as sergeants and officers-it is our sacred responsibility to ensure that no soldier ever dies in combat because that soldier was not properly trained. The American people—and America's soldiers—expect and deserve no less. **MR**

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Training: Preparation for Combat

General William R. Richardson, US Army

The revolution in American military doctrine introduced by AirLand Battle spawned a need for corresponding revolutions in both combined arms and joint training. In this June 1986 article, General William R. Richardson, then US Army Training and Doctrine Command commander, challenged the Army's leaders to accept the new training responsibilities inherent in the acceptance of AirLand Battle doctrine.

N 1973, GENERAL William E. DePuy, the first commander of the US Army Training and Doctrine Command, began a training revolution. His vision changed how the Army viewed training and how the Army trained soldiers, leaders and units. From top to bottom, the Army answered DePuy's call with an unprecedented dedication to training excellence to prepare the Army for war.

The training revolution continues. The Army's first priority in peacetime must be training. High-quality, well-trained soldiers demand that their leaders provide tough, well-planned unit training. That training must be realistic and challenging. Realism now means far more than live firing at Grafenwoehr or extended field problems at Fort Hood, Texas.

Excellent training means synchronizing maneuver, fire support and Air Force assets at the National Training Center (NTC). Excellent training means deploying to the maneuver rights area as combined arms teams with air defense sections, howitzer batteries and the tanks of the armored cavalry. Excellent training means exploiting the joint training opportunities of *TEAM SPIRIT* and *REFORGER* so that allied armies can fight side by side executing standardized procedures with skill and competence.

Our training must be backed up by expert leadership whose tactical and technical competence generates a great sense of confidence in those they lead. When this occurs, we will achieve high morale, tremendous pride in the unit, great satisfaction and increased combat effectiveness. The essence of leadership is to see that all of this happens. It can happen if our leaders and

commanders have the purpose of mind to train their units as if they had to go to war tomorrow.

Those leaders and commanders must have a compelling desire to make their units the very best possible. They must have a love for the field and an intuitive sense of how to fight that unit or have it provide support to units that do fight. They recognize that excellent training is the foundation for a strong, positive rapport between the leader and his soldier. Those leaders must be dedicated to their soldiers and to providing the best possible training for them and their units. If their dedication is anything short of 100 percent, they ought to be doing something else because they are not trainers.

The Leader

Leaders and commanders cannot expect to undertake the training of their units and get the proper results if they do not know how to fight and support. Knowing and understanding the doctrine is imperative. That requires study and more study, followed by practice and more practice. I sincerely believe that good tacticians make good trainers, and good trainers make good tacticians. This is founded on the key leadership principle—be tactically and technically proficient.

We must afford our junior leaders the opportunity to practice in the science and art of war. We need to let them learn the hard way, out in the field. They must have the chance to make mistakes and then be coached by their superiors on how to avoid those mistakes the next time around. Junior leaders and commanders need the coaching and teaching of the senior commanders who have already acquired the experience of the field.

They expect that, and they are due it. When we can provide our young leaders such a free opportunity to try something, and possibly make a mistake, we are teaching them how to take this initiative and how to take risks. They badly need this opportunity, and senior commanders must afford them that opportunity. Then, we will truly be growing superb practitioners in the science and art of war.

All training must relate to wartime missions. If an event does not, we should not train on it. We do not have time. Our troops do not want it. And we are depriving ourselves of the chance to improve our unit's performance and our own leadership skills.

Training requires the leader to work hard, to concentrate on long-term goals rather than short-term hurdles and to set objectives, plan, execute, evaluate and fix. If an operation is sloppily executed, then it must be done again. The principle is simple-do it until it is right. Time, fatigue and weather cannot weaken your resolve. Your unit must return to the assembly area either well-trained or with a clear understanding of what training improvements are necessary and how to achieve training success. Anything short of that results in a unit that is not prepared for war.

To be prepared for war, the unit must be tactically competent. Executing maneuvers and formations according to doctrine determines tactical competence. Leaders must understand how to analyze mission, enemy, terrain, troops and time available (METT-T) to organize for offensive or defensive operations. Based on the commander's intent, for example, leaders must know when a movement to contact can become a hasty attack. Tactical training requires a unit to practice operations over and over again until the unit executes orders as a combat team. From flank guard to battalion trains, leaders discipline their staff and subordinate commanders by insisting on high standards of tactical performance.

Leaders must master the fundamental skills they are developing in soldiers-from simple map reading to the proper use of terrain for cover and concealment to calls for fire and the employment of combined arms teams. Technical and tactical proficiency remains the mainstay of the leader's competence.

Training exercises at the NTC consistently show that bold and decisive leadership is essential to tactical success. Leaders who lack confidence based on tactical competence are not willing to take the initiative and the risk that comes with it. Their lack of confidence undermines their unit's ability to accomplish its mission.

The NTC also affirms that soldiers want to succeed and, to do so, they look to us-their leaders. Clearly, we set the example. Our technical and tactical competence builds our confidence and inspires confidence in our soldiers. The execution of quality training is arduous, but we cannot recoil from that responsibility. In times of uncertainty, confusion and stress, soldiers seek leadership. Soldiers learn more from what we do than from what we say.

Leaders and commanders must have a compelling desire to make their units the very best possible. They must have a love for the field and an intuitive sense of how to fight that unit or have it provide support to units that do fight.... Junior leaders and commanders need the coaching and teaching of the senior commanders who have already acquired the experience of the field. They expect that, and they are due it.

Training Realism

Fundamental to training realism is the unit's wartime mission. Every exercise and every training activity must prepare the unit for war. Mission analysis yields the key tasks that a unit must execute. Those key tasks and associated standards are contained in Army Training and Evaluation Programs (ARTEPs), Mission Training Plans and drills. When actual wartime tasks are known, realistic training begins.

Combined arms training must be automatic. Only with such training will our leaders and commanders understand how to synchronize maneuver with fire-power plus all of the other functions of combat that go into a successful battle. We simply must find the time to put units in the field to practice that combined arms experience. Failing that, our units will be inadequate to fight against the enemy.

While the Army may fight as a single service on limited occasions, joint and combined operations will be the rule rather than the exception. Deployment and operational training exercises with allies provide the realistic, mission-oriented training necessary for success in war. Joint training offers an unparalleled peacetime opportunity to exercise and refine warfighting capabilities. Training requires units to apply joint doctrine and tactics, rehearse the techniques and procedures of integrated command and control, and attack the full range of problems associated with operational and logistical interoperability. Without integrated, synchronized training of both combat and support elements from our allied forces, our capability to fight and support will be dangerously weakened.

Unit training must realistically reflect the confusion and frequency of change in combat. Our scenarios

must challenge commanders and staffs to task-organize and deploy to accomplish on-order missions quickly, at night and in mission-oriented protection posture (MOPP) IV. Field training must be planned for extended periods of time. A three-day trip to the field, for example, will not impose the hardships of fatigue, stress and physical discomfort that a soldier must be prepared to face. Adverse weather should not shorten a field exercise. Safety must always be a primary concern, but the dangers and risks of bad weather can simply not be avoided. If a unit is not trained in a tough environment, then it is not prepared for war.

Disciplined Training

Training must reflect the fundamentals of the Air-Land Battle. ARTEPs and drills provide the disciplined structure for training collective tasks at crew, team, squad, platoon and company levels. Combined arms training demands standardization of fundamental tactics, techniques and procedures. Bradley fighting vehicles fight alongside Abrams tanks. Aviators must understand restrictive and permissive fire control measures. Engineer minefields must be depicted in the squadron tactical operations center exactly as depicted on the combat engineer platoon leader's Scatterable Minefield Report. The armor, infantry, field artillery, aviation, air defense artillery and engineers will not fight effectively as a combined arms team without standardization of tactics, techniques and procedures. The execution of standardized doctrine requires disciplined training.

Improved intelligence-gathering and communications technology provide a proliferation of information to commanders and staffs. Through training, our commanders-from brigade through corps-must discipline their staffs to prioritize information, to adhere closely to METT-T, to develop a lucid understanding of the commander's intent, to concentrate combat power in time and space and to integrate communications, logistics and sister service support. Staff training must be steeped in AirLand Battle doctrine-not with casual familiarity but with an in-depth understanding of how to execute the tenets of AirLand Battle. Clearly, disciplined, precise training of the battle staff is essential for combat success.

Training Quality

Training excellence inevitably returns to the leader-the warfighter. The warfighter is a special breed of soldier. From squad leader to corps commander, the warfighter knows how to fight on the battlefield. With remarkable clarity, the warfighter's purpose is fixed in his mind, and he sifts through all of the annoying distractions to focus tenaciously on what is right and how to achieve it.

The warfighter knows he is right. To prove it, he stands daily with his fellow soldiers as their example of professional competence, knowing he is good. His confidence is contagious. This is not because he is arrogant and others want to hide behind his cockiness. It is because his unblinking dedication to do what is right demands that he train until it is right. Others then learn from his audacity to be disciplined and tough on themselves.

The warfighter's toughness pays off. He knows that Erwin Rommel was right when he said, "The best form of welfare for the troops is first-class training." Training excellence improves equipment maintenance, personal and billets appearance, re-enlistment and cohesion. Morale soars as his unit excels. The warfighter who trains his unit and soldiers also trains himself because the best way to learn is to train.

Leaders must build on excellence in training. Doctrine is in place. Training guidance is abundant. Resource constraints demand tough decisions but, above all, training must predominate. Leaders must move to the field and train their commands and sections with the intensity and fervor of combat. Only then will our forces be prepared for war. **MR**

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Educating and Training for Theater Warfare

Colonel L.D. Holder, US Army

Written at the conclusion of then Colonel L.D. Holder's tenure as the director of the School of Advanced Military Studies, Fort Leavenworth, Kansas, and on the eve of Operation Desert Storm, this article assesses the implementation of the concept of "operational art" to date, presents a training philosophy for institutionalizing "operational art" across the services and prescribes a training regimen to achieve that goal. Interestingly, a disclaimer accompanied the article when it first ran in September 1990: "The views expressed in this article are those of the author and do not purport to reflect the position of the Department of Defense or any other government office or agency."

HE ARMED SERVICES' projected adoption of operational art as a separate division of military studies is potentially one of the most significant theoretical changes since the formation of the Department of Defense. Adding operational art to joint doctrine will not only represent a unique departure in American military thought but will also align a specific military field of military art with joint operations at theater level.

The change will have real effect, however, only when the services individually and the joint force as a whole actually put the theory into practice. To do that, those institutions will have to teach the principles of operational art to their leaders and staffs and integrate operational thinking into their established training programs and planning activities. To complicate this adjustment, they will have to accomplish the change with men and methods developed in the 40 years of the immediate past, when theater operations were largely ignored and reputations were made elsewhere. Only by making basic changes in our professional education and training, however, can the discipline of operational art really enter into US military practice and contribute to national security.

The Army and the Air Force appear to be committed to this change. But they will succeed only through conscious, competently directed changes to their professional education and training programs. Moreover, their efforts will succeed only if they are paralleled by similar initiatives in the joint education and training structure in the Navy.

Inexperience is one of the greatest difficulties to be overcome. The senior leaders of all services, the men who must train the forces and change the interservice structure, are tested strategists and tacticians, but they are as inexperienced and untrained as anyone else on service at the operational level of war. The middle grade officers who must perform operational staff duties and eventually grow into positions of theater leadership have also studied and practiced tactical operations throughout their service and, unless they have done it on their own, they have not been taught or trained for theater operations.

This situation arose from a period of inattention to theater operations that followed World War II. As theater armies and support commands withered away and unified commands became either inactive allied headquarters or service-dominated activities such as the Pacific and Atlantic commands, the services gradually lost all doctrinal and theoretical focus where theater operations were concerned.

Military men of the 1950s tended to discount the importance of what we now call operational art. Their World War II experience saw them through Korea, which they generally regarded as an anomalous local conflict in the nuclear world. Their successors in Vietnam may have operated under extraordinary political constraints, but they also deliberately resisted the idea of joint or combined campaign planning. In other words, commanders, force designers, trainers and military educators allowed training and

education for theater operations to slip almost out of existence. And, generally, the services belittled the value of joint training or education in favor of tactical training in the Army, fleet exercises in the Navy and strategic studies in the Air Force.

In supporting those priorities, the service schools did not trouble themselves much with campaign studies, nor did they make time for, or even encourage, professional reading in joint or large-unit operations. As a result, the services must now recover a lot of ground if they are serious about converting the ideals of joint doctrine for theater operations—the main subject of operational art—into a real military capability.

Awareness of these shortcomings began in the early 1980s and grew quickly. In 1986, the Army published a "second edition" of its effectively, but oddly, named AirLand Battle doctrine. Earlier Army doctrine (the 1982 version of US Army Field Manual 100-5, *Operations*) introduced the operational level of war into American usage, but did not explain the idea in any detail. The 1986 version of the manual was deliberately written to address the topic more fully and described the nature of operational art and gave Army commanders and staff officers some general, rather basic guidance on the subject. None of those ideas were coordinated with, or accepted by, the other services or by the Joint Chiefs of Staff.

Nonetheless, that doctrinal innovation coincided with efforts in the Army schools and at the National Defense University, Fort McNair, Washington, D.C., to restore campaign planning and operational subjects to their curriculum after a 40-year absence. This broad awakening of interest did not affect the training efforts of the services notably, but it did prompt a flurry of articles in service and civilian journals. Congressional dissatisfaction with the joint operations in Iran and Grenada further sharpened this interest within the military particularly when it resulted in reform legislation that dictated closer interservice connections (although that legislation, the Goldwater-Nichols Department of Defense Reorganization Act, said nothing about operational art as a manifestation of interservice coordination).

Since 1986, the Congress and the services themselves have noted deficiencies in our approach to theater operations. Civilian writers, officers of several US services and a few influential foreign military writers have sketched the theoretical outlines of operational art. The NATO allies and the British and German armies have followed the US Army in putting the principal considerations of operational art into their doctrines. The problem remaining is to

prepare joint forces and their service or functional subordinates to conduct theater operations. How should the services, separately and together, train and educate their leaders and units to effectively practice operational art?

Both education and training will be necessary. Education—disseminating knowledge through formal or informal study—is necessary to explain the basic concepts of operational art, to foster an appreciation of its technique and practice and to promote informed discussion of related subjects. Training the practice of the central activities and the conduct of exercises designed to improve performance of recognized tasks-must accompany education as the means of preserving and improving the skills necessary to sound theater operations. Training and education together build the vicarious experience that leaders of the future will rely on in the early stages of conflicts. In developing an advanced military capability, the two are interdependent, interactive and of about equal importance.

Education in Operational Art

The services have not educated their officers for theater operations; that is, for the planning, conduct and support of campaigns to achieve strategic objectives in a theater of war for a long time. The services last treated the subject systematically in the 1930s, when the Army's Command and General Staff School taught theater operations as "military strategy." In the intervening years, the Army focused mainly on tactics, and the Air Force, having gone its own way, concentrated almost as strongly on strategy. The Navy, with its emphasis, on sea control operations, has dealt more closely with the essence of theater warfare than the other services but has, at the same time, maintained a notoriously strong single-service focus.

Fortunately, the structure of US military schools has not changed much over the years. Their arrangement of basic, intermediate and senior schools, supplemented by special courses, would certainly support instruction in operational art as it once did in the field of theater strategy.² It is the content of general curricula and the need for specialization of some students that require attention.

In view of 40 years of neglect, it is not surprising that the body of knowledge that constitutes operational studies is ill-defined and unorganized in the military schools. Only the Army has committed itself doctrinally to the operational level of war. Army doctrine however, even in its latest form, approaches the subject only at the highest, most general level. While the Army's capstone operations manual sets general

guides for operations at the theater level, its instructional usefulness is limited by its failure to discuss techniques or organizations in any detail.

The rest of the material available to military teachers consists of the military classics, outdated American texts, Soviet writings that spring from a different set of assumptions and experiences, raw historical data and the spate of recent writings on the subject in Western professional journals. Some first-draft allied writing also exists such as the theater guidance written for Allied Forces Central Region by German General Hans Henning von Sandrart.³ But most Western military texts and histories are written from tactical or strategic points of view, and the field of Western operational theory is barren.

The teaching problem is complex in any case, because theater operations fall more clearly into the domain of art than that of science. Below the level of broad principles, each situation varies so strongly in personal, geographical, demographic, historical and economic details that the teaching of operational art will resemble political science more than small-unit tactics. While that kind of approach is common in civilian schools, any such teaching will have to overcome the US military's strong predilection for the scientific, concrete and demonstrable. The impossibility of developing an operational checklist alienates many officers new to the subject.

The variety of operations that must be considered is also daunting, ranging from the familiar to the wholly new. Our deployed forces in Asia and Europe, for instance, must now be able to operate as parts of defensive coalitions under unprecedented strategic assumptions. These would be predominately light force operations in Korea and chiefly mechanized operations in NATO. Our open seas and home-based strategic forces must be able to carry out extemporized offensive operations with or without allied assistance.

Unconventional campaigns—a type of warfare for which there is adequate theory and example, but one about which most US professionals actively resist thinking—seem to be more and more important. Guerrilla wars such as Angola and Afghanistan, advisory efforts such as El Salvador, increasingly important military support to multinational, multiagency efforts such as the "Drug War" and the effort to secure our own national borders require the same attention and education that more conventional wars presently do. Many will argue that as the emergent dominant forms of war, they require more attention than any other type of war.

Education in operational art must be general for most military students and individualized for a select few. Our wide range of national and alliance responsibilities demands that we teach general operational principles to a large number of staff officers and technicians and still identify and specially educate experts who will develop into leaders at the operational level. Specialization in both groups for particular regions and forms of war is also desirable.

Military men of the 1950s tended to discount the importance of what we now call operational art. Their World War II experience saw them through Korea, which they generally regarded as an anomalous local conflict in the nuclear world. Their successors in Vietnam may have operated under extraordinary political constraints, but they also deliberately resisted the idea of joint or combined campaign planning.

In terms of general education, the services must provide joint force commanders and theater commanders with a fairly large number of operationally competent staff officers. The service origins of these officers is not highly important. Indeed, representatives of all services must obviously attend war colleges to represent service capabilities accurately and to work out the practical details of cooperation and command and control. Additionally, foreign service officers, political advisers, police and civilian experts, who advise and cooperate with joint staffs, and journalists and civic leaders, who criticize them, must be present. These people should be included not only in general instruction at the war colleges, as they now are, but also in the concentrated courses on theater operations that must be developed at senior and intermediate schools.

All future theater staff officers must gain a general understanding of military art at the operational level in the schools, especially while the subject is new to the services. Of greater short-term importance is their practical education in deploying, supporting, moving and fighting fleets, air forces and large air-land formations (and there is more to the mechanics of this type of activity than most officers know).

Senior officers (older colonels, captains and flag officers) must be taught a great deal more. They must be conversant in the means of establishing practical, meaningful theater objectives; the ways of pursuing them effectively; the principles of theater maneuver and air operations. These officers will be the "artists" at the operational level for the next decade. Their education should make them comfortable with the subjective nature of theater leadership and realistically confident in their abilities. Since formal instruction for

such senior officers is possible only intermittently and for short periods, the present plethora of separately sponsored seminars should be replaced with a unified program directed by the joint staff's J7 (operational plans and interoperability).

Career management must capitalize on education and reinforce it. While some of the services have regularly sent high-quality officers to joint staffs, none can claim to have prepared those officers for their operational duties or to have attached much prestige to their positions. This attitude, in part, provoked the congressional mandate to show more seriousness in joint matters.

The services could considerably reinforce a policy of improved operational education by encouraging some specialization among the officers they provide to operational staffs. In fact, they would do well to admit that developing effective specialists in operational art is the work of a lifetime, and that dedicating some first-rate men to this duty is not only necessary for sound theater operations but also beneficial to service interests.

To improve the preparation of such officers, the services will have to select them deliberately and fairly early in their careers. The services will also have to educate these officers appropriately in their own schools and track their assignments carefully. Ultimately, the services and the Department of Defense should face up to the necessity of a joint general staff, a notion that is not just repugnant but actually antithetical to the entrenched service-centered way of doing business.

Under those circumstances, the services would also need to take greater care in choosing whom they send to the senior courses of other services and how they employ the graduates of those schools. Officers sent to any concentrated course in operational art should be selected with specific future theater-level assignments in mind. The services should regard those officers as their future specialists in operational-level staff and command.

Officers chosen to specialize in theater operations should logically be those who show great potential for high-level command and staff positions early in their service. Effectiveness in low-level command is an important, but not infallible, indicator of potential. Candidates for joint staff specialization should also show promise for large-scale intelligence, logistics or operations (all of which differ from their tactical counterparts in scope, complexity and length-of-planning horizon).

Likewise, and less obviously, officers with the greatest potential should show special aptitude in

studies of military history and the theory of theater operations and strategy. These aptitudes need not be the result of formal training, nor need they be of a high order initially, but they are necessary. Only through mastery of military history and theory can operational specialists gain the wide frame of reference that is necessary in planning and directing campaigns. Individual dedication to maintaining and enlarging these talents will characterize the best joint staff offices and can be encouraged but not enforced, by the school system. To find these talents, personnel managers must expose all high-quality junior officers to formal courses in the service schools and find the self-educated officers who are already present in the middle grades of all services. Complementing this, it is encouraging to note that the service schools are now amending their curricula at the high and middle levels to promote better joint staff officer training.

Operations, unlike tactics, tend to vary strongly between theaters of operations. Political organizations differ strongly. Landforms, climatic patterns and maritime conditions all have nuances that can only be learned over time. Social values affect operations differently. Not least, powerful military and civilian personalities and ideas dominate regions for long periods and are important considerations during campaigns. Military education for operational art should reflect this. Further, the civil schooling programs of the services can support military schools by making scholarships in foreign affairs, economics, political science, geography and military history available to operational staff specialists.

As part of the educational process, the services should repetitively assign operational specialists to Asia, Europe, Latin America, the Pacific or to contingency-oriented commands throughout their active service. Ideally, selected officers with line experience in a theater would be further taught in the principles of operational art in the schools and employed in command and staff positions of increasing responsibility in that theater. With such a program in effect from the 10th year of service, these officers could concentrate on their geographical specialties during both their intermediate and senior service school years. Officers of this type would be the logical candidates to send as analysts following operations in their areas of expertise. We would also benefit by sending such officers to observe foreign conflicts as we did before World War I.

Operational staff specialists should also prepare themselves for repeated duty in the same staff specialty—intelligence, operations, special operations, logistics or communications. Their repeated field assignments in the same theater would, in a short time, produce something unusual and valuable: experts in operational staff work useful anywhere but especially well prepared to operate in a particular region.

Concerns about sharing arduous or unpopular duties across the officer corps militates against any such specialization. So does the service bias toward generalists' training and against anything that looks like a general staff. Fears of elitism and other worldly detachment that come out whenever such programs are proposed would have to be allayed. But doing that is not impossible; the Army has had good success with its second-year intermediate school (the follow-on year of study at Fort Leavenworth for selected graduates of the Command and General Staff Officer Course) and has successfully avoided elitism so far, and the goal is worthwhile. Specialties already exist in strategic intelligence and foreign areas. Creating supplementary specialists in theater operations and logistics could be done inexpensively and would pay great dividends in providing senior commanders improved staff support. Far from yielding a crop of eggheads and theorists, this kind of education would sharpen the abilities of the best and most mature leaders of all services. It would mold the George Marshalls, Chester Nimitzs and "Hap" Arnolds of the next generation.

The haphazard growth of campaign studies courses, second-year staff college programs and individual writing projects has produced a wealth of good, slightly divergent thinking. The next step is for the joint staff to direct a strong, liberal, but unified, educational program for all schools. This will require organizing faculties qualified in operational art—civilian and military teachers with credentials or experience in theater operations. Special schooling and field assignments for faculty are necessary components of this effort. Within a decade, though, the process will become self-sustaining, with students moving up into the ranks of the teachers.

One reservation should be noted. As the schools build up their programs for teaching operational art, they should carefully sustain their abilities to develop service specialists in tactics and strategy. The enthusiasm for "jointness" that came with the Goldwater-Nichols Act tolerates strategists, but leaves little room for protecting or encouraging tactical expertise—under the new dispensation, every excellent officer has to be "joint." As we begin to educate theater operators, we must correct this error and make the point explicit that all operational success depends on tactical excellence.

Balance would be best achieved by leaving a great deal of freedom in curriculum management to the service schools. The joint staff will necessarily dicSenior officers ... must be taught the means of establishing practical, meaningful theater objectives; the ways of pursuing them effectively; the principles of theater maneuver and air operations. These officers will be the "artists" at the operational level for the next decade.... Since formal instruction for such senior officers is possible only intermittently and for short periods, the present plethora of separately sponsored seminars should be replaced with a unified program directed by the joint staff's J7.

tate some subjects, but services should be left great independence at the level of the intermediate schools (the staff colleges) to raise their own candidates for theater and tactical specialization. Staff college commandants can provide well-rounded journeymen in tactics, operational art and strategy if they are charged with that duty.⁴

Full interservice education should be the goal of the highest military schools, the war colleges. There, specially selected field grade officers with joint staff experience should concentrate most of their studies on operational art. Rather than being introduced to the subject at that late stage of their careers, those officers should arrive with some experience and depart expecting to serve most of their remaining years on theater staffs. Only a minority of these senior students—the tactical specialists—should be committed to further study of their own services at the war colleges.

Operational-Level Training

Training for operational art is as important as educating for it. In some ways, it is the reciprocal of education. Training exercises serve as laboratories for validating ideas imparted during education. And the results of training exercises add to the evidence used by schools to generalize about operations at any level of war.

Specifically, the military uses training exercises to test theoretical and doctrinal concepts, to streamline its operating techniques or simply to develop, sustain or enhance skill in command and staff coordination. Only in training exercises can commanders and staff officers put their organizations into operation under conditions replicating combat. Unfortunately, in the area of training for campaigns, the military must build on weaker foundations than it has for studying tactics.

There are, simply put, no training centers or even simulations to support campaign planning or execu-

tion. Executive crisis games, short-term joint exercises and even the Naval War College global exercise are all means of gathering principal actors to train for major leadership roles, but these rarely deal with theater issues over a long period. Typically, they either focus on a single aspect of high-level decision making such as gaming the problems of nuclear release, or they emphasize a particular element of theater action. Logistics and deployment are the actions most commonly portrayed.

To train effectively, we need to put commanders of various sized forces into the roles of theater decision makers, who must not only make tactical choices but also (in the case of conventional operations) formulate campaign plans, choose to accept or decline battle, decide what use to make of tactical successes and failures and advise strategic leaders on the longterm needs and prospects of theater operations. In unconventional operations or in situations in which the armed services play a supporting role, military leaders must have the opportunity to make plans and conduct operations over even longer spans of time. In these environments, they must be able to practice and observe the interworkings of political, economic, information and military policies in complex multinational settings that represent conditions that are "neither peace nor war."

Whatever the operating circumstances, large-unit commanders and their staffs—corps, army, fleet and air force commanders—should periodically go through exercises designed to improve their abilities to work with elements of other services, other federal agencies and other nations at the operational level. This training would differ in scope, duration and emphasis on the essentials of campaigning from the unified command exercises presently run as deployment drills. When appropriate, those headquarters might even train under the direction of nonmilitary agencies such as the Department of State, the Department of the Treasury or the Immigration and Naturalization Service.

Which department conducts the training is not really important. What is essential is that commanders and their staffs practice designing and conducting campaigns with all of the other likely participants present. They must train to identify means of defeating large, well-structured enemy forces economically, speedily and effectively. They must be able to coordinate air, ground, naval and special operations actions with strategic efforts in pursuit of operationally effective objectives. They must not only be familiar with the costs, techniques and timing of such operations but must also have a background of training experiences that assists them in deciding when, where and how to

fight as well as when to avoid combat. Such a back-ground—partly the product of training, partly a function of education—will assist future leaders in setting the terms of battle and in choosing the actions they should take after a tactical decision has been obtained. Robert E. Lee's decision to fight at Gettysburg rather than maneuvering for a better opportunity, Douglas MacArthur's pursuit of the North Koreans above the 38th Parallel, and General Vo Nguyen Giap's choices late in the Vietnam War are all examples of the kind and importance of choices operational commanders have to make. Military men must give those decisions the same attention they devote to tactical or strategic decisions.

Below the level of world historical choices lies a host of routine skills and techniques that theater staffs and support units must master. This set of ordinary activities includes moving, protecting and supporting theater forces. Since no one in the force has much experience in planning or conducting operational activities such as regional logistics, theater air campaigns or coordinated long-term psychological unconventional and conventional operations, the joint force needs to organize training that will replicate full campaigns. Such training will not only refresh lost skills but will also produce the opportunity to adjust outdated techniques.

At the supporting levels, the services need training programs that accustom their officers to developing realistic options for theater operations and evaluating the relative operational value of such options. Even more basic, the services and joint commands need experience in assembling and manipulating the support for campaigns. Today's tools of theater administration, transportation, communications, intelligence, psychological operations, special operations and civil-military action are a complex mix of high-and low-technology devices operated by civilians in military organizations. Using them effectively in war will depend, to a large extent, on the quality of peacetime training.

There is also a variety of Active, Reserve Component and paper organizations designed to serve theater-level needs. These units include military railway battalions, sea and air terminal operating agencies, special transportation and logistics formations, and almost all of our psychological operations and civil affairs detachments. They do not routinely get to train under a single headquarters for a realistic period of time, or over the actual distances typical of theater warfare.

In more concrete terms, the training challenge is to create an environment that will accustom joint commanders, theater staff officers and theater combat and service units to the conditions of operational warfare before they are actually called on to fight. To get operational art out of the realm of pure theory and move it toward actual capability, we need to organize and conduct exercises that will require theater commanders to set goals and design campaigns under the constraints of realistic policies and strategy.

Campaign exercises must provide staff officers with enough information and strategic guidance to force them through detailed option development and analysis. All theater operations depend on good staff work. None is more important or easier to simulate than theater logistics. Training for operational logistics, to elaborate on that single example, would present joint logisticians with the problem of not only devising but also conducting supply, repair and transportation in an imagined theater of operations.

The staffs involved would have to estimate requirements, find and evaluate sources of supply, identify modes of transportation and determine the relative capabilities of sea, rail, road and air transport within a theater. They would have to establish manpower needs, balance those between military, US civilian and local civilian resources, and propose deployment or base development schemes to be carried out during and after deployment. They would further have to provide for the movement of materiel from the theater's ports over realistically limited lines of support in the face of enemy interdiction and under the pressure of changing operational requirements. Projecting such training over realistic periods—years rather than weeks—would differentiate this kind of training from the present deployment drills.

Obvious as all this seems, the joint force and its training bases do not have simulations or exercises today that put operational staffs in those roles. The unified commands run the best exercises and staff studies now being performed, but they do it with minimal outside assistance or evaluation. In a period in which economies will be necessary, it is scarcely possible to initiate a series of new exercises. There is no reason, however, that the services and unified commands could not modify their existing exercise program to accomplish simultaneous operational training. The *REFORGER* series of NATO exercises now takes this approach by building full-size army group problems around a smaller core of tactical field training exercises. With small changes, other fleet-, air force- and army-level training events could be modified into full blown campaigns. Such theater exercises would normally begin before troop training, and go on during the field training and continue afterward. Rather than stipulating a theater situation for forces on exercises,

this method would actually evolve operational conditions through earlier simulation. With little change to the central field training exercises, large headquarters would expand their own activities and derive valuable training at their own level.

This would pay a double dividend. It would end the unrealistic years-long preparation for moving and training relatively small forces. More important, it

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would test and strengthen theater capabilities that are untried under current exercise plans. Instead of merely umpiring or observing tactical formations, operational staffs and commanders would be called on to concentrate, fight and support a larger force than that actually training. They might, for instance, be required to move real and simulated units on short notice from marshaling areas and ports of debarkation while arranging for the support of the entire force, both real and imaginary, throughout the theater. A theater-level umpire would dictate background conditions and provide strategic guidance to the operational commander. He would also intervene occasionally to change missions, national priorities, troop lists and the enemy situation. During this, the actual field or fleet maneuver would be easily subsumed and might, in fact, be relegated to a small, relatively unimportant part of the theater of war.

On a more ambitious scale, we might recreate theater exercises of the scope of the Louisiana and Tennessee maneuvers of the 1940s both in the United States and overseas. That would entail massing headquarters and some troops from all over the theater to "fight" campaigns of realistic depth and breadth. Divisions, corps and air forces would be small players in such exercises and would have only to provide player cells. They would, however, get the benefits of training to meet theater requirements for long-distance movement, changes in mission and sustained operations.⁵

The main thrust of such exercises would be at higher levels. Tactical players would participate to represent the reality of actual movement rates, reaction The enthusiasm for "jointness" that came with the Goldwater-Nichols Act tolerates strategists, but leaves little room for protecting or encouraging tactical expertise—under the new dispensation, every excellent officer has to be "joint." As we begin to educate theater operators, we must correct this error and make the point explicit that all operational success depends on tactical excellence.

times, sustainment needs and demands for theater staff assistance. The main combatants would be armies. army groups, fleets and air forces that would fight each other over great distances and at the direction and at the direction of established unified commands or of hastily organized joint task forces. Questions of campaign planning; troop movement and operational maneuver; air-ground cooperation at theater level; command, control and communications; intelligence collection and dissemination; operational logistics; and the phasing of campaigns could all be examined in such a command post exercise. Infrequently examined subjects such as operating ports and communications zones, displacing air bases, conducting military government and managing civil affairs could be examined in the context of a fictional, but active, campaign. The Reserve Component organizations responsible for these highly specialized tasks would receive excellent training (even if they could only play for their two weeks of annual training), and the theater commanders would have the opportunity to evaluate those units' capabilities.

Such exercises should last for months as a combination of port or garrison command post exercises, run at a controlled pace along with full-speed field phases in which operational staffs actually displace to direct the action. Umpiring such exercises would be a major undertaking, but is feasible if the unified commands exchange umpire teams for each other's exercises. Analysis of completed exercises is the natural work of operational staffs and of war college students. Some exercises of this type should be conducted as short-notice training for headquarters with contingency responsibilities. The training sections of the national or alliance joint staffs could spring such exercises on subordinate headquarters to train them in organizing and operating joint task forces under emergency conditions. If any lesson stood out from the Grenada operation, it is that our joint training should occasionally put ground, air and naval components together quickly under the pressure of emerging crisis.

Admittedly, this kind of training would take a great deal of time. This defect could be offset by playing at a low level for months without disrupting the day-to-day activities of joint headquarters. But it is also possible—and necessary—to provide simulations that permit single headquarters to train their staffs and war game their plans. Such simulations need to be keyed to the peculiar needs of theater operations though, and none of our present games are.

Realistic treatment of time is the element missing from all of the many, expensive and redundant computerized simulations now available to us. Our games are set to represent combat at the system level and to reflect movement in "real time" or in simple multiples of hours. They depict logistics and maintenance requirements for tactical units without addressing theater-level concerns. The simulations the Army uses are that way because they were written to meet that service's specifications. Theater commanders and staffs need self-standing simulations that will generate realistic tactical outcomes over the course of multiple operations. Operational decisions concern what to do before and after major tactical actions; the battles or operations themselves are influenced by what takes place beforehand. Since this is a matter of weeks and months in conventional operations and years in unconventional efforts, our simulations must be able to cut out periods of important, but routine, preparation. They must be designed to reflect the results of extended staff actions and nation-building programs after short umpired intervals. Their goal should be to confront the operational commander with important decisions that would normally come months apart in the course of a two- or three-week exercise.

Such games must also produce theater-significant data in all fields. Among other things, they should impose the effects of seasonal weather changes; the capabilities of the theater labor force and economic base; the effects of attitudes in the population and alliance leadership; the theater capacity for road, runway and port maintenance; and the resource situation in and beyond the theater. The US Army Command and General Staff College's School of Advanced Military Studies plays games of this type now. They are based more on subjective umpiring than on computer sophistication, but they lead to interesting points about theater operations.

Whatever techniques the joint staff adopts, three elements must characterize all operational-level training. First, all agencies and organizations that influence today's campaigns must participate. Second, employment of forces must be stressed more than simple deployment. And, third, trainers must feed

the results of theater-level exercises back to the educational institutions for analysis and study. None of these things now take place reliably.

The armed services singly and as a joint force stand at a critical point in their development. National strategy, military organization and technology are all in a period of basic change. The services are already trying to reshape themselves for the future and, in the process, are making changes to their doctrines, organizations and equipment. It is vitally important that in doing these things, they accurately gauge the nature of future conflict and then raise and train the forces on which we will rely in the future.

Nothing now occurring exceeds the importance of reclaiming our capability for operational-level warfare. In this environment, the addition of operational art as a new division of military science is more than just a minor adaptation of the way we do business. It is, rather, a fundamental change that should help in casting the shape of other changes we will have to make.

Without developing a logic that converts strategic ends to theater goals and gives shape to tactical actions, we cannot assure our future success. No legislated level of "jointness," no administrative rigor in seeing that all professional officers serve on joint staffs will adequately substitute for the need for sound, nonparochial doctrine based on experience. No doctrine will be effective unless its precepts are taught and its techniques exercised.

Some progress has been made in the schools, and we have never completely abandoned joint training. But the mere introduction of operational art into field manuals and allied tactical publications will not fulfill the promise or challenge of operational art. Having opened a few doors by its presence in our manuals, a real understanding of operational art throughout the force could wholly transform our view of war. It is vital that we inculcate the ideas of the subject into the officer corps of all services and that we transmit our vision of theater operations to other nonmilitary agencies whose cooperation is indispensable. Then it remains for the force to train realistically to build up an actual capability for effective theater operations. Rigorous training, if carefully analyzed, will disclose the shortcomings of doctrine, establish materiel and organizational requirements more accurately and identify the techniques—and the officers—most likely to lead us to operational success in the future. **MR**

NOTES

- 1. COL Wallace P. Franz, US Army Reserve, Retired, wrote the earliest of these papers for Parameters and Military Review. He also joined other members of the Army War College faculty to found "The Art of War Colloquim," which promoted historical and theoretical discussion in general by publishing original papers and by reprinting the classics of military history and theory. On the civilian side, Edward N. Luttwak wrote a clear and influential critique of Western indifference to the operational level of war for the journa I International Security (Winter 1980-81).
- 2. One of the first requirements for middle-level Army students-captains and majors-at Fort Leavenworth in the 1930s was to plan the movement of the Union Army of the Potomac from its positions around Fredericksburg, Virginia, to concentrations near Harrisburg, Pennsylvania. The supplies, routes, formations and other facets of such a move would challenge most staff officers today. If such
- a problem were set for their successors today (and it should be), they would also have to account for the additions of air defense, air support, a motorized support base, modern logistics and theater air and sea support.
- See the Allied Forces Central Europe commander's "Operational Guidance," 1987, for GEN Hans Henning von Sandrart's treatment of the subject
- 4. Periodic reviews by visitors from the joint and service staffs can easily keep this diversification on track. The greatest danger in the practice is the tendency to lose definition between the three specialties. This is not hard to prevent through supervision.
- 5. Field exercises are still possible in the United States. In 1987, the III Corps, supported by the 12th Air Force, conducted a one-sided cross-country command post exercise in Texas. The exercise, named ROADRUNNER, was well received, highly instructive and generally problem-free.

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JPME: Are We There Yet?

Congressman Ike Skelton

In the lead article for the May 1992 edition of Military Review, Congressman Ike Skelton reviews the implementation of recommendations made by the House Armed Services Committee Panel on Military Education concerning joint professional military education. Skelton re-emphasizes the need for joint education for today's military officers.

N LATE 1987, the Panel on Military Education of the House Armed Services Committee began its review of joint education at the command and general staff colleges of the four services. We issued our preliminary recommendations in November 1988 and our final 206—page report in April 1989.

The panel recommended the establishment of a twophase joint specialty officer (JSO) education process as part of a wide-ranging series of recommendations concerning intermediate and advanced professional military education.

The panel recommended that Phase I be provided to all students attending a service intermediate college. We made this recommendation because we strongly believed that officers of all four services at the major/lieutenant commander and lieutenant colonel/commander rank should have an understanding, if not expertise, in multiservice matters—"jointness." Familiarity with doctrine, organizational concepts and command and control of the forces of each of the four services was to be included in the curriculum of all four service intermediate schools. In addition, the students would be introduced to the joint world-the joint planning processes, joint systems and the role played by service commands in the unified command structure.

We recommended that Phase II, the detailed, in depth course of study in the integrated deployment and employment of multiservice forces, be accomplished at the Armed Forces Staff College (AFSC), Norfolk, Virginia. The idea was that only the small percentage of intermediate school graduates en route to assignments as joint specialists would attend the AFSC. They would build on the knowledge they had gained during the Phase I course of study.

I am pleased to report that this key recommendation of our panel, the establishment of a two-phase JSO education process, was enacted by the Department of Defense. As proof, some of those now attending the course of study at the US Army Command and General Staff College (USACGSC), Fort Leavenworth, Kansas, or at another service's staff college will, upon graduation, proceed to Norfolk to attend the AFSC.

Service Expertise First

The Goldwater-Nichols Department of Defense Reorganization Act of 1986 did much to promote the concept of jointness among the four services. Likewise, our panel 's efforts have gone far in promoting jointness in the area of professional military education. We realized that one of the ways to promote better joint planning and joint operations was through professional military education and the development of the JSO. (The other important tool for improving joint operations is for the services to span or more joint training exercises.)

However, we also recognized that the successful JSO first had to be an expert concerning his respective service. While each of the four intermediate service schools now has a role in promoting joint education, each one still has the primary function of educating officers to become competent in their respective warfare specialties. The USACGSC, for example, must provide Army officers a firm foundation on the merging of separate Army branch elements into integrated Army combined arms forces that can conduct land warfare with the support of air and naval forces. This is to be done at the operational level.

An Army officer must thoroughly understand the capabilities, characteristics, strengths and weaknesses of Army forces. He or she must have a very good understanding of the integration of combat, combat support and combat service support elements employed in the conduct of successful Army operations.

The opening shots fired during the commencement of the air campaign during Operation *Desert Storm* were fired by Army Apache attack helicopters. Their mission succeeded in destroying a number of Iraqi early warning radar sites. The success of the mission allowed coalition aircraft to surprise the Iraqi air defense force on the first night of the war. This was crucial in allowing the coalition air forces to gain air supremacy. Their losses that first night over Iraq were zero.

The story behind the story was one of interservice cooperation. Wile the Army possessed the attack helicopters that took out the radar sites with laserguided Hellfire missiles, it was US Air Force special operations aircraft, MH-531 Pave Low enhanced configuration helicopters that acted as pathfinders for the Army choppers. As General H. Norman Schwarzkopf sought recommendations from his staff, Army officers needed to understand the navigational limitations of the AH-04 Apache. On the other hand, Air Force officers on the commander in chief (CINC)'s staff needed to know that Air Force special operations Pave Low helicopters could provide the navigational guidance lacking in the Army attack helicopters.

This example illustrates the requirement for JSOs on joint staffs to be experts on their respective services. An Army infantry JSO would have needed to understand the capabilities and, more specifically, the navigational limitations of Army AH-64s. Similarly, an Air Force fighter pilot JSO would have needed to know that the Air Force had in its inventory not only fixed-wing aircraft but also Pave Low special operations helicopters able to help the Army AH-04s overcome their navigational limitations for the crucial mission against the Iraqi early warning radars.

Jointness and Joint Education at the Command and Staff Colleges

Our panel report listed the attributes of the JSO—a thorough knowledge of his or her own service, some knowledge of the other services, experience operating with other services, trust and confidence in other services and the perspective to see the "joint" picture. Ultimately, a JSO must "understand the capabilities and limitations, doctrine and culture of the other services."²

Joint education at the command and staff colleges of the four services has come a long way since our panel began its work. Last year, we held hearings to assess the progress made by the various intermediate and senior-level schools to implement the recommendations we had made. Prior to the hearings, we asked the General Accounting Office (GAO) to assess the implementation of the e various recommendations. The GAO report on the two Army schools (USACGSC and the US Army War College) came out in March 1991. It noted that the USACGSC had implemented or partially implemented 29 of 31 recommendations. The next month, the panel had the opportunity to hear Major General John E. Miller, the deputy commandant of the USACGSC, discuss the progress made on implementing our panel's recommendations two years earlier.

CGSC Situation Report

The story on joint education at intermediate-level military educational institutions is a positive one, not simply for the Army but for all the services. Each has in place a Phase I course. At Fort Leavenworth, the effort has been one to include the Phase I material throughout the six blocks of instruction. I have had the opportunity to examine the curriculum from the previous academic year and can see the amount of time devoted to joint matters. My instincts tell me that the balance of instruction between land-force capabilities and joint capabilities is about right. And I believe that it is done in the proper fashion—more Army—specific courses in the early part of the curriculum, with greater attention to joint issues toward the end of the course.

It would be interesting to hear from both faculty and students whether they also believe the balance between Army and joint matters is just about right. I am sure if there are concerns about this issue, that letter touching on the subject will appear in future issues of Military Review. Those who would want to write me directly are encouraged to do so.

Another positive development at Fort Leavenworth concerns the increased number of sister service students attending USACGSC. Both the Air Force and the Navy have increased the number of students at the school. This academic year, the Air Force total was scheduled to reach the 80-student mark. This coming fall, the naval services will also reach the 80-student mark (60 Navy and 20 Marine).

The Navy has been able to improve both the number and quality of students at Fort Leavenworth because of our panel's efforts to have the Navy provide more line officers to other service intermediate and senior schools. This was a cooperative endeavor on the part of both our panel and the Navy. I believe that we have been successful. This means that there should be a

greater number of Navy officers in the seminar groups that meet throughout the year at USACGSC.

Four years ago, not every seminar had a naval officer. Others that did, had officers who were either lawyer, supply officers or other who would never command a ship, a submarine, an aviation squadron or some larger combat formation.

The Panel on Military Education of the House Armed Services Committee report Listed the attributes of the joint specialty officer (JSO)—a thorough knowledge of his or her own service, some knowledge of the other services, experience operating with other services, trust and confidence in other services and the perspective to see the 'joint" picture. Ultimately, a JSO must "understand the capabilities and limitations, doctrine and culture of the other services."

Student/Faculty Mix. Yet, our panel was somewhat disappointed that its recommendations for student and faculty mix of officers from the three military departments were not followed. The first recommendation called for intermediate service schools to have student body mixes of two officers from each of the two nonhost military departments in every student seminar. This was to be achieved by academic year 1995-1996. So, at Fort Leavenworth, that would mean that in each seminar there would be two Air Force officers and two Navy officers (or one Navy officer and one Marine officer).⁴

Our faculty mix recommendation at the intermediate level called for 80 percent from the host school and 10 percent from each nonhost school military department. We called for its implementation by academic year 1990-1991. By academic year 1995-1996, the comparable figure were to have been 70 percent and 15 percent from the other two military departments.⁵ In both the student and faculty mixes, the recommendations of our panel were relaxed by the Military Education Policy Document (MEPD) issued under the guidance of the chairman of the Joint Chief of Staff in May 1990. The MEPD sets guidance in the area of joint education. While its recommendations set the minimum level in the matter of both student and faculty mixes, the USACGSC viewed those minimum levels not as floors but as ceilings. While the situation of student and faculty mixes is better today than it was four years ago, it is not a good as our panel believe it could be.

Study of Military History. Another area that our panel report stressed was the study of military history, especially in helping to develop strategists. In our visit

to Fort Leavenworth in 1988, the study of military history was confined to 51 hour and limited to the American experience of war in the 20th century. Army officer, especially those who will rise to command at the corps or theater level, need a thorough understanding of military history that reaches back over the ages.

The recent war in the Persian Gulf exhibited elements of campaigns fought in previous wars. I am confident that Schwarzkopf's familiarity with those campaigns, through his study of military history, helped him design the strategy that resulted in the overwhelming victory won by the allied coalition over Iraq. The lessons for him to draw upon could be found in military actions spanning more than a century.

The six-week air campaign allowed American and coalition aircraft to pound away at Iraqi installations and forces so that when the ground campaign finally went forward, resistance was comparatively light. Maybe the World War II Battle of Tarawa acted as a cautionary tale about halting a bombing campaign too early. During that amphibious landing, Marine forces suffered heavy casualties because the island had not been hit hard enough with air and naval gunfire.⁶

The placement of Army and Marine forces along the border between Saudi Arabia and Kuwait was reminiscent of Sir Bernard L. Montgomery' North African Campaign, which used deception to defeat the Gernan Afrika Korps at El Alamein.⁷ And, finally, the famous "left hook" that struck with such force and surprise against the right flank of the Iraqi ground force may have derived its inspiration from our own Civil War. At the battle of Chancellorsville, General Robert E. Lee, too, dispatched forces under General Thomas "Stonewall" Jackson around the right flank of General Joseph Hooker's Union troops and routed them in a manner that was daring and aggressive.⁸

The examples of how history may have been used in *Desert Storm* simply underscore the point that a profound understanding of military history is crucial for any officer attending the US Army Command and General Staff Officer Course (USACGSOC) at Fort Leavenworth. Since our panel visit in early 1988, the USACGSOC has broadened its study of military history to include 18th century warfare. The seeds of future American military victories can be found by plowing deeply the fertile soil of military history.

Military Education in the 1930s

During the Great Depression of the 1930s, in a far harsher budgetary climate than that of today, all of the services found themselves reduced to "pauperdom." The sizes of the forces were drastically cut, and modernization programs were, at first, postponed and then



canceled. The Army, which during the Great War had numbered more than 2.3 million, was reduced to less than 138,000 by 1934. In a crisis, the Army could have fielded 1,000 tanks, all obsolete; 1,509 aircraft, the fastest of which could fly 234 miles per hour; and a single mechanized regiment, organized at Fort Knox, Kentucky, led by horse-mounted cavalrymen who wore mustard gas-proof boots. The United States had the 16th largest army in the world, with Czechoslovakia, Turkey, Spain, Romania and Poland possessing larger armies.

Too poor to train and equip their forces, the Army, the Navy and the Marine Corps took advantage of a difficult situation by sending their best officers to various schools—to study, to teach and to prepare for the future. The Infantry School at Fort Benning, Georgia; the Command and General Staff School at Fort Leavenworth, Kansas; the Naval War College at Newport, Rhode Island; the Army War College in Washington, D.C.; and the Marine Corps schools at Quantico, Virginia, experienced a renaissance.

It was during the interwar years, the "golden age" of American military education, that such renowned World War II military leaders as George C. Marshall, Dwight D. Eisenhower, Joseph Stilwell, Omar N. Bradley, Chester W. Nimitz, Raymond Spruance and Henry "Hap" Arnold benefited from study at intermediate—or senior—level war colleges. William F. "Bull" Halsey Jr., who commanded the Central Pacific amphibious campaign against the Japanese during World War II, attended both the Army and Navy War colleges. Marshall taught at the Army War College and was the assistant commandant of the Army Infantry School.

During this same period, the Marine Corps devoted considerable effort at Quantico, its seat of learning, putting together the doctrine of amphibious warfare used to such telling effect, from Guadalcanal to Okinawa, in the Pacific campaigns of World War II. The naval-oriented Fleet Marine Forces became the spearhead of the Navy's Orange Plan, the basic outline for executing a war against Japan, which was adopted in 1926! The best summation for the period was made by Nimitz, who noted that the entire Pacific Campaign had been thought out and fought in the classrooms of the Naval War College during the 1930s. The only unforeseen event was the use of kamikaze suicide aircraft attacks on US Navy warships during the latter stages of the Pacific war. In short, we won the victories of the 1940s in the command and staff and war college classrooms of the 1920s and 1930s.

Military Education in the 1990s

Shifting from the recent past to the more uncertain future, I want to touch on the important task of educating our country's military leaders, present and future. A first-rate officer education program—from lieutenant to general—will prepare today's military officers for tomorrow's challenges by providing them the most important foundation for any leader—a genuine appreciation of history. I cannot stress this enough because a solid foundation in history gives perspective to the problems of the present. And a solid appreciation of history provided by such a program will prepare today's military officers for the future, especially those who decide to spend 30 years in one of the services. They will become this country's future strategists.

In the March 1989 issue of *Parameters*, the US Army War College quarterly, General John R. Galvin, supreme allied commander, Europe, describes why our country needs strategists in each of the services and at all levels. "We need senior generals and admirals who can provide solid military advice to our political leadership," he writes, "and we need young officers who

can provide solid military advice, options, details, the results of analysis to the generals and admirals." He lists three elements in an agenda for action:

- Formal chooling.
- In-unit education and experience.
- Self-development.10

The Army established its School of Advanced Military Studies (SAMS) in 1983 to provide the Army with officers specially educated for military operations. It is expected that the graduates of this one-year, follow-on course of the intermediate command and general staff course will become the commanders and general staff officers of the Army.... One idea that merits serious study is the establishment of a Joint SAMS course under the auspices of the AFSC.... [available to] graduates of the four command and staff colleges.

In brief, the military student should learn the historical links of leadership and be well versed in history's pivotal battles and how the great captains won those battles. Successful military leaders of yesteryear were indebted to their military predecessors. Jackson's successful Shenandoah Valley Campaign resulted from his study of Napoleon's tactics, and Napoleon, who studied Frederick the Great, once remarked that he thought like Frederick. Alexander the Great's army provided lessons for Frederick, 2,000 years before Frederick's time. The Athenian general, Miltiades the "Younger," who won the Battle of Marathon in 490 B.C., provided the inspiration that also won the Battle of El Alamein in 1942; the Macedonian, Alexander the Great, who defeated the Persians at the Battle of Arbela in 331 B.C., set the example for the Roman victory at Pydna 155 years later. The English bowmen who won Crecy in 1346 also won Waterloo in 1815; Alexander A. Vandegrift, Bradley, Montgomery or Douglas MacArthur, who won battles in the 1940s, might well win battles a century or so hence. Thus, I believe that every truly great commander has linked himself to the collective experience of earlier generals by reading, studying and having an appreciation of history.

A military career includes a lifelong commitment to self-development. It is a process of education, study, reading and thinking that should continue throughout an entire military career. Yes, tactical proficiency is very important, but so too is strategic vision. That can only come after years of careful reading, study, reflection and experience. Those at the USACGSC who finish their course of study should be aware of the natural

yard tick of 4,000 years of recorded history. Thucydides, Plutarch, Sun Tzu, Carl von Clausewitz, Napoleon, Alfred T Mahan and Sir Halford John Mackinder have much to offer those who will become tomorrow's future generals and admirals. Today's officer corps must be made aware of this inheritance.

Winston Churchill put this idea in these words, "Professional attainment, based upon prolonged study, and collective study at colleges, rank by rank, and age by age ... those are the title reeds of the commanders of the future armies, and the secret of future victories."

A Joint School of Advanced Military Studies

As I survey the past four years, I see much progress that has been made in fostering joint education at the four intermediate service schools and at the AFSC. The recent publication of Joint Publication 1, *Joint Warfare of the US Armed Forces*, underscores the efforts of the services to promote jointness. ¹² In many ways, our panel's work simply reinforced and accelerated trends that had already been underway in the services.

Professional military education is an important element in the development of tomorrow's senior military leadership. The Army established its School of Advanced Military Studies (SAMS) in 1983 to provide the Army with officers specially educated for military operations. It is expected that the graduates of this one-year, follow-on course of the intermediate command and general staff course will become the commanders and general staff officers of the Army. Cross-pollination has worked to the extent that both the Marine Corps and the Air Force have established equivalent courses (the School of Advanced Warfighting for the Marine Corps and the School of Advanced Airpower Studies for the Air Force).

One idea that merits serious study is the establishment of a Joint SAMS course under the auspices of the AFSC. It would be similar to the follow-on schools at Fort Leavenworth, Quantico and Maxwell Air Force Base, Alabama, but would have a joint focus. Such a school would seek applicants from graduates of the four command and staff colleges.

The details of such a course need to be worked out. Here are some suggestions. The student body should initially be composed of 60 officers, 20 from each military department. They may even be AFSC graduates who stay on for further study. Such a school would allow the chairman of the Joint Chiefs of Staff and the unified commanders to have a pool of officers well grounded in the planning and conduct of joint operations. It would be a course of study that would be added to rather than

supplant the current second-year courses found at Fort Leavenworth, Quantico and Maxwell. One advantage of such a course would be to have Navy participation.

In 1923, Major George C. Marshall, the future World War II Army chief of staff, described the regular cycle in the doing and undoing of measures for the national defense. He observed that "we start in the making of adequate provisions and then turn abruptly in the opposite direction and abolish what has just been done."¹³ Today we are in the midst of making one of those changes in direction.

World conditions have changed, the Cold War is over. The challenge now is to reduce the size of our military effort without putting at risk our national security. There are still threats to American interests in the world that cannot be ignored. While Americans want a reduction in military spending, they do not want to reduce spending in such drastic fashion that we risk undoing all the hard work and money spent since 1980 in restoring the military. Americans also understand George Washington's wise counsel, "To be prepared for war is one of the most effectual means of preserving peace." I am convinced that they will support measures needed to maintain an adequate and credible national defense in order to preserve the peace that we enjoy today.

But these next few years for those in the military will be difficult ones nonetheless. As we reduce the size of the services, professional military education should not be forced to take its "fair share" of the cuts. The fact is that smaller forces will have to be more capable forces. That means continued high levels of training and efforts to improve professional military education. Doing business in a joint fashion will become even more necessary.

During the Great Depression of the 1930s, in a far harsher budgetary climate than that of today, all of the services found themselves reduced to 'pauperdom." ... Too poor to train and equip their forces, the Army, the Navy and the Marine Corps took advantage of a difficult situation by sending their best officers to various schools—to study, to teach and to prepare for the future.

Eisenhower got it right more than 30 years ago, when in a message to Congress, he noted, "Separate ground, sea, and air warfare is gone forever. If ever again we should be involved in war, we will fight it in all elements, with all Services, as one single concentrated effort. Peacetime preparation and organizational activity must conform to this fact." Building on the accomplishments of the past few years, the enactment of the Goldwater-Nichols Act in 1986 and the greater effort in both service and joint professional military education will allow us to have a greater chance for securing a lasting peace. **MR**

Notes

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- 2. Panel on Military Education Report. 55.
- US General Accounting Office, Army: Status of Recommendations on Officers' Professional Military Education, March 1991. NSIAD-91-121BR, 2.
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- G. Illustrated History of World War II (Pleasantville, NY: Readers Digest, 1984),
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The Operational Art

The concept of the operational level of warfare was introduced to the US Army with the publication of the 1982 version of US Army Field Manual 100-5, Operations. The requirement for more jointness in service operations was mandated by the Goldwater-Nichols Department of Defense Reorganization Act of 1986, when another version of FM 100-5 was published. Since Operation Desert Storm and the ensuing drawdown of the Army by about one-third, coalition or combined operations have also become the norm.

The concepts of operational art, jointness and combined operations are not new. In the mid-1800s, Carl von Clausewitz recognized the operational level of war. Since World War II, the Army has conducted a host of joint operations with the Navy and Air Force. Moreover, US involvement in the Korean War and numerous regional conflicts has clearly exhibited the concept of combined operations.

During the past few decades, all the services have clamored for more "jointness"; however, Congress has had to force the real changes. The uniformed side has also noted the need for more combined training for coalition operations, but again, the politicians had to force the military into that arena on a more permanent basis. Combined operations are especially important today with more and more emphasis on UN mandates for action and a downsized US military that can no longer afford to go it alone.

This section's four articles—two from just after World War II and two from the early 1990s—offer somewhat similar views about operational art in a joint and combined environment. All four authors, representing a total of 17 stars, penned these thoughts late in their careers. They learned the operational art and the importance of jointness and coalition operations the hard way-by doing it. Their observations and conclusions remain as relevant today as they were when they were recorded.



Doctrine for Joint Operations in a Combined Environment:

A Necessity

General Robert W. RisCassi, US Army

In this wide-ranging treatise on applying operational art to joint and combined operations, General Robert W. RisCassi provides a modern blueprint for doctrine, command and control, training and logistics for future coalition forces. This article, published in Military Review's June 1993 edition just before RisCassi's retirement in July 1993, was also published in the summer 1993 issue of Joint Force Quarterly.

INCE THE BEGINNING of this century, there has been a strong common thread in the involvement of American forces in combat. Almost every time military forces have deployed from the United States it has been as a member of-most often to lead—coalition operations. Rarely have we committed, nor do we intend to commit forces unilaterally. Our remaining forward positioned forces are routinely engaged in coalition operations during peace and are committed to do so in war. The global interests and responsibilities of our nation inevitably dictate that far more often than not our forces will be engaged in alliance and coalition activities. This article addresses fundamental tenets that underpin our efforts to create a doctrine for joint operations in a combined environment.

Background

When we say we no longer intend to be the world's policeman, it does not mean we are going to disengage. It means we want more policemen to share in the responsibilities, risks and costs of settling the world's most vexing problems—intrinsically, we are articulating a condition for wider and more active participation in coalition operations. Even though we consider this a responsible proposition on its merits alone, the redistribution of global wealth and economic power makes it also essential. In 1945, the American economy produced around half of the world's Gross National Product. Today, it comprises less than a quarter. In any event, coalition operations

are generally key to legitimizing the use of force. Yet, both as a function of our historical experience as a leader of coalition operations and the continuing fact that America brings the most military power to the table, we should also recognize that American military leaders will almost always be called upon to lead multilateral coalitions in which we are participants. The fundamental question becomes one of "how?"

Notwithstanding our recurring historical experience, we have at times been remarkably ill-prepared for coalition operations. In truth, we have not had, nor do we yet possess a commonly agreed doctrine for forming or fighting as part of military coalitions. Some may argue it is not necessary to have such a foundation; but, under its absence we will have to address each new coalition on an ad hoc basis. Also in its absence; we have no comprehensive doctrinal base to create the means or tools to improve our ability to participate in, or lead, coalition operations. There is a clear and omnipresent reason to create such a doctrinal consensus. Five of our regional commanders in chief (CINCs) are coalition or alliance commanders, as is one of our specified CINCs.

There is no cookbook approach to coalition warfare. Every coalition will be different in purpose, character, composition and scope. But there are some basic commonalities that confront any coalition commander. Obviously, the most valid basis we have to form a doctrine is our own historical experience. Yet, for the most part, our historic perspectives tend to analyze the leaders who led victorious coalitions, as if the secrets of success lay in personalities, more than methods. A doctrinal foundation must be based on methods.

Interestingly, and as a testament to their value, we have yet to experience an incidence where a prepared military coalition in which we are engaged has been attacked. In those cases—Western Europe and South Korea—where the coalition had the will, time and resources to prepare for alliance warfare, the effects were never tested in battle. Thus, we cannot be certain their preparations were sound. It may have been that the tranquility they imposed undercut their ability to achieve essential concessions from nations whose priorities were more nationalistic than threat-oriented. Every other case we scrutinize involved ad hoc coalitions merged hurriedly in crisis or conflict. For obvious reasons, they also may not represent the model upon which we should create a doctrine. Between the two, however, there is ample experience to build a doctrine.

We know that joint operations, in and of themselves, represent significantly greater complexity than single-service operations. The Joint Staff is trying to create the doctrinal architecture to glue joint forces together in warfare. In a coalition, the difficulties of joint operations are still prevalent, but with the added dimensions and complexity of two or more national armed forces, all of which bring their separate orientations and proclivities to the practice of warfare. Often the apparent intractability of problems has been so awesome that any attempts at achieving unity have been limited to the strategic and operational levels. Battlefield responsibilities have been divided nationally based on the capabilities each nation brings to the coalition. Each national force is given discrete sectors and missions. A single leader is appointed to unify coalition efforts and-based on the numbers of national forces involved-decentralizes operations through national chains of command, which become multi-hatted. This is a patchwork approach. Seams are recognized but stitched together by strategic and operational agreement. Sometimes the seams are tight; sometimes they are loose.

If we look back at World War I, World War II, Vietnam or even the Gulf War, we see variations on this structure and also the problems that resulted. In multiple cases, campaigns were disjointed by ruptures in timing, unity of purpose or tactical disagreement. Often commanders found themselves in positions where mutual support was essential. Yet, procedures were nonexistent or inadequate and had to be jury-rigged on the spot. Cross use of assets—combat, combat support (CS) and combat service

support (CSS)—was limited or foregone because of incompatibility. In some cases, vast technological differences between forces caused either multiple tiering of the battlefield or over-reliance on the most capable units continuously to perform the most difficult missions. Differences in national doctrines, languages and cultures often meant breaches in understanding, inability to communicate on the battlefield, fratricide and disorganization. In short, effective operations were hindered by multiple sources of friction. What are the elements essential to conducting joint operations in a combined environment? In other words, what have we learned and how do we intend to apply it the next time American forces are asked to lead a multinational coalition in combat?

Doctrine

The first point is that a coalition must share a common doctrine to take advantage of commonalities. Doctrine is more than simply how we intend to fight. It is also the technical language with which we communicate commander's intent, battlefield missions, control measures, combined arms and joint procedures and command relationships. Doctrine is not contained simply at one level of war—strategic, operational or tactical—it embodies all. Campaign execution demands that these levels of war become inextricably linked. To achieve the full synergistic effects of joint combat power, the warfighting doctrine must be common to all arms. In the absence of a commonly understood doctrine, it becomes extraordinarily difficult to plan or execute military operations.

Yet, approaching a commonly agreed doctrine can be politically frustrating. Past US attempts in Europe and Korea to enjoin allies to embrace AirLand Battle were met with arguments that it is a distinctly American doctrine whose execution is technology dependent—therefore suspected as a Trojan Horse for "buy American" campaigns—or that it is terrain dependent and suitable only in Europe. Notwithstanding suspicions, having a commonly understood doctrine is essential to mutual understanding in battle.

The following four tenets—agility, initiative, depth and synchronization—are the most firm basis for organizing and conducting coalition operations. They are not characteristically American attributes, nor are they limited to any single service. They are cross-national intellectual tenets which, when physically applied, cause success in modern war. Their application may be impacted by the technology available, but the tenets are essentially mental, rather than physical. They are a reflection of how technology has evolved modern battle, and may obsolesce over

time as the nature of war continues to mutate. As both mental states of mind and emphasized characteristics in battle, they allow us to bridge the intellectual gap between "principles of war" and practical execution. More particularly, when closely examined, these tenets strike at the heart of the most difficult, yet crucial aspects of joint and coalition operations.

Agility is compared to that quality found in great boxers who sustain an intuitive grasp of their position and motion in the ring—as well as their opponent's and maintain the balance and force to move and strike as opportunity permits. In an environment that is constantly shifting, where the unexpected is to be expected, agility is essential. Battle is a contest where vulnerabilities and opportunities open and close continuously; victory goes most often to the commander and force with the balance and insight to strike or shift within these windows. Agility derives from a keen sense of what is happening in battle, the poise to transition rapidly from one situation to the next, and a physical and mental ability to always have more options than the enemy. It was powerfully displayed by General [Walton H.] Walker and his coalition command in the battle for the Pusan perimeter. Relying on interior lines, Republic of Korea (ROK)/US forces continuously repositioned and reconfigured reserves to parry enemy thrusts, shifted forces along the outer perimeter to reduce or accept vulnerabilities, and concentrated and counter-concentrated combat power more rapidly than North Korean commanders. It was a liquid defense that succeeded because it retained its balance to address the unexpected. Often, North Korean thrusts were repelled within a hair's breadth of a decisive breakthrough. Eliminating any seams between American and South Korean forces was vital to sustaining agility. All sources of combat power were pooled, boundaries and command relations were shifted as the situation required, and there was an absolute merging of joint and binational efforts. The agility of a multinational force proved superior to that of a homogenous enemy force.

Initiative, again, is a state of mind as well as an action-reaction cycle. At its core, it is dictating the terms of battle to an opponent, thus obviating the opponent's ability to exercise initiative. Thus, it is a highly contested quality whose balance swings on surprise, deception, speed of action, ingenuity and asymmetric comprehension. Initiative requires flexibility in thought and action, an ability to act and react faster than an opponent and a derived priority among subordinates at all levels regarding the linkage of their actions to the ultimate intent, more so than the scheme of higher commanders. It has been made

all the more critical by the rampant pace or tempo of modern battle. No plan, no matter how detailed, can foresee every contingency, development, vulnerability or opportunity that will arise in battle. In fact, the more detailed and inhibiting the plan, it may have the reverse effect of limiting or restraining initiative. It

Doctrine is more than simply how we intend to fight. It is also the technical language with which we communicate commander's intent, battlefield missions, control measures, combined arms and joint procedures and command relationships.

Doctrine is not contained simply at one level of war—strategic, operational or tactical—it embodies all.

was the quality exuded by Admiral Chester Nimitz and his commanders at Midway as they turned the tide of Japanese offensives through tactical and operational initiative. As Nimitz's forces closed with the more powerful Japanese fleets, they continuously sought to induce vulnerabilities in their opponent, until they were able to execute a decisive thrust that caught the Japanese fleets off-balance. Tactically, the decisive air attacks that won the battle were not a preplanned operation; they were a timely response applied when the enemy fleet was located and deemed vulnerable to and within reach of an attack. At the operational level, Nimitz exceeded his instructions to remain defensive and protect his precious carriers. But he did so because he understood the higher intent and was able to link both the risks and benefits of his actions to the larger campaign design. The impact was a strategic turning point in the Pacific campaign. Had Nimitz adhered to the letter of his instructions, it is unlikely he would have delivered this blow and the course of the Pacific campaign would have been different.

Depth requires both mental conceptualization and physical reach. It is applied as a reference to time, space and resources. It recognizes that modern battle has eliminated linearity—and linear thought. War is a continuum of events and activities in space and time. Both the increased tempo of battle—whether through faster, more mobile ground forces, higher sortie generation rates for aircraft or the evolution of fleets no longer tied to home ports-and the increased ranges, accuracies and lethalities of weapons systems have compressed time and space. In all dimensions of war, the current and future battles must be inter-

related. Like a chess player who views the board as a single, interrelated plane of action—and each move as a prelude to a series of further moves—the modern commander must extend his hand in time and space to create future vulnerabilities and opportunities, and reduce future enemy options. Coalition commanders at Normandy applied this tenet decisively. Recognizing the vulnerability of allied landing forces to Field Marshal Erwin Rommel's ability to counter-concentrate heavy armor forces on the Cotentin peninsula, they forged and executed a deep interdiction campaign to slow the movement of German armored columns and prevent them from arriving at the battlefield before the coalition was able to establish defensible beachheads. Simultaneous with the initiation of the air campaign, French resistance and Allied special operations units executed a daring operation, targeting the concentration apparatus of German forces and further inhibiting the flow of German reinforcements from reaching the beachhead in time. The application of airpower was a unified effort, combining air forces of several nations, and the interdiction umbrella covered all of the national ground forces participating in the invasion. The invasion succeeded because coalition commanders applied nonlinear thought to their operations, striking in depth in both the air and ground dimensions with the full palette of Allied capabilities.

Synchronization is perhaps the most difficult tenet to apply in coalition operations. It is a term often related to the inner workings of a watch. In that context, it is the calibrated movement of hundreds or thousands of different pieces moving in tandem and operating cooperatively to produce the desired effect. In war, the desired effect is simply combat power at the time and place of the commander's choosing. It is key to achieving unity and efficiency in action. Yet, in a coalition there are great inhibitors to effecting synchronization. Differences in language, technology, doctrine and training act to deter efficiency and increase the potential for friction. These problems are not overcome simply through planning, although thorough planning is a key factor. Synchronization must also be fluidly applied as conditions change and the unexpected occurs. It relies on common procedures, a shared understanding of the language of battle and smooth linkages between the disparate national entities in a coalition, at all levels. The success of General Douglas MacArthur's masterful Inchon landing and breakout of the Pusan pocket in the Korean War was an example of synchronization. He planned these two operations as coordinated hammer blows to crumble the North

Korean offensive and turn what appeared to be a risky operation into one of history's most memorable routs. The full series of operations—air, sea, ground and amphibious—were carefully synchronized to achieve maximum shock and surprise. Because of the risks, the timing had to be precise, with each operation intended to create conditions for the success of the next operation. Coordination between services and national forces was exacting and thorough. Once the series of operations began, they operated in tandem to crush the North Korean offensive. The landing forces at Inchon moved deftly inland, cutting the North Korean lines of supply and operation, isolating and overextending the North Korean forces to the south and setting the conditions for an audaciously executed breakout, which then converged northward. Air operations were executed to harass and interdict the withdrawal of North Korean columns. It was a tightly synchronized series of operations, involving the forces of several nations in a series of the most difficult, yet successful, joint operations in the history of warfare.

The principles of war also offer a way to intellectually massage the elements of an operation to understand its risks and strengths. Almost every nation's military relies on a set of principles; for the most part they are derivatives of one another. As a whole, the principles focus commanders and staffs in their effort to decide whether a course of action is prudent and to understand its risks. When viewed in context with the tenets, combined commanders have a solid intellectual foundation for action. Just as important, commonly accepted military principles serve as a point of reference when organizing the coalition and establishing command relations.

The tenets and principles are vital means to think about war, but these thoughts must be structured. The layering of military art into strategic, operational and tactical levels is valid and for the most part, universal. Although the layers are difficult to separate, they provide the intellectual linkage between campaigns, operations, battles and engagements in a manner that ensures continuity of effort, as well as to describe the contributions of various echelons to the overall effort. Moreover, as a coalition winds its way through these levels in planning, it forces the coalition's leaders to confer on every aspect of military efforts.

Campaign

Agreement on strategy is the foundation for coalition action. It is derived from policy agreements between participating nations and must be sharp enough to shape the direction of an implementing

campaign, yet broad enough to capture the efforts of the various national forces. The development of an effective military strategy is difficult even when military action is unilateral; it is far more trying in a coalition. Strategy is designed to accomplish political objectives. Because of its proximity to policy, it will be the point of reference for gaining consensus between military and political leaders. Consequently, it is also most likely to be the center of controversy in both political and military spheres. Rarely do nations enter a coalition with identical views on ends to be achieved. As a coalition increases in numbers of member nations, conflicting objectives and additional political constraints are added to the pot. The coalition commander must walk a taut line between accommodating and compromising, yet preserving the ability to achieve military decision. At the same time, it is important to remember the old dictum that in coalitions, the will is strongest when the perception of threat is greatest. Over time, as conditions change, so may the will and objectives of participating nations.

Coalition strategic formulation is difficult also because of the sheer mass involved in the effort. Strategy involves the melding and coordination of nearly every element of multinational power to accomplish military objectives. It may require insights into different national industrial capabilities, mobilization processes, transportation capabilities and interagency contributions, in addition to military capabilities. It must bind these together with precision and care. It operates on the tangent edge of international relations and diplomacy and must seek congruency with these forms. It addresses issues as weighty as the end state to he achieved and as mundane as the rules of engagement to be applied at each stage of operations. In coalition operations, strategy is the level of war where international politics and bodies are coalesced into a unified approach.

The ability to design an effective military campaign will be a calculus of the military strategy. At the operational level, disagreements that occur generally are among military professionals. But, there are of course political ramifications and considerations. The campaign must be paced or phased by the availability of combat power as it is generated from multiple national sources. The campaign plan also provides the base for defining and recommending national contributions. Unless this is done and provided to the various national authorities, the combined commander will end up with a force composition that is not rationalized toward operational requirements. The campaign plan has the integrating effect of serving

as the both the driver for force requirements and the time clock for generating those assets.

The campaign plan is the tableau for synchronizing all elements of combat power. It provides combined commanders with the vital understanding to link operations, battles and engagements to the coalition's strategic objectives. It is the orchestral arrangement of these various activities in a rational path to achieve the end state envisioned in the strategy. It must address a variety of choices concerning

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the approach to warfare—offensive or defensive, terrain- or force-oriented, direct or indirect approachand in so doing, becomes the enabling process for actually applying force.

Tactical operations should be designed to create a seamless battlefield where friction is minimized and the four tenets can be applied freely. This requires cooperation from all participating nations. It is at this level of war where the combined inhibitors to efficient operations could have their most degrading impact. At higher levels of war, success is mostly a function of planning and apportioning forces and resources to various missions. At the tactical level of war, forces must actually engage together in battle and function synergistically to defeat an enemy. All of the differences in training, equipment, language and culture congeal to hinder the application of combat power. Events move rapidly and have a cascading effect. It is for these reasons that many coalitions have sought to conduct tactical operations, battles and engagements within national boundaries. However, this approach cedes an advantage to enemy commanders who may target precarious seams. It accepts a vulnerability that could be costly and reduces collective combat power by incrementally separating the parts from the whole.

General Dwight Eisenhower's experience as European Theater of Operations commander in World War II amplified the difficulties that can arise at all three levels of war. Although the Combined Joint Chiefs of Staff met and agreed early in the war to pursue a strategy to defeat Germany first and Japan second, and to apply a direct approach against Germany through an early cross-channel invasion into Europe, this is not what occurred. By late 1943, the United States had more soldiers, ships, airplanes and landing craft in the Pacific than in the Atlantic. The British pressured for an indirect approach against Germany and convinced the American president to attempt an invasion up the boot of Italy before a cross-channel invasion into France could be launched. This further delayed the eventual date of the cross-channel invasion to the summer of 1944. Once the invasion occurred, Eisenhower faced continuing disagreements between his American and British commanders over whether the campaign should be on a broad front or concentrated on a single axis. He maintained his broad front approach, but acquiesced on one occasion to Field Marshal Sir Bernard Montgomery's insistence to concentration of resources in an attempt to achieve decision along the Flanders avenue into Germany. The result, Operation Market Garden, led to tactical quarrels between American commanders who viewed the operation as too ambitious for the terrain and Montgomery, who argued that temerity needed to be put aside. Market Garden failed, but not due to lack of support by any coalition force. When it failed, Eisenhower returned to the broad front approach and it succeeded. The cross-channel invasion was later than initially anticipated, but did occur and was decisive. Germany was defeated first and Japan second. In short, neither nation got exactly what it wanted and the agreed strategy was not executed with any sense of discipline, but the objectives were obtained.

The use of centers of gravity, phasing or sequencing, main and supporting efforts, culminating points, setting conditions and the other mental tools we use to organize and orient operations should be employed in planning and operations at every level. They are not uniquely American. They are neoclassical extrapolations drawn from military theorists worldwide. By using these tools, the commander merges the theory and practical application of the military art. Each of these mental tools is a critical point for creating broader understanding of the underpinnings of how force is to be applied and for what purpose. When used for mental reference, they enable subordinate commands to move beyond robotic execution. They liberate subordinates to apply ingenuity, innovation

or situational adaptability to each event because they understand "true north" rather than simply the compass vector provided in the scheme of maneuver.

Planning

A common planning process is essential. The degree to which allied commanders and staffs understand and are able to participate in planning impacts on the time required to plan and the sharing of knowledge of every component of operations. We rely on the intelligence preparation of the battlefield (IPB) as the underlying process to gain commonly understood perceptions of the threat and its organizations and capabilities, terrain and other environmental factors that may impact on operations and courses of action available to enemy commanders. Without this foundation, applied as a collective and trickle down process that occurs from the strategic through tactical levels, it is difficult, if not impossible to shape uniform perceptions of the threat or agree upon the coalition's courses of action.

A key distinction is that the IPB must be a joint process. It must analyze every medium of the battle air, sea and ground—over time. In fact, every service has its own variation of the IPB process. Naval commanders look to sea lines of communications and enemy bases as the terrain or mobility routes pertinent to combat operations. They consider the enemy fleet's organization, capabilities, doctrine and objectives and then design operations to deny these objectives. Air commanders analyze enemy air capabilities, bases and courses of action before forming a vision of their own operational requirements. What has been lacking is a joint and combined IPB process that views the enemy commander's multidimensional operations as an entity. In a combined theater involving joint forces, such an intellectual template is the only holistic means to design joint operations.

There is an additional value to the IPB process. We emphasize the importance of getting inside the decision cycle of the enemy commander. Unless we do so, we cede the initiative of battle; a recipe for defeat. Instinctively, this means all our processes—planning and execution—must be swifter than the enemy's. The cycle of detect, decide, target and execute becomes all the more difficult when multinational forces are entered in the equation. As a general rule, the more organizations, joint and coalition, that must be integrated in an operation, the longer it takes to integrate or synchronize actions. The IPB process, which is continuous, is the best means to accomplish this. It creates a degree of predictability which is essential to get and stay ahead of enemy decision cycles.

From this point of departure, the coalition moves through the remainder of the planning process—statement of commander's intent, estimate of the situation, wargaming and formulation of the concept of maneuver and the remaining sections and annexes of the coalition operations plan (OPLAN). The American structures for the OPLAN, operations orders and fragmentary orders are the templates for order formulation and communication because they are reasonably complementary with most national systems and incorporate all the elements of the planning process itself.

Integration

Implementing a common planning process is only a small, albeit important, part of bringing unity to coalition operations. The execution of these plans involves far more complex problems. Each nation will bring its own forces and capabilities to the coalition. Integrating these forces for action depends upon many variables. There may be, and usually are, vast differences in the organizations, capabilities and cultures of military forces. As a general rule, differences are most severe in ground forces. Air and naval forces, because they must operate in international mediums, are equipped with communications gear and common protocols and procedures to provide for organized space management. All of the "vessels" that operate in the air or sea can be readily classified for their strengths and weaknesses to perform the various missions of air and naval warfare. Ground forces come in all shapes and sizes, and their equipment may be entirely dissimilar and incompatible. Technological differentials, particularly in this era of revolutionary change, can be vast. Therefore, fundamental commonalities become even more important.

At the theater level, integration results from functional design. There can be only one air component commander (ACC), ground component commander, naval component commander, special operations forces (SOF), and/or operational Marine Headquarters. Having two or more of any of these functional headquarters invites calamity. Yet, imposing functional integration requires more than creating headquarters. The interrelationships and synergies between functional commands stumble in the face of many of the same delicate issues that our own joint forces find difficult to resolve. The command relationship between ground-based air defenses and air forces, the apportionment of responsibilities and roles in deep operations and the relationship of multidimensional forces such as marines or naval air or attack helicopters to various component commanders must be addressed.

But the magnitude and complexity escalate because each national force has its own convictions on these issues. Moreover, coalitions may confront the obstacle of nations maintaining strings on various forces, or insisting upon stovepipe management of various elements. Concessions to any nation on any of these issues create precedents that others may insist upon. It may not be possible to derail all these inhibitors, but proliferation invites unmanageability.

It is helpful to analyze and integrate joint and combined functionality using the battlefield operating systems and the dynamics of close, deep and rear operations. These provide bases to organize efforts, find the critical nodes where multinational integration must occur and ensure balance and support in battle. But, for the purposes of joint warfare, the Army's definition of these areas is too narrow. For naval power, an additional point of analysis is surface, subsurface, special operations and air. For air power, the various abilities of national forces to perform traditional air missions must be analyzed. These include close air support (CAS), battlefield air interdiction (BAI), strategic bombing, long range interdiction, special operations and counterair. For SOF, it is the means to perform the various functions of reconnaissance, military strikes and integrating with the other combat arms.

As national force strengths and vulnerabilities across each of these functions are assessed, achieving balance will require a sharing and mixing of assets to increase synergy. Deep operations cannot be inhibited by national boundaries. Nor should any force be left without the ability to apply the tenet of depth. Because of international differentials in the ability to see and strike deep, the coalition must arrange its capabilities and command structures to extend this capability across the entire front of operations. The ability to see and strike deep to desired effect is a function of flexibility. Fleeting targets of opportunity must be struck, however, by whoever is available to exploit the opportunity. Moreover, enemy dispositions and operations in his rear will be interchangeable across the front of operations; deep operations must always be viewed as an operational requirement because of the enemy's flexibility to shift and move forces not in contact. Just as there can be no blank spaces in linear operations, there can be none throughout the depth of the battlefield. But, deep operations beyond the control of maneuver commanders must be under control of a single coordinating headquarters. This is even more critical in coalition than unilateral operations. To do otherwise invites duplication, fratricide and incoherence.

On the other hand, close operations may be divided into national sectors. But there are risks and inefficiencies in this approach. It could critically hinder the ability to mass combat power across national boundaries. Even if this approach is applied, it must be recognized that it does not alleviate the coalition's need to instill the agility to integrate forces in the close battle. Reserve formations, air power and other sources of combat power must have the capability to be applied across the front of operations. Rear operations must be intermixed but tightly centralized. National lines of communication, main supply and mobility routes will be in a disorganized competition for priority unless strong central control is imposed. It is unwise to decentralize rear area responsibilities. To do so undermines the need for integrated air defenses, organized responses to rear ground threats and the organized security of the host population and nation.

Command and Control

The ability to integrate rests largely on one principle. Unity of command is the most fundamental principle of warfare, the single most difficult principle to gain in combined warfare. It is a dependent of many influences and considerations. Because of the severity and consequences of war, relinquishing national command and control of forces is an act of trust and confidence that is unequalled in relations between nations. It is a passing of human and material resources to another nation's citizens. In a coalition it is achieved by constructing command arrangements and task organizing forces to ensure that responsibilities match contributions and efforts. Command relationships between national commanders should be carefully considered to ensure that authority matches responsibilities. It is cardinal that compromises not be permitted to outweigh warfighting requirements. If political factions inhibit proper assignment of authority, responsibilities and operational design must be altered to ensure unity of command.

Theater headquarters—the theater command and each of the component commands—should be both joint and combined in configuration and manning. Regardless of the nationality of the commander, the staff must represent the cross section of units under command. This practice of combining staffs must be followed to whatever depth of echelon that units are combined in formation. At the theater level, it may be essential to form combined joint targeting boards to manage the integrated targeting process for deep operations. Placing this under the ACC is often most effective, since the ACC will in all likelihood provide the majority of assets. The same form of tool may

be necessary at each cascading level where joint and combined capabilities must be merged. Rear operations—the communications zone (COMMZ)—should be delegated to a single commander. Most often, the COMMZ commander will be an officer of the host nation. In those cases when the rear crosses multiple nations, as with the United Nations Command (UNC) in Korea and UNC (rear) in Japan, it is essential to clarify the responsibilities and obligations of each nation in addressing or accomplishing the coalition's tasks, as well as the limits to the coalition's flexibility to operate within national boundaries.

Subordinate or tactical commands may be organized as the situation dictates. A naval commander who comes to the coalition with only surface assets must operate in the envelope of a three dimensional naval force and should logically be subordinate to the three dimensional commander. As a rule, the commander with the most complex, multidimensional force possesses the most total understanding of how to fight that force. Ground armies or corps will probably be multinational in configuration. In fact, tactical integration of ground forces down to the corps level is virtually essential.

Tactical integration—and therefore command and control (C²)—of ground forces is arguably the most difficult to achieve; it will be attained most rapidly by early integration of some tactical units. Fundamental considerations are the factors of mission, enemy, terrain, troops and time available on the battlefield. This will dictate the alignment and missions of variously equipped and talented forces on the battlefield. Lightly armed forces can perform in military operations on urbanized terrain, densely foliaged or mountainous terrain, heavy forces in more mobile environments, airmobile or motorized forces in virtually any terrain. While this may sound like common sense to an experienced commander, its practice becomes quite difficult when vertical boundaries and C² are dictated by the nationality of forces contained within the boundaries. As rapidly as possible, coalition ground forces must overcome any impediments to tactically integrated operations. To ignore this reality leaves vulnerable seams for enemy commanders to exploit, or it could cause placement of forces in unsuitable fighting conditions. Either could be fatal. There were a number of instances of this in the early stages of UN operations conducted during the Korean War. The virtual decimation of the Turkish brigade in the battle of Kumyangjang-Ni was a tragic instance of a tactical unit moved necessarily into a fluid battlefield that lacked the means to integrate operations with other allied ground units.

The unit fought fiercely against overwhelming odds in an attempt to stem the North Korean and Chinese counteroffensive occurring in its sector. As its losses mounted and the unit reeled under unrelenting enemy attacks, it was forced to fight in isolation and remained unable to rely on allied combat power, which was available or to coordinate its activities with American units on its flanks. During the early days of this conflict, the need for UN forces to be prepared to integrate tactically in unexpected circumstances was proven again and again. The needs to ensure unity of command and to integrate forces under this principle became a matter of survival.

Training

The first priority in generating coalition combat power from a conglomeration of nationally separated units is to train, emphasizing the fundamental commonalities outlined earlier. Only through training will combined units master and sustain collective warfighting skills. As the coalition is brought together, staffs and commanders must rapidly adapt to the units and processes in the fighting organizations being formed. The impediments and sources of friction become clear at once. So do the solutions that must be applied. This assumes, of course, that time is available for training before introduction to conflict. The situation may dictate otherwise.

General Joseph Collins, when he commanded VII Corps at Normandy, applied the techniques that are vital to ad hoc coalition warfare. When VII Corps forces hit the beaches at Normandy, they had been trained to fight a doctrine that had been based largely on earlier World War II experience. It proved woefully inadequate for the battle conditions faced by VII Corps. It became apparent that the doctrine was illsuited to the hedgerows, flatlands and built-up areas of France. In the midst of battle, Collins began to retrain and reinstruct his units as he constructed new doctrine applicable to the enemy and terrain he faced. He and his commanders analyzed every engagement, gleaning the lessons to be applied in the future; testing new techniques and keeping them if they worked, discarding them if they did not. When units were not on the front line engaged in battle operations, they were training. When air-ground coordination and the procedures for tying in with allied units on the flanks proved to be flawed, he invented new, more effective procedures on the spot. Within a few short weeks, Collins devised the doctrinal foundation that was applied by Allied forces successfully throughout the remainder of the European campaign-he did so under the most arduous conditions.

Standing coalitions should not need to rely on inventiveness and adaptability during conflict. Peacetime training should be designed to engage coalition forces in the most difficult and demanding tasks they may be asked to perform in war and to fathom the weak points that will cause friction under the most trying circumstances. The point is to identify, then eliminate or narrow the seams between forces that could reduce synergy and synchronization. Procedures that require multinational forces to operate

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seamlessly should be practiced routinely. Because of the complexity of joint and combined operations, the required skills atrophy quickly. Training should be joint and should recur cyclically at the operational and tactical levels. This is essential both to build the basis for trust, which will be vital in war, and to identify the abilities and limitations of coalition forces. For an ad hoc coalition, the same methodology applies, but the time available may be condensed and have to occur during hostilities.

Simulations are proving to be a means to exercise these skills and techniques frequently and inexpensively. They train commanders and staffs on essential planning and execution skills and may be applied through the range of strategic, operational and tactical levels of war. When effectiveness is analyzed through the lens of battlefield operating systems and the tasks, conditions and standards of various expected missions—attack, defend, delay, passage of lines, battle—handover, airmobile operations, CAS, amphibious assault, and so forth-a host of invaluable lessons may be accumulated. Even still, simulations cannot be a total substitute for field training. Small yet important problems will escape visibility—national differences in air-to-ground attack procedures ... cultural differences such as holy days or food restrictions ... or even the absence of digital communications capability in indirect fire units of some armies may not become apparent. These point to the need for field training at the tactical, combined arms level.

Combined commanders must provide the focus and direction to organize training. They must provide subordinate commanders those mission essential tasks that must be conducted in combined operations and the tasks, conditions and standards to be maintained. Because time and resources for combined training are limited, it is all the more important that combined commanders give priorities for combined training that focus units on those missions most likely to be performed in combat.

Command, Control, Communications, Computers and Intelligence

Applying the tenets of combined doctrine relies on a Command, Control, Communications, Computers and Intelligence (C4I) architecture that is capable of integrating the joint forces of all the nations in the coalition. It is in the various functions embedded in C4I that American forces possess some of their greatest advantages on the battlefield. Indeed, as we continue to improve our capabilities for collecting, analyzing and disseminating intelligence, managing the vast amounts of information upon which decisions are made and incorporating more and more computer aids to the battlefield decision and execution processes, we must exercise care that these systems do not evolve into exclusionary processes. Unless the architecture incorporates the ability to share with, and in turn receive from, other national forces, the battlefield will not be seamless and significant risks will be present.

The impediments to achieving integrated C⁴I are several fold. First, of course, is the language barrier. Each order that is produced, every issue that arises unexpectedly on the battlefield, and every transmission must be laboriously translated into the multiple languages included in the coalition. This steals precious time from the detect-decide-target-execute cycle and is apt to be fraught with errors. Although it is common for coalition headquarters to maintain translation cells, their speed will depend on the size and complexity of information to be processed, and the accuracy of translation will vary from translator to translator. Moreover, absent a common doctrine, basic military terms differ from nation to nation. The result, generally, is a severe narrowing in the amount of information conveyed between coalition commanders. Overcoming this, as a minimum, requires multilingual software that ties back to a common operating system. Because of the need to be rapidly employable by many national forces, its software must be user friendly and easy to learn. In addition,

coalition headquarters should have prepared dictionaries of common military terms and symbols, both as a translation base for information management systems and to reduce the latitude of different translators to portray differing meanings. A final side note is that as forces enter a coalition, their capabilities and assets must be entered immediately in C⁴I data bases to enable theater command staffs to incorporate them into the multiple aspects of battle management and planning for the coalition. Because many nations now employ computers in managing their forces, it is also important that we share common standards within our peacetime alliances which will permit a rapid merging of information management systems.

These fixes, however, do not eliminate the problems at tactical levels where decisions and orders, generally, are not processed through multilingual systems, and teams of translators are not available. Moreover, different forces will bring noninteroperable communications devices, which block lateral and horizontal relations. Here there is no alternative but to determine where the critical nodes of multilateral contact occur and position translator liaison teams equipped with communications systems that expedite cross-communications. It is especially important to view the requirements for liaison cells from a joint perspective. Many land forces, for example, do not have or do not position them below division level.

The sharing of intelligence and sensitive technical means will depend on providing the interpreted product of battlefield intelligence to each member of the alliance. The United States brings to battle the most sophisticated and enviable capability to gain deep operations visibility of any nation in the world. If it is kept in seclusion, it will significantly reduce the combat power available for deep operations and force other alliance members to fight blindly with regard to time. Some nations have alternative means and systems, and these should also be incorporated into a workable intelligence collection plan whose products are accessible to others.

Yet few nations, including the United States, are willing to share the sensitive sources of intelligence gathering or enlighten other nations on the technical strengths and weaknesses of various collection means. Military coalitions may include partners whose reliability is stipulated on the threat at hand and will not last beyond the resolution of the contingency—a point wryly observed by Prime Minister Winston Churchill when he noted he would "sleep with the devil" when survival was at stake. As well, our past history with coalition warfare has incorporated nations with whom we were already

engaged in other alliances, such as NATO, where the protocols and limits of intelligence sharing are already embedded. Notwithstanding, allies must share intelligence at the tactical and operational levels as a minimum. As new collection means are introduced into our force, such as Joint Surveillance and Target Attack Radar System or remotely piloted vehicles, we must have means to rapidly share their products with coalition partners. Intelligence sharing arrangements must be rapidly agreed upon, even if sources are not shared. In fact, the more quickly allied forces become claimants and recipients of pooled assets, the variables of agility, initiative, depth and synchronization increase accordingly.

Logistics

Logistics management of coalition forces is a matter ultimately dependent on a wide field of variables. National arrangements, host nation support agreements, equipment compatibility and cultural requirements are but a few. Some coalition forces will enter the coalition with the intention and means to provision themselves. In these cases, coalition control may be no more than a need to coordinate; or, providing ports of entry, off-load capabilities, storage sites and routes and means for pushing sustainment forward. Others will arrive with the need for more extensive support. This may be solvable through binational agreements from one member nation to provide support to another, or may require active coalition management. As a rule, actual execution of tactical logistics support to alliance members should be decentralized. At the coalition headquarters level, the focus should be on measuring the requirements of executing the campaign plan, providing advance estimates of these requirements to national units and ensuring that proper controls are in place to deconflict and permit movement and processing of combat power to units.

Its practice is remarkably difficult. Simulations, again, can be a tremendously valuable tool for finding problem areas before execution. Problems which are unique to coalition warfare continually surface. Depending on the infrastructure available in theater, there may be many claimants on sparse local resources. Potable water, fuel pipelines and storage, shelter and local food production are almost all national infrastructures built at the capacity required to sustain the local population, and nothing more. Some national forces do not have the means for bulk delivery over long distances, or even a field ration system with preservable commodities. Unless centralized management is applied, each national

force is likely to contract independently to acquire these essential goods. Aside from being inefficient and unwieldy, this approach will also ensure instant inflation in the costs of local goods and services, which is harmful to operating budgets and even more disastrous for local citizens who lack the capital to outbid national military forces. In effect the coalition headquarters must enter a unique relationship with host nation authorities for contracting goods and services, to include manpower and labor, and then serve as the intermediary between national force requirements.

Combined commanders must provide the focus and direction to organize training. They must provide subordinate commanders those mission essential tasks that must be conducted in combined operations and the tasks, conditions and standards to be maintained. Because time and resources for combined training are limited, it is all the more important that combined commanders give priorities for combined training that focus units on those missions most likely to be performed in combat.

Just as there may be significant technological differentials in the combat capabilities of various forces, there could be large differences in the quality and magnitude of support provided. As CS and CSS are echeloned rearward, various capabilities may have to be pooled. American or European field hospitals, for example, may have to be prepared to accept allied casualties. Ammunitions stocks, if they are compatible with allied systems, may have to be shared. Each class of supply and form of support must be considered for each national force in order to identify requirements for mutual dependency. If this is not done, it could result in a loss of combat power or unexpected perturbations in the midst of operations.

The coalition headquarters is also uniquely situated to apply efficiencies that will minimize the diversion of potential combat power from the battlefield. Arrangements for cross-national support, host nation contracts to shift transportation or other functions to local firms, developing nodal points for transferring supplies and materials and other means should be employed to reduce independent burdens for moving goods from the ports or airfields to the forward line. Distribution and local repair systems should be pooled wherever possible to limit

the number of personnel required to perform support functions and reduce the confusion of controlling rear areas. Combined logisticians must always be on watch for opportunities to find efficiencies and improvements in the logistics architecture. They must step above the paradigms of their own national doctrines and structures and look for ways to combine efforts.

Some would define the purpose of military doctrine and leadership as to achieve order in the chaos of battle. In coalition operations we do this by accentuating the

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commonalities that exists: first, between our national interests; second, between how we intend to deal with threats to mutual interests; and then in how we actually apply our combined forces in battle. Where commonalities are required but lacking, we move quickly to create them. Often, a coalition's cohesion will depend on the proportionate sharing of burdens, risks and credit. All these can be most fairly and satisfactorily apportioned

if the total force is able to operate as a single entity.

The key to achieving this unity is by promulgating a doctrine for warfighting that is commonly understood and applied. Planning systems must be collective and participatory, yet responsive and unerringly timely. Those areas where the seams are most prominent, and therefore where friction is most likely to arise—through combined tactical integration, C⁴I, training and logistics—need to be rapidly analyzed and tested, then sewn tighter. Obvious differences such as language, culture or interoperability cannot be eradicated, but they can be minimized. These dictums hold true for both long-term and ad hoc coalitions. Indeed the tools and lessons we develop in our standing coalitions must be captured and employed in the formation of ad hoc coalitions to accelerate the cohesion of coalition forces.

Technology also offers means of improving the unity and effectiveness of joint operations in a coalition environment. It can be applied to bridge different languages and operating systems. It also can be applied to share and integrate national resources, whether in combat systems, logistics management or the flow of information to every component in joint and combined warfare.

For the foreseeable future, American military leaders will most often be the leaders of multinational military coalitions. As the US Armed Forces continue to reshape for the challenges of the post-Cold War era, it is important that the requirements of coalition warfare remain a priority effort among all services. Every improvement in coalition operations that we bring to the battlefield will have an impact on the success of operations and reduce the human toll for our own forces, as well as every one of our allies. We have the technology and experience to improve coalition warfare. The understanding of joint and combined doctrine is the first step. **MR**

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A CINC's View of Operational Art

General Crosbie E. Saint, US Army

In September 1990, just as the crisis with Iraq was beginning, General Crosbie E. Saint, US Army, Europe and Seventh Army commander in chief, gave Military Review this frank analysis of an army group commander's role. His observations and recommendations for the "fighters, integrators and shapers" in their practice of operational art is as valid today as it was on the eve of Desert Storm.

HE US ARMY Field Manual 100-5, Operations, defines operational art as "the employment of military forces to attain strategic goals in a theater of war or a theater of operations through the design, organization and conduct of campaigns and major operations." This leaves much interpretation as to how to "employ military forces." In NATO, the army group commander has to answer that challenge. Getting the right mix of forces to the decisive place and time invariably sets the conditions for success. We all agree there are a number of places to put forces; the questions are: "Which place is decisive, and when is it decisive?" Although simply stated, this positioning is a delicate process in execution, akin to no other talent higher-level commanders must have. When combined with multinational and theater political considerations as in NATO, practicing the operational art becomes uniquely challenging. In the succeeding paragraphs is my description of how to practice the operational art better than the "bad" guy—which is what it is all about. The salient feature of this description should apply to any theater in which we may have to fight, and any kind of war.

I begin with what should happen when ground combat finally occurs, whether it is the first, second or 20th battle of a campaign. (I note here that I believe modern warfare has moved past the days of a single, climatic battle and into a series of violent pockets of conflict.) Well-trained soldiers and leaders of the companies decide the close battle, the "clash of short swords." The army group commander, on the other hand, has the task of setting the conditions for these

company victories long before swords flash and soldiers die. In fact, as you go up the chain of command, all commanders must do what is appropriate to prepare the battlefield for those companies.

In my view, there are three roles soldiers and commanders play: fighters, integrators and shapers. The fighters are the swordsmen-killers who close with the enemy and destroy him at the place and time others have set. Fighters live in companies and battalions, reaching out to kill everything within reach. Fighters know war in its most intimate sense; they practice tactics and techniques rehearsed in training areas and exercises. Good warriors are ferocious fighters in close combat—they are the teeth of the fighting machine.

At the next level, one step removed from the fighters, are the integrators. This is not a clear separation though, as brigades are both fighters and integrators. The integration process, occurring mostly at brigade and division levels, focuses all available combat power at the right place and time—where the fighters are. Additionally, integrators must decide when to fight, when not to fight and whom to fight.

Shapers bring the normally disparate combat elements together in sequence, over time. The shaper's product is the essence of operational art. Shaping is tricky; corps and army group commanders have to balance the means at hand with the constraints and restrictions of the political, military and geographical environments. Constraints are the specified and implied tasks in the mission; restrictions are things that cannot be done. Implicit in the shaper's role is the end state.

The shaper must start by clearly defining the answers to two key questions:

- What should the world look like after the campaign is successfully completed?
 - Do I have the resources to "get there from here"?

The corps commander is about half shaper and half integrator, and the army group commander is about three quarters shaper and one quarter integrator. The pivotal element, then, for these commanders is to get enough guidance from their superiors to be able to ... make the tough decisions based on the information available.

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I think it is also quite possible for the army group commander to get into strategy depending on the constraints of his mission. For example, instructions to operate in a particular area might well involve constraints, which will give the operation a strategic twist. The sheer size of an army group's area of operations today, coupled with the enormous level of detail that media elements devote to military operations, muddies the waters separating operations from strategy. The army group commander must be aware of these tendencies.

The converse holds true for the theater commander. His strategic decisions, including resource allocation, make him one quarter operator and three quarters strategist. The theater commander is a shaper in his own right. The point is that roles overlap at every level, and everyone has to be aware of the need for careful coordination in campaign planning and execution.

The operational process starts with the theater commander, who provides the army group commander with the ends to be achieved, resources available and a definition of constraints and restrictions. All are crucial elements of the shaping process. The army group commander takes this guidance and combines resources and limitations to paint a picture of the desired ends (or he identifies what else he needs to accomplish the campaign objectives).

Once the end state and resource allocation phases of initial campaign planning are well under way, the army group commander further shapes the operation in his mind through the staff planning process. He links movements and battles, establishing control measures and contingency plans. Here is where the army group commander earns his pay; for once the forces deploy to fight, he can do little to influence the ensuing action in real time. I say, then, that the army group commander lives in future time. His decision cycle normally covers 72 to 96 hours out.

The stark truth about the army commander's role as a shaper before the campaign begins underscores a potential danger-what I call the "squad leader mentality." Army group commanders must avoid doing everyone else's jobs after they have laid the groundwork for the campaign. The notion that the army group targets the enemy is erroneous; the army group cannot target anything because it lacks the communications, timely intelligence and up-tothe-minute scheme of maneuver to kill the "right" somebody. The army group does not yet have the means to gain an accurate picture of circumstances and conditions at the fighter level. On a modern scale, Adolf Hitler's disastrous decision to command the Wehrmacht personally in 1942 represents the calamitous results of the squad leader mentality. Lacking the elements cited earlier, Hitler, nonetheless, charged ahead with a faulty decision process, leaving the German army to consistently fight the last battle instead of the next one.

In our recent Operation Just Cause, the US Southern Command commander, General Maxwell R. Thurman, successfully avoided the pitfalls of the squad leader mentality, allowing the commander on the ground, Lieutenant General Carl W. Stiner, to fight the campaign—and we won it quickly and at relatively small cost. Like Thurman did in Panama, future army group commanders must think and act as shapers, providing prudent, personal control when necessary, while avoiding too much interference with their subordinates.

Thinking 72 to 96 hours out, the army group commander and his staff must successfully predict who will need additional resources and when. Simply reinforcing a corps bloodied in today's battle will not work; the army group must stick to the plan until it becomes painfully obvious that some change must be made within the planning cycle. Otherwise, the army group becomes reactive and loses the initiative.

Catastrophic emergencies should not occur above the corps level (if we accept the fact that they should occur at all). The army group should function normally, avoiding knee-jerk reactions to reports that are already several hours old when they arrive at group headquarters. Commanders who avoid the tendency to do their subordinates' jobs will be able to dictate the terms of battle through any temporary crises.

Reserves

A key element of shaping and integrating at the army group level is the employment of reserves, using engaged or unengaged forces in future time. I really do not like the word "reserve," for it implies a force with no known future purpose. Presently, reserve implies a force used "in reaction" to an enemy action. I view the reserve as an "attack force," one that is saved out of the battle so as to be able to take advantage of a vulnerability of the enemy, to execute the next step of the battle, to complete the scheme of maneuver. The reserve is the army group maneuver unit; in American sport terms, it is the linebacker in football or the striker in soccer.

I dwell on this because it is important in the scheme or conduct of battle. For the shapers, reserves are the instruments of integration; that is, they are the tools for army group commanders to win campaigns. Victory in every battle may not be feasible: George Washington, Ulysses S. Grant and Viscount Sir William J. Slim were excellent army commanders who clearly appreciated the critical importance of husbanding reserves until the right moment. They won pivotal campaigns through judicious use of their reserves. (I still think the use of the term "reserve" means an "oh my gosh" force to far too many people.)

My technique for employing engaged forces as reserves is to task commanders to have certain forces available within a designated time window. Subordinate commanders then have the flexibility to use those forces within the "be prepared" time period. However, the responsibility for the subordinate commander is to provide a force that is mission capable when called. This is preferred over "putting a unit on a string" that can only be used with permission from above. The corps or division commander must be careful, then, not to lose sight of the "be prepared" order and subsequently chew up his designated part of the army group reserve.

Fundamental for successful combat today and tomorrow is understanding effective use of reserves. These forces are my aces; I use them to maintain the initiative and crush an attacking force according to my scheme of maneuver or to exploit a penetration and pursue a defeated enemy to destruction. The reserve is not a "fire brigade" to be used only when we are in dire straits. As I stated earlier, army group commanders should not have emergencies, anyway.

Generally, Central Army Group (CENTAG) will lack sufficient forces to exploit every opportunity. At the operational level, it is important to focus our combat

power and exploit only those vulnerabilities that fit into the overall scheme of maneuver and the theater campaign plan. Even if an operation promises success, if the success will not support achieving the commander's overall intent, the reserves are better used elsewhere.

Enemy vulnerabilities appear and disappear rapidly; hence, the absolute requirement for agility within our maneuver forces, sustainment system and the command and control lash-up that ties everything together. For example, if an enemy is unable to overcome the effects

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of friendly follow-on-forces attack (FOFA) operations, he will have insufficient follow-on forces to maintain his desired operational tempo. Following his doctrine, he may transition into a hasty defense. The interval between this transition and when he reinforces the defense becomes a critical window of opportunity. It must be exploited quickly by the level of command that sees this window before the hasty defense becomes a prepared defense.

Maneuver

What about maneuver? Like employing reserves, maneuver (gaining and maintaining positional advantage) is a key weapon in the arsenal of integrators and shapers, just as it is for fighters. Maneuver also includes positioning sustainment and command and control assets. The scope of maneuver today makes it an intricate process.

In focusing combat power, we need to conceptualize the meaning of that term. The Germans have the term *Schwerpunkt*, and we Americans have the principle of mass or concentration. I think these ideas are often misunderstood. The term "mass" is inadequate because it has the connotation of "let's all go down there." I look at combat power in terms of focus—much like a flashlight on the battlefield. I want to move it around, so that important things will happen. If crossing a river is critical to my plan, I need to focus my combat power so there is nothing the enemy can do to prevent me from

crossing the river. Schwerpunkt is useful if you use the flashlight analogy. Even better, is considering combat power as a tool akin to the magnifying glass under the sun's rays—if you focus it correctly and manipulate its movements, you burn whatever you are aiming at.

In the defense, positional advantage is the cornerstone of success; only mobile forces can gain that advantage in modern combat. I look for ways to use mobility to get into position to trap the enemy and shoot him in the back; that is, focus the flashlight beam on his vulnerability. If you can shoot the enemy in the opposite direction of his orientation, you will roll up his formation. By focusing on the combat column, you get that opportunity—hit him where he least expects it. You move your artillery so it is within range, and you move the rifleman where he can shoot. You shoot from your advantage into his disadvantage.

Tanks do not exist to sit around, and it is improper to use them to fight a larger enemy in a positional defense. Positional defense against a large force is like dancing with a bear. If the bear ever puts his arms around you, you are going to dance to his tune. A larger attacking force will pin down the position defender, driving the defense into the ground. If you let the attacker use his numerical advantage to freeze your mobility, you face a huge volume of indirect fire that will not allow you to leave your protected position. All hope of mobility will be lost.

The mobile defender must strike hard and move fast, hitting the attacker in the flank or rear and then shifting before the enemy can reorient to make the battle a head-on encounter. In a similar vein, from an army group level, mobility means knowing how to move a force such as a division or corps. Today, we do not know instinctively how long it takes to move a corps from point A to point B, like we do a company. Yet, we must know that information to ensure that our schemes of maneuver are based on reliable information. Army group commanders must demand training standards for large units to move fast. I want divisions to be able to move in a short period of time on multiple routes, with command and control systems that will allow them to move faster than the enemy. Divisions should be able to attack from the march column, in stride.

In the offense, the same principles apply to mobile warfare. Move fast, in large-unit formations, and strike hard with all of the combat multipliers combining on a less organized enemy. Operational planning at all levels for the integrators and shapers should be driven by these principles. Maneuver is the essence of surprise (accomplish your purpose before the enemy can effectively react). If we train commanders to think on that level, we will have come a long way toward winning

the campaign before the first shots are fired.

If you use your systems correctly, you gain a second order of sophistication in the proper application of combat power. We do not have the luxury of being able to waste any of our precious resources. You have to look for the larger, long-term effect of targeting. For example, you take out the enemy artillery because enemy fires limit the capability of antitank fires—not just because the enemy artillery drops shells on you. Combat power has to be focused on the right targets. That requires good intelligence. We must use deception cleverly so the enemy is always guessing wrong; we must always be doing what the enemy least expects.

Relating these concepts to commanding an army group in Germany, certain constraints become key considerations. Lacking operational depth, we must use a forward defense. The enemy thereby has the option of where and when to attack, and it is impossible to protect all the places where he might place his *Schwerpunkt* and focus his combat power. Hence, we must have mobile defenses with covering forces, screens and the like. Within our geographic and political framework, we must have the ability to allocate and move forces in a scheme of maneuver to protect as much territory as far forward as possible. Proper initial placement of forces is one answer to our forward defense requirement; agility and initiative, once the battle is joined, is the other.

I have told my corps commanders that the first battle belongs to them, and that falls into my earlier statements concerning the decision-making capabilities and limitations of being an army group commander. I want to be able to tell them where I will prepare for the second battle and define the overall parameters for success. I do not want to be partially successful—I want to win. The army group must make timely decisions that will not disrupt or lose the corps' first battles, but those decisions must help win the second battle. My job as a practitioner of the operational art is to set the scene for the next battle and the one after that, until the strategic objective, the successful protection of the Federal Republic of Germany, is won.

The critical ingredient necessary to transform a commander's desire to exploit an opportunity into actual maneuver on the battlefield is tough, focused, realistic training. Proper training establishes the command mind-set at all levels toward recognizing and capitalizing on enemy vulnerabilities. This training is a requirement for all elements of combat power. Staffs must produce plans quickly (the staff is truly an element of combat power); sustainment must react quickly; and air and ground operations must be synchronized rapidly. Maneuver battalions must cross the line of departure on time and execute their plan violently. Every unit must

use decision support templates routinely. All parts of this complicated system must operate and function properly. That truism puts a premium on practice.

Joint and Combined Operations

A second important aspect of the transformation of operational theory into reality in Europe is the necessity of successful joint and combined operations. There are many problems inherent in this aspect of modern war. Joint problems stem from different perceptions and missions. The air forces, for example, have both a tremendous amount of combat power and a high degree of vulnerability while using that power. Since they can react so fast, their targeting is done the night or moment before the event; but at the army group, we plan three to four days out. So the two are like oil and water; they do not mix well. Our technological advances in missiles and helicopters have further clouded the issue, because we increasingly reach out longer distances in shortened time frames. So, what was once a clearly defined division of responsibility is now confused. We have yet to fully sort that problem out to my satisfaction.

For our operations, synchronization of air and ground assets is critical. Strong conflicts loom between air/ ground arenas in terms of operational fire orientation and missions. For example, assume the NATO regional commander, who makes joint decisions, decides to go to a maximum defensive air posture. Does he understand what he just did to the army group? He has decided that the army group will get very few air interdiction or battlefield air interdiction sorties. That, in turn, means it will not be using many assets to fight deep. Under these circumstances, the AirLand Battle concept is weakly executed because the enemy's second echelon will close at the time and place of its choosing. Under the current force organization, when the joint commander goes to maximum defensive air posture, the army group commander can win the first battle, but lose the second battle, because in a maximum defensive air posture, the army group commander loses a portion of an important dimension of his scheme of maneuver—deep fires. The regional commander, therefore, must fine-tune the allocation of these scarce resources.

Combined operations dictate another set of considerations. National corps have differing capabilities, and that is a key consideration in operational planning. The corps is the centerpiece around which tactical operations revolve. It is the largest truly habitual national unit integrated with other national corps into an international army group. The level of international integration can always be lowered commensurate with support, doctrine and system interoperability. There are two fundamental ways to cope with the different national corps organiza-

tions. If you have uneven capabilities, you can take the stronger assets away from the corps that has them, keep them at army group level and share them with the havenots. We did that with the air forces of NATO. We took the air forces away from each country and assigned them to allied tactical air forces so we could share them across the board. The only trouble is that perhaps we now have them at such a high level that they have lost their integrated role as a flexible element of combat power. Since air assets are not available several days in advance now because of the level of control at which they are held,

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ground commanders have fallen into planning schemes of maneuver without these assets. Operational ground commanders should not change plans on a daily basis; yet, air assets can operate that way.

The regional air commander should determine which army group needs air support three days out, and thereby fit into the ground planning cycle; otherwise, air support becomes reactive, falling prey to the same pitfalls that could cripple the operational ground commander. The operational ground commander should determine who needs air most in the army group based on the 72- to 96-hour planning cycle. To do that, the joint and combined leaders have to decide which army group will get what air three to four days out. Air support should be dependable and predictable so the integrator commander can base his relative long-term plan on its availability. Holding some air for emergencies is understandable, but it should not be the method for allocating all air assets. To withhold it all diffuses its impact in conjunction with other forces.

The second way to achieve equity in ends and means with combined forces is to tailor mission assignments. A national force structure is put together so all the pieces fit. When you remove a part, you unhinge the balance of that national force. That is why I do not advocate taking organic assets away from national forces. I may, however, ask them to do things for their allies in

their proximity on a mission basis for limited periods of time. If I do that, I can preserve the synergism and cohesiveness essential to combined success. The army group commander in coalition war must tailor the assigned mission to national unit capabilities. This is not an easy task.

Implicit in the effective employment of national forces in combined operations is an understanding of the capabilities and limitations of each unit you command. The army group commander must know the national characteristics of each unit he commands intimately.

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For example, German corps have drones; US corps do not. It is national corps capabilities, then, that help define boundaries, missions, depth of areas and the speed with which they can move around the battlefield. All these things have an impact on your decision and what you ask your subordinates to do. Finally, the army group commander has to determine which corps work together well and employ them accordingly. This is where you attain synergism and the combined arms effect so important in winning battles.

There are six other elements critical to the army group commander as the shaper and integrator in campaign planning and execution:

- Intelligence.
- Initiative.
- Sustainment.
- Communications.
- Operational fires.
- Command and control.

These areas reinforce the foundation discussed in earlier paragraphs, whereby the army group commander gives subordinate commanders the time, space and resources to meet the enemy on our terms and destroy him.

Intelligence should allow the commanders to picture the battlefield, rather than receive only data. We need to change the current system where the next higher level collects information and filters it down. A better approach would be to let the user of the intelligence be the collector of the information; however, that is not practical at present. Since the commander cannot con-

trol information everywhere, we must define the area in which commanders need information. First, we have to stop the practice of furnishing commanders and staffs everything outside their area. Rather than overwhelming the system, allocate the area of operations in terms of the mission, which, in turn, defines the appropriate areas of influence and interest. Commanders need to control the priority of collection efforts in those areas that will influence their battle and scheme of maneuver. They need access to all the intelligence available about those particular areas. If I want them to see farther, I move their boundaries to give them a different horizon.

Deception must be a part of the scheme of maneuver. The central focus for deception operations should be the corps. I believe there are three rules for deception:

- All corps players in the deception must be in harmony to support the deception effort.
- The success of the plan cannot be dependent on the success of the deception plan.
- If the enemy fails to act, your deception plan has failed.

Being deceived is not enough—a favorable enemy decision based on a false picture is required. Whatever you want the enemy to do must seem advantageous to him. Deception must be a synchronized effort. To do this, you may well have to keep the deception plan a close-hold secret—that way everyone else thinks what he is doing is real.

Initiative is a tremendous asset, particularly if we are opposed by a foe whose lower-unit method of operation is rigid. For the army group commander, initiative should be a key part of the end state of the campaign. We can seize, retain and exploit the initiative best by ensuring all elements of the army group work together to make initiative the underlying thread of all planning. It should drive our scheme of maneuver, which defines the bounds in which our initiative operates.

Sustainment succeeds only when the logistician is welcome in the operations center. The logistician must know the scheme of maneuver before it is approved and included in the operations order. In the modern world of scarce resources, we must husband what we have and use it effectively. Those tenets must be followed assiduously, for logistics can quickly overcome any operational plan if it is poorly planned and executed. Systems are key to fighting with mobility, so we need effective standing operating procedures for resupply and evacuation. Essentially, we must have procedures that work for inventory, transport and reconstitution. Any one of the three can stop the best operations plan. Reconstituted forces, for example, must be handled carefully. The most effective reconstitution is to pull a unit out of the fight, resupply people and equipment and

transport it back to the fight once any required training is finished. Although undesirable, we will still be forced to reconstitute units with individuals and things, but it is not the best way. The aim is to prepare a unit so that when it returns to the fight and hits the enemy, even if unexpectedly, it has its act together.

Communications allows army group commanders to prepare their corps for the next battle. You do not get up one morning and start the next plan. In fact, plans sort of meld together. The army group commander must understand how to do that because he cannot personally control all the little elements in the corps.

Personalities play a very large part in determining the way the army group commander talks to his corps commanders. Some corps commanders need blunt, forceful directions, and others need positive stroking. Some are on your frequency and understand very quickly what you are saying. Others have just been brought up in a whole different world. In any case, there is an awful lot of interface that goes on between the army group commander and the corps commanders. I use the written word; I use the staff; and I use the telephone.

Normally, I want to talk to more than one person at a time. If the plan has a scheme of maneuver that involves the coordination of commanders of two of your large subordinate units, then get them in the same van and talk it over. If it is necessary, go to each of them individually. If you do not, you have confusion. It is just a flat, 100 percent guaranteed rule. When you personally talk to commanders, things come out that you cannot get from a telephone conversation. I have no doubt about the need for that kind of personal coordination. That is the reason why a corps or army group commander needs a mobile command post. The commander can send it out ahead of time to someplace convenient and then bring commanders together to get everything synchronized.

Remember, army group commanders are normally talking about events that will happen some number of days in the future. It is not necessary to rush up to the area of the battle between 0800 and 0900 that morning. What is needed is to get close enough to each corps commander so that he does not have to leave his battle and will not get killed while he is traveling to see the army group commander. The bottom line is this: however you get it to him, the corps commander must buy into the plan—either willingly or forcefully. That is the only way the army group's scheme of maneuver also becomes his scheme of maneuver. It is the only way that the plan becomes his personal knowledge. If you have the feeling he cannot grasp your scheme or is not going to execute it as you intend, you either change the plan, stay there with him or fire him. You cannot have it any other way.

A national force structure is put together so all the pieces fit. When you remove a part, you unhinge the balance of that national force. That is why I do not advocate taking organic assets away from national forces. I may, however, ask them to do things for their allies in their proximity on a mission basis for limited periods of time. If I do that, I can preserve the synergism and cohesiveness essential to combined success.

Operational Fires should be a product of using air interdiction, battlefield air interdiction and ground-launched missile or helicopter fire allocation within the allotted time frame. The issues raised center on the fact that we do not have a current unit of measure for firepower. We do not know how to express firepower other than to speak in terms of sorties, numbers of tubes and numbers of helicopters. Percentages of destruction are not adequate terms for measuring killing, either. The more essential issue is the question, "How do I know how much firepower (assuming we can somehow measure it effectively) I have in my flashlight beam to be projected in time and space?" At present, I cannot tell whether I have enough; thus, I have no way to portray what I need over time. We are working on it.

Command and Control requires both using staffs effectively and the understanding that the war continues even during daily briefings. I recommend that corps commanders omit all but essential meetings dictated by the course of battle. Otherwise, the corps commander becomes wedded to a routine that inhibits his fighting ability. Command is fluid, in that the commander must he aware of the situation at any point in time. That way he can make the correct decision at the critical time. Staffs can coordinate on a routine basis, but a commander must have more latitude than a routine gives him. Since army groups are separated from the daily battle, a routine decision cycle is helpful.

This flexibility for commanders carries over into the age-old problem of rest. I always tell my subordinates, "If you want your commander to stay up all night for days on end, he can stay up for a period, but you will have to live with the decisions he makes." They always respond, "Go to sleep." If the commander must extend beyond normal waking limits, he must be willing to accept the risks involved in doing so. And, it must be worth the long-term price.

I will summarize by outlining my approach to preparing for and being an army group commander as COMCENTAG. All of the concepts discussed in the preceding paragraphs are the result of experience at differing levels of command. Over time, I learned the principles of integrating and shaping from exercises and those who have taken the time to mentor me. I have also studied history, reading the campaigns of great captains such as "Stonewall" Jackson to gain an appreciation of the concept of smaller forces against larger ones.

My reading and experience seem to confirm the

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notion that the principles of effective army group command have not essentially changed over time. A winning commander infuses his force with his spirit. He talks to subordinates personally, so he knows they understand his orders. He allows them to fight their portions of the campaign without undue interference. At each higher level, the distance between the fighting and the thinking lengthens, because someone has to synchronize the next battle, or the present one may not matter. It is hard for an army group commander to think four or five days out; I can certainly see how many in the past have fallen victim to the squad leader mentality. I must never forget what is going on at the point of flashing swords, but I have to let that fight be won by the commander and soldiers on the scene. If you have no faith that your subordinate in war can do the task, the fathers and mothers of your soldiers demand that you replace the subordinate with one who can do the task.

The successful army group commander must have full knowledge of the careful balance among operations, tactics, logistics and strategy. He must be a psychologist, capable of reading the psyche of his army at any point in time. Above all else, he must have vision to understand the end state and then plot the path for his army group to get there, weaving a trail through uncertainty, constraints and restrictions. Shaping all these elements becomes far more an art than a science. The genius is the commander who can mold his scarce resources into an effective killing machine, focused on critical objectives. He makes his presence known and felt when required, knowing when to effect decisive action and when to give his well-trained warriors with the sharp swords the chance to win big. **MR**

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Major Problems Confronting a Theater Commander in Combined Operations

General Jacob L. Devers, Commanding General, Army Ground Forces

In this lead article for the October 1947 edition of Military Review, General Jacob L. Devers identifies the political, economic and military-doctrinal, logistic and human—difficulties of combined command from the World War II experience and offers insights for resolving them. Because his candid observations are as relevant today as they were then, Military Review regularly receives requests for reprints of this article.

HE PROBLEMS PRESENTED a theater commander in combined operations, that is, those which involve unified employment of one or more armed services of two or more allied forces, are, in the main, no different in character from those presented a theater commander in joint operations; that is, those conducted on land and/or sea which involve employment of or more of the armed services of the United States.

However, their scope and detail are an entirely different matter, and they tax his native ability, professional skill, and patience to an unbelievable degree. For this reason alone, a theater commander charged with conducting combined operations must be possessed of unquestioned ingenuity, professional skill, tact, good judgment, and patience.

In listing only the principal major problems that will confront a theater commander in combined operations, I would arrange them in this order:

- (1) Characteristic lack of clarity and firmness of directives received from the next superior combined headquarters or authority.
- (2) The conflicting political, economic, and military problems and objectives of each of the allied powers.
- (3) The logistical capabilities, organization, doctrines, and characteristics of each of the armed forces under command.
- (4) The armament, training, and tactical doctrines of each of the armed forces under command.
- (5) Personal intervention and exercise of a direct, personal influence to assure coordination and success

in the initial phases of the mission assigned by the next higher combined authority.

Lastly, and in the final analysis probably the most important of all:

(6) Senior commander personalities of each of the armed services of the Allied powers under command, their capabilities, personal and professional habits, and their ambitions.

I will attempt to deal with each of these in order.

(1) Characteristic lack of clarity and firmness of directives received from the next superior combined headquarters or authority.

The first task of the theater commander upon receipt of a directive from the next higher commander or authority is, of course, to arrive at its correct, sound interpretation, in the light of the conditions under which the directive was issued, and in the light of the conditions existing in the theater at the time of its receipt. It must be remembered that the next higher command, which in the recent war was the Combined Chiefs of Staff, arrived at this directive after going through at least all the mental processes that the theater commander must now go through, and after taking into account matters of no personal concern to the theater. The theater commander must remember that this directive is the result of a prior complete analysis, at the Combined Chiefs of Staff level, of the peculiar problem which will confront both them and the theater commander in its execution.

Only in the exceptional case will a clear-cut, uncompromised directive be arrived at, at that level. Each member of the Combined Chiefs of Staff must,

of necessity, look first to the political, economic, and military problems and welfare of his own nation.

Thus, from the outset, we find that there will be conflicting views, not only as regards the basic strategy of the war, but also to its implementation, even in its broadest aspects. Hence, the directive received by the theater commander will invariably be extremely broad in all of its aspects, except as to its ultimate objective.

An example of this is the initial, but brief, conflict of views regarding basic strategy in World War II—whether the German or the Jap[anese] would be the first target. The ultimate decision, of course, was that Germany would be destroyed first. However, once this basic strategy was determined, there then arose an immediate conflict as to the direction to be taken and the front of the main theater for the overrunning of Germany.

The timing of the main blow was also an extremely difficult decision to arrive at. Original dates discussed ranged from spring of 1943 to summer of 1945. Equal difficulty was experienced by the Combined Chiefs of Staff in reaching a final decision as to the location and direction of the principal secondary attack against Germany. In August 1943, it was decided tentatively that the principal secondary attack would be launched against the south of France. By early November 1943, this tentative agreement was practically abrogated in favor of the Balkan area. The requirements of China, Burma, and the Pacific also added to the state of indecision, even raising the question of the possibility of any secondary attack.

But in late November 1943, it was again decided that the secondary attack would be against the south of France, and a final directive to this effect was issued to the Mediterranean theater commander.

It is such indecision and lack of clear-cut, firm direction from the next higher combined level that causes a theater commander in combined operations his first greatest concern, for, manifestly, no commander can plan or make decisions with any degree of assured firmness without comparable firmness and a clear-cut decision from the next higher level. History records that this has been too much to expect in the past, and, nations and human beings being what they are, the future can hold no prospect for improvement.

(2) The conflicting political, economic, and military problems and objectives of each of the allied powers.

In determining his appropriate course of action under a directive received, the theater commander must bear in mind that he has under command professional soldiers and experienced commanders of several nations other than his own, who owe their first allegiance to their own governments and to the views of their own national chiefs of staff. It is only natural that representatives of another nation will examine critically every directive received and decision taken by the theater commander, from the viewpoint of their own national aspirations—political, economic, and military. No two nations will have aspirations so similar as to develop no conflicts of views.

Allied forces in war will accept the common, broad objective without question, which is, of course, the destruction of the hostile power. When the question of ways and means and methods arises, however, national aspirations and characteristics come to the forefront. This is not only true of men at the highest political level, and of the pillars of the national economic structure, it is a natural trait of professional military men, because it has been ingrained in them from the very beginning. Hence, if it is too much to expect at the political level, and at a Combined Chiefs of Staff level, that the representatives of two or more nations will agree from the outset on more than the broadest aspects of the solution to a problem, it is likewise unreasonable to expect that the military representatives of nations who are serving under unified command in combined operations will subordinate promptly and freely their own views to those of a commander of another nationality, unless the commander, through professional skill, good judgment, tact, and patience, has convinced them that it is to their national interests individually and collectively.

Hence, the theater commander must first know the several national problems and aspirations in detail before he can hope to deal with his commanders. It must be thoroughly appreciated by him that no commander, regardless of the position he may occupy in the world of allied powers, will submerge his national pride and aspirations for what appears to be the benefit of another. Some compromises will be arrived at through diplomacy. The theater commander, in order to secure the whole-hearted cooperation of the armed forces of another nation, must take this into account.

The greatest example of this in the recent war was the long conflict between American and British views at all levels, political and military, over the Balkans as a principal or secondary route of approach to the heart of Germany. It apparently was the British conviction that her economic and political future was so closely bound to the Balkans by history and by their proximity to the British lifeline through the Mediterranean, that this was the only route wholly acceptable to the British Commonwealth of Nations.

On the other hand, the Americans, at political and military levels, would not agree to this route.

The British and the Americans were in complete accord that the ultimate objective was the destruction of the German war machine, but there was a great divergence of opinion on intermediate objectives and routes. It was our view that the overrunning of Silesia by the Russians and overrunning of the Saar and the Ruhr from the west were the proper intermediate objectives. These three objectives having fallen, the total collapse of Germany was then assured. The shortest approach to the Saar and Ruhr was through France. An approach from the Balkan area would be a long, torturous route, which would only be negotiated at great expense in time, effort, and manpower.

Some may charge that British insistence upon the Balkans was based solely upon political and economic motives. Such a charge cannot be supported by sound-thinking military men. British adherence to this view, almost to the very end, was as sound in the light of British national policy and military strategy as was the American view regarding the direct approach to the Saar and the Ruhr. These two conflicts did not result from national prejudices, but from national concepts.

Had the early security of the Balkans been of such importance to the political and economic future and to the military security of the United States as to the British Commonwealth of Nations, there is little doubt that the Balkans would have been an early intermediate objective of our Joint Chiefs of Staff. For, after all, a true military, early objective of any operation is that which will contribute most rapidly and completely to the *ultimate* political, economic, and military security of the nation, and thus to national morale that may be fading.

Although I have no first-hand knowledge of the facts, it appears obvious that it was the view of the United States Joint Chiefs of Staff that if the Saar, the Ruhr, and Silesia were overrun, the Balkans would be freed without the necessity of an expensive military campaign, and thus insure the future security, political, economic, and military, of the British Empire in the Mediterranean area. It also appears obvious that the British Chiefs of Staff must have agreed, finally to that view.

These conflicts of view were just as present amongst military men of the combined armed forces in the Mediterranean as at the Combined Chiefs of Staff level; however, they did not adhere entirely to national lines. There were some on the British side who felt just as intensely as did the Americans that the main blow must come through western France, and the secondary blow through the south of France. On the other hand, there were some on the American

side who felt that the main blow must come through western France and that the secondary effort must come through the Balkans and northern Italy.

The theater commander must bear in mind that he has under command professional soldiers and experienced commanders of several nations other than his own, who owe their first allegiance to their own governments and to the views of their own national chiefs of staff. It is only natural that representatives of another nation will examine critically every directive received and decision taken by the theater commander, from the viewpoint of their own national aspirations.

The French, who were now allied with the British and the Americans, wanted none of the Balkan or the Italian approach. They were only willing to operate in Italy until the time and opportunity arrived for the invasion of southern France. It cannot be charged that any of these individuals were insincere. They were experienced professional men and were intensely loyal to their theater commander and to their own national government.

When these conflicts of opinion, however, extended to the senior commanders of the armed services of the Allied powers involved, the theater commander was confronted with the most delicate problem of reconciling all of them to his own views, in order that he might establish complete harmony in his official family for pursuit of the ultimate decision.

The theater commander may be conducting operations within the territory of a sovereign nation other than his own, in areas whose laws and customs are other than those of the nationality of the theater commander. This presents peculiar problems, especially if the government of the area in which operations are being conducted is one of the allied powers.

While the pursuit of the campaign must, of necessity, have paramount interest over the wishes of the friendly populace of another nation, their wishes, their customs, habits and characteristics must receive an especial consideration by the theater commander, in order that complete harmony may exist in rear areas. Under no circumstances can he give the impression that these factors are being subordinated by him to the demands of the military situation.

Actually, of course, this is what he must do, but the view of the friendly civilian populace must be one which reflects an understanding that the conduct of the campaign in their territory first takes them into account. The Mediterranean theater commander spent a great amount of his time with French, North African, and Italian problems, while General Eisenhower was beset by hundreds of problems peculiar to France, Belgium, Holland, Luxembourg, and England. This, of course, comes within the field of diplomacy and public relations.

To assist him in the solution of the peculiar problems presented by directives received; by the military, political, and economic objectives of the various allied powers; and by the local populace of one or more of the allied powers, the theater commander invariably employs two agents, a purely military one and a political/economic one, each of which operates separately, but always in close collaboration with the other.

The military agency is most frequently referred to as a "Joint Planning Staff." Although this planning staff deals with combined operations, it is referred to as "Joint" Planning Staff because from their viewpoint all operations are joint. This staff should be composed of only one senior representative of each of the armed services of the principal powers involved, and a member from each principal combined staff section. When problems are presented which affect directly a lesser power, one representative of the armed services of this lesser power must also sit in on the deliberations of that body.

It is the duty of this staff to examine for and present to the theater commander, all the political, economic, and military implications of all directives and proposals received, and submit recommendations thereon, whether the proposal originates at a higher level, at the theater level, or at a lower level. During its deliberations, the Joint Planning Staff must utilize fully the other agency of the theater commander in an advisory capacity.

The second agency of the theater commander is the group of political and economic advisors made available to him by the various allied powers. The political advisors are, most frequently, career men of the diplomatic service. The economic advisors are also specialists in that field. This group the theater commander frequently refers to as his "Political-Economic Advisory Group," or committee. When any problem involves political and economic considerations, this committee acts as advisors to the theater commander. When the problem is purely military, but has political and economic implications, this group not only sits with and advises the Joint Planning Staff, it should prepare a separate report of its own on the

political and economic implications for the theater commander, and make appropriate recommendations to him

(3) The logistical capabilities, organization, doctrines, and characteristics of each of the armed forces under command.

Having determined the appropriate course of action from a detailed analysis of the first two principal problems, the theater commander is now confronted with the task of deciding how and when he will commit his combined forces against his assigned objective. It has been said by many great leaders that they always took at least five looks to their rear for every look to their front. It may well be said that a combined theater commander may well take five looks to the logistics of each of the armed services of each of the allied powers under command for each look he takes to the front.

While in the main the difference in tactical concepts can always be adjusted between the various armed services locally, the opposite is true of administrative and logistical concepts. No two powers entered the last war with the same logistical and administrative doctrines. The personnel logistics of each of the armed services of the various allied powers present a different problem, over which the theater commander can exercise little or no control except in the case of those armed services belonging to his own nation.

The personnel of the various powers will be governed by different civil and military laws and customs. Their administrative processes and disciplinary procedures are peculiar to the characteristics of the nation concerned. The administration, therefore, of personnel problems, except the provision of replacements and overseas evacuation of casualties, cannot be subject to formalized combined procedures. The theater commander can exercise no authority over the procedures of nationals other than his own, except such as he is able to exercise through his own personality and through "gentlemen's agreements" with his senior subordinate commanders. The provision of replacements and evacuation of casualties, however, while they will be carried out according to national policies and military procedures, are subject to formalized combined procedures, for the reason that they involve the employment of combined resources. It is the adjustment of these resources to the demands of the situation and to the capabilities and requirements of the various allied commands that is of primary concern to the theater commander. Hence, broad policies governing these matters are agreed, prescribed, and administered at the combined level in dealing with personnel. The details of these matters, however, and other general personnel administration, must remain the problem of the senior commander of the armed forces of the allied powers under command.

What has been said of personnel logistics is true to a greater degree of supply and maintenance logistics. While basic decisions regarding supply and maintenance logistics are certainly the province of the theater commander, detailed implementation of these basic decisions must remain a prescription of the senior commander of the armed forces of the allied power concerned.

The allocation of available supplies, regardless of source, is, of course, a prerogative of the theater commander. It would be fallacious to say that a theater commander could not take the supply and maintenance resources of the armed services of one nation under command and apply them to another where needed, according to the demands of the campaign.

Hence, basic decisions regarding amounts, kinds, times needed, and ultimate disposition of supply and maintenance resources are subject to combined procedures. It is the technical implementation of these decisions that presents a serious problem to the theater commander, because of the various methods employed by the various armed services.

No two will use the same procedures, for the reason that the initial basic training, and training during peacetime, have been best adapted to the national habits and customs, and to practices of the Zone of Interior establishments of the nation concerned. The local technical and administrative procedures of supply and maintenance logistics of each of the nations will be so closely related to procedures in the Zone of Interior establishments, and to civilian industrial capacity, that rearrangement in the theater of national procedures, in order to establish a common system among the armed forces of all nations is an impossibility. To attempt such a rearrangement would have far-reaching effects, all the way back to the Zone of Interior, which might prove disastrous.

The theater commander, therefore, must rely largely upon his senior commanders for correct local supply and maintenance procedures, and concern himself actively with those features of logistical support over which he can exercise a direct influence.

He is principally concerned with the capacity of each of the armed services of the allied powers involved to maintain itself in accordance with standards commensurate with its own combat requirements, and with the overall demands of the campaign. He must not limit the operational capabilities of the armed services of any of the nations involved by the arbitrary diversion of its logistical support to the armed services of another nation, unless the tactical situation clearly demands this action.

For example, in the early fall of 1943, two French divisions were ready and available for employment in Italy. The theater commander had promised the senior French authority in North Africa that these two divisions would be committed to the battle at the

The theater commander can exercise no authority over the procedures of nationals other than his own, except such as he is able to exercise through his own personality and through "gentlemen's agreements" with his senior subordinate commanders.

earliest possible moment. During late September and early October, the French brought great pressure to bear upon the theater commander to transport these divisions and a French corps headquarters to Italy without further delay.

The theater commander must have been sorely tempted to accede to the French request, not only for the sake of French national honor and to give a strong boost to French morale and pride, but also to meet his commitment without further discussion. Also, from a purely selfish point of view, it would have been a wholly acceptable solution; for with two French divisions in the battle, we could have conserved British and American lives and energy.

On the other hand, General Montgomery and General Clark were sorely in need of more of their own supporting troops and were sorely in need of firmly established supply bases behind their battle front. Had the French insistence been acceded to at this time, sea transportation, which was then critically short and which was sorely needed for the movement of supplies and reinforcement troops to Generals Montgomery and Clark, would have had to be diverted to the movement of the French divisions.

These transportation resources belonged to the British and the Americans, and despite the fact that they would have welcomed this French corps in the battle line with open arms, they would have resented bitterly a decision to move these two French divisions to the Italian mainland, at the expense of their commands during such a critical period.

Also, the French were armed and equipped by the United States, from whose resources they drew their supplies and maintenance at this time in the Mediterranean Theater. With respect to several critical items, there were hardly sufficient [quantities] to maintain General Clark's army in a proper state of battle efficiency, despite the fact that the critical supplies were being moved to him from the United States, North Africa, and Sicily as rapidly as possible by sea and air.

The theater commander and his senior commander in Italy fully appreciated that if the French were committed to the battle now, not only would it mean the diversion of shipping space which should properly support the British and American armies in Italy, it would also mean the diversion of critical items of supply from General Clark, at a time when he sorely needed more than could possibly be made available to him.

Thus, in reaching this decision to withhold the French from the battle until late fall and early winter, the theater commander subordinated his desire to commit the French as early as possible, and thus meet his commitment to the French high command, to the cardinal principle of refraining from diverting support from the resources of one nation to the armed services of another, unless availability makes such action wholly feasible or the tactical situation clearly demands it.

It is a special function of the Joint Planning Staff, which contains representation from the senior logistics officer on the staff of the theater commander, to keep the theater commander advised on such matters. In such cases as this one, political advice should also be furnished the theater commander by the Political Economic Advisory Committee, for it may be found that purely political considerations may require the violation of a cardinal military principle.

(4) The armament, training, and tactical doctrines of each of the armed forces under command.

The organization, armament, training, and tactical doctrines of the armed forces of the several allied powers will present several special problems not ordinarily found in a joint theater, which are closely related to the subject of logistics. Due to the presence of the armed forces of several nations, the organization and armament of each will have personnel, supply and maintenance implications which have been mentioned, and other implications which must be given special consideration. This is especially true if the organization and equipment of the various services differ to any marked degree.

For example, similar weapons of even slightly different caliber found in the armed forces of the various nations will positively preclude the diversion of ammunition from the supply channel of one to that of another.

This may prove especially embarrassing in a crisis. The theater commander must be constantly apprised of such situations, in order that appropriate balances may be maintained in the theater level of supply. It is obvious that a theater level of supply for such items cannot be determined on an overall basis, but must be determined on a national basis.

This affects, of course, the theater commander's ability to employ freely the forces of a particular nation in an operation, and may compel him to commit forces which he had hoped to reserve for another task, in order to insure that his overall level of ammunition and other supply for a particular battle or campaign remains sufficient to meet demands. This, of course, affects directly every decision on the organization of his combat forces for a battle or campaign.

The training of all forces turned over to a theater commander is, in theory, that required for the performance of their normal task. In actual practice, however, this is not the case, because of the basic doctrines of the armed service of the nation concerned. The theater commander may then be confronted with the problem of withholding troops of a particular nation from the battle, because of their training doctrines and training levels, until they have been brought up to a standard necessary to meet his own personal requirements, and the requirements of the special type of combat in which engaged.

Tactical doctrines of an allied force, if not taken into account prior to decision, will present some awkward if not dangerous situations, particularly in the opening phase of a battle, on a new or stabilized front, and during those phases of battle wherein the front has become fluid and exploitation is being conducted. Differences in tactical concepts will be relatively unimportant during intermediate phases. It is during the periods of initial collision and of exploitation that the theater commander will be confronted with possible danger.

So long as we have military men, we will have differences in doctrine. For example, the doctrine of one nation's army, or the view of the local leader of that nation's army, will be that the attack must be opened with a long, heavy, artillery and air bombardment; that of another will be that the preparation fires should be brief, violent, and only be placed on selected portions of the front; while that of another will be that there should be no preparation fires whatsoever, and that all such fires should open concurrently with the infantry or armored attack.

It may be claimed this lies within the field of conduct of battle, which is outside the province of the

theater commander. This is true. Decisions regarding preparatory fires are usually made at army group and army levels. It must be remembered, however, that the theater commander is charged with the objective, direction, and general location of the main attack and principal secondary efforts. In selecting these and in the allocation of forces, he must have taken into full account the fact that he may have to assign to the same mission the forces of two nations who may hold irreconcilable, conflicting views on this important matter.

The theater commander *must* take into account in the organization of his forces for an operation or campaign, *the conduct of the initial onslaught*, when the forces are composed of two or more nations. For example, American and British views regarding the initial action of assault waves after they strike the beach in an amphibious operation are opposed to each other, yet it cannot be said that either view is wrong.

It is possible, however, that should one British division and one American division execute an assault landing in immediate proximity to each other, the methods employed by one under conditions favorable to the enemy could seriously hamper the operations of the other, if not, in fact, contribute to its destruction. This latter thought is a personal view. This situation is pointed out, however, as one that must be taken into full account by a theater commander in organizing his forces for an amphibious assault, and if it is found necessary to accept this risk, all steps possible must be taken by him beforehand to lessen the dangers.

The theater commander must understand fully the methods employed by his various armed services during an exploitation phase of operations. Even in the armed forces of one nationality you find the four categories of training and leadership; one that exploits according to normally-accepted, orthodox standards; one that exploits with a dash and elan described as recklessness; and one that exceeds it.

Within the armed forces of various nations, we find these same characteristics present in varying degrees; the forces of the one will be classified as cautious, the forces of another classified as orthodox, and the forces of a third classified as reckless. Obviously, the theater commander must exert his personal influence during crises of battle to secure greater speed on the one hand, and to insure his security and tactical integrity on the other.

(5) Personal intervention and exercise of a direct, personal influence to assure coordination and success in the initial phases of the mission assigned by the next higher combined authority.

Another problem of utmost importance which confronts a theater commander in combined operations is that of insuring personally complete coordination in an operation which involves the combined employment of several armed services of the various nations against a single objective, and wherein early success initially is essential to the mission. An example of this is the combined operation undertaken by Field Marshal Lord Henry Maitland Wilson along the Riviera east of Toulon.

The theater plan for this operation was broken down into its component parts, the ground, air, naval and logistical phases. The development of these plans into a detailed, integrated, coordinated, unified whole for the assault was left to the principal task force commander until the task was almost completed. This operation involved the combined employment of strong elements of the British Navy, the American Navy, and the French Navy; strong elements of the American Air Forces, the Royal Air Force, and the French Air Force; and three United States divisions, a combined British and United States airborne division, and two and one-half divisions of French troops composed of approximately five nationalities in the assault and support landings.

The initial task of this force was to secure a beachhead on a front of approximately thirty miles on the French coast. Obviously, conflicts of tactical and technical doctrines will appear in their most dangerous and obvious forms in this type of operation. The final decision as to the exact places of landing; as to the exact target and hour of the airborne assault; as to the exact hour of the beach assault; and as to the exact timing and location of the air and naval bombardments, assumed an importance of the greatest magnitude.

The complete coordination of all possible conflicting ideas was imperative. Absolute coordination of naval air fires with each other and with the airborne assault and with the beach assault had to be assured. The theater commander fully appreciated this, and at the appropriate time assumed complete personal charge of final, detailed arrangements for all these matters.

Although the operation was under a task force commander, the theater commander refused to saddle his task force commander with a responsibility which he felt was his own, the establishment of complete harmony and agreement between so vast a number of dissimilar armed services and principal commanders, for so vital a task. This the theater commander accomplished in a most magnificent manner and to the satisfaction of the task force commander and all the principal subordinates, through the tactful and patient application

of his own knowledge, professional skill and ingenuity in executive planning conferences which extended over a period of about two weeks. The importance of the personal assumption by the theater commander of his vital responsibilities in operations of this character cannot be overly emphasized.

(6) Senior commander personalities of each of the armed services of the Allied powers under command, their capabilities, personal and professional habits, and their ambitions.

The last of the major problems confronting the theater commander in combined operations is not peculiar to these types of operations, nor is it the last one to be considered. It is, in fact, a most common one and is his first concern. As is the case in any military command, this problem is the complete analysis and understanding of the characteristics, capabilities, personalities, ambitions, and personal and professional habits of his various senior commanders.

A complete understanding of this problem is the very essence of successful leadership. Not only must the commander know these peculiarities of his principal subordinates, he must thoroughly understand the methods of approach which will secure from them their unstinted loyalty and cooperation in every endeavor. Each of the major problems previously discussed can only be solved in the light of the solution to this last problem.

When a theater commander has under command only his own nationals, problems presented by recalcitrant and temperamental subordinates are very simple of solution. He can, if he so elects, exercise his prerogatives of command unreservedly. On the other hand, the first task of a theater commander in combined operations must be to establish complete harmony with and between the various personalities of the senior commanders of the services of the various nations under command.

Only in extreme cases can he resort to the expedient of seeking a replacement for a difficult commander of another nationality. Hence, he must devote a major portion of his time to this problem from the outset. The theater commander will frequently be compelled to accept less desirable solutions to tactical and logistical problems in order to secure that complete harmony which is so essential among commanders in the successful pursuit of a campaign.

It is not proposed that in following such a policy that a theater commander should compromise his own integrity or his own professional knowledge and skill. It is simply a question of determining which is the most important to insure successful conclusion of the battle, minor compromises in order to establish an essential harmony, or the adoption of a totally uncompromising attitude, thereby risking the establishment of ill will amongst the armed services and between the nations who must fight his battle.

The most important feature of this subject is complete understanding on the part of the theater commander of how to secure from his subordinates what is desired. He must know beforehand the general feeling of his principal subordinates regarding a possible proposal. This extends not only to the theater commander in his relations with his next principal subordinates, but down into lower levels.

One well-known commander invariably used a very unique method, although he was not a theater commander. If the commander had a principal subordinate whose feelings regarding an operation were not known to him beforehand, or if he suspected they would conflict with his own, he invariably followed the practice of conveying to his subordinate personally or through one of his staff officers the possibility that such an operation might come up for consideration.

During the discussion, this commander or his staff officer would develop the subject and lead the principal subordinate into the channel of thought desired, and in a manner so subtle that the subordinate would usually be in the senior commander's office within forty-eight hours suggesting the desired action as his own idea.

In this paper, I have attempted to outline only in broad relief some of the major problems which confront a theater commander in combined operations. There are many others which warrant discussion, each of such importance that it would be possible to write a separate study on it, as well as on the six major problems treated here. **MR**

General Jacob Loucks Devers (1887-1979) was born on 8 September 1887 in York, Pennsylvania, and graduated from the US Military Academy at West Point, New York, in 1909. An artillery officer, he commanded the US Army European Theater of Operations from May to December 1943 before assuming command of the North African Theater of Operations, US Army. He also served as deputy supreme Allied commander in the Mediterranean from January to October 1944. He then took command of the Sixth Army Group and in June 1945 was appointed chief of Army Ground Forces. He retired from that position in September 1949. From 1951 to 1952, Devers was the chief military adviser to the UN mission to resolve the India-Pakistan border dispute in Kashmir. He worked for Fairchild Engine and Aircraft Corporation from 1951 to 1959 and died in Washington, D.C., on 15 October 1979.

Isolation of the

Battlefield

by Air Power

General Henry H. Arnold, US Army

In this lead article of the July 1944 issue of Military Review, General Henry H. "Hap" Arnold clearly articulates the principles associated with the Army's doctrinal "deep battle" concept at that time. The tactical air force priorities he outlines are virtually identical to those employed by air component commanders today. This article clearly demonstrates why Arnold, the first General of the Air Force, is considered the founder of our modern-day US Air Force.

OMBAT AVIATION WHEN employed by the higher commander, trained in the correct use of Air Power, is a powerful means for influencing the course of battle. The formulation of a correct Decision which results in the proper employment of the Air Power assigned to the Theater is a function of command, and this Decision can be properly concluded only after a thorough and exhaustive Air Estimate of the Situation by the Air Commander and his Staff. A faulty or incomplete Air Estimate of the Situation can result only in an equally faulty and incorrect Decision and a subsequent employment of the available Air Power against unremunerative targets. Through such employment, the great offensive potential of Air Power is nullified and its contribution to eventual victory greatly weakened or perhaps completely lost.

The Nazis have furnished us an excellent example of incorrectly employed Air Power. In 1939, when the Nazis had the greatest air bombardment fleet in the world, it turned its efforts against the civilians of London. Targets of great strategic value such as factories, transportation facilities, and ship-producing facilities were neglected in a vain attempt to make the British people cry "Quits." That Hitler and Goering failed is a matter of history. That we are not making the same mistake today is now a subject of great concern for Hitler and the entire German people.

Under certain tactical conditions and from a correct Air Estimate of the Situation, the Commander will often decide that the enemy's rear areas offer the most favorable opportunities for the employment of the major part of the Air Power at his command. Normally, employment of the greater part of the aerial offensive effort against the enemy's rear areas is that aerial phase of operations referred to as the "Isolation of the Battlefield."

Field Manual 100-20, Command and Employment of Air Power, outlines my doctrine as to the proper employment of tactical air strength. It states: "The mission of the tactical air force consists of three phases of operations in the following order of priority:

- (1) First priority—To gain the necessary degree of air superiority. This will be accomplished by attacks against aircraft in the air and on the ground, and against those enemy installations which he requires for the application of Air Power.
- (2) Second priority—To prevent the movement of hostile troops and supplies into the theater of operations or within the theater.
- (3) Third priority—To participate in a combined effort of the air and ground forces, in the battle area, to gain objectives on the immediate front of the ground forces."

There can be no "D" day or "H" hour at which one phase of activity is completed and another phase begun. All three phases of the aerial offense will in most probability be conducted simultaneously, but, and this is the important fact to note, the first phase will always have the higher priority even though the greater number of aircraft and personnel may not be involved in its accomplishment. The second and third phases will be assigned to the aircraft and personnel not needed for the successful accomplishment of the first phase of the aerial operations. It has often been found necessary, because of the enemy's effort to reinforce his air defensive strength, to assign the

mission of regaining the necessary degree of air superiority to the greater part of our Air Power even after that necessary degree of air superiority had been once established and emphasis had been placed on missions aimed at the accomplishment of the "Isolation of the Battlefield."

Thus, isolation of the battlefield may be and will most likely be begun even though the necessary degree of air superiority in the battle area has not been accomplished, but its attainment must be attempted only by the aircraft not needed to attain or maintain the necessary degree of air superiority. Even though the aerial offensive operations have developed to the extent that isolation of the battlefield is requiring the combined efforts of the greater number of the Air Force personnel and the greater amount of the Air Force equipment, it must not be supposed that continued efforts to maintain the required degree of air superiority can be neglected and that counter-action against enemy aircraft and the sources of strength of his Air Power is no longer necessary. It is thus established that as the battle, or campaign, proceeds to a successful conclusion, more emphasis passes to the second and third phases of operations but the priority remains the same.

The attainment of the necessary degree of air superiority is a prerequisite to successful accomplishment of the second and third phases.

Let us assume that our air strength has established the necessary degree of air superiority. Under this condition, the ground and naval forces can operate in the Theater with a much greater degree of mobility and more effort can be directed toward the accomplishment of their offensive mission since a lesser effort is needed to counter the capabilities of the enemy's weakened aerial strength.

This decisive advantage of air superiority having been attained, greater aerial offensive effort is now directed toward the successful accomplishment of the second phase, namely, that of isolating the battlefield. The purpose of this offensive effort is to prevent the movement of hostile troops and supplies into or within the Theater of Operations. If the enemy is not permitted because of the efficiency of our aerial blockade to reinforce the areas under attack by our combined arms, it follows that the consistent but ever increasing rate of attrition resulting from the combined power of all of our arms must finally result in a decreasing of his ability to resist. Complete collapse is the ultimate result.

Modern mechanical war with its ever greater demand for technical supplies and services requires a constant flow of supplies. The enemy's Line of Communications is the lifeline of his ability to resist and to fail to protect this lifeline is to invite disaster. Failure to receive these supplies presages defeat if facing an enemy that has successfully secured and maintained his own Line of Communications.

Not only is the enemy prevented from moving into the Theater the weapons and personnel of war needed to increase his resistance, but he is also unable to replace the constant attrition of men and materiel suffered in opposing our forward movement.

Proper targets in this phase of operations are many. Any aerial operation that will prevent or delay the arrival of personnel or any type of military supplies in the Theater of Operations is aiding in the isolation of the battlefield. In an area where the main Lines of Communications are the sea lanes, this means a constant and continuous aerial effort against enemy shipping and harbor facilities. Not only will the destruction of his cargo vessels, his troop transports, and his tankers satisfy the requirement, but the damaging and destruction of the warships used as escorts is a direct contribution because the enemy's ability to protect his Line of Communications in the future is materially weakened by such losses. This compels the enemy, if the attrition of escort vessels has been sufficiently great, to desist in his efforts at reinforcement and resupply or to attempt to continue his efforts with less well protected convoys. If he discontinues his efforts to reinforce and supply his forward bases, then these bases must certainly fall before our ground offensive. If he continues his efforts, then our aerial offensive directed at the more weakly protected Line of Communications encounters even less opposition and the results obtained are greater.

In 1943, the forces of the Southwest Pacific faced a tremendous job in forcing the enemy from his numerous bases on the North Coast of New Guinea. Six months had been required to take Buna. At the speed that we were moving on the ground, it would have taken years to have freed even New Guinea. Then the Fifth Air Force. strengthened by planes, men, and newly constructed air bases, began its offensive against the Japanese military strength and its Lines of Communications. Gradually his Air Power was driven back and then his Lines of Communications were attacked. In the Battle of the Bismarck Sea the Fifth Air Force destroyed a total of twenty-two warships, troop transports and supply ships. In this single operation, one Jap[anese] division and all its equipment was destroyed at the cost to the AAF of twelve men and six aircraft. Because of our continued superiority in the air, the enemy was unable to supply his forward area and it collapsed under our integrated military effort.

Today our forces are in Hollandia because the enemy's Air Power was destroyed, his forces immobilized, and his supply lines cut by the concentrated use of our air strength against proper targets.

In a Theater of Operations where the enemy depends upon a network of railroads, rivers, and highways for supply, the targets are numerous. Not only is the actual conveyor of the personnel or supplies a target but the route he covers is a logical and proper target. Destruction of the vital and key points of the transportation system such as highway and railroad bridges and railroad centers causes delays out of proportion to the actual material damage inflicted. Rerouting of highway and railway vehicles interferes with movements already scheduled on alternate routes. Again, as on the oceans, the results are accumulative. As more roads and railroad lines are blocked, increasing congestion on the remaining system of highways and railroads is the inevitable result. This congestion of traffic presents our Air Power with more lucrative targets and renders the remaining routes even more vital to the enemy. It is to be noted that in aerial action against enemy ground Lines of Communications, the effect felt is only temporary unless-and this is vital-constant aerial pressure is maintained, thereby keeping the highways and railway systems blocked and continuing the congestion on the remaining part of the transportation system until those lines are also blocked or until the part of the transportation system remaining to the enemy is absolutely incapable of logistically supporting the degree of operations necessary to hold our forces in check.

Today over northern Europe, our Eighth and Ninth Air Forces are disrupting and destroying the transportation system that Hitler needs to meet the invasion of the Continent. It is one of the missions of these Air Forces to damage or destroy the road and railroad system so that the German High Command will not be able to promptly move the necessary reserves into the areas threatened by our invasion forces. To immobilize the German Reserve is to assure that our ground and air forces have superiority at the desired points.

The operations described above are limited to the effort of preventing the arrival in the Theater of the men and implements of war. It has often been advantageous to prevent the movement of equipment and reserves within the Theater of Operations. If because of our aerial offensive in his rear areas, the enemy is denied the opportunity to move reserves to meet points threatened by our forces, then we are able to establish overwhelming air, ground, and naval superiority in any area or part of the Theater that we may desire. This loss of mobility by the enemy,

even though our strategy and tactics may become obvious, enables us to hit him when he is unable to deploy his forces to meet our concentrations of strength.

Even if our air strength is unable to prevent the arrival of some supplies into the enemy's forward areas, constant air activity behind his front lines can destroy or so damage these supplies that their value to the enemy, even after all his efforts to bring them to the Theater, is destroyed. An example of this today is the large store of supplies once located on Wotje, Mille, Maloelap, and Jaluit, the principal atolls of the Marshalls still in Japanese hands. Constant air activity expended on these atolls is steadily destroying the large stores of supplies he has accumulated there and is rendering doubtful his ability to even exist.

When overall strategy demands the taking of these atolls, the enemy's ability to resist will have been greatly reduced or will have become nonexistent by the losses in materiel and men that have resulted from a daily pounding of these isolated land areas by the aircraft of the Seventh Air Force. The isolation of the battlefield or the battle area by the Army Air Forces demands the expenditure of a vast amount of effort and time by our Air Force personnel and the expenditure of large quantities of materiel. To make this expenditure of so much effort, time, and materiel acceptable, it must pay exceedingly rich dividends. These dividends are the logical result of a correct Decision employing an Air Force of adequate size, which is superbly equipped and carefully trained, to convert the correct Decision into an accomplished fact. The immediate result is an enemy military force weakened by the daily attrition of war, incapable of being reinforced and resupplied from the Homeland, and unable to move reserves within the Theater to points under attack or threatened by attack. The final result is a rapid deterioration of the enemy military situation and ultimately the complete collapse of his resistance.

In the past, the Army Air Forces have logistically isolated large enemy forces and have thus directly contributed to the annihilation and destruction of the enemy force as an effective fighting machine.

In the future, the Army Air Forces shall continue to contribute to ultimate victory by the continued accomplishment of all of its missions, of which "Isolation of the Battlefield" is only one. **MR**

General Henry Harley "Hap" Arnold (1886-1950) was born on 25 June 1886 in Gladwyne, Pennsylvania, and graduated from the US Military Academy at West Point, New York, in 1907 as an infantry officer. In June 1914, he earned his pilot's certificate after receiving instruction from Orville Wright in Dayton, Ohio. As a temporary colonel, he commanded Marshall Field, Fort Riley, Kansas, from 1926 to 1928 and graduated from the US Army Command and General Staff School in 1929. Arnold served in various senior aviation assignments before, during and after World War II, all of which eventually led to the establishment of the US Air Force as an independent service in September 1947. He was promoted to five-star rank of General of the Army in December 1944 and retired in March 1946. In May 1949, he was named the first and only General of the Air Force.

Doctrinal Development— AirLand Battle

The 1976 version of US Army Field Manual (FM) 100-5, Operations, reflected the Army's doctrinal exit from Vietnam and its refocus on Europe and the Soviet threat. In the manual, US Army Training and Doctrine Command (TRADOC) Commander General William E. DePuy espoused using active defense to "fight outnumbered" to "win the first battle of the next war." This issue was debated for the next six years in Army schools, training centers, major commands and between Military Review's covers.

General Donn A. Starry, DePuy's successor, wrote substantial parts of the active defense doctrine as the US Army Armor Center commander. After testing the doctrine in Germany as V Corps commander, Starry proposed revising the active defense idea to produce a viable concept embracing the operational and tactical levels of war for Central Europe and elsewhere. Thus, TRADOC developed the Army's

vision of joint operational-level operations designed to seize the initiative and defeat Soviet-style warfare.

Starry decided the doctrine should be written at the then Combined Arms Command (CAC), Fort Leavenworth, Kansas. His concept paper, "Extending the Battlefield," became the blueprint for AirLand Battle doctrine. CAC Commander Lieutenant General William R. Richardson assigned Lieutenant Colonel Richmond B. Henriques to draft the 1976 FM 100-5 revision. Richardson selected two more doctrine writers: then Lieutenant Colonels Huba Wass de Czege and L.D. Holder. Their efforts resulted in the 1982 FM 100-5, which contained radically different concepts, including AirLand Battle.

In 1986, FM 100-5 was again revised to assuage NATO's concerns about the US military's new strategy. NATO accepted AirLand Battle at the tactical and operational levels—"follow-on forces attack" using conventional munitions. Notwithstanding, NATO refused to accept a strategic doctrine espousing chemical or tactical nuclear weapons' use on a European soil. Because the AirLand Battle tenets

met US objectives, the 1986 FM 100-5 retained them, as does the 1993 revision, which expands doctrine to include full-dimensional operations and focuses on a new strategic era that no longer includes an adversarial Soviet Union.

These relatively frequent FM revisions reflect the Army's recognition that doctrine must be dynamic, evolutionary and capable of assimilating change as a means for growth. As the 1993 FM 100-5 notes, doctrine "reflects the collective wisdom of our Army against a background of history.... It considers the nature of today's threats. It is a doctrine for the entire Army, one that seeks nothing less than victory for the United States—now and in the future."



Some Doctrinal Questions for the United States Army

William S. Lind

In a US Army Training and Doctrine Command (TRADOC) Historical Monograph Series publication titled "From Active Defense to AirLand Battle: The Development of Army Doctrine 1973-1982 (June 1984)," author John L. Romjue describes William S. Lind, then a legislative aide to Senator Gary Hart, as "an early dissenting voice" to the "active defense" doctrine in the July 1976 US Army Field Manual (FM) 100-5, Operations. Lind's article below was received by Military Review on 7 July 1976. In October 1976, Armed Forces Journal ran an article by a "John Patrick" titled "Banned At Fort Monroe, Or The Article The Army Doesn't Want You To Read" along with a non-attributed response by TRADOC. Patrick's article took TRADOC to task concerning alleged attempts to suppress Lind's article. The published TRADOC response notes that: "On 19 July, a member of the staff and faculty, USACGSC [US Army Command and General Staff Collegel, discussed publication of Lind's article in Military Review with TRADOC Commander General William E. DePuy. General DePuy's guidance was that it would not serve any useful purpose to have the article published in the Military Review in advance of the FM's distribution to the field." Military Review records show that Lind was sent a check for \$50 in December 1976, a practice common at the time, and the article was printed in the March 1977 edition. General Donn A. Starry, generally considered the father of AirLand Battle doctrine, would not assume command of TRADOC until July 1977, and the new FM 100-5 espousing AirLand Battle would not be issued until August 1982. Although Lind's criticisms were largely discounted by Romjue in his monograph, most, if not all, were addressed and rectified by the revised FM 100-5 of 1982.

Author's Foreword

Following my briefing by General DePuy on February 11, 1976, I wrote "Some Doctrinal Questions for the United States Army" and sent it to TRADOC for response. I received no response from them, so I submitted the piece to the Marine Corps Gazette, which accepted it for publication.

Then, in the early summer of 1976, Military Review telephoned me and said that they would like to publish the article. I explained that it had already been accepted by the Gazette. They argued strongly that they should be allowed to publish it, as it was a critique of Army doctrine. After some discussion, I agreed to see if I could withdraw it from the Gazette, on the condition that Military Review would guarantee me that they would print it. They gave me that guarantee, and the editor of the Gazette graciously allowed me to withdraw the piece from his journal.

Shortly thereafter, I received from Military Review a check for the article, plus a letter stating that they now had the rights to it but that they would not publish it. I returned the check to them, with a letter stating that I would not sell them the rights.

In the fall of 1976, I wrote an article under a pseudonym for Armed Forces Journal with the title (if I remember it correctly) "Banned at Fort Monroe, Or The Article The Army Doesn't Want You To Read." In TRADOC's response they admitted to suppressing my critique of their new Field Manual. If I recall rightly, one of the reasons they gave was that it would cause "confusion" in the Army.

Eventually, toward the end of 1976, Military Review again approached me with a request to publish the article. This time, with their check they sent a letter promising that it would be published. I accepted their offer, and the piece appeared in the March 1977 issue.—William S. Lind

HE US ARMY currently is engaged in revising many aspects of its doctrine. These revisions reflect major changes in perceptions both of the threat and of army capabilities. The revisions are important because doctrine itself is important.

On 1 July 1976, the Army issued a new version of Field Manual (FM) 100-5, Operations. Because "this manual sets forth the basic concepts of US Army doctrine," it deserves close attention.¹ Four aspects of the doctrine will be examined here:

- "Fight outnumbered and win."
- "Win the first battle."
- "Attrition or maneuver doctrine?"
- "Tactics."

FM 100-5 places great emphasis on the concept of "fight outnumbered and win." Is this a valid concept?

The concept of "fight outnumbered and win" is explained within the context of what is labeled the "new lethality." Drawing on examples and evidence from the 1973 Middle East War, the manual emphasizes the advantages which recent developments in battlefield technology supposedly have given to the defender. These include greater accuracy of new tank guns, equipping infantry with more accurate antitank weapons, the development of precision guided artillery projectiles, the use of precision guided munitions (PGMs) for aircraft in the close-support role and so forth.

Many of these systems have demonstrated their effectiveness on the proving ground, and some have shown their capability on the battlefield. In the October War, there were instances where forces using elements of this new technology conducted successful defenses.

But do these innovations really add up to the revolution that would be required to reverse the balance established in World War II and restore the defensive to supremacy? The connection between the "new lethality" and the superiority of the defense is assumed in FM 100-5 but never is explored systematically. If we do attempt to explore it, we find that perhaps it is not so obvious as the manual suggests.

In the first place, the "new lethality" is merely one part of a much broader spectrum of battlefield technological development. Some elements of this new technology do favor the tactical defense-light infantry antitank weapons are an example. But other elements appear to favor the tactical offense in some situations. The ability to disrupt hostile radio communications effectively is an example of this. In a confrontation between a US-model and a Soviet-model force where:

• The US-model force relies heavily on radio communication to organize the defense in the right place at the right time.

- The Soviet-model force calls for attacking in radio silence.
- The Soviets are doing some interesting work in suppressing and disrupting hostile communications; this technological development would appear to favor a Soviet-model force in an offensive posture.

An example of a neutral technological development, one that would serve offense and defense equally, is air-launched PGMs.

Battlefield technological developments can achieve results only when and if they are deployed. Today, the Soviet Union is ahead of the United States in many respects in the deployment of new technology battlefield systems. The United States leads in air-launched PGMs, but the Soviet Union leads in electronic warfare and in ground-based antiaircraft systems. A Soviet-model, not a US-model, force was the first to employ the new generation of infantry antitank weapons on a large scale. Even in relation to technologies which have existed for decades, the Soviets have deployed extensive systems where the United States has not; Soviet-model forces are much better equipped than US forces to defend against nuclear, biological and chemical attacks, and almost all Soviet ground forces are mechanized (motorized), yet 9 of the 19 active US divisions (Army and Marine Corps) remain foot infantry.

Moving to the consideration of operations, additional evidence casts doubt on the presumed relationship between new battlefield technology and a new importance for the defensive. An examination of the October War from the Egyptian side shows that two important elements of the new technology-light infantry antitank weapons and effective ground-based antiaircraft systems, both tactical defenses-were used to make an offensive operation possible. The surfaceto-air missile systems and the quad-23mm antiaircraft gun were given an operational offensive capability by making them mobile; this, in turn, permitted the Egyptians to undertake an offense with adequate protection from the Israeli Air Force. In terms of light infantry antitank weapons, the Egyptians used these weapons (mainly the Sagger and the RPG7) offensively on the operational level by taking offensive action (crossing the canal) which they knew would cause the Israelis to react vigorously, then going to a tactical defense.

The Egyptian practice is pertinent because it provides a concrete example which contradicts a major assumption implicit in FM 100-5: that the new tactical defensive capability supposedly produced by new battlefield technology should result in a doctrine which generally emphasizes and favors defense. FM 100-5 itself makes no effort to distinguish what it sees as a new tactical advantage for the defense from

the possibility that this could enhance the operational offense. This is a sin of omission, not commission, but, coupled with the general implication in FM 100-5 that defensive operations are preferable, it leaves the reader questioning whether the Army understands the lesson taught some centuries ago by Belisarius: that the tactical defense can be combined advantageously with an operational-or strategic-offense. Should the Soviets decide that the new technology, in fact, has increased greatly the capability of the tactical defense, we can count on them to explore ways of combining that tactical development with offensive operations—as their Egyptian clients did, successfully, in October 1973.

Thus, the FM 100-5 assumption that new technology has strengthened greatly the capability of the defense is incomplete.

There is yet another level on which we can question the concept of "fight outnumbered and win" as advanced by the US Army. The Army explains the origin of this principle as the "new lethality." Is that really the origin? Or is the real origin in the need to maintain a "can-do" attitude within the Army, particularly in relation to Europe, even in the face of a high probability of defeat?

In most potential theaters, particularly Europe, the opponent has general qualitative equality, combining general numerical superiority with the initiative and with a doctrine which emphasizes concentration of forces. Thus, it is highly probable that we will fight outnumbered. The Army appears to argue that these realities offer no choice but a concept of "fight outnumbered and win." There is, however, an alternative: a realization that doctrine cannot substitute fully for severe comparative materiel and force structure inadequacies and an admission that, at least in Europe, it is highly probable that we will lose.

Many objections would be raised instantly to an acknowledgment of such an alternative. But would not most of those objections boil down to one: the violation of the "can-do" principle?

From an Army institutional standpoint, many vital interests appear to be dependent on the "can-do" approach. Individual careers are not furthered by suggesting that the Army may not be able to do something. A rejection of "can-do" may be perceived as endangering Army force levels and funding-for example, if we cannot win a conventional/tactical-nuclear war in Europe, should not the defense resources allocated to that task be reassigned, perhaps to another service? Many civilian policymakers might be displeased by a statement that an assigned task is impossible. Foreign policy could be disrupted, and the Army could take the blame for the resultant unpleasantness.

In addition, "can-do" has a certain justification as a tool for keeping up morale. An army which believes it has no chance of success may not fight well even in those cases where it could succeed.

On the other hand, what risks are run by adopting a "can-do" position via a "fight outnumbered and win" doctrine if, in fact, it is unlikely that we can fight outnumbered and win? Few would argue that either the Army or the nation were well-served by the "can-do" attitude in Vietnam. A lesson of military history is that doctrines and promises are put to the test eventually. The results of failing the test are highly painful; arguably, they are more painful than the results of saying you cannot do something before the incapability is demonstrated.

Institutional courage would be required if the fundamental "can-do" attitude were to be reassessed, especially in relation to Europe. But which is genuine progress: adopting a concept of "fight outnumbered and win" where it appears unlikely that we can fight outnumbered successfully or acknowledging the actual situation and facing a possible redesign of our military force posture and possibly our diplomatic commitments?

Another concept expounded in FM 100-5 is "win the first battle." This concept also is worthy of thorough examination. As a desire, it is axiomatic; few commanders will seek to lose any battle. However, if we penetrate behind the attractiveness of the slogan, does "win the first battle" stand up under examination as a valid concept?

The answer to that question is largely a product of the answer to two more specific questions:

- Can we assume that winning the first battle means that there will not be a second battle?
- If there is a second battle, will the concentration of our efforts on winning the first battle help us to win the second, or could it hinder us?

Working from the same basis as FM 100-5—a confrontation in Central Europe—we see that the opponent is organized in an echelon system. Soviet doctrine anticipates that the first echelon may be "defeated" in that it may suffer heavy attrition. But Soviet forces are prepared to absorb this attrition and still have adequate forces, with the commitment of the follow-on echelons, to compel a second and subsequent battles. It does not appear likely that winning the first battle means that subsequent battles can be avoided.

If there is a second battle, where does the concept "win the first battle" place us in regard to that battle? Simply posing the question creates some embarrassment in that it appears little attention has been devoted to this matter. When this question was posed by the

author during a US Army Training and Doctrine Command briefing, the response was, "It is something of a Chinese fire drill at that point."

We will examine some of the recommended tactics which relate to this problem. In general terms, however, concentration on winning the first battle would appear to impact negatively on preparing for subsequent battles. In some circumstances, the concentration of all efforts on winning the first battle will leave forces deployed in the wrong places for meeting a second thrust. This will depend on relative positioning, losses, timing and so forth. However, it appears impossible to determine conceptually when concentrating on winning the first battle will impact negatively and when it will not. If the concept cannot or does not take that into account, we must call the concept itself into question as a doctrinal point.

The problem of how emphasizing winning the first battle impacts on preparing for the next battle takes on the greatest significance if we again refer to Soviet doctrine. Soviet doctrine emphasizes the organization of the attacking force into several echelons. The Soviets recognize that the first echelon may be decimated-that is, that the first battle may be lost-but that subsequent echelons may succeed. In other words, Soviet doctrine emphasizes winning the *second* (or following) battle and provides for losing the first. How does this interface with the Army's proposed doctrine which emphasizes winning the first battle and appears to devote little attention to preparing for following battles?

Doctrine for mechanized and armored forces may be divided into two basic types which could be characterized as the attrition/firepower and the maneuver doctrines. The Germans developed the maneuver doctrine before and during World War II; the Soviets in many ways have adopted it. Which doctrine has the US Army adopted?

Both doctrines employ fire and maneuver. However, in the attrition/firepower doctrine, maneuver is primarily for the purpose of bringing firepower to bear on the opponent to cause attrition. The objective of military action is the physical reduction of the opposing force. In the maneuver doctrine, maneuver is the ultimate tactical, operational and strategic goal while firepower is used primarily to create opportunities for maneuver. The primary objective is to break the spirit and will of the opposing high command by creating unexpected and unfavorable operational or strategic situations, not to kill enemy troops or destroy enemy equipment.

American doctrine traditionally has been an attrition/firepower doctrine. If we examine the September 1968 version of FM 100-5, which was official US Army doctrine until 1 July 1976, we note, for example, in the section, "Maneuver in the Offensive," "In offensive operations, attacking forces are maneuvered to gain an advantage over the enemy, to close with him, and to destroy him." The entire section where one would expect to find an emphasis on maneuver as a weapon in itself emphasizes the physical destruction of the opposing force. The purpose of maneuver is merely to determine when and from where firepower will be brought to bear to cause the attrition.

The new FM 100-5 indicates a continued adherence to the firepower/attrition doctrine. The second section, "Modern Weapons on the Modern Battlefield," indicates this clearly. The battlefield is presented as almost a mathematical diagram of overlapping ranges, rates of fire and kill probabilities. The first capability of the tank to be discussed is not its mobility but, rather, its firepower. Of the five pages devoted to tanks, three dwell on firepower; mobility shares the last page with protection and with a firepower-oriented recapitulation. At no time in this discussion of the "modern battlefield" is the use of maneuver as a weapon in itself even mentioned.

This chapter sets the tone for the rest of FM 100-5. If we turn to Chapter 3, we note under "Battlefield Dynamics" that the advantages assigned to the defender are all in terms of applying or avoiding firepower while the attacker is portrayed at a disadvantage because "the weapons of the attacker are not as effective as the weapons of the defender, and his forces are more vulnerable." The attacker's advantage of being able to use his mobility to by-pass the defender or to strike his flank or rear is not mentioned. When mobility finally is addressed, it is as a means for concentrating firepower. When the offense is discussed, the first purpose of the offense is given as "destroy enemy forces"; "destroy his [the enemy's] will to continue the battle" is tacked on the end of purpose number three, just slightly above deception and diversion as a main objective.

At times, FM 100-5 does approach discussing the use of mobility in terms of a maneuver doctrine. The section, "Offense: Shock Effect," notes the paralytic effect of attacks in depth. The sections, "Shock, Overwhelm and Destroy the Enemy" and "Attack the Enemy Rear," again approach an appreciation of maneuver doctrine although, as in "Offense: Shock Effect," the implication remains that the objective is the physical destruction of the enemy rather than breaking his mind and will. The same is true of the section, "Pursuit."

At best, a few sections approach an understanding of a maneuver, as opposed to an attrition/firepower doctrine. These sections appear to stand in isolation, their maneuver implications neither spelled out nor integrated with the overall doctrine. In general, the doctrine expressed in FM 100-5 is as it was stated in the French doctrinal manuals of 1940, "of the two elements, fire and movement, fire is predominant."3

If the Army is correct that the new technology for the battlefield has altered greatly the relationship between offense and defense in favor of the latter, then this renewed emphasis on a firepower/attrition doctrine may be justified. However, as already noted, that conclusion may be open to question. In light of the possibility that the battlefield situation has not altered significantly in favor of the defender, a review of the history and theory of the maneuver doctrine may be useful. The fact that the Soviet Union generally adheres to this doctrine is alone enough to cause us to wish to know what it is and potentially to evaluate it as an alternative.

J.F.C. Fuller was the first important advocate of the maneuver doctrine. He realized as early as World War I that the key to employing mechanized forces to best advantage was to emphasize the use of mobility:

During [World War I] ... the tank had been used as a self-propelled armored gun ... had the war lasted another year, it would have become apparent that in themselves, tanks ... were not weapons, but instead vehicles ... their dominant characteristics were means of movement.⁴

More specifically, Fuller:

... saw the ultimate connection between will and action; that action without will lost coordination; that without a directing brain, an army is reduced to a mob. Then it became fully apparent to him [Fuller] that by means of the tank a new tactic could be evolved, which would enable a comparatively small tank army to fight battles like Issas and Arbela over again. What was their tactical secret? It was that while Alexander's Phalanx held the Persian battlebody in a clinch, he and his companion cavalry struck at the enemy's will, concentrated as it was in the person of Darius. Once this will was paralyzed, the body became inarticulate.⁵

The Germans picked up this theory from Fuller via Guderian and embodied it in the panzer concept of warfare-the concept now the basis of Soviet Army doctrine. Even before Guderian, General Hans von Seeckt:

... gave the Reichswehr a gospel of mobility ... in the exaltation of maneuver, the post-war [World War I] German manuals offered a striking contrast with those of the French Army.⁶

General Heinz Guderian notes that:

[The French] doctrine was the result of lessons that the French had learned from the First World War, their experience of positional warfare, of the high value they attached to firepower, and of their underestimation of movement. These French strategic and tactical principles ... [were] the exact contrary of my own theories ⁷

The clash in 1940 between the German Army, with its maneuver doctrine, and the French Army, with a firepower doctrine, was resolved decisively in favor of the former.

Two points relating to the German adoption and employment of the maneuver doctrine are particularly relevant to any consideration of the US situation today. The first is that the German adoption of a maneuver doctrine was based on having quantitatively inferior forces. The Polish, French and British Armies combined were stronger numerically than the German Army. The Soviets plus the other allied forces were numerically superior in 1941. The Germans—or at least those Germans who understood and pressed for a maneuver doctrine, such as Guderian—realized that a maneuver doctrine applies a psychological multiplier to the forces employing it in that the spirit and will of the opposing high command may be broken by an unexpected action by a comparatively small force. Guderian's campaign in France was a brilliant example of this; his force, which completely shattered the plan and the nerve of the allied high command by the daring advance through the Ardennes to the channel, rested on only three divisions. The bulk of the decisive fighting in the French campaign was done by 10 panzer divisions. This success demonstrated that a maneuver doctrine, particularly when combined with its natural partner, an indirect approach, constitutes a form of jujitsu; balance can be substituted for brute force. As such, it is an interesting doctrine for a numerically inferior force. Some military authorities believe that Germany could have beaten the Soviet Union had the maneuver doctrine not been abandoned after 1941 on Hitler's orders in favor of a policy of holding ground.

The Germans also discovered as early as the Polish campaign that a maneuver doctrine reduces casualties. Because the object is not the physical destruction of the opponent's men and equipment but, rather, the destruction of his mental cohesion and will, a maneuver doctrine permits the offensive forces to avoid rather than seek tactical engagements. Not only were German casualties light in the Polish campaign, but, more indicatively, both German and allied casualties were rather small in the French campaign. Even in Russia, when the war was one of maneuver in 1941, German casualties were at an acceptable level. The comparatively large number of Russians lost as prisoners to the Germans in 1941 further attested to the ability of a maneuver doctrine to destroy an enemy's will rather than his bodies.

Again, it is possible that the current capability of the defender in terms of firepower is such that, if employed in sufficient mass and in such manner that the maneuver-oriented force cannot by-pass the main strength of the defender, the firepower/attrition doctrine is valid. This author would wish only to suggest caution in making that assumption. As the Battle of Kursk demonstrated, World War II firepower also was sufficient to defeat an attacking armored force which chose to attack the defender head on. However, what happened at Kursk, and on the Eastern Front generally after 1941 on the German side, was not the defeat of the maneuver doctrine but, rather, its abandonment by those whom it had best served. On Hitler's orders, the desires of the general staff to continue a maneuver war, where holding of territory is not of prime importance, were overridden. Kursk is a classic example, not of the defeat of the maneuver doctrine, but of the price which can be paid for ignoring it.

Whereas Kursk demonstrated that World War II firepower could halt a head-on attack by an armored force, the Israeli counteroffensive across the Suez Canal in the October War may be seen as a successful modern application of the maneuver doctrine. Much stress has been placed on the supposed lessons of that war in terms of the increased firepower of the defender. However, it could be argued that another lesson of that conflict is the continued viability of the "blitzkrieg," properly understood as the use of mobility to create unexpected situations for the opponent. The Israeli thrust across the canal by armored and mechanized forces was the decisive military action in the Suez campaign. It was a classic example of the employment of a maneuver doctrine in that it completely surprised the Egyptians and upset their entire plan. It is reasonable to think that, had great-power intervention not occurred, it would have enabled the Israelis to achieve their war aim of restoring the Suez Canal as the cease-fire line.

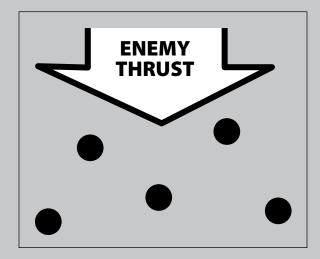
Thus, the question can at least be posed to the US Army of whether it is advisable to explore the potential of a maneuver doctrine and to justify explicitly the continued adherence to a firepower/attrition doctrine.

The Army has developed a tactical procedure for "winning the first battle"—that is, for meeting the initial enemy thrust. It is designed as a procedure for a successful defensive battle against a Soviet-model attack.

This procedure is not described fully in FM 100-5; however, individual sections in FM 100-5 hint at it. The section, "Defense: Main Battle Area," suggests that:

The defender must reinforce rapidly and continuously until he has concentrated an adequate defensive force.... armored and mechanized elements must be set in motion toward battle positions... Army division

commanders must be prepared ... to concentrate up to 6 or 8 heavily supported maneuver battalions in such narrow sectors, accepting risks on the flanks.

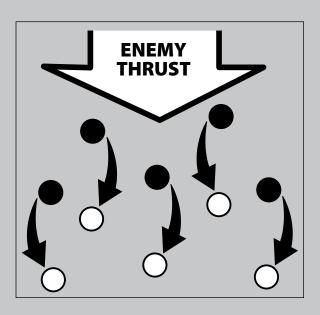


The full scope of the Army's defensive procedure was shown to the author in a briefing at the US Army Training and Doctrine Command by General William E. DePuy on 11 February 1976. The briefing was organized around three diagrams, each showing a different aspect of the overall procedure:

• The first diagram illustrated the basic defensive position.

The situation described a series of battle positions in mutual support, each having a range and direction of fire overlapping and supporting that of its neighbor.

• The second diagram illustrated what might best be described as a scheme of "bounding overwatch" withdrawals.



The concept illustrated a rolling defense designed to avoid the overrunning and destruction of the defenders through a series of well-timed withdrawals to prepared secondary defensive positions. The process is not intended to be single-step; the withdrawals are to be carried out as many times as necessary, preserving the defenders while inflicting sufficient attrition on the attackers to force the eventual cessation of the attack.

• The third diagram illustrated the maneuver of the division to form the above defensive system, once the main avenue of attack is identified.

The procedure described is that of reinforcing laterally with on-line battalions from the flanks as opposed to falling back on defense lines in the rear or placing primary reliance on reserves.

A comparison of the briefing material with FM 100-5 will show that it is consistent. The briefing developed and clarified the concepts in FM 100-5.

The material from FM 100-5 plus the briefing material illustrates a clear, coherent and consistent defensive doctrine. Does it constitute doctrinal progress?

On the most basic level (Diagram 1), it appears to progress. Current doctrine calls for an essentially linear defense which is unlikely to be effective against a mechanized attacking force. The proposed new approach of a defense in depth composed of interlocking strongpoints is the system developed by the Germans and used by both the Germans and the Soviets during World War II. When correctly organized and adequately manned, it proved an effective defense as such battles as Kursk demonstrated.

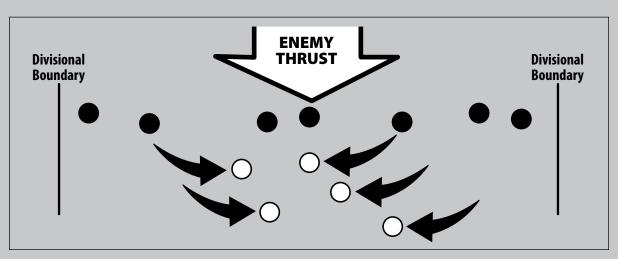
In German-Soviet usage, this defense was organized in depth, often in great depth. However, as Diagram 2 illustrates, that is not called for by US Army doctrine. Instead, the initial defensive position will be relatively shallow. Depth, according to the doctrine, will be obtained by a process of bounding overwatch

withdrawals where those manning each defensive point withdraw, under the supporting fire of the other strongpoints, just before being overrun. Fall-back defensive points are to be prepared in advance.

Some serious questions can be raised regarding this proposal. In terms of the unit engaged, it calls for a precisely choreographed series of what is considered universally the most difficult tactical operation: the withdrawal. What is, in fact, the chance that the defenders of an individual strongpoint can schedule their withdrawal so as to avoid being overrun, yet not withdraw so early as to render their defensive action ineffective?

The complexity inherent in such a withdrawal doctrine would be enhanced on the European battlefield by enemy-induced problems. Command and control of such a process is difficult under the best of circumstances. In an environment where the enemy possesses superior electronic warfare capability, the probable disruption of friendly communications would appear to make command and control obstacles a telling objection to the entire scheme. As Field Marshal von Hindenburg remarked after inspecting the German heavy cavalry in the early 1930s, "In war, only that which is simple succeeds. What I see here is not simple."

We also must ask ourselves, what do we have if we succeed in implementing the Army's plan on this level? We appear to have something very close to the delaying defense doctrine espoused by the *Reichswehr* in the 1920s. The *Reichswehr* doctrine was a product of desperation; with 100,000 men, no tanks and no aircraft, the *Reichswehr* adopted a doctrine designed to show its good intentions as it was defeated. Is the Army proposal an equivalent? At least in terms of Europe, it may be argued that the situation is not unlike that faced by the *Reichswehr* in terms of



NATO's chances of success. But, even if that is the case, do we make progress by adopting a doctrine of endless withdrawal, a doctrine of face-saving defeat? This brings us back to the "can-do" issue discussed earlier. Would we not serve ourselves better by saying the impossible is impossible rather than adopting the *Reichswehr* approach? Or should we perhaps attempt what Guderian finally did in relation to the *Reichswehr*'s defensive doctrine: acknowledge that preparing to lose a war honorably is a useless pastime, and explore fundamentally new approaches such as a maneuver doctrine? At the least, should we not avoid generalizing from what may be a hopeless situation in Europe, and saddling ourselves worldwide with a doctrine of retreat?

If we look at Diagram 3, illustrating the divisional defense, we see some of the same command and control problems which we discussed in relation to Diagram 2. The assumption behind the Army's approach is that modern battlefield mobility permits heavy reliance on reinforcing the main battle position with units drawn from the flanks. In terms of theoretical calculations of mobility rates, this may be true. But will it be true under actual battlefield conditions? It will require superior battlefield intelligence to know where and when to move. Given the opponent's emphasis on surprise and deception, and his capabilities of achieving both, what is the chance that we will have that intelligence, "having" meaning not just the collection of data bits but the entire intelligence process through the decision to act on the intelligence? How accurately can we discern an enemy commander's intentions? As the Czechoslovakian incident in 1968 and the 1973 October War indicate, the intelligence process defined this way is capable of error.

Heavy reliance on using flanking forces as reinforcements also assumes that, once the intelligence is gathered and acted upon correctly, the command and control system will permit calling the forces in from the flanks. Will the opponent permit this? Could he, with minimal forces in an economy-of-force role, put pressure or threat of pressure on outlying battalions sufficient to cause the division or brigade commander to delay movement past the critical point? After all, our own doctrine emphasizes the use of economy-of-force units such as armored cavalry to force the advancing enemy to deploy. Could not the Soviets use similar units to force our defending force to remain deployed? In the event it does not prove possible to call the forces in from the flank, and to do so in time to meet the opposing threat, the Army's approach produces a linear defense. Such a defense would have little or no chance of stopping an opposing thrust by mechanized forces.

What if the original intelligence estimates are incorrect or the opponent shifts his axis of advance and the defender concentrates, in line with Army doctrine, in the wrong place? FM 100-5 deals with this problem in one sentence:

If he [the division commander] makes a mistake and starts to concentrate at the wrong place, he can countermarch his mobile elements quickly and rectify the error.

Does this not assume greatly superior mobility on the part of the defender? Given the rate of advance called for in Soviet doctrine, what is the chance the defender will have time to carry out this maneuver? The same section in FM 100-5 notes that this maneuver is absolutely dependent on "continuous, reliable, secure communications." 8 What is the chance US forces will have dependable communications facing a Soviet opponent?

Finally, FM 100-5 appears to advocate a linear defense in the main battle area. The 15 December 1975 draft stated, "The deeper the area, the easier the defense." In the final (1 July 1976) version, that sentence is deleted. Instead, it states:

... the farther forward the battle can be fought, the better... . If the active defense can maintain coherence along the line of the FEBA [forward edge of the battle area] or in the tactical zone just behind it ... the more successful the total defense will be.

This would appear to indicate a change of thinking by the Army, a change toward what might be seen as a Maginot mentality. Is the Army abandoning a linear defense on the small unit level only to adhere to it all the more strongly on a higher tactical level? As Guderian, among others with experience, warned, a forward, linear defense is the least advantageous posture when facing a Soviet-style attack. If this apparent advocacy of a linear defense does signal a change of thinking by the Army, as the contrast with the 15 December draft indicates, it should be explained and justified. The US Army consulted with the Bundeswehr in the interval between the draft and the final edition, which suggests that the change may be due to German demands for emphasis on forward defense. Does the change possibly constitute the sacrifice of a militarily correct principle, that depth is desirable in the defense, to a political requirement?

FM 100-5 also fails to clarify what is "active" in a forward defense along the FEBA. The subsequent paragraph states, "Nonetheless, the defense must be elastic-not brittle." But it fails to explain what should be elastic and simply moves on, within the same paragraph, to discuss the need to destroy enemy armor. Is heavy reliance on antitank systems supposed to constitute elasticity and an "active" defense? If so, how; and, if not, what is the active element in this defense? Unfortunately, a linear defense cannot be

DOCTRINAL DEVELOPMENT

made an active defense by incorporating the adjective "active" into the field manual.

Thus, if we examine the Army's tactics for the defense—and FM 100-5 speaks mostly of the defense—we see a number of problems relating to specific points. What of the overall approach? In general terms, we appear to see a structured defense suggestive, in both strengths and weaknesses, of the bowmen of Agincourt. As the French knights discovered, the frontal defensive capability of the English bowmen was prodigious; the attrition of the attacking armor was so severe as to be decisive.

The critical deficiency of the English bowmen was that, while they were eminently capable of winning the first battle, they could not move. The same appears true of the overall Army defense:

[The captain] must see to it that each weapon is sited to ... minimize its vulnerability to counterfire or suppressive fire. His fighting vehicles must be covered and concealed, or at least be hull down... The terrain must be exploited and reinforced when necessary [or desirable] with mines and obstacles....

The defense is to be forward and along the line of the FEBA. How does this doctrine interface with the Soviet doctrine of emphasizing alternate axes of advance, of by-passing strongpoints, of encirclement and pocketing? Apparently, just as the English bowmen interfaced with the French once the French learned to by-pass the bowmen; and the French eventually won that war.

In summary, it appears that there are serious questions which can be raised about the new doctrine. Some of these questions suggest that no examination of the possibility of reform is being undertaken in key areas such as the "can-do" mentality and the adherence to an attrition/firepower rather than a maneuver doctrine. Other questions can be raised as to whether new assumptions, such as that the new battlefield technology works solely to the advantage of the defender, are fully justified. Still others suggest that the genuine change in some areas may be in the wrong direction; the proposed doctrine of "win the first battle" is a case in point. These questions must raise a serious doubt as to whether FM 100-5 and the basic doctrinal outlook FM 100-5 represents constitute doctrinal progress. *MR*

NOTES

- Field Manual 100-5, Operations (Washington, DC: Government Printing Office [GPO], July 1976), i. FM 100-5 was prepared by the US Army Training and Doctrine Command (TRADOC).
- 2. Ibid. See for example, p 4-2, and the section on "Counterattack in the Defense,"
- 3. B.H. Liddell Hart, *The German Generals Talk*, William Morrow & Co., Inc., NY 1948 14
- 4. J.F.C. Fuller, Armament and History, Charles Scribner's Sons, NY, 1945, 143.
- J.F.C. Fuller, *The Conduct of War*, 1789 to 1961, Eyre & Spottiswoode, London, Eng., 1961, 242-43.
- 6. Liddell Hart, op.cit., 14.
- 7. Heinz Guderian, Panzer Leader, Ballantine Books, Inc., NY, 1967, 73.
- Field Manual 100-5, op.cit., compare 3-5: "To concentrate in time also requires continuous, instant communications." Despite this acknowledgment of the criticality of such communication, operational intelligence gets only third out of four priorities on the communications network, according to FM 100-5, 3-16.

William S. Lind served with Senator Gary Hart until 1986. During that time, he authored the Maneuver Warfare Handbook (Westview Press, 1985) and, with Senator Hart, America Can Win: The Case for Military Reform (Adler & Adler, 1986). Subsequently, he was heavily involved with the US Marine Corps' adoption of maneuver warfare doctrine, assisting in the writing of FMFM-1, Warfighting, and FMFM 1-1, Campaigning, and co-authoring FMFM 1-3, Tactics. Recently, he helped develop the first maneuverist Joint Field Manual, US Special Operations Command Publication 1, Special Operations in Peace and War. Lind is currently a center director at the Free Congress Foundation in Washington, D.C., and host of the television program "Modern War" on the NET network.

Firepower, Attrition, Maneuver— US Army Operations Doctrine: A Challenge for the 1980s and Beyond

Colonel Wayne A. Downing, US Army

Then Colonel Wayne A. Downing was a student at the Air War College at Maxwell Air Force Base, Alabama, from 1979 to 1980 when he wrote this article. Like other forward thinkers during the late 1970s, he came to the conclusion that the US Army's attrition doctrine was bankrupt. He contributed this article to Military Review to argue for abandoning attrition warfare in favor of maneuver warfare as an operating style. The article appeared in the January 1981 edition, and as a result, Downing was consulted during the composition of the 1986 version of US Army Field Manual (Fm) 100-5, Operations.

HE US ARMY is currently pursuing a general warfare doctrine which is bankrupt-it will not work in practice. The avowed intent to defeat the Soviets in Central Europe with forward-oriented, firepower and attrition methods is doomed to failure given the realities of the balance of power between NATO and the Warsaw Pact. Not only is the American obsession with firepower and attrition inhibiting the Army's ability to defend Europe successfully, it also directly impedes the US ability to fight limited conflicts in other key areas of the world.

The premise of this article is that the US Army must embrace a maneuver-oriented doctrine in order to carry out its land combat mission successfully. This maneuver-oriented doctrine must focus on the vulnerable centers of gravity of our potential enemy. It should embrace the fundamentals of what B.H. Liddell Hart termed "the indirect approach" through emphasis on surprise, maneuver, and physical and psychological dislocation of the enemy.

Development of Current Army Doctrine

Throughout most of its long and illustrious history, the US Army has successfully employed firepower and attrition to overwhelm opponents. Beginning in the American Civil War and continuing through the two world wars, Korea and Vietnam, the United States has applied its technical and materiel superiority to annihilate opponents with firepower. Maneuver has consistently been subordinated to the effective application of firepower.

The US penchant for technology, innovation and management techniques developed the application of firepower to a fine art and an unprecedented degree of effectiveness. German soldiers, for example, describe World War II experiences against the Americans in terms of being "steamrollered" and "pulverized" by a seemingly inexhaustible supply of munitions delivered by a plethora of weapons systems. One of the primary lessons the US Army felt it learned from World War II was the requirement for closely coordinated and effective firepower.²

In the Korean War, the United States used firepower with devastating tactical effect—initially to stem the North Korean onslaught and later to compensate for the numerical superiority of the Chinese. Firepower became a force multiplier and even, in many cases, a substitute for maneuver units on the battlefield. The role of tactical air power, especially close air support, came to the fore in this conflict.³

In Vietnam, the application of firepower-attrition reached unequaled efficiency and tactical effectiveness. Infantry (both light and mechanized), armor and cavalry were employed to locate the enemy while firepower destroyed him.⁴ Infantry units were even known as "target acquisition agencies" in some US divisions. Slogans, such as "Bullets Not Bodies" and "Pile On" still ring in the ears of many of the Army's Vietnam-experienced officers and noncommissioned officers. Vietnam was a war fought to inflict maximum attrition by the skillful application of massed firepower.⁵

As the nation began its disengagement from Vietnam, the Army's focus returned to Europe. In the NATO arena, the United States found a revitalized Warsaw Pact in the process of unprecedented modernization. The Army soon realized that it had sacrificed a decade of doctrinal and materiel advances in the Central Region. As this rude awakening was occurring, the 1973 Arab-Israeli War illuminated the realities of modern combat with advanced weapons systems. The US Army attempted to digest these lessons rapidly (perhaps too quickly) and produced one of the most controversial manuals ever printed—Field Manual (FM) 100-5, *Operations*. The manual is pure, traditional US Army firepower-attrition doctrine applied to counter a Warsaw Pact conventional attack in Central Europe. FM 100-5 features forward defense with emphasis on destroying the enemy thrusts. There is nothing subtle about the doctrine—it advocates meeting the strength of the Soviet attack (armor) head-on and destroying it by massed firepower.

The combat techniques described in the manual stress almost mechanical methods of fighting—or applying firepower. Systems analysis terms, such as target servicing, target arrays, Pk (kill probability), firepower potential and firepower capability, are used throughout to describe the dynamics of combat. Queuing theory is implicit in many of the discussions. Pollow-on interpretations of FM 100-5 use explanations couched in terms such as the "calculus of battle" and in mathematical notions expressed by Lanchester Laws and gaming theory to discuss the modern battlefield.

The factors, such as surprise, shock action, morale, and others, which cannot be quantified are, not surprisingly, left out of the equations. FM 100-5 continues to govern US Army tactical doctrine as well as force structure and modernization plans.¹¹

Inadequacies of the Present Doctrine

The realities of the 1980s present harsh facts to US military leaders—facts which, in some cases, have not been directly addressed. The United States no longer enjoys an overwhelming materiel superiority. The Soviets have narrowed the technological gap which previously gave NATO an edge over the numerically superior Warsaw Pact. Nor is this devalued US military capability confined to Europe. The proliferation of modern conventional arms throughout the world, especially in crisis areas like the Middle East, combined with the inherent problems of deploying force to remote locations, have created conditions where US reaction forces could quite likely be outgunned as well as outmanned by a Third World nation.

A firepower-attrition strategy is quite likely not going "to win the first battle" given a numerically superior enemy with comparable quality weapons. The United States may not be able to project sufficient force to a remote region to "fight outnumbered and win" against even a fourth-rate force equipped with modern weapons systems. A "come as you are" war in

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Central Europe could quite likely be a stunning defeat. The US Army must look beyond firepower-attrition to find new ways of accomplishing the land combat mission in the 1980s.¹³

What Is Needed?

The US Army's concept of warfare for the 1980s must focus on objectives and methods which recognize the realities of its military capabilities vis-à-vis those of potential adversaries. This style of warfare should capitalize on American strengths and take advantage of an enemy's weaknesses and shortcomings.

Objective—enemy centers of gravity. More than 150 years ago, Karl von Clausewitz offered sound and timeless counsel to military and civilian leaders on the orientation of warfare:

One must keep the dominant characteristics of both belligerents in mind. Out of these characteristics a certain center of gravity is formed, the hub of all power and movement, on which all depends. That is the point against which all our energies should be directed. ¹⁴

The "centers of gravity" concept is valid across the spectrum of warfare-confined not only to a nation's grand strategy, but also applicable to the operational realm of tactics. Strategic considerations will most likely outline a series of centers of gravity which are general and relatively consistent over time. Tactical assessments will produce changing, specific objectives to be exploited. In both contexts, the enemy centers of gravity must be evaluated to assess which are vulnerable to friendly attack. By attacking and influencing these centers of gravity, a numerically inferior force can defeat a superior enemy.

The centers of gravity concept that Clausewitz described can be physical factors (a line of communication, a key piece of terrain, the enemy reserve), and they may well be intangible (the enemy's morale, the support of the local population, the confidence of the enemy commander). In either case, the center of gravity is critical to the effort and success of the enemy.

Concept—the indirect approach. The methods of attacking the enemy's centers of gravity can vary between straightforward assault (which is often appropriate for a vastly superior force) to less direct methods which rely on speed, surprise and deception.

When faced by a numerically superior enemy with equal or greater firepower and mobility, the direct firepower-attrition methods employed by the US Army become increasingly questionable and most likely dysfunctional. The "indirect approach" described by Liddell Hart seems to be the appropriate means to attack Clausewitz' "centers of gravity." Liddell Hart contends the methods should attack the mind of the enemy commander and the will of the enemy army. The fundamentals of surprise and maneuver are used to attack critical targets which dislocate the enemy physically and psychologically-these are the goals of military operations, not the mere physical destruction or attrition of enemy forces. The superior of the

Method-maneuver warfare. Applied at the operational level, these concepts are especially applicable to the US Army facing the challenges of the 1980s and beyond. Maneuver warfare, directed at an enemy's centers of gravity, emphasizes speed and movement to present an opponent with rapidly developing and quickly changing situations. Attacks are directed at the weaknesses of the opponent's attack or defense so that he is unable to adequately react. ¹⁸ Firepower remains an essential part of a maneuver strategy but does not become the raison d'être for maneuver.

Americans appear to be ideally suited for this fluid form of combat. Oft-reported, national characteristics of the American soldier have always been his flexibility, adaptability and ingenuity-traits required for the maneuver warfare of Liddell Hart's indirect approach. Conversely, looking at potential adversaries, the major weaknesses ascribed to the Soviets (and most Third World countries) is inability at the tactical level to cope with rapidly changing situations and events.¹⁹

The Soviet Combined Arms Concept

In order to develop a maneuver strategy to counter the Soviets, it is necessary to examine the essentials of the Soviet combined arms concept (CAC).

Overview. The CAC is the philosophical foundation of Soviet military doctrine. But coming to grips with

the concept is often extremely difficult for Western analysts-at least one eminent scholar argues that not even all the Soviet military truly understand their own CAC! The Soviet CAC is both a concept *and* an operational method or technique-and herein lies much of the confusion.²⁰

It is generally accepted that the Soviet CAC is not merely cross-attachment or cross-reinforcement of units as in the United States and other Western armies. The Soviets mean much more by CAC than the task organization for combat.²¹ Professor John Erickson contends that the CAC is an interactional process among the elements of the Soviet armed forces which produces "joint effort . . . on the basis of their close and uninterrupted interaction and the fullest exploitation of their capabilities."²² The Soviet CAC simultaneously confronts its opponents with a variety of weapons systems of widely differing capabilities. In such an engagement, the action the opponent takes to avoid or neutralize one Soviet system continues to make the opponent vulnerable to other Soviet systems. The Soviet CAC dictates an interaction among elements which is both complementary and supplementary.

This interactional concept is dynamic and synergistic in Soviet eyes in that the total effect realized on the battlefield by the CAC far outweighs the sum of individual contributions of the components. This dynamic and synergistic nature places great emphasis on timing, tempo, depth of attacking forces, densities of weapons, relationships among forces and command and control (troop control in Soviet terms).²³

The Soviet CAC is *not* the classic German blitzkrieg which stressed fluid, flexible and highly independent operations at all echelons. The Soviet CAC is disciplined, very rigid and explicitly formatted—even its espousal is dogmatic in nature and authoritatively embraces all elements of the Soviet army forces.²⁴

As an operational method, the CAC also addresses how the Soviets intend to fight.

Characteristics. The Soviet CAC is characterized by fire, assault (shock/attack) and maneuver. Overwhelming fire support was a keystone of Soviet offensive operations in the Great Patriotic War and continues to be a major Soviet goal. Capitalizing on the shock effect of firepower and movement, Soviet attacks are envisaged as overwhelming, in great depth (echelons) and unceasing. But the purpose of the entire operation is maneuver. Fire and assault create the breakthrough-the penetration which allows maneuver into the enemy rear, destroying reserves and disrupting the continuity and coherence of the defense. Professor Erickson asserts that the purpose of the initial Soviet penetration is to force the enemy to commit his reserve. Once the enemy

reserve is located and destroyed by the first or second echelons, then the true exploitation of the enemy's rear begins.²⁷

In its essence, then, the Soviet concept requires:

- Maintenance of momentum and freedom of maneuver along multiple axes of advance.
- Maximum rates of advance to prevent effective defense in depth.
- A high degree of control by the central directing headquarters and close coordination among enemy elements.
- Close timing of the multiecheloned attacking forces to achieve the synergistic effect of tempo of operations.²⁸

The Soviet CAC is the classic illustration of the setpiece battle and presents an extremely formidable, if not overwhelming, opponent—if it is allowed to proceed according to Soviet plans. But, like all operational methods, the Soviet CAC has weaknesses which can be exploited.

Weaknesses. The extremely dogmatic and rigid application of the doctrine at the operational level discourages (perhaps even excludes) decentralized execution—a sine qua non for maneuver warfare. At its very core, then, the Soviets have created conditions which threaten the essence of their concept.²⁹

The centralized direction of the CAC by the very capable and professional Soviet General Staff demands reliable and effective command, control and communications (C³) throughout operations.³⁰ C³ will be one of the greatest problems for both sides on either a nuclear or conventional European battlefield.

In addition, Soviet commanders have been conditioned to conduct all operations against a backdrop of overwhelming fire superiority—especially artillery.³¹ Conditions which degrade or deny this advantage will have a significant effect on Soviet attack doctrine and on the actions of tactical commanders.³²

Finally, the entire Soviet concept is based on tempo and timing among elements. Unforeseen events which impede the highly prized timing among units or the tempo of attack (especially the second-echelon units in a multiecheloned attack or among cooperating units in the single-echelon attack) will have a major negative effect on operations—as the synergistic, dynamic effect of interaction is lost or degraded.³³ This appears to be a significant shortcoming in the Soviet strategy. War, as so aptly stated, is subject to friction and uncertainty more so than any other form of human endeavor. If any undertaking must have flexibility, it is combat.³⁴

Summary. The foregoing discussion has outlined the centers of gravity of the Soviet CAC. In the macroview, the concept is highly dependent on the uninterrupted

interaction between elements of the armed forces. This timing and tempo depends in part upon the Soviet C³ system; fire support, especially artillery; and the timely arrival (at the proper place) of the Soviet second echelon (in the multiechelon operations) or all the many elements cooperating in the single-echelon attack.

When faced by a numerically superior enemy with equal or greater firepower and mobility, the direct firepower-attrition methods employed by the US Army become increasingly questionable and most likely dysfunctional. The "indirect approach" described by Liddell Hart seems to be the appropriate means to attack Clausewitz' "centers of gravity." ... The fundamentals of surprise and maneuver are used to attack critical targets which dislocate the enemy physically and psychologically-these are the goals of military operations, not the mere physical destruction or attrition of enemy forces.

US Army Doctrine for the 1980s

A US Army doctrine designed to counter the Soviet CAC must emphasize:

- Attacking the vulnerable centers of gravity of the Soviet system.
- Utilizing an indirect approach to these centers of gravity.
- Pursuing maneuver warfare to compensate for overwhelming Soviet strength in firepower and the directness of their military doctrine.

Maneuver warfare. Maneuver warfare is not mobility, nor is it movement. Maneuver warfare, in its essence, positions friendly forces so as to put the enemy forces at maximum disadvantage by forcing the enemy to react to unexpected, unplanned situations which threaten the viability of his military operations. Successful maneuver warfare presents the adversary with an increasing number of reactionary events which, in their cumulative effect, unravel and unhinge enemy attack or defense.³⁵

Applied to the Soviet CAC, US Army maneuver warfare would feature retention of certain key terrain by infantry equipped with a high density of antitank weapons. This terrain retention is designed to upset the timing of the Soviet offensive and determine the location and direction of major Soviet thrusts.³⁶ The retention of terrain must be flexible to avoid the annihilation of friendly units by massive Soviet firepower.

Maximum attention must be given to deception, cover and concealment and decentralized execution.

In a maneuver-oriented strategy, the bulk of the US forces are retained as mobile, armor-heavy reserves. As the covering force and infantry identify, attrit and perhaps channelize the Soviet main thrusts, the mobile reserve attacks these thrusts from the flanks and rear—to dislocate the Soviet plans and disrupt the tempo of their attack—and then quickly reconstitute.³⁷ Maneuver warfare is fought in depth and, while forward oriented, does not rely primarily on retention of terrain.

While a maneuver-oriented strategy can contain the Soviet first echelon, the key to destroying the Soviet CAC is to attack the second echelon and truly upset the timing and tempo of the overall enemy attack. In the case of a single-echelon attack, opportunities will be present to attack and disrupt the vast number of units in the single echelon with similar effect on timing and tempo.

Disrupting timing and tempo. Timing and tempo can be thwarted in three different ways:

• In the multiecheloned attack, heavy emphasis must be placed on interdiction of the Soviet second-echelon movement to the battlefield.³⁸ This must be given the highest priority, and the majority of tactical air support and surface-to-surface missiles must be dedicated to this essential, 24-hour-a-day task.

The Army's own organic fire support, while primarily involved in the first-echelon battle, must assist whenever and wherever possible in the crucial interdiction tasks. If the first-echelon battle is progressing satisfactorily and sufficient reserves are available, the Soviet second echelon can be attacked by highly mobile, tank-heavy forces. Total interdiction of the second echelon is not required for success. Interdiction efforts which degrade, slow down and disorganize the timely arrival of the second echelon will have a devastating effect on the CAC.

In the case of a single-echelon attack, the majority of effort must be placed on disrupting and delaying the momentum of the attacking forces. Tactical air support will be critical and must be primarily allocated to close air support and battlefield air interdiction—close-in interdiction effort.

The command and control problems of employing all their forces in a single echelon will present staggering problems to Soviet commanders, especially tactical leaders. NATO efforts which can delay and disorganize movement and actions within the Soviet single echelon can have a catastrophic effect on their CAC.

• Soviet C³ may well be the Achilles heel of their dogmatic doctrine. There is strong evidence to support the efficiency and professionalism of the high-level Soviet staffs and equally strong proof that the operational commanders are given little, if any, latitude in carrying out their assigned mission. If Soviet C³ can be neutralized or seriously degraded, then the CAC will not be able to react to the debilitating effects of first-echelon battle surprises produced by the US maneuver doctrine and the effects of second-echelon interdiction.³⁹

• Attack the Soviet artillery. The backbone of Soviet tactical fire support is their artillery. It can be neutralized in a direct and indirect manner. Counterbattery suppression by the Army's own artillery and armed helicopters, as well as US Air Force close air support, can seriously degrade Soviet artillery. The vagaries and uncertainties which are the byproducts of successful maneuver warfare are perhaps the most effective means of depriving the Soviet commander of his expected fire support. When the set-piece battle prescribed by the CAC begins to unravel and not progress according to schedule, the entire timetable of artillery support and resupply will begin to disintegrate. 40

Tactical nuclear weapons. A successful US Army maneuver doctrine can defeat a Soviet attack or defense. Maneuver warfare is also viable on a nuclear or conventional battlefield. The maneuver-oriented concept is enhanced by the employment of tactical nuclear weapons (TNWs). Integration of TNWs into the US Army's maneuver warfare doctrine in Central Europe, or any other place in the world, would truly give the United States the capability to fight outnumbered and win. Early employment of TNWs across the Warsaw Pact borders on staging areas and key lines of communication would significantly affect the timing and tempo of Soviet operations at the outset of the war.

In addition, the selected targeting of Soviet C3 by TNWs could achieve far-reaching results. While TNWs support a maneuver doctrine, they must not replace such a method with the familiar firepower-attrition model. Studies and field exercises have clearly shown that TNWs and chemical weapons cannot be used effectively unless fully integrated with maneuver operations.

Conclusion

A maneuver-oriented doctrine is a war-winning strategy for the US Army. Such a doctrine acknowledges the realities of the 1980s and beyond and capitalizes on inherent American strengths of flexibility, adaptability and originality.

Maneuver warfare can be successful on a nuclear or conventional battlefield, and it can be conducted

in Central Europe or in any other portion of the world where US vital interests are at stake. Maneuver warfare can also be conducted during offensive or defensive operations. It places primary emphasis on attacking the mind of the enemy commander and the will of his army.

At the operational level, maneuver warfare is directed at those key elements of the enemy strategy and force structure which are vulnerable to attack. Maneuver warfare is complemented by the introduction of TNWs. In fact, a publicly stated US national policy of intent to employ TNWs in the normal course of military operations could serve as a major deterrent to both the Soviets and their surrogates, as well as other potential adversaries throughout the world.

Adoption of maneuver warfare will not be easy for the US Army. It means a fundamental change in traditional concepts of how to fight. Attrition and firepower were, in many ways, a simpler form of warfare. Maneuver is much more flexible and decentralized. An American preference for mission-type orders, commanders forward at the key location and inherent national characteristics will enhance adoption of a maneuver doctrine.

In addition to a change in philosophy, the Army must also take a serious look at its force structure when adopting a maneuver strategy. A detailed discussion of these topics is beyond the scope of this article, but several key parameters appear to be important.

Force structure must orient on decentralized execution by flexible elements possessing impressive mobility and suppressive firepower. Command and control will be important, not so much from higher to lower but laterally. Units must be small and highly flexible, avoiding the large, unwieldy organizations of the past and present. Commanders must be able to command "up-front" at the point of decision.

Commanders at higher echelons (corps and above) must be able to "look deep" and "see" the battlefield. One of the crucial tasks to be accomplished, on the European battlefield, for example, is the requirement to determine the nature of the Soviet attack. Is it single echelon, the classical multiechelon attack, or some other variation? Early determination of the mode of Soviet attack will be crucial to the timely and wise allocation of critical tactical air assets as well as the positioning of reserve and reinforcing forces.

The Army must take a critical look at where its commanders "command." Advanced command, control, communications and intelligence (C³I) systems are presently being designed which will force a division commander to remain to the rear at

a centralized location in order to receive and process the myriad details soon to be available to him. The commander's critical presence "up-front" at the point of decision will be forfeited, an issue that must be fully examined.

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The size of the Army divisions is growing to unmanageable proportions. It is rapidly becoming beyond the capability of three general officers and a cumbersome staff to conduct maneuver warfare and manage the vast array of critical functions within their commands. Maneuver warfare seems to dictate smaller, mobile formations—perhaps 6,000 to 8,000 men—commanded by a general officer with the mission of *fighting*. Most combat support functions would likely remain in such a formation with small selected combat service support elements. However, the bulk of the support should be provided by an external organization to avoid distracting the combat commander from his primary fighting mission.

Active and effective reconnaissance elements are absolutely essential in maneuver warfare. These units must be available and responsive to the tactical commander in order to exploit vulnerabilities presented in this fluid form of maneuver. Military police or some other traffic control elements will also be required to control follow-up echelons and direct critical resupply and limited maintenance units.

Combined arms will be needed, and elements of the current Army are appropriate-but the mix of forces may be worthy of reconsideration. The nation has worldwide commitments. The US Army must be able to react rapidly to protect these interests wherever they are located. Therefore, the air/sea transportability of the equipment is a key consideration.

The ultimate key to victory, however, is psychological. The US Army must embrace a doctrine it knows

can win! This confidence must permeate the ranks from general to private. A maneuver-oriented doctrine for the 1980s will provide this positive outlook. Maneuver warfare oriented on vulnerable centers of gravity can defeat the Soviets or any other opponent wherever we must fight.

Work is under way on a new FM 100-5, Operations, that will result in significant changes to current doctrine. At press time, it was anticipated that a coordinating draft would be sent to the field in the December 1980-January 1981 period.-Editor [1981] **MR**

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- 36. Mellenthin, op. cit., p 151.
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- 38. Erickson, "Trends in Soviet Combined-Arms Concept," Strategic Review," op. cit., p 51.
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- 40. Lind, "Toward a New Understanding of War," op. cit., pp 8-9.

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Extending the Battlefield

General Donn A. Starry, US Army

General Donn A. Starry made the following comments on the genesis of this March 1981 article and AirLand Battle: "The ultimate lesson of `Active Defense' and the 1976 edition of FM [US Army Field Manual] 100-5 [Operations] is that it is virtually impossible to substantively rewrite doctrine satisfactorily in a matter of three years, e.g., 1973 to 1976. As principal author of the defense and offense chapters of the 1976 book, [I must say that] when it was done, I was not happy with what got written. Corollary is the fact that the 1976 book was not written at Leavenworth. Though he had stacked the staff at Leavenworth to do the writing, General [William E.] DePuy soon realized it would not be possible to think it all through and write anything worthwhile expeditiously. That conviction was the genesis of the now famous [Fort] A.P. Hill doctrine writing sessions. Indeed, much of the 1976 book was drafted at Fort Knox. . . . So AirLand Battle grew out of concept development at Knox as we struggled with Active Defense. For a very long time, AirLand Battle was a briefing—a bunch of slides I used to talk about war. . . . As suggested, it changed-frequently. [It] changed based on comments, observations and questions from audiences ranging from Congressional hearings to lectures at war and staff colleges in this country, in the United Kingdom, Canada, Germany, France and Israel.

When we finally cleared Leavenworth of the disappointed doctrine writers, got [then Lieutenant General] Bill Richardson in office there and [General] Shy Meyer in office as chief of staff, we were ready to write—at Leavenworth—what became the 1982 book. . . . Many people heard the briefing—whatever its name—and more than once. Most noted it was never quite the same—the second and third times they heard it, it may have included something someone in a past audience had suggested. Soon, many came to believe it made sense; further, they came to believe it was their idea. Armed with those two things, you can change a world. And we did."

HE EXTENDED BATTLEFIELD concept primarily deals with war in areas of the world where there are large numbers of relatively modern, well-equipped forces who use Soviet-style operational concepts and tactics. Quite naturally, therefore, the threat against which the concept is designed is typified by the Warsaw Pact in Central Europe, the larger aggregations of mechanized forces in the Middle East or the threat from the north in Korea.

The concept emphasizes the all-too-frequently ignored or misunderstood lesson of history that, once political authorities commit military forces in pursuit of political aims, military forces must win something, or else there will be no basis from which political authorities can bargain to win politically. Therefore, the purpose of military operations cannot be simply to avert defeat, but, rather, it must be to win.

This article does not propose new and radical ways to fight the battle to win. Rather, it describes an extension of the battle and the battlefield which is possible to accomplish now and which, if applied, will reinforce the prospects for winning.

The extended battlefield is not a new concept. It is a more descriptive term for indicating the full potential we must realize from our acquisition, targeting and weapons systems. The battlefield and the battle are extended in three ways: First, the battlefield is extended in depth, with engagement of enemy units not yet in contact to disrupt the enemy timetable, complicate command and control and frustrate his plans, thus weakening his grasp on the initiative.

Second, the battle is extended forward in time to the point that current actions such as attack of follow-on echelons, logistical preparation and maneuver plans are interrelated to maximize the likelihood of winning the close-in battle as time goes on.

And, lastly, the range of assets figuring in the battle is extended toward more emphasis on higher level Army and sister service acquisition means and attack resources.

What emerges is a perception of the battlefield in which the goal of collapsing the enemy's ability to fight drives us to unified employment of a wide range of systems and organizations on a battlefield which, for corps and divisions, is much deeper than that foreseen by current doctrine. The word "doctrine" is used advisedly. It must be acknowledged at the outset that there is probably little set forth in this article which is not already being done and done well in some operational units. The purpose of this article is less to suggest innovation than it is to pull together many good ideas for making extended attack an integral feature of our combat capability-in all units.

In essence, our message can be distilled in four primary notions:

- First, deep attack is not a luxury; it is an absolute necessity to winning.
- Second, deep attack, particularly in an environment of scarce acquisition and strike assets, must be tightly coordinated over time with the decisive close-in battle. Without this coordination, many expensive and scarce resources may be wasted on apparently attractive targets whose destruction actually has little payoff in the close-in battle. The other side of this coin is that maneuver and logistical planning and execution must anticipate by many hours the vulnerabilities that deep attack helps create. It is all one battle.
- Third, it is important to consider now the number of systems entering the force in the near- and middle-term future (see Figure 1). These are not just weapons of greater lethality and greater range, but automated systems and communication systems for more responsive command control, as well as sensor systems to find, identify and target the enemy and to assess the effectiveness of deep attack.
- Finally, the concept is designed to be the unifying idea which pulls all these emerging capabilities together so that, together, they can allow us to realize their full combined potential for winning.

The extended battlefield is not a futuristic dream to remain on the shelf until all new systems are fielded. With minor adjustments, corps and divisions can and must begin to learn and practice fighting the extended battle now-during 1981. The payoffs in readiness for combat will be enormous, and implementing the concept today means that we are building the receptacle

into which every new system can be plugged immediately, minimizing the buildup time to full capability.

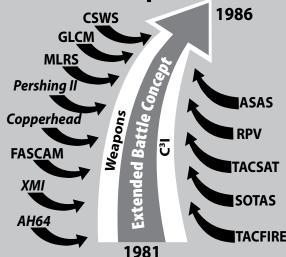
To ensure that the extended battlefield concept is understood in the full context of the integrated conventional-nuclear-chemical battlefield, this article will first review, in a broad sense, major aspects of the concept. Then, it will describe how, by attacking assaulting and follow-on echelons simultaneously, the prospects for winning increase dramatically.

The Concept

In peacetime, the purpose of military forces, especially in the context of operations in areas critical to US interests, is to reduce to a minimum whatever incentives the enemy's leadership might perceive as favorable to seeking military solutions to political problems. In NATO, in the Middle East and in Korea, our defensive strategy must extend beyond simply denying victory to the other side. It must, instead, postulate a definable, recognizable (although perhaps limited) victory for the defender. Enemy leaders must be made to understand clearly that, if they choose to move militarily, no longer will there be a status quo ante-bellum-something to be restored. Rather, the situation they themselves have created is one which will be resolved on new terms.

As the strategic nuclear balance teeters, so grows the enemy's perception of his own freedom of action

A Substantial Step Toward Future Capabilities 1986



C³I - Command, Control, Communications and Intelligence

CSWS - Corps Support Weapon System GLCM - Ground-Launched Cruise Missile MLRS - Multiple Launch Rocket System FASCAM - Family of Scatterable Mines ASAS - All-Source Analysis System (Corps/Division)

RPV - Remotely Piloted Vehicle
TACSAT - Tactical Satellite
SOTAS - Stand-Off Target Acquisition System
TACFIRE - Tactical Fire Direction

Figure 1

at theater levels—conventional and nuclear. Theater forces should not be considered solely as a bridge to strategic nuclear war. They are weapons which must be considered in the context of a warfighting capability.

These considerations dictate that NATO strategy must, from the outset, be designed to cope with the Soviet conventional-nuclear-chemical-combined arms-integrated battlefield threat. The growing threat of nuclear capabilities elsewhere suggests this strategy to be appropriate in other critical areas as well.

The Warsaw Pact/Soviet-style strategy embraces two fundamental concepts:

In the first, mass, momentum and continuous combat are the operative tactics. Breakthrough (somewhere) is sought as the initiator of collapse in the defender's system of defense.

In the alternative, surprise is substituted for mass in the daring thrust tactic. In NATO, this could involve a number of BMP regiments in independent attacks which, without warning, would seek to deny to defending forces the opportunity to get set forward. Both tactics are essentially maneuver-based schemes whose purpose is to disrupt the operational tactics of the defender, albeit by different methods.

The need for deep attack emerges from the nature of our potential enemies—their doctrine and their numerically superior forces. Whether our enemy is stylistically echeloned as shown in Figure 2 is not really critical. What is important is that superiority in numbers permits him to keep a significant portion of his force out of the fight with freedom to commit it either to overwhelm or to bypass the friendly force. The existence of these follow-on echelons gives the enemy a strong grip on the initiative which we must wrest from him and then retain in order to win.

NATO strategy (and defensive strategies in other key areas of the world as well) must be designed to preserve the territory, resources and facilities of the defended area for the defender. In none of the critical areas of the world, those to which US forces are likely to be committed, is there sufficient maneuver room to accommodate a traditional defense-in-depth strategy. The defense must, therefore, begin well forward and proceed aggressively from there to destroy enemy assault echelons and at the same time to slow, disrupt, break up, disperse or destroy follow-on echelons in order to quickly seize the initiative and go on the offense.

The operative tactics by which US forces seek to implement the operational concept set forth above must provide for quick resolution of the battle under circumstances that will allow political authorities to negotiate with their adversaries from a position of strength. This is so because the enemy generally

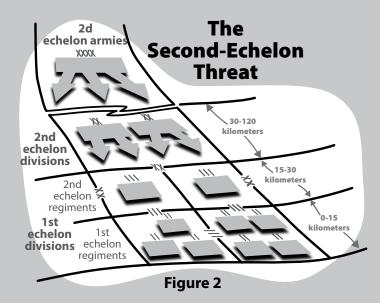
enjoys a short-term advantage in ability to mobilize additional forces quickly. Clearly, then, one purpose of the battle concept must be to pre-empt the possibility of prolonged military operations. Further, these operative tactics should seek simultaneously to:

- Deny enemy access to the objectives he seeks.
- Prevent enemy forces from loading up the assault force fight with reinforcing assault echelons and thus achieving by continuous combat what might be denied them by a stiff forward defense.
- Find the opportunity to seize the initiative-to attack to destroy the integrity of the enemy operational scheme, forcing him to break off the attack or risk resounding defeat.

Because of the enemy's advantage in numbers, attack of follow-on echelons must always begin when those echelons are relatively deep in enemy territory. If an outnumbered defender waits until his numerically superior foe has penetrated the defender's territory to mount a counterattack, it is always too late to bring effective forces and fires to bear to defeat the incursion. This would especially be the case if theater nuclear weapons are considered necessary to defeat the penetration.

Therefore, on an integrated battlefield, systems designed to defeat enemy assault elements, to disrupt follow-on forces and to seize the initiative by attack must be able to deliver conventional and/or nuclear fires throughout the spectrum of the battle—throughout the depth of the battlefield.

- Key to a credible war-fighting capability on an integrated battlefield are:
- Sensor/surveillance systems to prevent surprise attack in peacetime and provide necessary targeting and surveillance information in wartime.



- Delivery systems—dual capable, with sufficient range, accuracy and lethality to hold enemy follow-on echelons at risk in peacetime and to attack them successfully in wartime.
- Command control sufficient to integrate allsource intelligence in near real time in peacetime and in wartime and to provide that intelligence and targeting information to maneuver force employments in near real time as well.

The operative tactics which support such an operational concept of an integrated defense well forward are:

- See deep and begin early to disrupt, delay and destroy follow-on/reinforcing echelons.
 - Move fast against the assault echelons.
- Strike assault echelons quickly so as to prevent them from achieving their objectives.
- Finish the opening fight against assault and follow-on echelons rapidly so as to go on the attack and finish the battle against the assault armies before follow-on armies can join the battle.

Areas of Interest and Influence

In the execution of such a set of operative tactics, there must be a division of responsibilities among commanders. Just as the means with which commanders see and fight the battlefield vary so should their primary areas of interest vary.

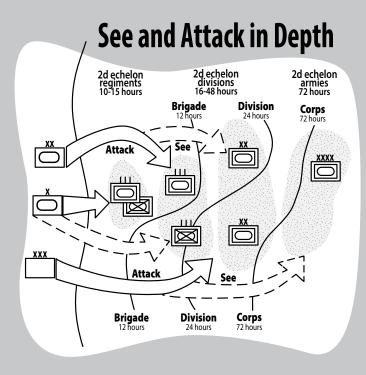


Figure 3

As shown in Figure 3, each level of command has a dual responsibility. Each must attack one of the enemy's echelons and must see, or determine the intentions of, a follow-on echelon. Doctrinally, we say that the enemy's first-echelon divisions, the regiments in front of the assault divisions, as well as the follow-on regiments, are the responsibility of the defending division.

In an attack, those same echelons would also be the division commander's responsibility. The brigade commander fights first-echelon assault regiments. The division commander fights the first-echelon assault divisions. The corps commander fights first-echelon armies. It is the corps commander's responsibility to find and disrupt the advance of second-echelon divisions of first-echelon armies before they become a part of the first-echelon problem.

At the same time, the corps commander is very interested in where the second-echelon army of the *front* is deploying. At corps level, he must tie into national target acquisition systems and other surveillance means to get information concerning where that army is and what it is doing. His primary responsibility in battle fighting has to do with the follow-on echelons.

Attacking the Follow-on Echelons

For such a division in areas of interest and influence to be effective in wartime, it must be frequently practiced during peacetime. It is critical for us to realize that, as the enemy achieves the echelonment so necessary for his success, he inherently creates vulnerabilities—targets. These same vulnerabilities provide us with the opportunity to put threat second-echelon forces at great risk. But only through repetitive exercise can we capitalize on his vulnerabilities.

What we must do is practice acquiring and targeting Warsaw Pact units now during peacetime-so we will be prepared to attack them if need be. In addition, we can do careful intelligence prevparation of the battlefield and thus be prepared to attack high-value targets. Such targets include fixed bridges and mobile sites that will cause threat follow-on echelons to bunch up and present themselves as attractive targets. Additionally, attacking other high-value targets such as combat service support facilities, which must exist to support rolling forces, or selected command posts, will also generate delay. Attacks directed in this manner will provide friendly forces time to finish the battle at the forward line of troops (FLOT).

Figure 4 shows the problem inherent in fighting against echelonment tactics. If the battle is fought with no directed interdiction, enemy follow-on

echelons have a "free ride" until they enter the close-in battle. Figure 4 suggests what happens when follow-on echelons are ignored and allowed to stack up behind assaulting forces at the FLOT until a breakthrough is achieved. The enemy retains flexibility, initiative and momentum to apply his mass at a point and time of his choice. As indicated by the hachured lines, deep attacks seek to deprive him of this freedom. There are three primary tools for a deep attack:

- Interdiction-air, artillery and special operations forces.
 - Offensive electronic warfare.
 - Deception.

In practical current terms, interdiction—principally battlefield air interdiction-is the primary tool of deep attack. At present, the range of jammers precludes effective use against follow-on echelons. However, jamming can be used in the close-in battle as a nonlethal substitute for fires and battlefield air interdiction sorties which can then be freed for deep attacks. We would like deep attack to destroy enemy forces before they enter the close-in battle, but, in today's terms, and in all probability tomorrow's as well, expense and scarcity of assets will limit the practically achievable effects to delay and disruption. Delay and disruption, however, must be aimed at more ambitious goals than just fractional attrition or harassment.

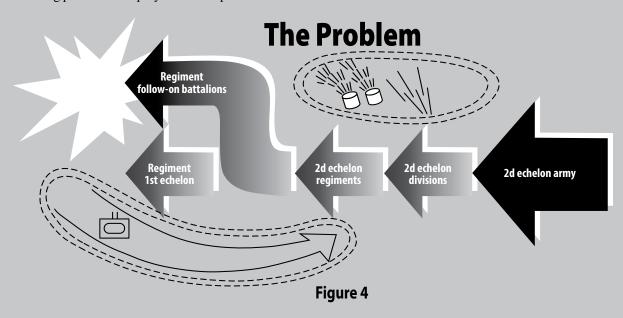
The real goal of the deep attack is to create opportunities for friendly action—attack, counterattack or reconstitution of the defense—on favorable ground well forward in the battle area. This can be done by avoiding piecemeal employment of acquisition means

and attack resources. These resources must be concentrated on critical targets which have the most payoff in upsetting enemy plans and to create situations wherein the friendly force can seize the initiative and win.

It is important to stress here that the deep attack is not just a tool of the defense. It is, if anything, even more critical in the offense. It is essential to winning because it creates opportunities to seize and retain the initiative. It is equally important that corps and division commanders fight this deep battle at the same time and in close coordination with the close-in battles. It is true that these commanders already have their hands full with the close-in battle, but the compelling reason for active corps and division commander involvement is because the number of targets we would like to attack and can acquire far exceeds available attack assets.

It is also essential, then, that attack means not be applied indiscriminately. Limited strike and acquisition means must be applied in a planned, well-organized and conducted scheme to support the plan for winning. Piecemealing long-range target acquisition and attack resources is a luxury that cannot be allowed.

The commander's choice of when to use deep attack means must be taken in such a way that it will create a window for offensive action some hours in the future. That choice must be based on a single unified scheme of maneuver and a plan of fires for the whole of the extended battle. The expected window for decisive action must be created in an area where previous plans have assured the availability of sufficient logistical support and fire support as well as maneuver forces.



This demand for careful coordination of present and future action throughout the depth of the battlefield dictates that the plan stem from the concept of a single commander. Separation of the close-in and follow-on battles invites the risk that windows will not be generated or that, if generated, units will be ill-prepared to identify and exploit them.

What emerges from this requirement for unity of command across the near and far components of the fight is a view of an extended battlefield, with well-defined depth and width in which the commander is fighting not several separate battles, but one well-integrated battle with several parts highly interrelated over time. The depth of this battlefield beyond the FLOT is really a function of the commander's planning horizon expressed in hours.

The following scenario describes an integrated battle situation in which it would be greatly to the commander's advantage to fight assault and follow-on echelons simultaneously. From the outset, it is acknowledged that, in this scenario, it would be advantageous to use tactical nuclear and chemical weapons at an early stage and in enemy territory. It is also fully realized, however, that authorization to do this may not be granted in timely fashion. And, that being the case, the battle will have to be fought with so-called conventional systems. Even though this somewhat reduces defensive combat power, the concept described here maximizes the remaining conventional power.

Figure 5 portrays the corps commander's concerns in the deep battle—those enemy forces that are within 72 hours of the close-in battle. The corps commander needs to have a well-laid-out, flexible plan and 72 hours into the future in order to fight both close-in and extended battles, gain the initiative, win the fight and do it quickly. What is the purpose of looking out to 72 hours' depth. There are many things a corps must do in those hours. They should be used to plan, order and execute those maneuver, fire support and logistical preparations necessary to seize on an opportunity for offensive action.

The presence of any enemy formation in the corps commander's area of influence should trigger a re-evaluation of his long-range plan and generate options for defeating this force along with all others in the area of influence. Several options will probably be retained at this point. However, the range of options narrows as the force approaches and closure time decreases. Almost all options will include attack of the force to inflict delay and disruption. Although distances here are great, the payoff can be considerable since the critical targets include soft-skinned logistical and command control elements whose value will be far less when closer to the front-line battle.

As the force closes (Figure 6), its impending impact on the front-line battle will become more apparent, and the relative merits of the various attack options will begin to sharpen. Options at this stage should include deep nuclear strikes with *Lance* or air-delivered weap-

The Integrated Battle The Deep Battle **The Corps Battle** ➤ Delay, disrupt, destroy ➤ Delay, disrupt, destroy ➤ Attack command control, ➤ Air/land battle service support, softer targets Tactical nuclear weapons used now if they are to ➤ Air/land battle be used at all hours 60 hours Figure 5 Figure 6

ons. Targets at this stage are far more vulnerable to nuclear effects than at the FLOT. They are still well beyond the danger radius to friendly forces, and the time until closure is realistic enough to allow request release and execution to occur.

Of course, the commander must have a strong conventional option in the event nuclear release is not forthcoming. He must identify the critical time at which he must finally commit himself to one course of action. In any event, he seeks to hold the enemy formation out of the division area of influence long enough for division commanders to have sufficient space and time to accomplish their missions and prepare for the next echelon.

When the force enters the division area of influence (Figure 7)—about 24 hours' distance from the FLOT—the entire process is triggered again on a lower scale. Here, the importance of real-time target acquisition dominates. Since, at this point, the attacker is committed to specific attack avenues, he has few movement alternatives left to him. The defender can capitalize on that. Again, if tactical nuclear weapons are to be used, they must be used now.

A review has been made of innumerable planning exercises in which assumed enemy penetrations were drawn with great care to reflect that point "beyond which the integrity of the defense is jeopardized." It was found that, if the penetration was allowed to develop as it was drawn in the defended territory, it was *always* too late. If for no other reason, therefore,

it is of paramount importance that the planning process begin while that follow-on echelon target is still deep in enemy territory and that nuclear release be requested in sufficient time to allow employment while the target is still 24 to 60 hours from the FLOT.

As in the earlier part of this battle, the commander must integrate the full spectrum of air and land weapons systems. It is, at this point, still an air/land battle, perhaps more air than land, however.

By the time the following echelons close to within about 12 hours of the FLOT (Figure 8), they become the concern of the brigade commander. At the 12-hour line, actions must be taken that not only delay and disrupt the following echelons, but also help to defeat those in contact at the FLOT. Given the right target, and that the enemy has already used chemical weapons, it is here that our use of them can be integrated. They should be used to isolate one part of the battlefield while an attack is launched against another part of the follow-on forces. It is here that the land aspects of the battle predominate-that is, the battle is more land than air.

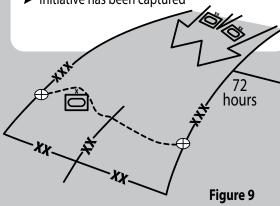
With a little luck, the outcome (Figure 9) will find enemy assault forces destroyed, freedom to maneuver restored and the initiative wrested from the enemy. In the end, this simultaneous attacking of echelons becomes key to the primary objective of the extended battlefield—to win, not just to avert defeat.

Studies show clearly that successful interdiction does result in a degradation of the enemy's massive

The Integrated Battle 24 Hours 12 Hours ➤ Attack follow-on ➤ Delay, disrupt, destroy ➤ Tactical nuclear weapons ➤ Destroy, disrupt used now if they are to forces ➤ Defeat echelon in contact ➤ Real-time target be used at all ➤ Land/air battle acquistion ➤ Air/land battle Chemical weapons used now ➤ Attacking force has few movement alternatives 24 hours hours Figure 7 Figure 8

The Integrated Battle

- ➤ Enemy assault forces destroyed
- Restored freedom to maneuver
- ➤ Initiative has been captured



firepower. It is also clear that successful interdiction results in a reduction of enemy momentum brought on through loss of support and that it provides the defender time to secure nuclear release if required. Finally, interdiction reduces the attacker's alternatives by disrupting his ability to execute his intended

Effect of Interdiction

- Enemy is able to mount fewer regimental attacks
- Enemy first echelons defeated earlier
- Friendly reserves not needed so early
- Enemy penetrations far less extensive Figure 10

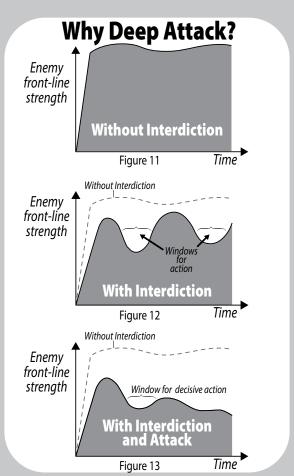
plan.

The conviction that well-planned interdiction can provide these results is based in part on the target value analysis phase of a fire support mission area analysis completed by the US Army Field Artillery School. Part of that analysis was a simulation comparison of 1980 European corps battles, first without interdiction and then with interdiction. While the predicted availability of interdiction means may have been sanguine, some significant trends were, nonetheless, observed.

Each of the interdiction effects in Figure 10 is highly desirable. But their exact significance is more apparent considering the simulation output over time. Specifically, a look at the effect of interdiction

on enemy strength at the close-in battle shows the real value of deep attack. The top curve in Figure 11 shows that, without interdiction, the enemy is able to maintain consistent superiority at the FLOT over time. During this period, the defender's strength dwindles, freedom of action deteriorates and the enemy's grip on the initiative decisively tightens. What properly employed interdiction can provide is shown in the lower curve in Figure 12. Here, enemy follow-on echelons are held out long enough to create periods of friendly superiority in which the initiative can be seized with enough time to act. The longer and more frequent these windows can be made, the greater the chance of winning, providing we are prepared to identify them and act at the time and in the place where they develop.

We may not be capable of creating windows of such frequency and duration across the entire corps front. However, it is now possible to create such opportunities, and, if aggressively exploited, they could lead to the generation of longer, more extensive opportunities for higher level decisive action building toward a major offensive (Figure 13).



Interdiction Planning

Summarizing, it can be seen that interdiction is key to battlefield success. The enemy's momentum can be altered by attacking high-value, second-echelon targets, reducing his ability to mass and build up momentum. Interdiction is the method whereby we achieve the leverage necessary to slow him down and ultimately, stop him from achieving his objectives.

It is interdiction that allows us to focus our attacks on those enemy targets whose damage, destruction or disruption would help us fight the battle to our advantage. Interdiction has as its main objective that portion of the enemy's force which is moving toward the FLOT or is in staging areas preparing to join that fight.

This interdiction concept does, however, imply some changes in current ways of thinking, especially in command control. In order to execute the concept, we must recognize the need to learn how to skillfully use resources far beyond those organic to corps and divisions and to plan their application over a greatly expanded battlefield. Of significance here is the establishment of timely and responsive working relationships with air forces for both target acquisition and attack.

The interdiction battle will be fought at the corps and division level. To do this well, it must be practiced routinely. Interdiction targets at division level are directly linked to tactical objectives. At corps, however, interdiction is a function of controlling target presentation rates and densities. As the enemy's second echelon moves closer to the FLOT, interdiction becomes more closely related to the defensive scheme of maneuver.

Advanced planning is absolutely critical to a successful interdiction battle. It is imperative that such planning be conducted continuously. This will ensure that commanders are aware of courses of action open to the enemy, and the vulnerabilities of each, thus enabling them to attack targets which present the highest payoff at a particular time. Prior to and during initial stages of the battle, the division intelligence officer, applying intelligence preparation of the battlefield techniques, must forecast enemy strength, progress and dispositions at selected times. By assessing these developing vulnerabilities, he can recommend courses of action for interdiction attacks. When blended with the scheme of maneuver, these enemy vulnerabilities can then be exploited.

Following such an interdiction planning process, the intelligence officer can develop an enemy probable event sequence which can be used to predict with some high degree of accuracy which courses of action the enemy is likely to follow. That is, the intelligence officer should be able to forecast what events must occur and in what order to produce the desired disposition

of enemy forces at any critical moment. This probable event sequence is simply a template against which to assess the progress of events. It identifies interdiction requirements which will have to be met if friendly commanders are to influence the battle in a desired direction.

Interdiction targeting can be a complex and demanding staff process, particularly at division level. Its effect is to create time and space gaps, not to relieve maneuver forces of having to face second-echelon elements. It is most effective when it is an integrated effort, one which effectively integrates fire support, electronic warfare, deception and intelligence with maneuver.

Current and Future Capabilities

Having made a case for effective, continuous interdiction, what is the Army doing to achieve such a capability? Considering the weapons, sensors and automation capabilities which will be available through *Army 86* efforts, we will be able to do these things quickly and efficiently on the battlefield of the mid-to-late 1980s.

But what about now? The answer is that there is, today, considerable potential to do just what has thus far been described. Since the penalty in terms of battle outcome is too severe to wait to adopt the extended battlefield concept until 1986, our Army must set about seeing how we might get the most from current capabilities.

Even using conservative planning factors, interdiction of critical enemy second-echelon elements is possible within existing means. But, to make that a reality, we must begin transitioning to those concepts now and practice them daily. If we begin that transition with the resources at hand, we will thus be better prepared to fight and win while simultaneously maturing the conceptual notions in the day-to-day work of operational units. Such an approach will also ensure that we have the right capabilities included in the *Army 86* force designs.

And, so, as in all aspects of our profession, we must practice now what we intend to do in war. We must train as we will fight. Management of sensor assets in peacetime by those who will be expected to use them in war is the only prudent approach.

The same applies to the correlation of data in determining high-value targets. We must get the data into the hands of those who will be expected to use it in the future. We must establish integrated targeting cells in all fire support elements now. It is important that this capability be developed at corps and divisions for nuclear as well as for conventional and chemical targeting. It is important that it be done in all US Army units worldwide.

For the present, many of the acquisition means and most of the attacking means will come from air forces. This is particularly true for corps interdiction requirements. Regardless of who owns them, these are the means we need to gain the best battlefield return. Applying them according to the conceptual notions described above is the way to realize their greatest potential.

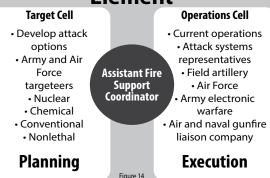
Recent exercises have demonstrated that the type of targeting information described earlier is available now-with current means. What next needs to be done is to design exercises for corps and divisions which will focus that information at their level. To make the interdiction battle occur properly, and in a timely manner, corps and divisions must also be able to manage the current family of sensors. We know the tendencies and patterns of threat units when they are deployed as they would be in a second-echelon formation. The task is to make this information available to corps and division commanders for their use in interdiction targeting.

For timely acquisition, we need to ensure that corps have control of sensor systems such as the OV1D side-looking airborne radar, Guardrail, Quicklook and the Integrated Test/Evaluation Program. Of equal importance is that there be a direct down-link of this information to divisions. Data from a number of other supporting means must also be made available. This category includes the RF4C and other national and theater systems. Among the most challenging problems is to create the downlinks necessary to pass what is already available to corps and divisions in a timely manner.

The Need for Training Target Cells

To begin an adequate effort at fusing this data and developing interdiction targeting, cells must be established in all fire support elements at levels from brigade through echelons above corps. These cells must learn to exploit enemy vulnerabilities by blending

Notional Fire Support Element Target Cell Operations Ce



the information and expertise available from all-source intelligence centers and electronic warfare support elements. Historically, we have focused all our training efforts on winning the fight in the main battle area. However, we are now entering a new dimension of battle which permits the simultaneous engagement of enemy forces throughout the corps and division area of influence. To accomplish this, we must emphasize training in four basic areas:

- Friendly acquisition capabilities.
- Threat tactical norms.
- Friendly attack systems.
- Specific techniques such as target value analysis and intelligence preparation of the battlefield.

For this to be totally successful, both Army and Air Force targeteers must be trained to work together in these functions. Microcomputers, which are currently available in an off-the-shelf configuration, can provide excellent assistance to this training effort. They can store a multitude of data from terrain features to fire plans, from friendly weapons systems to likely threat courses of actions. They can perform target analyses and display them in alphanumerics and graphics. If such systems were available in division targeting cells now, and we created the necessary downlinks for passing acquisition data, targeteers could train now at their wartime tasks in a realistic manner.

Figure 14 shows a notional division fire support element. The operations cell includes the target analysts. What needs to be done, and we have embarked on this course, is to establish the targeting cell and staff it with people who are currently performing similar tasks elsewhere. We must bring the operations types and the targeting types together.

For such a fire support element to be effective, its personnel must train together daily, as a team, using real-time or near real-time data supplied by an integrated sensor network such as that described earlier. If actual real-time data is not available, then simulated acquisition information could be used, so long as the data base was developed from previously collected actual information.

Through continuous intelligence preparation of the battlefield, a clearer analysis of the area of operations can be developed, one which will facilitate updating interdiction plans and thereby better support operations plans. Such a training activity would contribute greatly to developing confidence and proficiency. By exchanging views and working together, Army and Air Force target cell personnel could establish a credible capability now to deal with any future second-echelon threat.

Remaining Challenges

Like most things of great worth, this capability will not be easily gained. There are many challenges, but, in the end, it will be worth all the effort necessary to make it happen. Foremost among the challenges are those which inhibit our ability to blend current operational requirements of sensor means with the need to conduct real-time training at divisions and corps. It will also be difficult, though essential, that appropriate security clearances be acquired for all personnel working in the target cells. This is especially important, for they must have access in peacetime to the data they will be expected to process in war.

Recognizing it is beyond our capability to conduct actual exercises which simulate threat second-echelon patterns so target cells will have something to train against, it is within the state of the art for computer simulations to postulate and portray scenarios which the enemy traditionally follows because they are based on his known tendencies. This would be a useful substitute for targeteers to practice such analytical tasks as event sequencing. Lastly, we must continue to upgrade our communication capability and take advantage of existing commercial facilities. If we do all this, the payoff will be more than worth the investment.

The challenges notwithstanding, the message of all this is quite clear:

- Attacking deep is essential to winning.
- Attacking deep and the close-in fight are inseparable.
- The extended battlefield concept is the keystone of force modernization.
- We can begin today to practice, learn and refine the extended battlefield concept.

The ideas of the extended battlefield concept are, in fact, the very same ideas upon which the *Army* 86 concepts are based—see and attack deep. And, as might be expected, therefore, organizations of

Division and Corps 86 correspond in makeup and function to elements of the extended battlefield team.

The question before the Army now is how to implement the concept quickly. While there are yet some questions, it is not likely that man-years of study will clear them up to the satisfaction of all concerned. It is, therefore, time to field and learn to use the concept on the ground with real troops, real equipment and the real-world problems of field commanders.

The time for implementation is now. This is so because there is, first of all, promise of a major increase in combat effectiveness with current means. There also exists an enhanced capability to exploit new sensors, weapons and command control systems as they are fielded. This enhanced capability is even more evident in the field of microprocessors and computers. As a nation, we have a considerable advantage over our potential adversaries in this technological field. If we strive to put that advantage to work for us, it could become a significant combat multiplier. And, finally, of equal importance, there is an opportunity to cause the enemy to wrestle right now with a problem he has traditionally assumed does not exist.

Army leadership is so convinced that a real potential exists now, if current assets are organized correctly, that a four-phase program has been developed. Phase one, already begun, includes conferences at each major command designed to lay down the basic ideas. This article is part of that phase. In phase two, the US Army Training and Doctrine Command and the major Army commands will jointly refine implementation proposals to fit specific priorities and assets. In phase three, the joint product will be provided to corps and divisions in the field. In phase four, Army service schools and centers will conduct training in the concept and implementing procedures to ensure that officers and noncommissioned officers leaving the training base are ready for their respective roles on the extended battlefield. **MR**

General Donn A. Starry, US Army, Retired, is chairman of the board, Maxwell Laboratories, and lives in Fairfax Station, Virginia. Before retiring in 1983, he was the commander, US Army Training and Doctrine Command (TRADOC), Fort Monroe, Virginia. His other positions included commander, US Readiness Command, MacDill Air Force Base, Florida; commander, V Corps, Frankfurt, Germany; and commandant and commander, US Army Armor Center and Fort Knox, Kentucky. Since retiring from the Army, his positions have included vice president and general manager, Ford Aerospace's Space Missions Group; executive vice president, Ford Aerospace; and special assistant to the chief executive officer, BDM International. Starry published an article as a lieutenant colonel in the February 1967 edition of Military Review titled "La guerre revolutionaire." Many of his speeches as the TRADOC commander were also adapted for publication in Military Review.

How to

Change an Army

Colonel Huba Wass de Czege, US Army

In this November 1984 article for Military Review, then Colonel Huba Wass de Czege, lead author for the 1982 version of US Army Field Manual (FM) 100-5, Operations, and the founding director of the School of Advanced Military Studies (SAMS), Fort Leavenworth, Kansas, discusses the basis for change and a methodology for its rational implementation. The article reconfirms the need for SAMS, which was about a year old, and also outlines the need for the Center for Army Lessons Learned, which would not be formally established at Fort Leavenworth until August 1985. Brigadier General Wass de Czege, now retired, adds, "While I make a pitch for SAMS in the article, the issue is how to manage change, and that problem is with us in spades today. The article is still relevant. We are still 'tinkering' our way into the future. The 1993 FM 100-5 took a step backward in evolving a sound theoretical basis for evolution into the future."

NOWING WHY, WHEN and how to change is key to maintaining an Army's effectiveness. Not only is knowing why, when and how to change becoming more difficult, but so is the conduct of war. The Army must always be immediately ready to deploy, to fight and to sustain its operations, even though it is continually evolving. Although armies in the past have always had to do this, the rate of evolution in methods, hardware and organizations and the degree of complexity of modern warfare are, and will continue to be, unprecedented.

This will place great intellectual demands on the profession of arms. While there must be a continued emphasis on pushing technological frontiers, we must be ever mindful that technological superiority alone has very rarely been decisive. What has most often been decisive has been excellence in the knowledge and application of the science of war to forging combat-effective forces and superiority in the practice of the art of war in the conduct of engagements, battles, campaigns and wars.

The US Army is presently undergoing more substantive change than at any time since the period from 1938 to 1941. There are fundamentally new ways to train and organize soldiers. There are 40 major new hardware items (a total of more than 500 items counting all). And there is a fundamentally revised doctrine. These changes respond to new technological

opportunities, to new threats and missions, and to a large number of other stimuli. It is the rare individual in the US Army who has not come into contact with the effects of these changes—often dramatically.

Periods of change have never been easy. Decisions about change have always been risk-laden. History abounds with examples of armies which lost because they did not change or because they made the wrong changes. More importantly, the task of maintaining our Army's effectiveness is becoming increasingly more difficult because we must make choices about change at an accelerating rate against a wide backdrop of uncertainties. As the conditions of warfare change, the methods and techniques of our doctrine must evolve with them. Hardware choices, which constitute considerable long-term investments, must be made more frequently as armies become more "capital intensive" and as the range of technological options expands.

The risks associated with these and other choices grow as time between changes becomes compressed. We must become masters at integrating the right changes smoothly and effectively. Knowing what to change will be more difficult and risk-laden as the rapid rate of technology and the relative brevity of future high-to-mid-intensity conflicts combine to create a situation where the consequences of peacetime choices can be irretrievable in war. And knowing how to change so that the effects of turbulence on

readiness are minimized will become more critical as more change is introduced in a given period of time. In short, we need a sound basis for the preparation for and the conduct of war. We need more than just a few "thinkers" versed in "some obscure theories." The entire military profession needs to operate from a higher threshold of theoretical and practical understanding about war. We need to begin a program of deeper and broader education in the science and art of how to prepare for and conduct war. We also need to better organize and institutionalize the study and advancement of both the science and the art of war in the Army. These two needs are inseparably related; we cannot advance in the one area without advancement in the other.

The Problems of Institutionalizing Change

We are a pragmatic Army. We pride ourselves in our ability to solve problems, to improvise solutions and to devise new methods based on a process of rational examination of the readily apparent elements of the problem. But pragmatism alone will no longer be sufficient to maintain an effective Army as the rate of change in missions, technology and battlefield conditions continues to accelerate.

Much like the Wright brothers, Wilbur and Orville, of Dayton, Ohio, Cyrus H. McCormick of reaper fame and that inveterate tinkerer, Thomas A. Edison, we in the Army still rely on "1-percent inspiration and 99-percent perspiration" to get the job done. We discount the role of theory in our business because, as action-oriented individuals, we have little time for it. We tinker our way into new methods, new procedures, new force structures and new weapons. We simply discard and forget the old.

In essence, we tend to deal in practical formulas within the Department of the Army staff, the US Army Materiel Development and Readiness Command, the US Army Training and Doctrine Command (TRADOC) and in the field, and we treat these new "blessed" formulas as matters of faith. But the "just-tell-me-how-to" approach no longer works (if it ever did). The business of war has never been simple, and those who tried in the past to reduce its practice to mere formulas were invariably defeated.

That lesson applies ever so much more today. Modern warfare is much more complex at all levels. Comparing World War II and present formations, we see that present division operations compare more to World War II corps operations in range, scope and complexity and that today's decisions, coordination, movements and execution must be accomplished in less time. Moreover, all indications are that this com-

plexity will increase exponentially and not linearly. We must learn how to deal with these higher levels of complexity both in a theoretical and pragmatic sense. Purely pragmatic approaches which make sense in a sterile peacetime exercise context may not work in real war.

Modern officers need to know more about increasingly complex weapons and hardware. Combined arms integration is more difficult to achieve because we have larger numbers of more effective weapons at all levels; more complex command, control, communications and intelligence (C³I) challenges; and more complex logistical support requirements. Not being able to spend enough time in simulated combat situations to become comfortable with this increased complexity, too many of our officers seek simple formulas, recipes and engineering solutions to make order of potential chaos.

Today's officers must be able to do with fewer forces than their World II counterparts. Fighting outnumbered and at the end of long and vulnerable lines of supply places a premium on the competency increase this competency.

Rapidly changing technologies and conditions of war make training in today's methods a transient goal. Any specific methods we teach will have decreasing relevance as changes occur on future battlefields. We must, therefore, learn how to learn in this environment. A system of officer education which emphasizes how-to *training* applicable only to present methods, means and conditions will fail to provide the needed *education* the Army officer corps will need to be adaptive in the uncertain future. More officers must be educated in theories and principles which will make them adaptive and innovative.

Trying to devise methods of fighting on the basis of the tinkering approach is much more dangerous today. Such approaches may have been adequate when man was building airplanes out of bicycle parts and tanks from farm tractors. But the age of the F16 airplane and the M1 tank has arrived, and these kinds of equipment are not designed or built by tinkerers. There is a great science behind the building of an F16—a long train of "if this, then that" principles in aerodynamic thermodynamic theory, finely tuned methods and procedures in fabrication and assembly, a knowledge of capabilities of materials and components and so forth.

Of course, there still remains the small component Edison called inspiration—the *art* of design or the judgment and insight of the accomplished practitioner of the sciences. This is analogous to the art in the science and art of war. No matter how scientific one's approach becomes, little can be done in any field of

endeavor without a touch of art. Therefore, we must now apply both science and art to the design of modern systems for fighting and to their proper use in deterring or conducting war.

A System for Introducing Change

In a *Military Review* article, General Donn A. Starry identified several prerequisites for effecting orderly change in military methods and for developing new capabilities:

- There must be an institution or mechanism to identify the need for change, to draw up parameters for change and to describe clearly what is to be done and how that differs from what has been done before.
- The educational background of the principal staff and command personalities responsible for change must be sufficiently rigorous, demanding and relevant to bring a common cultural bias to the solution of problems.
- There must be a spokesman for change. The spokesman can be a person...; an institution such as a staff college; or a staff agency.
- Whoever or whatever it may be, the spokesman must build a consensus that will give the new ideas, and the need to adopt them, a wider audience of converts and believers.
- There must be continuity among the architects of change so that consistency of effort is brought to bear on the process.
- Someone at or near the top of the institution must be willing to hear out arguments for change, agree to the need, embrace the new operational concepts and become at least a supporter, if not a champion, of the cause for change.
- Changes proposed must be subjected to trials. Their relevance must be convincingly demonstrated to a wide audience by experiment and experience, and necessary modifications must be made as a result of such trial outcomes. This framework is necessary to bring to bear clearly focused intellectual activity in the matter of any change....!

Starry preceded these comments with a discussion of pre-World War II changes in the major Western armies and the difficulties of introducing new methods of warfare.

The essence of the framework to do this is in place in our Army; the levers and mechanisms are essentially there. The way it is intended to work is that concepts developers in TRADOC try to pull together a vision of what war will be like at some future time like the year 2000. They examine extrapolations of current trends to predict future conditions of war-threat, geographic areas of concern, state of

technology and so forth. From these, they deduce the best methods to fight in that future period of time.

This, then, becomes the basis for stating "requirements" for fighting and sustaining systems-the premise being that we have arrived at a stage of development where we can almost invent on demand. Combat developers take these requirements and begin the lengthy process of providing the next generation of hardware. Force designers are then brought into play to design the units around the new methods and new weapons. Once that is done, new doctrinal manuals are published. Finally, the new units are organized around new tables of organization and equipment (TOEs), with new equipment and with people trained to operate the new equipment and to fight according to the new methods in the doctrinal manuals.

Between the initial vision of the future and the final product, concepts and weapon criteria are continually revised as the vision comes into clearer focus, conditions are more accurately gaged and consensus is being built throughout the Army. This system is truly novel and it can work even though it is a radical departure from past military practices. It can be argued that this is the only way to stay current in an era of exponential change in technological capability. This argument can be doubly convincing when the system can be shown capable of reacting to unexpected breakthroughs in technology.

The Need for a "Common Cultural Perspective"

The system described here is a system designed to build an F16 or an Abrams tank, operated by individuals trained and equipped to build airplanes out of bicycle parts or tanks out of tractor parts. In Starry's words, there is need for one final ingredient to make the system work:

In the process of bringing about change, there must first be a conceptual notion of what must be done to fight successfully in the battle environments of today and tomorrow. That conceptual thinking can only result from close, detailed and reflective study of a wide spectrum of technology, threat, history, world setting and trends. That kind of thinking can only be done by imaginative people who have trained themselves or have been trained to think logically about tough problems. That kind of intellectual development is one of the most important functions of our Army school system, especially at the staff college level.

It is perhaps here that we have not yet fully equipped ourselves with the requisite means to achieve change. The US Army lacked that great strength of the German system—the intellectual prowess and staff brilliance of its general staff officer corps. US Army officers lacked the cultural commonality that was brought to bear through the process of the German General Staff system, and that was the most impressive, if not the most effective catalyst in making it possible for them to change quickly—even under the pressures of wartime.²

Starry and others have pointed to the relative ease with which new ideas were accepted in the pre-World War II German system. They have all pointed to the thorough common theoretical preparation of the German General Staff which resulted in little theoretical debate on the "why" level. These officers may have begun their careers in different branches, but they became combined arms officers with a common perspective. This we lack.

Today, there is no common combined arms perspective in the Army. There are strong branch prejudices and biases on many issues involving current change. Not only this but, if there is no common theoretical framework within the officer corps, the rationales for change are not understood and not accepted. At present, we rely on the intuition and the professional judgment of the fine officers "working the system" and their long hours involving numerous "scrubs" and endless coordination. In short, we rely on the 1-percent inspiration and 99-percent perspiration of these officers to find our solutions. This may be all right but, by a more scientific approach, we can replace some of the "perspiration" with "perspicacity."

The Need for Rational Integration of Methods and Capabilities

The development of methods and capabilities must go hand in hand. That is the intention of our new Concepts-Based Requirements System. A scientific approach demands that longstanding principles and appropriate theories guide this process as well.

The "tinkering approach" relies almost exclusively on existing branches of the service to develop improved prototypes of branch-related hardware. A new tank replaces the old tank, and a new howitzer replaces an old howitzer and so on. Occasionally, a new type of system is developed which is radically different. When something appears which does not clearly fit into any current functional category, a problem develops. Note the difficulties encountered by the introduction of the tank before the establishment of the armor branch. The same difficulty currently plagues our full exploitation and development of helicopter and electronic warfare technology. What happens is that branches focus on their principal assigned function and do their best within that charter. We expect no more.

There must be integration across branches and functional proponents based on scientific principles. The theory of combined arms must be applied across branches to determine needs. We must look for holes or gaps in functional capabilities and fill those. The result must be an all-arms organization suitable to execute the preconceived methods derived from a clear-minded application of theory which ultimately is based on longstanding principles. The result should be coherent fighting organizations of soldiers, weapon systems and supporting systems, trained and designed to fight a certain way.

The requisite integration is difficult to achieve today because the "integrating center"-the Combined Arms Center at Fort Leavenworth, Kansas-is not able to overcome the intellectual weight and bias of the branch centers. First, the intelligent and hard-working officers at Fort Leavenworth are themselves biased by branch mentalities-they mentally still wear their branch colors rather than combined arms "BDU (battle dress uniform) camouflage." That is not their fault individually; it is the Army's problem collectively. Second, lacking a clear theoretical framework to do otherwise, they yield the initiative to the branch schools in the generation of new ideas and, as a result, often are able to do little more than negotiate tradeoffs at the margin.

In our school system, we must provide for the development of a combined arms mentality at some point. This should be done at Fort Leavenworth. There must be more thorough cross-training between branches-if not for all, then at least for some. More depth in the knowledge of current capabilities is vitally needed and is more difficult to get on the job because of the complexities of modern weapons. But learning and teaching the capabilities of what is now available is essential, both to the formulation of new methods and the effective employment of present capabilities in the near term.

The Need for Better Theory

There is a need for one more ingredient beyond those outlined by Starry. The growth of theory must feed into this process of change. If the why of current methods is forgotten and the why of new methods is not clearly delineated and recorded somewhere, then we will lack the scientific continuity to make the many corrections to our methods which will be required of the best-thought-out schemes.

The Army has benefited greatly, in recent years, from the use of operations research techniques to help design new force structures, weapons, tactical techniques and so forth. These efforts must continue,

but the results of such studies must be couched in a broader analytical framework which also incorporates the intangible variables in war. Operations research and systems analysis is a method of study. Sound scientific practice depends on sound theoretical constructs to relate pertinent variables.

Therefore, the fundamental key to controlling and integrating change effectively is to raise the level of the knowledge and practice of the science and art of war in our Army. Let us examine what the science and art of war really is. Once we have done that, we can approach the business of how to change the Army into the adaptive organism it must become.

A Science and An Art

Modern military endeavor consists of both science and art. There is no question that it is both. Military science consists of the systematized knowledge derived from observation, study and experimentation carried on to determine the nature, principles, means, methods and conditions which affect the preparation for or conduct of war. The art of war is the application of this knowledge to a given situation: to prepare for war, to deter war or to conduct it successfully.

The Science. The science of war consists of a systematized knowledge of theories (a relationship of principles); the systematic development, examination and dissemination of appropriate methods; and the systematic development, examination and understanding of capabilities. The study of methods and means (or capabilities) is always done on the basis of a systematized study and awareness of changing conditions. But there is more to the successful conduct of war.

The Art. It should be known that the commander who brings the best-thought-out theories, the most enlightened methods or the most potent capabilities (either numerically, qualitatively or in combination) to the battlefield is not always the commander who wins. Although these make his task far easier, it still remains a matter of tactical, operational or strategic skill-a matter of judgmental application of the science of war to the conditions at hand.

Such judgment depends on knowledge of great depth which goes beyond a superficial knowledge of mechanical factors and simple force ratios. It depends on inspired practice of the art of war. Sound preparations for war also constitute an art. Time and other materiel or moral resources are always fundamentally necessary to proper preparations. But, beyond this, the skillful application of sound scientific approaches demands the application of sound judgment in the weighing of intangibles.

Developing a Science of War

Having defined the science of war, we must address what can be done to establish it on a more scientific basis. As in any other science, this involves an active and purposeful effort to develop the branches of knowledge, disseminating what has been learned to others in the field and having those others practice the science, develop it further and then pass on the newfound knowledge to still others.

This continuous cycle must turn within a system of institutions designed to sift, organize and store the body of knowledge, to build a body of theory with this knowledge and to educate practitioners of the discipline. Regretfully, we have not progressed far beyond where Marshal Maurice de Saxe found the state of the science of war in the 1740s:

War is a science covered with shadows in whose obscurity one cannot move with an assured step. Routine and prejudice, the natural result of ignorance, are its foundation and support. . . . All sciences have principles and rules; war has none.³

It turns out that what de Saxe means by the last sentence is that there are principles, but they are not passed on to others. The forms and methods only are passed down from the successful practitioners; they are learned and taught to succeeding generations of soldiers only interested in the how-to. The why is usually not recorded and is lost. De Saxe points to the successful methods of Gustavus Adolphus, the 17th-century Swedish king, as an example. His disciples were successful in employing the forms of his methods for a time but, not knowing the principles behind his methods, they began losing as those particular methods no longer applied to changed conditions.

This pattern is a continuing one. The forms and methods of Frederick the Great became outdated and were defeated by the new forms and methods of Napoleon Bonaparte. Napoleonic methods were studied and emulated by many armies, including our own. Often, Napoleonic maxims were misinterpreted as conditions changed.

Such was the case when inappropriate organizations and concepts of war lost the war of 1870 for France as new forms and methods of operational maneuver were introduced by Helmuth von Moltke. Over-reliance on the forms and methods of von Moltke and Alfred von Schlieffen and misinterpretation of underlying principles and their application to new conditions led, in the end, to the stalemate of World War I. The World War I forms and methods as applied to the tank led to inadequate armor doctrine by the Allied armies early in World War II.



Therefore, what generally happens is that, in their haste to get on with practical matters, soldiers learn and teach methods, but they usually fail to learn and teach why those methods were (or are) successful. In other words, soldiers are practical people, and they generally fail to learn and apply well-thought-out theories and principles and to develop and change methods to comply with new conditions. Sometimes, also, soldiers fail to realize that conditions have changed. This results from a kind of wishful thinking we soldiers are all prone to fall into which compounds the problem of adapting to change. A good example of this phenomenon was the slow and agonizing death of the horse cavalry long after the conditions on the battlefield made it obsolete.

The Need to Organize Knowledge

We are much in need of a modern-day Karl von Clausewitz. We need theoretical constructs which place our analytical studies in the context of the totality of war—a balance between analysis and synthesis. Currently, the knowledge about the preparation for and conduct of war is not disciplined. This body of knowledge is currently expressed and recorded as doctrinal principles and methods in doctrinal texts. It

is embodied in functional descriptions of capabilities of units as expressed in TOEs, set forth in TRADOC 525-series concepts pamphlets and explored in the historical *Leavenworth Papers* series.

This body of knowledge is dealt with in a multitude of study reports and technical reports preserved by the Defense Technical Information Center. It is recorded in numerous internal studies of various agencies, often filed and forgotten when incumbents change. And it is examined in articles in the various professional journals—*Parameters, Military Review* and branch periodicals—which are not read by many and are soon forgotten.

Many of our efforts to broaden our knowledge are focused on finding answers to short-term questions. In short, while the knowledge of facts is growing (the "information explosion" phenomena), it is not well-organized for long-term utility, nor is there even a system for organizing, developing, refining and distributing it. There is little funding for "pure research" in the science of war. No organized hypothesis formulation and testing is conducted. As a result, we continually reinvent the wheel and cannot advance in sophistication beyond it. One purpose of "disciplining," or organizing, this body of knowledge is to build better theory.

The Need to Develop and Teach Theory

Theory is the foundation of any science. We must build a firm theoretical base and then constantly challenge, test and improve it. We must build on it, enlarge it and reinterpret it as discoveries shed new light. Finally, we must spread theoretical knowledge throughout the profession-primarily in our schools but also in the professional media. Theoretical efforts should not be conducted in a vacuum and for their own purposes. Their purpose must be to measure, enlighten, guide and drive change and action. It is not enough to have a small band of thinkers charged with developing new theories and new means and methods.

We must also place greater emphasis on theory in the development of doctrine. For instance, not only must we define the fire support coordination line and detail its uses, but we must somewhere record its history, why it was developed, what rationales are behind its uses and what success it has had. Such information is vitally useful when doctrinal change is contemplated. It is also useful when the doctrine is taught in our service schools.

Such information is not only unavailable for old doctrinal devices, such as the probable line of deployment for the night attack, but it is also lost for new devices such as the "area of influence." This latter term already had a previous meaning in Field Manual (FM) 101-5-1, *Operational Terms and Graphics*, the Army dictionary and the NATO glossary. This was either not realized by the coiners of the new area of influence, or an old term was redefined to suit a new purpose. In either case, confusion resulted.

A precise terminology and language are absolutely necessary for the accurate transmission of ideas. Without a precise language, we can hardly have a "science." Someone has to be the "vicar" of the language. The expression "combat power," for instance, has many meanings, yet it is usually used to try to convey a precise concept. It is often used to describe the inherent properties of a unit-its capability in absolute terms. At other times, it is a relational concept. FM 6-20, Fire Support in Combined Arms Operations, defines it as fires and maneuver. FM 100-5, Operations, defines it as a relational concept comprising the elements of the effects of fire, maneuver, protection and leadership. There are many others. This may sound like a small matter, yet we wonder why we cannot communicate between branches of the Army, much less between the Army and the other services.

We must also encourage new and profitable theoretical thinking. The subject of warfare is so broad and so complex that one theoretical construct cannot explain it all. The disciplines of political science and economics have benefited from the practice of systematic organization of quantifiable and nonquantifiable variables into models of reality. These models slice the pie different ways, and each provides a particular insight into the science and art of war.

If these reasons are not sufficient to impel us to devote more time to theoretical concerns, let me add another. Our potential opponent on the battlefield does study theory and understands the why behind his methods. That is a marked advantage for him. In our position of relative physical inferiority, we must do better than he intellectually. And we can.

We must teach more theory and principles in our service schools. A deeper theoretical understanding of war must be more widespread throughout the officer corps. At Valley Forge, Baron Friedrich W. von Steuben quickly recognized the need to explain to the American soldier why a method was to be adopted before he would embrace it. And von Steuben was amazed at how quickly and how well he learned the methods when he understood why. We are not much different today. Therefore, we must both develop theory and teach it. And it is right and proper that this activity should be conducted in the Army's school system by its teachers as generally occurs in other disciplines at the university level.

There is no need to overwhelm our students with theory, but we do need to teach our fundamental doctrinal underpinnings. It would not hurt to expose students to such thinkers as Sun-tzu, Clausewitz, Henri Jomini, J.F.C. Fuller, B.H. Liddell Hart, Ardant du Picq, de Saxe and others. A good survey text at the US Army Command and General Staff College (USACGSC) would suffice; this text would relate the thoughts of these writers to FM 100-1, *The Army*, and FM 100-5.

A basic common theoretical framework and the systematic thought processes such a framework conveys are important to an intelligent exchange of ideas which is necessary to the development of a science. Currently, there may be little room in the bulging 10-month USACGSC practical curriculum to add more subject matter. But we must look for ways to fit it in. The education of staff officers at Fort Leavenworth must bring about the common cultural bias of which Starry speaks. One major purpose of ongoing curriculum revision at the USACGSC has this in mind.

One way to bring about this common culture bias is to educate a select group of officers beyond the 10-month Command and General Staff Officer Course. They would provide a useful leavening of higher level theoretical knowledge about preparing for and conducting war throughout the Army. Such indi-

viduals are necessary in key leadership positions so that this Army will have a greater capacity to adapt to and channel change. Knowing the why behind current methods and the conditions to which such methods apply, these officers would more readily recognize the need for change and the direction change should take.

The Advanced Military Studies Course at Fort Leavenworth is designed to fill this need. Not only does this course teach more theory, but it also provides a broader base of practical knowledge in the science and art of preparing for and conducting war at the tactical and operational levels. The Army is currently selecting 48 officers to attend the third 48-week session to begin in June 1985.

Scientific Methodologies for the Study of Conditions, Methods and Means

Besides the study of pure theory, the science of war deals with the study of conditions, methods and means of war. While all components of the science are interrelated, different methodologies may apply to their study and scientific development. In some cases, "soft science" approaches are more appropriate while, in others, we may benefit more from "hard science" or quantitative approaches.

Conditions.—A systematic and thorough study of conditions may borrow approaches from all of the sciences. One set of conditions critical to means and methods is technological innovation-conditions resulting in new weapons or logistic capabilities. Examples are the needle gun, the chassepot, the railroad, tinned food, the machinegun, the tank, aircraft, antiair missiles, antitank missiles, electronic warfare, nuclear warfare, chemical warfare and attack helicopters. The list is ongoing. Other conditions we must study are the threat, the geographical setting of future combat, the means available for conducting war and the future intended purposes of our forces.

Conditions which affect military methods have also been political, economic and social. The rise of medieval mounted armored combat resulted in smaller, costlier "high-technology" armies because sovereigns could not afford to raise and equip larger forces. This, in turn, had social and political implications, and those, in turn, fed back to create the forms and methods of medieval warfare. Likewise, current political, economic and social trends will determine important new conditions. The huge mass armies of World War II may be eclipsed by new technological, political, economic and social conditions which we see dimly, as yet, to forge the next, most appropriate, methods of warfare. These conditions all require constant close scrutiny.

Methods.—Another component or branch of the science of war is concerned with devising new methods, or altering old ones, based on accepted theories of war and a careful analysis of changed or changing conditions of war. This branch of the science of war must adopt disciplined approaches from primarily the soft sciences, but it can gain useful insights from operations research methodology. Such insights must then be placed in context by soft science methodologies.

Means.—In addition to a systematized knowledge of principles, conditions and appropriate methods, the science of war has to encompass a systematized knowledge about current and future means of war. The development of future means cannot be left only to technicians. Educated soldiers must look into evolving technological developments to find concepts which will be useful in terms of accepted theories. They must view these with an understanding of the underlying theory of combined arms so that complementary and reinforcing capabilities are added to those which already exist. This is because the current means embodied in the establishment of our units can be changed only over a long period of time and at great expense.

This branch of the science of war must borrow disciplined ways of thinking from both the soft and hard sciences. Capabilities of systems and system design lean on the hard sciences, but how these capabilities are used and how they fit into overall schemes depends on disciplined ways of thinking borrowed from the soft sciences.

One way to advance the development of the science of war is to establish an agency associated with the USACGSC to:

- Study the historical record of change in military methods.
 - Examine the impact of conditions on methods.
- Evaluate our current methods routinely—updating our methods as we go, in light of new conditions.
- Record, learn and teach why we do things the way we do.

This agency could have several purposes. It could study the content of short-term studies of other agencies here and abroad for ideas and concepts of long-term significance and weigh these against more established knowledge. It could provide a common synthesis between the related subdisciplines of the field of knowledge—such subfields as leadership, C³I and the more hardware—related fields.

It also could keep us from reinventing the wheel continually. It could maintain an up-to-date institu-



tional memory of change and why it came about. It could be responsible for writing and updating the key doctrinal manuals which integrate the branches of the discipline-FM 100-1 and FM 100-5. It could review the concepts and doctrinal efforts of all other Army agencies for consistency and doctrinal clarity. It could publish theoretical papers like the *Leavenworth Papers* for circulation and study throughout the Army community. The agency could conduct instruction about military theory for USACGSC instructors, students and outside agencies on request.

Further, it could conduct (or commission) studies of changing battlefield conditions (threat, technology, and so forth) and publish papers on their possible impact. It could monitor change in the Army at large and as such serve as a useful feedback mechanism in its role of internal critic and thoughtful evaluator of the comments of external and other internal critics. It could serve as the focal point for the study of methods and conditions to trigger the examination of the need for change by the publication of "think papers." Investment in such an agency would be analogous to the pure research funded by industries with a view to future payoffs that may not be immediately realizable.

Developing the Practice of the Art of War

Historical experience underscores the fundamental truth that an army which must fight outnumbered, under difficult circumstances and with limited resources, must rely heavily on the professional excellence of its officer corps. Therefore, it must place a high priority on the excellence of its officers' professional training and education. Military excellence has always depended on an officer corps which could think creatively about war-one which understood and practiced the art of war.

In today's Army, there is less time to develop professional excellence on the job. This is partly because of turbulence in key developmental jobs and the shorter period of time our officers serve in operational troop billets compared to years past. It is also partly because our units and staffs must maintain unprecedentedly high states of readiness to fight upon short notice. Our officers must be better trained and educated to perform on arrival in their units.

Having examined what is required to raise the level of the science of war, let us examine what is required to develop its practice-the art of war-to a higher plane. The artful practitioner is a master of the science of war. His judgment is enhanced by the knowledge of theories, methods, capabilities and the effects of conditions. But his judgment is honed by experience which gives him a facile grasp of these foundations or fundamentals and the dynamics of their interrelationships. Working out solutions to tactical, operational and strategic problems repeatedly and under different conditions disciplines his mind to sort through trivial data rapidly, to weigh the essentials from an informed basis and to make decisions quickly and decisively.

Obviously, the art of war is best learned in combat through the course of several campaigns. But, in a time when war may be very short, when so much depends on the initial performance of our leaders and when so much depends on proper planning and preparation to ensure the success of units during the initial days of the next conflict, there must be great emphasis on developing sound military judgment in peacetime. While experience with units in the field is important, proper military schooling is vital.

There is nothing magic about developing the artful practitioner. It does not depend on an inborn sense or what the Germans call *Fingerspitzengefuehl-*a magical feel in the end of one's fingers. It depends on a carefully patterned mode of thinking about military concerns. It is how to think and not what to think in solving military problems.

The officer must have demonstrated a desire and interest in fighting lore and military matters. This we routinely assume but find too often to be exceptional. This desire and interest must be cultivated with a carefully selected set of readings in military history. After all, military history is nothing more or less than the record of trial and error on which today's principles and methods are based. The purpose of this reading should not be the accumulation of mounds of trivia to be called forth to impress others with one's erudition but, rather, the distillation of enduring principles and insights. Insights are, after all, rudimentary theories or hypothesis.

For instance, people change little over time. Knowing what enabled a commander to impose his will on his own troops and ultimately on those of enemy is valuable indeed. That which kept John B. Hood's 15th and 47th Alabama Regiments from taking Little Round Top at Gettysburg, Pennsylvania, or caused the 24th Wisconsin to prevail on Missionary Ridge at Chattanooga, Tennessee, is as useful today as ever.

Also, the study of methods is valuable if one discovers the reason for their success and can deduce underlying principles. A knowledge of ancient weapons is worthwhile if one discovers the relationships between weapons and arms and the fundamentals of combined arms theory. Operational military history is more valu-

able for gaining insights into the conduct of war than institutional military history, yet we have tended to stress the latter in the past. Nor should the US officer limit his study to this nation's military history. Doing so severely limits the available vicarious experience.

Weapons and conditions change, but principles, relationships, patterns and mental images remain. In the early 18th century, de Saxe warned against entrenchments as a method of defense and advocated a system of redoubts and cavalry counterattacks. The soldiers of World War I relearned that same lesson late in the war as they adopted mutually supporting strongpoints and counterattacking reserves. Our latest doctrinal revision of FM 100-5 again draws on this image as it advocates the combination of static and dynamic elements rather than linear dispositions in the design of modern defensive methods.

Developing the artful practitioner, therefore, depends on the right kinds of relevant real, simulated or vicarious experience. Relevant real experience is rare and, in today's rapidly changing world, it has an increasingly shorter half-life. Long periods of peace interrupted by short wars, either ours or those of others, allow for periodic updating of real or vicarious experience. War games and simulations are one apparent solution to gaining some kinds of relevant experience, and the Army has made great strides in this area.

Learning from war games, however, is also fraught with danger. War games in the hands of the untutored are dangerous in that incorrect conclusions and patterns of thought can be developed. For instance, students can develop fatalistic attitudes based on a too confining belief in the inescapable judgment of force ratios. There are too many cases in history where the results have defied the odds. Again, the 20th Maine Regiment at Little Round Top and the 24th Wisconsin at Missionary Ridge are two of many such examples.

War games must be scientifically designed. The inner workings of the games must rest on a firm foundation of enduring principles, or the wrong lessons will be learned. Too often, the inner workings or decision logic of these simulations is hidden from view. Gamesmanship and not military art is learned from improperly designed war games and simulations.

War games never allow the full manipulation of all variables the combat commander must deal with in real situations. They simply cannot portray all variables-especially the human factor. The players must avoid developing biased thought patterns. They must be constantly made aware of variables which are not portrayed at all, which are given arbitrary constant values or which are lumped with other variables in a roll of a die. War games in the hands of soldiers who understand their limitations are excellent training tools. Most of us have all played *DUNN-KAMPF*, *CAMMS* (Computer Assisted Map Maneuver System) and *FIRST BATTLE*. However good these are-and they are certainly better than what was before-they teach firepower-biased lessons in which soldiers are never unwilling, afraid, cold, hungry, tired, sleepy, surprised or skilled (or unskilled). We can move or shoot. We can service targets, coordinate fires (in a sense) and practice some of our tactical methods and communications procedures.

However, in war games, combined arms effects are simply additive and seldom portray the real synergism of effects in which the integrated whole is greater than the sum of its parts. We cannot attack the will of the opposing commanders and soldiers which is, after all, the essence of victory and defeat in warfare. Their units and ours continue to fight until only so many soldiers or pieces of equipment remain. Then, we remove them to oblivion. In short, of necessity, we make war very simple in these games. We make it manageable. And that is the crux of the problem—we may be teaching only the management of war and not how to think of creative strategic, operational and tactical solutions and how to lead soldiers in battle.

In the end, the art of war consists of the artful practice of the science of war. Something akin to Fingerspitzengefuehl can be developed. But, first, the professional soldier must master the fundamentals of his science at his particular level. Then, he must gain a variety of experience (classroom war gaming and discussion will suffice for a beginning) until his mind is disciplined and ordered. Finally, more experience and reflection can lead to near intuition as he reaches the plateau of familiarity with the conduct of war. In sum, the art of war demands disciplined intellectual activity.

To develop the artful practitioner, we need to look at our officer education and training system. An examination of recent trends in the curriculum of the Command and General Staff Officer Course at the USACGSC is a case in point. The 665 hours of tactical and operational training and education available to students in 1951 had been reduced to 173 by the close of the 1970s due to the need to add other pertinent matter. A recent USACGSC solution was to revise the curriculum to expand the warfighting curriculum and to seriously reconsider the expanded two-year curriculum of the decade before World War II. General of the Army Omar N. Bradley paid this tribute to the USACGSC and the men it trained during that decade in his postwar work, A Soldier's Story:

While mobility was the 'secret' US weapon that defeated [Field Marshal Karl] von Rundstedt in the Ardennes (in December 1944), it owed its effectiveness to the success of US Army staff training. With divisions, corps and Army staffs schooled in the same language, practices and techniques, we could resort to sketchy oral orders with an assurance of perfect understanding between US commands.⁸

It is important to emphasize that almost all of his division and corps commanders and many of the principal staff officers of the corps and field armies of his own Twelfth Army Group were two-year Leavenworth men. The new Advanced Military Studies Course at Fort Leavenworth could again provide a corps of officers with the higher order warfighting skills and knowledge needed to conduct modern war successfully.

The emphasis in this new course is on how to think and not necessarily on what to think about military affairs. Students study military theory and its applications to preparing for and conducting war in great depth at the division and corps level. They receive an education in all of the G1, G2, G3 and G4 functional areas at those levels. The course combines the study of historical and contemporary cases and problems. It promotes the learning of creative but practical solutions to tactical and operational problems. It develops an understanding of the theory behind Army doctrine and builds the common cultural bias of which Starry speaks.

The course also provides a deeper practical knowledge about "how the Army works" in many areas. In addition, students gain a deeper understanding about how corps operations fit into higher level operational and strategic schemes at the joint and strategic levels. They also gain a wider base of knowledge across the entire spectrum of conflict from terrorism to thermonuclear war. While in the Regular Course we must necessarily concentrate on the most important of the possible conflict scenarios, this course allows us to prepare at least a portion of the officer corps to deal with concepts and methods relating to others which are perhaps less dangerous but more likely.

Summary

The challenges we face today are considerable but manageable—if we take a long-term view. Quick fixes will have a continually shorter half-life as the rate of complexity of war and preparing for it continues. We must take steps now to ensure that we enter the 21st century with an effective fighting capability. We must first develop a real science of war—a more disciplined way of thinking about our profession. That work must begin at the USACGSC and requires a suitable

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investment in intellectual activity. As a first step, we must systematize knowledge about the conduct of war and teach it in a systematic way.

Finally, we must develop the artful practice of war by our officer corps based on a firm foundation in the fundamentals of the science. This will require an investment of some of our best minds in adequate numbers at our service schools. And we must be willing to invest the time of our best young officers in military education for the long term. We now tend to favor short-term training in skills which are perishable. We need both. Other first-rate armies around the world recognize this need and invest much more heavily in long-term education than we do. 9 One reason why we

resist longer schooling for our officer corps is because we have relatively shorter careers. Therefore, we need to investigate ways that will enable us to keep our best professionals for longer periods of time.

It has been a historical commonplace in other armies that change as sweeping as is here proposed is only acceptable after a crushing defeat. Hopefully, we can see that the business of war has become so complex that we have no choice but to devote more thought to how one should conduct it successfully. Only by developing a firmer grasp on both the science and the art of war can we hope to win in the future. If we do these things, we will know how to change the Army effectively. **MR**

NOTES

- 1. General Donn A. Starry, "To Change an Army, Military Review, March1983, p23.
- 2. Ibid., p. 26.
- Maurice de Saxe, "Reveries on the Art of War, Roots of Strategy, edited by Brigadier General "Thomas R. Phillips, Military Service Publishing Co., 1940, p. 189.
- One such model is Colonel John Boyd's decision cycle theories. Another is Colonel Huba Wass de Czege's "combat power model," and there are others.
- 5. De Saxe, op. cit., p. 184-85.
- 6. For a good discussion of this problem, see Michael Howard, "Military Science in an age of Peace," *RUSI Journal*, March 1974, p. 4.
- 7. This figure does not include three college-wide exercises in which all students and most departments participate.
- 8. General of the Army Omar N. Bradley, *A Soldier's Story*, Popular Library, N.Y., 1964, p. 464.
- Review of Education and Training of Officers (RETO), Department of the Army, Washington, D.C., 1979, Annex E. This is a study of the military education system of the US Army for the chief of staff, US Army.
- 10. The systematized study of the science and art of war and the establishment of the Kriegsakademie of the German General Staff by the Prussian army can be traced to Prussia's crushing defeat by the Napoleonic forces at the Battle of Jena. One can argue that the key to the effectiveness of the German Wehrmacht early in World War II was not so much due to the general staff system. Rather, one can argue that it was due to the sophistication of military thought which permeated the professional ranks of the German army as a result of the education of a few who passed their sophisticated modes of thought on war to the rest of the army over a number of years. Note: Erwin Rommel, Hermann Balck and other excellent commanders were not general staff officers.

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FIVI 100-5: The AirLand Battle in 1986

General William R. Richardson, US Army

The publication of US Army Field Manual (FM) 100-5, Operations, in August 1982 launched AirLand Battle as the Army's doctrine of the future. Such a revolutionary change, however, was not automatically accepted by everyone and caused some consternation and debate among our NATO allies as well as the Army's sister services. In this March 1986 article, General William R. Richardson outlines the 1986 modifications to the 1982 FM 100-5, noting that "the unmistakable conclusion remains that the 1982 edition of FM 100-5 was on target."

UCCESS IN WAR DEMANDS total preparation. The combat leader must know how to fight, how to marshal his courage and that of his soldiers, and how to bring his forces to bear at the critical time and place on the battlefield to impose his will on the enemy.

The US Army Training and Doctrine Command (TRADOC) is dedicated to preparing the Army's leaders for war. That role embraces three distinct elements of preparation: intellectual, psychological and physical. Intellectual preparation begins with the textbook in the classroom but moves quickly to the map, to the sand table and then to the terrain. Intellectual preparation provides the mental basis for a broad perspective on warfighting by thoroughly and systematically searching military history while scanning the future for new technology and new concepts.

Psychological preparation enjoins the leader to commit himself to professional excellence and to develop the tactical and technical competence which lay the foundation for both the leader's confidence and the unit's cohesion and successful performance. Physical preparation is rooted in self-discipline. It requires the leader to set and demand high standards of fitness for himself and his soldiers; to execute tactics, techniques and procedures with precision; and to apply sound doctrine in every training opportunity and exercise. While difficult to estimate the complexity of these tasks, it is impossible to exaggerate their necessity.

Reading, understanding and applying doctrine are fundamental to the preparation for war. Doctrine describes how the Army will fight and support. Not only does doctrine govern training strategies in both units and schools, but it also directs force modernization efforts and helps orchestrate standardization and interoperability efforts with our sister services and our allies. As doctrine changes, so must the Army.

I want to impress upon the officer corps that Field Manual (FM) 100-5, *Operations*, is the primary tool for the self-education and professional development required to achieve tactical competence. Without mastering the AirLand Battle, leaders will inevitably fall short in preparing for war.

The 1982 edition of FM 100-5 reintroduced a fundamental concept to the US Army-the operational level of war. Yet, the manual neither fully described the operational level as the linchpin between strategy and tactics nor clearly differentiated between tactical and operational warfighting. The new manual does these things. It explains that campaigns and major operations constitute the operational level of war and that battles and engagements encompass tactical operations. In a major conflict, field armies, army groups, and joint and allied major commands will fight at the operational level. Divisions, brigades and regiments will fight at the tactical level. The transition occurs at corps which can and will operate at both the operational and tactical levels.

In the Korean War, for example, the X Corps conducted a major independent operation—the Inchon landing, clearly an operational-level action with strategic impact. Similarly, today's corps, the Army's largest unit of maneuver, may conduct major operations which have significant impact on the strategic aims in a given theater. Typically, however, the corps executes tactical actions through battles and engagements to influence

larger operations, to decide the course of campaigns and to achieve strategic objectives. Some mistakenly equated the notions of forward thinking, anticipation and maneuver solely with operational-level endeavors while relegating fire and movement to only tactical undertakings. The new text clarifies these notions and argues that maneuver, anticipation and forward thinking are as broadly applicable as are the principles of war.

In the 1982 edition, leadership and the human dimension of warfare were raised to an equal footing with the "physics" of war—weapons lethality, time, distance, space, speed and materiel quality. Experience in the past four years has reinforced the renewed emphasis on leadership and the crucial relationship between the soldier and his leader. The 1986 version continues to emphasize that leadership, unit cohesion, training, morale, skill and courage collectively provide the decisive and winning edge. The mandate for quality leadership remains unwavering and compelling. From Reserve Officers' Training Corps programs to noncommissioned officer academies to the National Training Center, Army training and education programs must produce tough, competent leaders.

Some critics of the 1982 edition argued that the AirLand Battle overemphasized the offense. While the 1976 version of FM 100-5 was interpreted as emphasizing defense, the 1982 edition restored balance and more accurately described the offense than its predecessor. Actually, the 1982 version underscored "initiative," "momentum in the attack," "quick-minded flexibility," "violent execution" and "surprise and shock effect," all characteristics of-and vital to-an offensive spirit. When taken out of context, however, this aggressive terminology appeared to oversell offensive action.

While the new text clearly espouses the offensive spirit as a prerequisite for success on the battlefield even in a defensive posture, it is more carefully articulated to ensure balance and to avoid exaggeration. Within the expanded discussion of the operational level of war, the new manual also explains how offensive actions fit into major defensive operations and campaigns.

Other critics of the 1982 version equated the AirLand Battle doctrine with the deep battle. They asserted that the deep battle was beyond the range of the division's organic weapons systems and the division commander's influence. Thus, it could only be fought at the corps level with air assets or longer range indirect fire support weapons. Extending their argument, critics maintained that indirect fires must be dedicated to deep targets, thereby stripping maneuver

forces of their fire support. Hence, the belief emerged that the deep battle was more important than the close or rear battles.

The new edition explains the importance of the deep battle (renamed for the sake of clarity, "deep operations") by emphasizing the synchronization of all combat operations. While deep, close and rear operations must be mutually supportive, close operations will clearly determine battlefield success or failure, and success in either rear or deep operations can only be measured by its impact on future close operations. Accordingly, the new text emphasizes that operations in depth must be closely integrated with the close fight. High-risk "deep maneuvers" at the division level would be undertaken only if the payoff would produce results that fit the theater commander's or the North Atlantic Treaty Organization (NATO) army group commander's concept or intent.

The modern battlefield demands close and continuous Army-Air Force coordination. Yet, the 1982 edition did not specifically link the Air Force's theaterwide view of air support with the Army's operational-level perspective of the AirLand Battle. The new edition recognizes that future campaigns and major operations will be joint undertakings with mutually supporting air and ground functions. Consequently, those functions—air interdiction, counterair operations, reconnaissance and ground maneuver—are best directed from the theater, campaign and major operation perspectives. The theater commander must concentrate air power against objectives critical to the success of the campaign or major operation.

The new manual does not resolve the dilemma of the corps commander who plans for air interdiction to his front and then fails to get it. However, it does point out that, if planning is done properly, the corps commander will know well in advance whether he is or is not likely to get air support. If he is part of the major operation which is the main effort of the campaign (as the X Corps at Inchon), there is little doubt that he will. If he is in an economy-of-force sector, there is a high probability that his sortic allocation will be less than he wants.

The manual does not address Army/Air Force procedural issues, nor does it refer to specific Army/Air Force agreements which may be superseded in the future as the Army and Air Force resolve procedural issues and refine joint tactics, techniques and procedures. Such items will be covered in subordinate manuals which are updated more frequently.

In my judgment, the unmistakable conclusion remains that the 1982 edition of FM 100-5 was on target. Much to our delight, the concepts and ideas

generated significant thought, reflection, investigation and resultant professional debate. In the midst of this legitimate and necessary dialogue, the 1986 version took shape. Challenging the applicability of the AirLand Battle to a variety of scenarios and environments bolstered the value of the new version. Questioning doctrinal principles strengthened their basic foundation.

The resultant doctrine has undergone extraordinary scrutiny and analysis from within the Army and from our allies. The new manual addresses these concerns and adapts to the needs of the Army worldwide.

The NATO review of the 1982 edition raised many significant issues. The crux of the NATO concerns, however, centered on an interpretation of AirLand Battle as US military strategy rather than doctrine. While written at the tactical and operational levels, FM 100-5 was often misinterpreted as a strategic concept rather than US Army doctrine. References to "defeating the enemy" and "decisive action" were misread as strategic rather than tactical and operational injunctions. That viewpoint generated serious questions regarding:

- Wartime objectives.
- Inconsistencies between AirLand Battle and published NATO doctrine.
- Enthusiasm for offensive, cross-border opera-
- Insensitivity toward the use of nuclear and chemical munitions.
- The employment of follow-on forces attack (FOFA).

AirLand Battle doctrine does not address "strategic victory." Rather, the 1986 edition of FM 100-5 stresses winning at the operational and tactical levels. Not winning is an anathema to the warrior ethos and is professional nonsense. "Winning" in AirLand Battle doctrine means defeating the enemy on the field of battle and destroying his will to resist in engagements and battles of major operations and campaigns that are governed by strategy and national policy. Clearly, tactical success will support allied victory, but defining strategic goals and strategic victory is beyond the purview of FM 100-5.

The 1982 text of FM 100-5 and related briefings and discussions have been viewed as contrary to NATO doctrine and war plans. In the new text, we adopt NATO terminology where appropriate and conscientiously seek to enrich, reinforce and harmonize our doctrine with NATO doctrine. The manual is compatible with Allied Tactical Publication (ATP) 35(A), *Land Force Tactical Doctrine*, and other NATO publications but, by necessity, is more theoretical to satisfy US needs in other theaters. US troops in NATO

can operate in compliance with FM 100-5 and ATP 35(A) without having to violate the precepts of either. AirLand Battle doctrine can be applied at the tactical level of corps, division and below to comply with forward defense-oriented war plans. The expanded text makes this clear.

AirLand Battle doctrine does not espouse a need for cross-border operations in violation of strategy and policy. In fact, the latest version discusses the prohibition of crossing international borders as a major consideration in planning operations and makes clear the primacy of policy and strategy over operations and tactics in all cases. The decision to cross an international border must reside with the strategic command authority.

The 1982 text has been criticized for insensitive language regarding nuclear and chemical weapons employment. The new FM 100-5 acknowledges the strategic significance of nuclear and chemical weapons. The manual also reiterates that the United States has forsworn the first use of chemical weapons and that the release of nuclear or chemical weapons is a strategic decision-again, well beyond the purview of the AirLand Battle doctrine.

A great deal has been said about the differences between AirLand Battle and NATO FOFA. First and foremost, FOFA is a part of the overall Allied Command, Europe (ACE), operational concept for the defense of NATO territory. AirLand Battle, on the other hand, is Army doctrine for worldwide application which will be executed according to the plans and orders of higher commanders and the factors of mission, enemy, terrain, troops and time available (METT-T). Therefore, in Europe, the US Army will apply AirLand Battle doctrine according to the ACE operational concept not only for FOFA but also for other aspects of the ACE concept. Second, FOFA applies explicitly to NATO and, consequently, must accommodate alliance political considerations. Air-Land Battle, however, is universally applicable and flexible enough to adapt to legitimate regional and political considerations.

Finally, FOFA relies on a variety of assets employing minimal ground forces. AirLand Battle also employs available air and other assets but relies predominantly on ground forces to affect the close operation. Thus, though distinctions exist between FOFA and AirLand Battle, these are not contradictions. Rather, they are differences which stem from their very nature—differences that disappear in combat because FOFA is directed toward a specific theater, while AirLand Battle doctrine must be tailored to each theater and the factors of METT-T.

In sum, the 1986 edition of FM 100-5 clarifies its doctrinal role, distinguishes between strategic or policy decisions and doctrine and focuses strictly on the operational and tactical levels of war.

In the past few years, the Army has made great strides in adapting to the AirLand Battle doctrinal tenets of initiative, agility, depth and synchronization. There is still a long way to go, however, before our operations in the field truly reflect these tenets. AirLand Battle doctrine must be fully accepted and thoroughly ingrained in the officer corps. Combat leaders must master the doctrine, integrate it into plans and train according to its tenets to issue and execute mission-type orders confidently and decisively.

Only a leader well-grounded in the AirLand Battle can exploit opportunities to fix the enemy and to attack at the decisive point in battle. Only tactical competence soundly based on our doctrine can generate the skills required to fight with audacity and take necessary risks while implementing solutions to the difficult and dangerous problems encountered in war. Mastery of the AirLand Battle is a key ingredient of the warrior ethos and of the total preparation for war.

To instill the tenets of the AirLand Battle in the officer corps, TRADOC is undertaking a number of initiatives. First, within the Department of Tactics at the US Army Command and General Staff College (USACGSC), Fort Leavenworth, Kansas, we will establish a Center for Army Tactics. The Tactics Center will be on the cutting edge of tactical study, teaching, doctrinal writing and evaluating lessons from those recently assigned to combat units.

As the centerpiece for doctrine and tactics, the Tactics Center will ensure the standardization of instruction throughout TRADOC and set the standards for excellence in tactical training for the Army. Only the Army's finest combined arms tacticians will be assigned there. Our students will learn the most current and sound doctrine and tactics from the Army's best. The synergism will elevate to new heights the quality of our intellectual

and psychological preparation for war by improving our doctrinal writing and tactical teaching.

Second, we must demand that subordinate doctrinal manuals add substance to the AirLand Battle tenets. Repeating FM 100-5's definition of initiative, depth, agility and synchronization, for example, does little to train leaders in how to execute those tenets. AirLand Battle must be translated into tactics that combat leaders can apply in exercises as they hone their battlefield skills in preparation for war. Without frequent practice, the tactics and doctrine will remain elusive and vague. We must doctrinally standardize our "hierarchy" of manuals so that consistency is achieved throughout the force.

Finally, TRADOC will develop and publish the best possible doctrine at each service school. I have challenged all commandants to ensure excellence in the doctrinal product that we provide the field. Doctrine must be current, accurate and standardized. Field commanders must then assume the responsibility for executing the Army's doctrine. Commanders and leaders in the field must read, understand and apply doctrine with innovation and creativity in every training opportunity. They must lift doctrine from manuals and map sheets and bring it to life. Only then will we inculcate the AirLand Battle doctrine from the classroom to the maneuver area and, finally, to the battlefield.

The new FM 100-5 is the most important doctrinal manual in the Army. It responds to the questions which its predecessor generated; it clarifies complex concepts, including strategy, operations and tactics; it serves as a solid foundation for evolutionary, doctrinal change; and it is the fundamental text for every Army officer's military education and training. Competent and confident leaders who know *how to fight* will make the difference between defeat and victory on the battlefield. Every officer must understand that the great value of our doctrine is not the final answers it provides but, rather, the impetus it generates toward creative and innovative solutions to the problems of combat. *MR*

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Full-Dimensional Operations:

A Doctrine for an Era of Change

General Frederick M. Franks Jr., US Army

The 1993 version of US Army Field Manual (FM) 100-5, Operations, was distributed on the Army's 218th birthday. General Frederick M. Franks Jr. notes in this December 1993 article that the new manual "goes beyond AirLand Battle to full-dimension operations." The new manual did not dilute or supplant AirLand Battle doctrine; it simply adjusted the doctrine for the times. Doctrine cannot be static. As Franks points out, it must be adapted as necessary to meet threat, technology and national strategy changes, as well as to take into account lessons learned and warfare's changing nature.

Threats

Unknown

Dangers

National

Military

Strategy

History

Lessons

Learned

Changing Nature of

Warfare

Technology

UST FOUR YEARS AGO, the Berlin Wall was razed, symbolically announcing the end of the Cold War and declaring the dawn of a new era-an era of great change. The strategic landscape is now different and we are in a pivotal and uncommonly challenging period for our nation, our Army and the US Army Training and Doctrine Command. This new strategic context establishes a whole new set of conditions for us. Unlike the relatively predictable environment of the Cold War, we are now faced with much uncertainty in a world of rapidly accelerating change, as events since 1989 have demonstrated. This new environment—this new era—requires a different posture for our nation and our Army, both physically and intellectually. This is a different—decidedly different—challenge from what we faced only a few years ago.

Historically, there are about five categories—warning lights if you will—that light up to indicate that it is time to adjust to a changing environment. These five warning lights are defined by threats and unknown dangers, by our national military strategy, by our history and the lessons we have learned from it, by the changing nature of warfare and by technology.

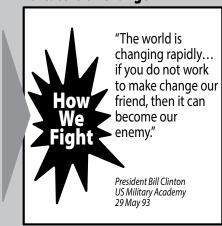
At times, there may have been only one indicator, dimly lit. At other times, maybe two or three were glowing with some intensity. But today, and for the last few years, all of them have been burning brightly to announce that not only are we in a period requiring some significant change, but perhaps that we, too, are entering an entirely new era—a period requiring some bold adjustments in how we think about warfare, war-

fighting and the conduct of operations other than war.

Today, we are confronted with a wide array of new threats and unknown dangers in an environment of worldwide proliferation of warfighting technologies, to include weapons of mass destruction. Our post-Cold War strategic position has demanded a new national military strategy of force projection and the imperative that when we fight, we do it by the application of overwhelming combat power.

Likewise, the nature of competition has changed commensurate with the strategic landscape. Today, availability of off-the-shelf technologies are fueling the rapidly changing nature of warfare and operations other than war. No longer can we gauge and develop doctrinal, training and modernization relevance by a single, well-defined Soviet model. In this new era,

Indicators of Change



requirements and capabilities evolve and proliferate at an unprecedented pace. Potential enemies have the resources and access to high-technology weaponry that, even if purchased in relatively small quantities, have high battlefield leverage. Tactical ballistic missiles are but one example, as are weapons of mass destruction. Others are Global Positioning Systems (GPS), a precious commodity in *Desert Storm*, which are now available to anyone through mail-order catalogues, while cellular telephonic communications provide an unprecedented capability to potential opponents in operations other than war. Capabilities available to our potential enemies are rapidly accelerating and are creating the need for us to field new capabilities much more rapidly than before if we are to maintain the edge.

The last indicator of change is technology. Information age technologies are beginning to revolutionize the battlefield and even change the basic nature of warfare. We are approaching what some call "Third-Wave" warfare or knowledge-based warfare. I believe we are in a revolution in methods of commanding soldiers and units in battle similar to the one that took place in the 1920s with the wireless radio and track-laying technology.

Amid all this we have not been standing still waiting for the signal to begin work. We have aggressively attacked within this new environment of change so that we can continue to grow as an army. We began our attack focusing on the revision of our doctrine. Doctrine continues to be the engine of change. Thus, as a doctrine-based army, change begins by changing our body of ideas-changing how we think about warfighting and conducting operations other than war. We captured the collective wisdom and experience we have gained through history on past and very recent battlefields, on training practice fields, in classrooms and other service to our nation. Then we refined these ideas into our revised doctrine that will frame how we think about warfighting and conducting operations other than war. Thus, we have become a force-projection army, and our revised doctrine, US Army Field Manual (FM) 100-5, Operations, is our engine of change.

On 14 June 1993, our Army's 218th birthday, we unveiled the new FM 100-5, which provides the operational framework to guide our approach to warfighting and conducting operations other than war in a force-projection environment. It goes beyond AirLand Battle to full-dimensional operations, with the Army at the center of the joint team addressing the fundamentals and inherent requirements for a force-projection army. It applies to the Total Army—

reserve, civilian and active components. It is firmly rooted in time-tested, battle-proven principles and builds, where appropriate, on preceding doctrine while addressing contemporary realities and uncertainty and the evolving nature of warfare.

Availability of off-the-shelf technologies are fueling the rapidly changing nature of warfare and operations other than war. No longer can we gauge and develop doctrinal, training and modernization relevance by a single, well-defined Soviet model. In this new era, requirements and capabilities evolve and proliferate at an unprecedented pace. Potential enemies have the resources and access to high-technology weaponry that, even if purchased in relatively small quantities, have high battlefield leverage.

There are some major departures from the previous doctrine, but great continuity as well. Within our national military strategy of power projection, force projection is a major theme and, as such, the new doctrine addresses the more complex demands of that environment in a separate chapter. FM 100-5 continues to emphasize the ideas that military forces should only be committed when the end state is clearly defined and the campaign is not terminated with the cessation of hostilities. Post-combat operations require the same planning effort as does the conduct of war. The doctrine introduces operations other than war in a separate chapter. These types of missions are not new to our Army, yet for the first time how to think about conducting them is in FM 100-5. Just as with combat operations, these missions require planning and execution considerations and application of proven principles. Operations other than war does not mean an absence of combat. They can coexist with, precede, follow or exist independent of war.

As our Army addresses the wide array of missions in the vague and uncertain post-Cold War environment that poses a multitude of diverse threats, our forces must be more versatile. We must prepare to fight and win our nation's wars. Yet, we must be able to transition from that readiness to conduct other operations then quickly transition back, perhaps in the same theater of operations. In view of this requirement, we have introduced *versatility* as a fifth tenet of the doctrine, reflecting the fundamental requirements of a force-projection army in this new era.

The battlefield framework is refined to address more complex and varied battlefields. For most of the last 40 years, the Army was given a battlefield framework dictated by the strategy of the Cold War. It was linear and relatively tightly structured and even lent itself to some rather precise quantitative analysis. That is gone. Our revised doctrine acknowledges this new era by stating that commanders will have to devise their battlefield framework, that is, array their forces on the ground in a specific set of mission, enemy, terrain, troops, and time available (METT-T) circumstances that will result in accomplishing the mission at least cost. That framework is not necessarily given; nor are the strategic parameters

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predictable far in advance. Thus, unlike the tactical and operational battlefield framework in the given set-piece strategic conditions of the Cold War, the force-projection battlefield framework can and probably will vary from linear to nonlinear, with separation of units in time, space and distance.

This revised thinking of a battlefield framework, so different from central Europe or Korea, saw its beginnings in operations *Just Cause* and *Desert Storm*. It represents a significant departure from the AirLand battlefield framework but also includes the possibility that a commander might choose that framework for a given set of METT-T conditions.

The doctrine also introduces five new concepts in the conduct of operations. The first one is *battle command*, a commander—not command post—centered construct to focus combat power from wherever the commander needs to be on the battlefield. Within the demands of the modern battlefield is the need to rapidly evolve from a process-oriented control system within a tightly structured and linear battlefield framework to a commander-oriented method of commanding forces where commanders and smaller staffs have rapid access to information and intelligence when they need it from wherever they choose to be on the battlefield.

The second concept is *battle space*, a new thought to expand our thinking beyond the necessarily linear

confines of the Cold War. The battlefield construct of close, deep and rear are related in time, space and distance to reflect a commander's focus beyond the immediate confines of the defined area of operations. It should force us to remember that battle does not have to be linear or contiguous and that concentrating effects, not necessarily always forces, is the aim of mass. The deep battle does not always have the aim of shaping enemy forces for follow-on close battlefield operations.

The doctrine establishes the concept of depth and simultaneous attack—the idea of presenting the enemy with a series of simultaneous attacks throughout the depth of the battle space as an integral requirement for decisive victory. This simultaneous application of combat power is now part of joint operations doctrine in Joint Pub 3-0, Doctrine for Joint Operations, and frames a new preferred method that results in seamless strategic, operational and tactical levels of war. We saw this doctrinal approach in Just Cause and Desert Storm.

Finally, we have devoted an entire chapter to thoughts about *force projection* and *early entry*—a necessity for a force—projection army in war and operations other than war. Doctrine now includes the idea of split operations for both intelligence and logistics along with thoughts of force tailoring and forecasting to envision the end state or definition of success even before early entry begins.

Battle tempo or operational tempo directly affects our ability to win quickly with minimum casualties. Not necessarily equal to speed, it is the ability to focus and apply combat power at a rate the enemy cannot handle and in a way that preserves the coherence of friendly forces.

In this revision we have given a full chapter to logistics, discussing the need for split-based operations and total asset visibility as our Army operates simultaneously in many theaters of operation and has need to use and reuse scarce assets.

Likewise, we acknowledge that in a force-projection environment, we will always conduct operations as part of a joint team and usually as part of a combined operation or coalition. We have devoted a chapter to describing the fundamentals of joint operations, as well as a single chapter to combined operations. The entire manual, however, reflects the joint and combined nature of modern warfare. Joint warfare is team warfare, and the Army is part of and normally central to the joint team's success. In Chapter 2 of FM 100-5 we say, "actions by ground force units, in coordination with members of the joint team, will be the decisive means to the strategic end."

DOCTRINAL DEVELOPMENT

FM 100-5's introduction states, "winning wars is the primary purpose of doctrine in this manual." That is what we do, fight and win our nation's wars as part of a joint team. Although warfighting continues to be the centerpiece of our doctrine, training and leader development, the revision of FM 100-5 acknowledges in Chapter 13 that our Army will be called on to conduct a range of activities called operations other than war. Since operations other than war do not necessarily exclude combat, how to think about planning and executing these operations builds on the skills, toughness and teamwork gained from the primary focus of our doctrine—warfighting. These principles help commanders and units make the transition through training from warfighting to operations other than war and back.

Technology has a significant place in the manual. Our Army seeks to maintain the battlefield edge in technological advantage in this new strategic landscape, where potential enemies can purchase and field new capabilities at a fraction of the time the Soviets could during the Cold War. FM 100-5 accommodates new technology advances and, in particular, information technology in what I feel is an emerging revolution in the methods we use to command soldiers and units in battle.

In short, the 1993 revision of FM 100-5 represents significant growth and change in methods to meet the challenges of this new era, while at the same time, it continues to emphasize the continuity of proven principles of military operations. A product of intensive intellectual innovation and broad consultation both within and outside the Army, it is the cornerstone for operations into the 21st century and is a bold step forward.

These are challenging times—times of tremendous growth—exciting and not always predictable times for our Army. But we are confident that we have, in Michael Howard's words, "got it about right," in our revision of our keystone doctrinal manual. Without fanfare, we

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have crafted a solid, intellectually sound doctrine for this new era—for a force-projection army—a doctrine for full-dimensional operations with the Army at the center of the joint team. This issue of *Military Review*, and others to follow, contains articles from authors with significant operational experience within their subject and will expand the discussion of the principles and tenets of our new doctrine. As always, the intent is to stimulate thought about our profession in war and operations other than war in a much different strategic environment so that when called, we can accomplish our mission at least cost to our soldiers. *MR*

General Frederick M. Franks Jr., US Army, Retired, lives in Alexandria, Virginia, where he is an author and consultant. He retired in 1994 from his position as commander, US Army Training and Doctrine Command (TRADOC), Fort Monroe, Virginia. Before that assignment, he commanded VII Corps in Germany and led the corps in the coalition's main attack during Operation Desert Storm. His other commands included 1st Armored Division, Ansbach, Germany; 7th Army Training Command, Grafenwöhr, Germany; and 11th Armored Cavalry Regiment, Fulda, Germany. He also served in Vietnam and was the first J7, director of operational plans and interoperability, on the US Joint Staff. His most recent Military Review article, "Battle Command: A Commander's Perspective," appeared in the May-June 1996 issue.

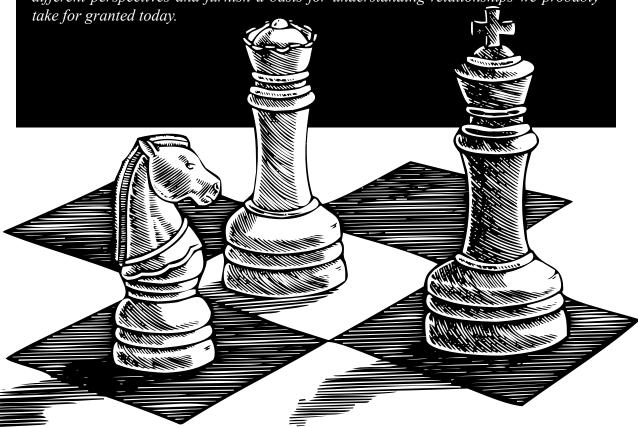
Strategy sieds

US national security strategy has always driven our national military strategy—explicitly in the recent past and probably implicitly before the mid-1980s.

Operational art's development in the 1970s began a renaissance in military thinking that continues to bear fruit. We began to measure a US military officer's success by more than just tactical proficiency. The military discovered it had a crucial interest—and even an inherent responsibility—in the political process, at least insofar as it concerned national security strategy development. Strategy took on a new meaning. Purely military strategy was no longer sufficient and was even dangerous when not linked to the national strategy—as our experience in Vietnam adequately demonstrated.

While the president was clearly responsible for enunciating and communicating US national security strategy to the American people, the defense secretary's role in the process was strengthened, even mandated, as a result of the passage of the Goldwater-Nichols Department of Defense Reorganization Act of 1986.

The military's capability to execute US national strategy in the form of national military strategy made senior military leaders' involvement in national security strategy development paramount. The following articles, dating back to 1956, grapple with this issue from different perspectives and furnish a basis for understanding relationships we probably take for granted today.



Defining

Military Strategy

Colonel Arthur F. Lykke Jr., US Army, Retired

Colonel Arthur F. Lykke Jr.'s pragmatic definition of military strategy is as current today as it was when his article led the May 1989 issue of Military Review. Lykke's model remains the basis for military strategy instruction at the US Army War College. Interestingly, our records show that Military Review rejected this same article in March 1981. According to Lykke, the editors felt an article on strategy would be inappropriate for students at the Army's senior tactical school.

HAT IS MILITARY STRATEGY? In ancient Greece, it was the "art of the general." In its glossary of military terms, the US Army War College lists eight definitions of military strategy. This highlights the first of many problems in the study of this important but complex subject. There is no universal definition or even the approximation of a consensus. Today the term "strategy" is used altogether too loosely. Some call a line drawn on a map a strategy. Others believe a laundry list of national objectives represents a strategy. The problem is not just semantics; it is one of effectively and competently using one of the most essential tools of the military profession. In trying to decide between alternative strategies, we are often faced with a comparison of apples and oranges, because the choices do not address the same factors. Only with a mutual understanding of what comprises military strategy can we hope to improve our strategic dialogue. There needs to be general agreement on a conceptual approach to military strategy: a definition, a description of the basic elements that make up military strategy and an analysis of how they are related. For the purpose of this discussion, we will use the definition approved by the US Joint Chiefs of Staff: "The art and science of employing the armed forces of a nation to secure the objectives of national policy by the application of force or the threat of force."1

During a visit to the US Army War College in 1981, General Maxwell D. Taylor characterized strategy as consisting of objectives, ways and means. We can express this concept as an equation: Strategy equals *ends* (objectives toward which one strives) plus *ways* (courses of action) plus *means* (instruments by which some end can be achieved). This general concept can be used as a basis for the formulation of any type strategy-military, political, economic and so forth, depending upon the element of national power employed.

We should not confuse military strategy with national (grand) strategy, which may be defined as: "The art and science of developing and using the political, economic and psychological powers of a nation, together with its armed forces, during peace and war, to secure national objectives."²

Military strategy is [only] one part of this all-encompassing national strategy. The military component of our national strategy is sometimes referred to as national military strategy-military strategy at its higher level and differentiated from operational strategies used as the basis for military planning and operations. Military strategy must support national strategy and comply with national policy, which is defined as "a broad course of action or statements of guidance adopted by the government at the national level in pursuit of national objectives." In turn, national policy is influenced by the capabilities and limitations of military strategy.

With our general concept of strategy as a guide-strategy equals *ends* plus *ways* plus *means*-we can develop an approach to military strategy. *Ends* can be expressed as military objectives. *Ways* are concerned with the various methods of applying military force. In essence, this

becomes an examination of courses of action designed to achieve the military objective. These courses of action are termed "military strategic concepts." *Means* refers to the military resources (manpower, materiel, money, forces, logistics and so forth) required to accomplish the mission. This leads us to the conclusion that *military strategy* equals *military objectives* plus *military strategic concepts* plus *military resources*. This conceptual approach is applicable to all three

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levels of war: strategic, operational and tactical. It also reveals the fundamental similarities among national military strategy, operational art and tactics. Strategists, planners, corps commanders and squad leaders are *all* concerned with *ways* to employ *means* to achieve *ends*.

Some readers may question this idea, thinking that while military resources are necessary to support a strategy, they are not a component of that strategy. They would limit military strategy to a consideration of military objectives and military strategic concepts. However, in discussing the importance of superiority of numbers, Carl von Clausewitz stated that the decision on the size of military forces "is indeed a vital part of strategy." And Bernard Brodie points out that "Strategy in peacetime is expressed largely in choices among weapons systems…" By considering military resources as a basic element of military strategy, we may also alleviate the problem of disregarding the importance of military objectives and strategic concepts while concentrating mainly on force structure issues.

There are two levels of military strategy: operational and force development. Strategies based on existing military capabilities are operational strategies-those that are used as a foundation for the formulation of specific plans for action in the short-range time period. This level of strategy has also been referred to as higher, or grand, tactics and operational art. Longer-range strategies may be based on estimates of future threats, objectives and

requirements and are therefore not as constrained by current force posture. These longer-range strategies are more often global in nature and may require improvements in military capabilities. Military strategies can be regional as well as global, concerning themselves with specific threat scenarios.

Military objectives and military strategic concepts of a military strategy establish requirements for resources and are, in turn, influenced by the availability of resources. If we fail to consider military resources as an element of military strategy, we may be faced with what has come to be called a strategy-capabilities mismatch; in other words, inadequate military capabilities to implement the strategic concepts and to accomplish the objectives of a military strategy. This is the usual case when we are developing a long-range strategy requiring improved military force structure capabilities. However, it may be disastrous if we are concerned with an operational strategy upon which contingency plans and military operations will be based. That is why operational strategies must be based on capabilities.

Let us zero in on the first basic element of any military strategy—a military objective. It can be defined as a specific mission or task to which military efforts and resources are applied. Several examples come to mind: deter aggression, protect lines of communication, defend the homeland, restore lost territory and defeat an opponent. The objectives should be military in nature. While Clausewitz, V.I. Lenin and Mao Tse-tung have all emphasized the integral relationship of war and politics, military forces must be given appropriate missions within their capabilities. B.H. Liddell Hart stresses that: "In discussing the subject of 'the objective' in war it is essential to be clear about and to keep clear in our minds, the distinction between the political and military objective. The two are different but not separate. For nations do not wage war for war's sake, but in pursuance of policy. The military objective is only the means to a political end. Hence the military objective should be governed by the political objective, subject to the basic condition that policy does not demand what is militarily—that is, practically—impossible."

In our definition of military strategy, the ultimate objectives are those of national policy. Sometimes policy guidance is difficult to find, unclear or ambiguous. National policy also concerns itself with all the basic elements of national power: political, economic, socio-psychological and military. To make things even more interesting, national policies in these various fields are often overlapping and may even be contradictory. There are seldom "purely military" or "purely political" objectives. National leaders may choose to use the military element of power in pursuit of national policy

objectives that are primarily political or economic in nature. This can cause problems. Sometimes military force is not the appropriate tool. Military commanders may then have difficulty deriving feasible military objectives from the objectives of national policy.

Now let us examine a military strategic concept. It can be defined as "the course of action accepted as the result of the estimate of the strategic situation." Military strategic concepts may combine a wide range of options, such as forward defense (forward basing and/or forward deployment), strategic reserves, reinforcements, show of force, pre-positioned stocks, collective security and security assistance. These are a few of the ways military forces can be used either unilaterally or in concert with allies. The determination of strategic concepts is of major importance. However, do not make the mistake of calling a strategic concept a strategy. Strategic concepts must always be considered in relation to military objectives and resources.

Finally, we should study the *means* portion of our military strategy equation—the military resources that determine capabilities. These may include conventional and unconventional general purpose forces, strategic and tactical nuclear forces, defensive and offensive forces, Active and Reserve forces, war materiel and weapon systems, as well as manpower. We should also take into consideration the roles and potential contributions of our allies and friends. The Total Force package must be well-rounded with combat, combat support and combat service support elements adequately equipped and sustained. Depending on the type of strategy we are developing, the forces we consider using may or may not currently exist. In short-range operational strategies, the forces must exist. In longer-range force developmental strategies, the strategic concepts determine the type of forces that should exist and the way they are to be employed.

Now that we have looked at the basic elements of military strategy, let us try to put them together in some meaningful way. The figure shows one possible model. National security, our most vital interest, is supported on a three-legged stool titled "Military Strategy." The three legs of the stool are labeled "Objectives," "Concepts" and "Resources." This simple analogy leads one to the observation that the legs must be balanced or national security may be in jeopardy. If military resources are not compatible with strategic concepts, or commitments are not matched by military capabilities, we may be in trouble. The angle of tilt represents risk, further defined as the possibility of loss, or damage, or of not achieving an objective. It is, of course, the duty of the military to

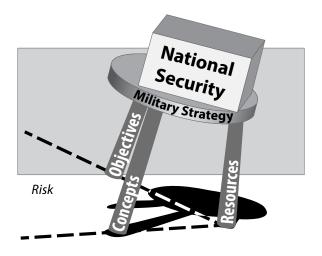
determine if there is risk associated with a strategy, assess the degree of risk and bring it clearly and forcefully to the attention of civilian leaders.

Let us test our model with an example to see if it is useful in explaining military strategy. The Carter Doctrine was a statement of national policy: "Let our position be absolutely clear. An attempt by any outside force to gain control of the Persian Gulf Region will be regarded as an assault on the vital interests of the United

"In discussing the subject of `the objective' in war it is essential to be clear about and to keep clear in our minds, the distinction between the political and military objective. The two are different but not separate. For nations do not wage war for war's sake, but in pursuance of policy. The military objective is only the means to a political end. Hence the military objective should be governed by the political objective, subject to the basic condition that policy does not demand what is militarily—that is, practically—impossible."

States of America. Such an assault will be repelled by any means necessary including military force."

We must devise a military strategy to carry out this policy. One implied objective is securing access to our Persian Gulf oil supplies. We should first translate this economic/political objective into military objectives, such as maintaining freedom of passage through the Strait of Hormuz and defending key oil fields, refineries and ports. The strategic concept might be by means of a rapid deployment force from our strategic reserves. But, do we have sufficient strategic mobility and power projection capabilities in being today to keep the



One should remember that under ideal circumstances, military objectives and strategic concepts determine force structure and worldwide deployments of military forces. However, military objectives and strategic concepts are necessarily affected by the capabilities and limitations of the military forces in being.

stool level? Which leg needs to be adjusted? Military resources? To program and produce the required airlift and sealift forces may take years. In order to have a feasible short-range operational strategy, it may be wiser to change the strategic concept to that of forward defense and station or deploy more US military force in the region.

Perhaps we have examined the subject of military strategy in sufficient depth to arrive at some initial conclusions regarding its nature. First, it is not the title of a strategy that is important; it is the content that counts. The names are often changed for cosmetic reasons, reflecting little substantive alteration. A study of history shows that military strategies have been identified by a wide variety of labels. The "Massive Retaliation" of the Eisenhower administration, the "Flexible Response" of the Kennedy administration and the more recent "Realistic Deterrence" have all been referred to as strategies. We had the "2 ½-war strategy" of the Johnson administration changing to a "1½-war strategy" following the Sino-Soviet split, and the realization that buying a military force in time of peace that could fight 2 ½ wars simultaneously was just too costly. These latter examples of strategic statements describe procurement guidelines for a force structure rather than military strategies. Other names for "strategies" over the years have been: attrition, annihilation, countervalue, counterforce, warfighting, direct and indirect approach, search and destroy, oil spot, assured destruction, containment and countervailing.

One should remember that under ideal circumstances, military objectives and strategic concepts determine force structure and worldwide deployments of military forces. However, military objectives and strategic concepts are necessarily affected by the capabilities and limitations of the military forces in being.

Military strategy may be declaratory or actual. In other words, as stated by our leaders, it may or may not be our real strategy. US military strategy has seldom been clearly expressed and infrequently described in sufficient detail for all to understand. Some say that it is unwise, impossible or even dangerous to openly enunciate a military strategy. This very act may limit our options in a crisis situation or tip off our potential adversaries on what our actions might be.

A nation may need *more than one* military strategy at a time. For instance, if a nation has only a deterrent strategy and deterrence fails, what does the nation do then? Surrender? Submit to piecemeal attacks and incremental losses? Unleash a massive strategic nuclear attack? These are some of the options, if it does not also have a warfighting strategy. Military strategy can change rapidly and frequently, since objectives can change in an instant. However, it takes much longer to alter the military forces so that they may be responsive to new objectives and concepts.

In summary, military strategy consists of the establishment of military objectives, the formulation of military strategic concepts to accomplish the objectives and the use of military resources to implement the concepts. When any of these basic elements is incompatible with the others, our national security may be in danger. **MR**

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Why Aren't Americans Better at Strategy?

Steven Metz

This article followed Colonel Arthur F. Lykke Jr.'s article in the May 1989 edition of Military Review, which was devoted to strategy. Here, Steven Metz outlines the difficulties of defining a coherent national security strategy in a democracy where consensus and the need for short-term results often seem to outweigh long-term interests. Such a situation is especially difficult for the military profession, which remains responsible for developing and executing a coherent national military strategy. Metz's frank views were accompanied with the standard Department of Defense disclaimer, noting that "the views expressed in this article are those of the author" and did not reflect establishment thinking.

ODAY AMERICAN SECURITY professionals and policy makers are inundated with calls for a coherent national security strategy. Critics contend that no comprehensive strategy emerged to replace the one shattered by the trauma of Vietnam. And, the argument continues, the absence of a unified strategy is rapidly passing from a bearable handicap to a true danger. Even those who do not go so far as to insist that the United States has no grand strategy admit that strategy is not a national strength. In general, Americans "have not developed a native tradition of strategic thought and doctrine" and exhibit an "inability or unwillingness to think strategically." No one is more aware of this than military officers who deal on a daily basis with the threats facing the nation. Since all military missions flow from strategy, vagueness and inconsistency in the national strategy hampers the efficient performance of military tasks from the platoon level to the Pentagon. Skill in tactics or the operational art is useful only as a reflection of strategy; thus, the coherence or incoherence of national strategy reverberates throughout the military.

Strategy, according to B.H. Liddell Hart, is a process of calculating and coordinating means and ends.² Given the absence of a strategic tradition, the US currently faces a mismatch between commitments and the capability to attain or protect these commitments.³ There are three potential solutions to such a dilemma:

- An increase in means.
- A decrease in commitments.
- The development of more efficient and effective ways of using existing capabilities.

It is unlikely, given political and economic realities, that a substantially larger proportion of national resources will be devoted to security in the upcoming decade, and retrenching on global commitments is both difficult and dangerous. This leaves only the drive to squeeze the maximum impact from existing capabilities. One way to do this is through a superior national strategy that coordinates all elements of national power in pursuit of clear objectives.

During the last 40 years, there were 13 attempts to craft a broad national security strategy.⁴ Most recently, Congress mandated the publication of an annual statement of American national security strategy by the president. In an associated move, the blue-ribbon Commission on Integrated Long-Term Strategy produced a number of suggestions.⁵ Yet, as concrete blueprints for a coherent national strategy, both of these suffered from serious shortcomings. The White House document was more a statement of "here's what we're doing" than a framework for the future, and the commission's findings proved so politically controversial that they were not embraced by top national security policy makers.

Retired Senator Barry M. Goldwater, who is painfully aware of the mismatch between national commitments and national means, bluntly stated, "We need a

Centuries of isolationism, the absence of clear threats to national security and abundant natural resources meant that there was little need for strategy. Attention naturally turned inward, and domestic matters received priority over international concerns. In addition, the geographic isolation of the United States, during the crucial period when the nation's political culture and Weltanschauung developed, led to a self-centeredness and misunderstanding of other cultures. Any coherent strategy must be grounded in comprehension of both one's own values, proclivities and perceptions and those of potential allies and enemies.

grand strategy and we need it now." Clearly, the nation is beginning to suffer the consequences of an approach to the world driven by whims and disjointed policies. Such an *ad hoc* technique is short on precisely the characteristics that determine strategy: vision, consistency and creativity. But even while the US desperately needs a coherent strategy, security professionals and policy makers seem incapable of developing one. The causes of this conundrum lie deep within our national psyche and encompass cultural, organizational and historical factors. Since the military is an active participant in the drive for a national strategy, the better an officer understands these obstacles, the better he is equipped to transcend them.

Cultural Factors

Impatience permeates American culture. Whether in finances or national economics, the thirst for quick gratification generates a "credit card" mentality. Resources are used wantonly and frugality rejected, since, like the grasshopper of childhood myth, the nation assumes that the future will take care of itself. Deficits and weaknesses can be confronted later rather than now. This results in a "throw away society" where next week's fashion, automobile or song must, by definition, be radically different than this week's.

American foreign and national security policy reflects this. Where Asians and Europeans appear willing to wait decades for the attainment of objectives, the United States flits from tactic to tactic, giving each only the briefest period to generate tangible results. This impatience amplifies rapid swings in popular moods, particularly concerning the extent of American responsibility for the construction and maintenance of world order. Over time, attitudes range from megalomaniacal

confidence that our system of social, political and economic organization is appropriate for all nations, to morose self-doubt, characterized by the belief that the exercise of American power invariably generates evil.

From this comes a variant of liberal internationalism—the American ideology which is essentially antivisionary. American liberalism is process—oriented rather than value-prescriptive. As long as the proper processes are followed-representative democracy, capitalism, rule by law, constitutionally guaranteed liberties—the ideology does not specify codes of individual or group behavior. The dilemma for the United States comes when the appropriate processes do not generate the expected outcomes, such as political stability, individual rights and economic prosperity. On one hand, the United States hesitates to dictate outcomes to other nations—witness our discomfort with manipulation of the election in El Salvador to assure the election of Jose Napoleon Duarte-yet becomes frustrated when liberal processes are perverted by erstwhile allies.

In a sense, any sort of central planning is considered a potential threat to freedom. A rigid plan is seen as the depersonalized equivalent of a dictator, and instead flexibility, manifested as "muddling through," is favored. Traditionally, Americans believed that "grand strategy was the agenda of monarchs, serving their needs at the expense of their people." This mitigates against what Edward N. Luttwak calls the "discipline of strategy." Further hindrances to strategic thinking come from the general American approach to problem solving. This favors atomist and reductionist techniques that stress dichotomies and differences rather than linkages and relationships. The outcome is national security policy stressing a historical and politically sterile quantitative analysis. 10

Organizational Factors

Cultural activities affect the way that decision making is structured. Organizational factors, in turn, create obstacles to the development of strategy. Two elements of our political organization are particularly problematic. The first is the dispersion of power—the system of checks and balances integral to the American political system. From Montesquieu on, political theorists touted the ability of checks and balances to preserve individual liberty and protect against state repression, but this same feature also mitigates against coherence and creativity.

Strategy making in the American system is essentially a process of consensus building. Power is spread among a multitude of agencies, and authority and responsibility are often quarantined. This is especially

evident in relations between the branches of government. As the keeper of the purse, Congress is a vital actor in strategy formulation, but the natural antagonism between the legislature and the executive branch, when combined with the domestic orientation of Congress, hinders consistency. The congressional budget process, which leads to erratic funding levels for international commitments, amplifies this problem.

The electoral process erects further obstacles to a coherent and consistent strategy. Policies are susceptible to radical quadrennial swings. In fact, such swings are virtually guaranteed by the need of political challengers to draw distinctions between themselves and incumbents. In addition, the spoils system, which is a traditional part of American politics, often leads to the selection of policy makers based more on loyalty to the president or possession of proper ideological credentials than on an understanding of history, statecraft or strategy.¹¹

Within this political turbulence, the intended vehicle of stability is the professional elite—both civilian and military—that staffs the national security bureaucracy. This talented group does, in fact, impart some sorely needed steadiness to American security policy. But the problem, as Henry A. Kissinger noted, is the essential lack of creativity and innovation inherent in any bureaucracy. Standing operating procedures, precedents, and the imperatives of interagency consensus and intraagency conformity often stifle new ideas, and repressively channel policy into tested patterns reflecting past problems rather than present ones.

Beginning in the 1960s, the predominance of a "managerial" style within the Department of Defense (DOD) further isolated those rare planners who did think in strategic terms. Associated with the DOD reorganizations of Secretary of Defense Robert S. McNamara, this was initially an attempt to solidify civilian dominance of the military. The services quickly adopted the position, "if you can't beat them, join them," and began to stress management technique and quantitative analysis in their own practices and training. The predictable result was a decline in the skills needed for strategy.

Historical Factors

Shackles on innovation are not simply the creation of bureaucratic socialization, and rapid swings in political moods do not come solely from the absence of courage in contemporary elected officials. The reasons lie deeper than that. In fact, the "astrategic" nature of the American approach to the world grew directly from our historical experience.

Centuries of isolationism, the absence of clear threats to national security and abundant natural resources meant that there was little need for strategy. Attention naturally turned inward, and domestic matters received priority over international concerns. In addition, the geographic isolation of the United States, during the crucial period when the nation's political culture and *Weltanschauung* developed, led to a self-centeredness

the post-World War II tradition of the US world role from that of liberal reformer to cautious conservative also cramped the development of strategy. Strategy is essentially goal-oriented. The clearer the notion of the goal to be sought, the easier it is to craft a strategy to attain it. Conservatism, on the other hand, is antivisionary and seeks to prevent or limit change rather than encourage and control it. Thus, it is easier to construct a strategy of reform or revolution than a strategy of the status quo.

and misunderstanding of other cultures. Any coherent strategy must be grounded in comprehension of both one's own values, proclivities and perceptions and those of potential allies and enemies. The psychological isolation of the United States, which lingers to this day, hinders such understanding.

In a great twist of irony, American military success was thought to prove that a peacetime grand strategy was unnecessary. In the 19th century, the only truly difficult war fought by Americans was, in fact, fought among Americans. 15 Twentieth century experience further reinforced the belief that production, rather than skill at strategy, determined national security. The ability of the United States to mobilize appeared boundless, hence these did not have to be used with efficiency. It was only conflict with an adversary equally deep in military resources—the Soviet Union—that began to chip away at this confidence. In a new variation of this traditional belief Americans concluded that technological superiority could offset quantitative weakness, and again, skill, frugality and efficiency-all features of strategy—were ignored.

Finally, the post-World War II tradition of the US world role from that of liberal reformer to cautious conservative also cramped the development of strategy. Strategy is essentially goal-oriented. The clearer the notion of the goal to be sought, the easier it is to craft a strategy to attain it. Conservatism, on the other hand, is antivisionary and seeks to prevent or limit change rather than encourage and control it. Thus, it is easier to construct a strategy of reform or revolution than a strategy of the status quo.

Clearly, the United States has not become a purely conservative or reactionary power along the lines of Prince Metternich's Austria. There is still something of the old liberal spark in American foreign policy and at least a misty vision of a preferred future world. But at the same time, the conservative tendencies in our statecraft are undeniable, and all too often we seek to thwart change rather than encourage and manage it. Whether one supports or opposes the conservatism that accompanies global responsibility and world leadership, the obstacles posed to the generation of a national strategy remain.

The "astrategic" characteristics of Americans are at their worst in the realm of grand strategy. It is there, where the need for integration and the impact of cultural and organizational factors is the greatest, that creativity, consistency and vision are in the shortest supply. Military strategy suffers somewhat less. Because the military is, to some extent, isolated from the rest of society, a distinct military subculture, which includes patterns of analysis, understanding and problem solving, exists. As a general rule, the military subculture is less hostile to strategic thinking than the wider American culture. But while the military subculture softens the impact of cultural, organizational and historical factors, it cannot totally deflect them. After all, military strategy must be accepted by the wider political leadership and, on a personal level, no officer is totally divorced from the nonmilitary dimension of American culture. Military strategy is simply one small part of a larger whole, since, as Gregory D. Foster noted, "strategy in the modern

age can only be thought of as *grand strategy*."¹⁶ Thus, the military strategist must understand the impact that both his immediate environment and the wider social context have on strategic planning.

Yet, however useful it is to understand the reasons for the "astrategic" tendencies of the United States, such understanding is, at best, a small step toward resolution of the problem. The real key is to search for ways to transcend these limitations. But given the pervasiveness and depth of the constraints on strategy, partial solutions are the best that can be expected. Many of the factors, particularly cultural and historical ones, are beyond the control of cognoscenti who decry the lack of an American strategy. Even organizational factors, though more controllable, can prove extremely resilient to reform. The failure of the most serious and sustained attempt to organize American national security strategically-that of Richard M. Nixon and Kissinger-illustrates how truly difficult it is.

The unhappy conclusion is that in the short term, the United States must accept the costs that accrue from the inability to craft a coherent and consistent grand strategy. The consensus required to truly transcend the factors that hinder the development of a national strategy will only emerge as the costs of an "astrategic" national security policy become glaringly clear. Even the officer who is aware of this cannot enact major changes in the essence of the American system; but armed with understanding, he can learn to tolerate the frustrations that come from striving for strategy in an "astrategic" setting. **MR**

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Western Defense Planning

Captain B.H. Liddell Hart, British Army, Retired

Captain B.H. Liddell Hart's lead article in the June 1956 issue of Military Review gives a concrete example of the difficulties of developing a coherent military strategy, as outlined in the preceding two articles. In view of the existing "mutual assured destruction" strategy at the dawn of the nuclear age, Liddell Hart's proposal for "graduated action" as a military strategy for a young NATO also prophetically foreshadowed the Kennedy Doctrine of "flexible response."

DJUSTMENT TO THE NEW realities of the atomic age is depressingly slow among the powers that be—both in high military quarters and in the centers of government. Yet, one can sympathize with the planners in their effort to adapt military doctrine to the superrevolutionary effects of atomic energy. It is very difficult for reason and imagination to bridge the gulf between warfare in the past and warfare where atomic weapons—bombs, missiles and shells—can be used in hundreds or thousands, and where hydrogen bombs, each equivalent to millions of tons of high explosive, are also available. What that means may be better realized if we remember that the original atom bomb used at Hiroshima, with shattering effect, was merely equivalent to 20,000 tons of high explosive.

On a realistic reckoning of the effects of present weapons, it is evident that present defense planning is far from being adequately adjusted to new conditions. While there is much talk of preparedness for nuclear warfare, the actual changes which have been made in military organization are relatively slight compared with the immensity of the problems arising from development of nuclear weapons.

The defense measures of the NATO countries have a palpable air of unreality, and the forces they have been building up are still very markedly under the influence of "war as it was"—in 1945 and earlier. In the continental countries, this persisting outlook may be partly explained by the fact that their leaders are less closely in touch with nuclear potentialities than those of the United States, not having taken a hand in the development of nuclear power. They are also habituated to thinking of

warfare mainly in terms of land operations with large conscript armies, an ingrained tendency which led them into disastrous trouble even in World War II by causing them to overlook the extent to which the airpower of that date could upset their military ground plans. In France, there is more sign than elsewhere of an effort to think out the military problem afresh, but the process and its application have been hindered by ceaseless colonial distractions—for years in Indochina and now in North Africa. Moreover, the influence of new French thinking tends to be diminished by the loss of prestige which France has suffered since the disasters of 1940.

In Germany there is a fund of military experience greater than anywhere else, and eventual defeat in World War II should not only produce more readiness to learn from its lessons but also create an atmosphere favorable to fresh thinking and new techniques. On the other hand, however, the chiefs of the new Ministry of Defense (Amt Blank) are handicapped by a 10-year blank in experience of dealing with military problems. They naturally tend to look at these problems through 1945 eyeglasses, while the very mastery they acquired in conducting "operations" makes it more difficult for them to visualize a kind of warfare in which there will be no scope for such large-scale maneuver. Moreover they have been working out plans for the new German forces on the lines laid down for them several years ago by NATO, and they fear to consider changes that would upset their carefully planned structure.

Visiting the army and air force executive headquarters of the NATO forces in Germany and elsewhere, one finds more realism. But as they have to carry out NATO

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plans, they are bound to put compliance with the existent plans ahead of adjustment to new conditions. Moreover, they have to train the forces under their control, which has to be done through a framed pattern of exercises, and these have to be based on things as they are, rather than on what should be.

"Integrity of NATO"

At Supreme Headquarters Allied Powers Europe (SHAPE), the fountainhead, the primary concern has been to "maintain the integrity of NATO" under increasingly difficult circumstances. So the heads of SHAPE shrink from any adjustment which may imperil, in their view, what they have built up with so much difficulty. A keynote at SHAPE is "objectivity," and it has been applied well in avoiding national bias in dealing with Western defense problems. But that keynote is not really compatible with the present paramount concern to avoid any changes that might upset the "integrity of NATO." Such a concern is essentially *political* and entails an attitude to military problems that is not truly scientific. This political concern is quite understandable when one realizes that the five-year struggle to build up Western defense on the NATO basis has presented varied political complications and objections from many different countries.

NATO and SHAPE plans were good military sense when they were framed—five years ago. But they have been whittled down repeatedly so that they no longer provide adequate defense insurance on their original basis—to furnish an effective alternative to dangerous reliance on the atom bomb. By the very risk of bringing on an all-out atomic war, the adoption of

tactical atomic weapons undermines the original basis and guiding principle. Moreover that basis has been badly shaken by the immense development of nuclear weapons since 1950—above all the H-bomb with its overwhelming powers of destruction and suicidal consequences, if used.

Compound Pressures

At the same time, the NATO defense structure is now endangered by compound pressures—financial, psychological and political.

- Financial—The desire and need of all governments to reduce military expenditures which would be ruinous if forces of all types were maintained at planned scale, and also if they are to be equipped with new kinds of increasingly expensive weapons.
- Psychological—The growing view of the public everywhere-which is not blinkered by vested interest-that the older forms of force are out of date and irrelevant to real defense problems. This view and feeling is multiplying the financial pressure.
- Political—The new and more friendly line taken by the Soviet Union which fosters the feeling, not only among the public, that the danger is diminishing and that defense expenditure is becoming unnecessary. This, again, multiplies the pressure. In Germany, an important subsidiary factor is the Germans' natural desire for reunification and the growth of a feeling that this can only be attained by detachment from NATO and becoming neutral.

All these factors and pressures are likely to increase in the near future. If the heads of NATO and SHAPE cling to their present structure (and pattern of forces) and shrink from readjustment, there is all too much likelihood that the alignment will crumble away like a sand castle. It is foolish to pursue political expediency to the point where it does not make sense militarily.

Western defense planning has the ominous appearance of having traversed a "full circle" since the outbreak of the Korean conflict in 1950. To be more precise, it has moved round a spiral course and back to the same point but on a more perilous plane, while receding from its central object.

When the invasion of South Korea demonstrated that the United States possession of such a supreme weapon as the atom bomb was not sufficient to deter such Communist aggression, the Western Powers embarked on rearmament programs which were aimed to recreate a surer form of defense with enlarged conventional forces. The principal effort was made in continental Europe with the formation of NATO and under the military direction of SHAPE—but the planned scale of strength in number of divisions was never attained. Indeed, the

program itself was both whittled and slowed down—partly because the contributing governments, particularly those on the Continent, found that the burden was greater than they were willing to bear; and also in the case of France because her forces were drained away to deal with widespread colonial troubles.

At the same time, new varieties of the nuclear weapon were being developed which appeared at first sight to be an easy and hopeful means of offsetting the deficiency in conventional forces. One development was the thermonuclear weapon of such immensely destructive effect as to be capable of destroying an entire city. Another was a range of new atomic weapons small enough to be of tactical use against troops and airfields.

Fateful Decision

These developments produced a new turn in Western defense planning—back toward reliance on nuclear weapons to counterbalance the Communist bloc's much larger numbers of troops. That decision was accompanied by a fresh and very dangerous complication arising from the fact that the Soviets had already begun to develop weapons of a similar type.

The fateful decision was made plain when General Alfred M. Gruenther stated in June 1954 that: "In our thinking we visualize the use of atom bombs in the support of our ground troops. We also visualize the use of atom bombs on targets in enemy territory." The implications of General Gruenther's announcement were made more emphatic by Field Marshal Montgomery in October when he declared: "I want to make it absolutely clear that we at SHAPE are basing all our operational planning on using atomic and thermonuclear weapons in our defense. With us it is no longer: 'They may possibly be used.' It is very definitely: 'They will be used, if we are attacked.'"

Yet, a few sentences later he stated that: "There is no sound civil defense organization in the national territory of any NATO nation"—and added that unless such security exists, "a nation will face disaster in a world war, since the homefront will collapse." It seemed extremely illogical that the heads of SHAPE should base *all* their operational planning on a course of action that, even in their view, is bound to result in "collapse." Yet, the statesmen of the NATO countries at their meeting in Paris just before Christmas endorsed this planning policy.

Field Marshal Montgomery's declaration was made in a lecture in London entitled "A Look Through a Window at World War III," and he pictured this as a prolonged struggle in three phases, ending in victory and the enemy's surrender-as in World Wars I and II. Repeatedly, throughout his lecture, he used the traditional terms "win the battle" and "win the war" and talked of thus "bringing the war to a successful conclusion." These are out-of-date terms and concepts in the atomic age.

Significant Change

A year later, in October 1955, he delivered a subsequent lecture in London which showed a significant change of outlook when he said at the end: "I now put it to you that the words 'win' or 'lose' no longer apply to contests between nations which have nuclear power of any magnitude. . . . I have been studying nuclear war for a considerable time and I have come to the conclusion that man will have it in his power in the future to destroy himself and every living thing on this planet. . . . Our aim must be to prevent war; the prospect of winning or losing is not a profitable subject."

But NATO planning has not yet been adjusted to this revised and wiser conclusion, whereas thoughtful people in most of the countries concerned reached such a conclusion long ago. The gap has produced a growing gulf between military and public opinion and unless early and adequate steps are taken to bridge this gap the entire prospect of Western defense may founder. Defense planning creates no incentive for defensive effort it if offers no better hope than mutual suicide when put into action. The NATO nations are in danger of apathetically sinking into a "Slough of Despond." If that is to be prevented, the entire system of defense must be thought out afresh with the aim of producing a nonsuicidal form of defense.

Retaliation Versus Deterrence

The power of retaliation-with the H-bomb-is the most effective deterrent to deliberate aggression on a large scale, for the aggressor, even if not destroyed, would suffer damage far exceeding anything he could gain. The capacity for "massive retaliation" with H-bombs thus renders very unlikely any "massive aggression"-such as an attempt to overrun Western Europe or to paralyze Great Britain and the United States by surprise air attack. But this power of retaliation is far less sure as a deterrent to smaller scale aggression or as a check on the risk of an unintentional slide into an all-out war of mutual suicide.

The fundamental drawback of present defense policy, based on the H-bomb, is that it tends to become an "all or nothing" course. The consequences of unlimited war with nuclear weapons would be so fatal to everyone involved that the prospect causes hesitation, delay and the feebleness in reacting to any aggression which is not obviously and immediately a vital threat. The general effect is weakening the will to make a stand against aggression, particularly any that occurs outside the vital

area of Europe, while increasing the risk that an all-out war may be precipitated through an emotional spur of the moment decision.

The Western allies' position would be firmer and their prospect better if they had an intermediate course—a policy of "graduated deterrence" and a plan of graduated action. Such a policy would show a sane realization that the concepts of "victory" and "unlimited war" are utterly

To adopt the principle of "graduated action" would be the safer defense policy. Moreover, by making it clear that we intend only to use the H-bomb as the last resort, we should strengthen our moral position, diminish the fear that any stand against aggression will be more certainly fatal than giving way and check the spread of neutralism. The use of this principle would allay the growing antagonism in Asia which has been fostered by the way that Western leaders, by their harping on "massive retaliation," have lent color to the idea they are the most likely "mass destroyers" of mankind.

out of date and nonsensical. Instead, this intermediate course would be based on the principle of applying the *minimum* force *necessary* to repel any particular aggression; its action would be directed primarily against the forces engaged in the aggression. This new aim would be to make the aggressors *abandon their purpose*, in place of the traditional war aim of "conquering" them and compelling their "surrender"—an older concept that has always been foolishly shortsighted in modern times and which has now become insanely suicidal in the atomic age.

The hydrogen bomb is a fatal boomerang that impels a new trend to the limitation of war and the avoidance of any action likely to drive an opponent to desperation. The chief hindrance to this newer aim is the habit of thought that lingers among a generation of leaders who grew up in the period and climate of "total war." It is more difficult for them to adjust their minds and planning to the need for limitation and the principle of "graduated action" than it would have been for the wiser statesmen of previous centuries. They admit that the unlimited use of nuclear weapons would be "suicide," but the form of their defense planning, and their speeches about it, show little reiteration is needed to keep them conscious of this aspect.

The prospects of limitation of war would be best if conventional weapons alone were used, and sufficed to check aggression, but the NATO authorities have come to the conclusion that with conventional weapons their present forces are not adequate to check a possible Soviet invasion launched in large-scale strength. It is even clearer that the forces available for the defense of other regions, such as the Middle and Far East, are not adequate to check any large-scale invasion there, if they are confined to the use of conventional weapons.

The next best prospect of limitation would lie in the use of gas as the unconventional weapon. It is most effective for paralyzing land invasion, and at the same time can be confined to the combat area rather than destroy entire cities and is thus unlikely to precipitate all-out warfare. On grounds of humanity, too, the chemical weapon is much to be preferred to the atomic weapon even in battlefield use, and there is profound irrationality in rejecting the former while adopting the latter. Mustard gas, the most persistent of all means of obstructing and delaying the advance of an invader, is the least lethal of all weapons.

In using nuclear weapons to counterbalance the numerical superiority of the Soviet and Chinese Communist forces, the basic problem is to draw a dividing line between their tactical and strategic use—a line that has a good chance of being maintained, instead of leading to unlimited war and universal devastation. The best chance here would naturally lie in confining nuclear weapons to the immediate battlefield, but the chances of maintaining the line would decrease in each successive stage of deeper use.

Drawbacks to the Policy

The chief drawback to a policy of graduated action is that it involves a much greater financial burden that is *necessary* if we rely on the H-bomb deterrent. The word "necessary" is emphasized because at present, the West is striving to build up large conventional forces *and* to equip them with tactical atomic weapons, *as well as* building up large strategic air forces *and* providing these with H-bombs. In the absence of a plainly declared graduated policy, such a mixture of efforts is bound to suggest to our opponents not only muddled thinking on our part but also an underlying lack of determination to use the H-bomb.

If the Western Powers rely on the H-bomb deterrent to prevent war, and really intend to use this weapon should the deterrent fail, the logical course would be to reduce all conventional forces to the minimum required to check minor frontier encroachments and to suppress internal subversive activities. Indeed, the intention would be clearest, as a deterrent to aggression, if we reduced other forces to a mere police cordon. That would be the surest way to convince our opponents that we are not bluffing when we talk of using the H-bomb if they attack.

Moreover, in the case of all-out nuclear war, such large conventional forces would be superfluous and useless in every sense. They could not maintain any effective defense once their sources of supply were destroyed, and with the destruction of their homelands, they would also have lost their purpose. Such forces would merely represent an immense waste of money and material resources that might have been better spent on efforts to counter the growth of communism by economic aid. Large conventional forces only make sense as part of a defense policy and a plan of graduated action. The big question remains whether the West can produce forces adequate both to deter and defeat invasion without recourse to nuclear weapons even in the tactical field. It is worth examining the balance of manpower compared with the Soviet bloc, with particular reference to the danger of invasion in Europe.

Such a balance sheet as indicated on the chart [below] may surprise many people in the West who are concerned with the defense problem. It is extraordinary that the Soviet Union and her satellites, with a smaller total population, should be able to produce approximately 260 active divisions, of which about 160 are available for use in Central Europe, while the NATO countries can produce barely 20 active divisions to cover that vital area. Since such a tremendous

disparity of forces is clearly not due to deficiency of potential military manpower, it must be due to lack of adequate effort or effective organization.

Need for New Concepts

The economic difficulties of attaining the minimum ground strength required can be diminished by developing new tactics and organization. The present NATO-type divisions-a relic of World War II standards—are so costly to equip that their number is restricted, so demanding in scale of supply that they would be easily paralyzed in nuclear warfare and so cumbersome in scale of transport that they are unsuited either for nuclear or guerrilla conditions.

A Western division is nearly twice as large as the Soviet type in numbers of men and has more than twice as many vehicles without being appreciably stronger in firepower. Yet, basically, the defending side, operating in its own territory, should not need as high a scale of supply and transport as an attacker coming from a long distance away and should be able to make effective defensive use of "local" types of force which require relatively little transport. It would be far better if a large proportion of the ground forces of the continental countries were built on a local militia basis, organized to fight in its own locality and maintain itself from local stores distributed in numerous small underground shelters.

Such forces, a superior form of "Home Guard," would provide a deep network of defense, yet need much less transport than the present NATO type, be

Forward	NATO Bloc France	Millions 42	Soviet Bloc USSR (Europe)	Millions 170
Center	Belgium Holland Denmark West Germany	9 11 4 49 115	Poland Czechoslovakia East Germany	25 13 17
Close	United Kingdom Italy Portugal	50 53 9 227	Hungary	10
Left Wing	Norway	3		
Right Wing	Greece Turkey	8 23 261	Bulgaria Romania	7 17 259
Back	United States Canada	161 15 437	USSR (Asia)	42 301
Friendly	Finland Sweden Switzerland Spain	4 7 5 9 482		

much less of a target, be less liable to interception and become effective with far shorter training thus relieving the present burden of conscription. A portion of these type forces in rearward areas might be moved up as reinforcements to the forward layers of the defense if, and as, conditions allowed. With suitable planning, this can be achieved and such forces will not need the large scale of organic transport and equipment that makes the existing NATO-type divisions so vulnerable, as well as so costly.

The "local" type forces should be backed by mobile forces composed of professional troops, mounted entirely in armored cross-country vehicles, streamlined in organization and trained to operate in "controlled dispersion" like a swarm of hornets. With such quality and mobility, fewer troops would be required than in the present NATO divisions and they would be better fitted for guerrilla-like war as well as for atomic war wherein mobile action would only be practicable for relatively small forces. The idea that the present NATO forces are capable of fighting "a mobile battle" is another current illusion. It would lie with the overseas members of NATO, especially Great Britain and the United States, to provide most of the new model mobile forces. Relieved of conscription and the demand for quantity, the European members could do this more effectively and less expensively than today.

Conclusions

To rely mainly on the "Great Deterrent," the H-bomb, would be the *cheaper* defense policy if carried out logically. Great savings would then be possible, thus relieving the economic strain that has become an increasing handicap on the Western countries. But the "Great Deterrent" is a weak deterrent to small aggression, and a very insecure insurance against the risk of this spreading to the point of becoming a common slide

into a suicidal great war. Indeed, its basic drawback is that if it fails as a deterrent, and is put into action, it automatically entails suicide for Western civilization.

To adopt the principle of "graduated action" would be the *safer* defense policy. Moreover, by making it clear that we intend only to use the H-bomb as the last resort, we should strengthen our moral position, diminish the fear that any stand against aggression will be more certainly fatal than giving way and check the spread of neutralism. The use of this principle would allay the growing antagonism in Asia which has been fostered by the way that Western leaders, by their harping on "massive retaliation," have lent color to the idea they are the most likely "mass destroyers" of mankind.

The problem of establishing differential stages of action with nuclear weapons is difficult, requiring special study which it has not hitherto received. But even if battlefield action in frontier zones were found to be the only practical differential short of unlimited warfare, even that limitation would be well worthwhile because of its moral and political advantages. This would give the defense the best chance of profiting by unconventional weapons without precipitating an all-out war.

The *safest* degree of graduation, however, would be to develop ground forces adequate to repel invasion without any recourse to nuclear weapons, and thereby likely to deter any attempt at invasion, even in a minor way. It is largely an organizational problem, and its solution depends on a clear grasp of the problem and the will to solve it, rather than on additional outlay of money.

At present we are "getting the worse of both worlds" by incurring the heavy expense of trying to create forces required for both policies without having the potential advantages of either. The lack of clarity tends to combine maximum cost with maximum insecurity. **MR**

Sir Basil Henry Liddell Hart (1895-1970) was educated at St. Paul's School and Corpus Christi College in Cambridge, England. He was commissioned in the King's Own Yorkshire Light Infantry, where he served from 1914 to 1916. From 1917 to 1921, he served as an adjutant for training units in the Volunteer Force, where he evolved new methods of instruction and battle drill. He helped compile the postwar Infantry Training manual and served with the Army Education Corps from 1921 to 1927. He published Strategy-The Indirect Approach in 1929 and went on to publish more than 30 books on military subjects. He served as military correspondent to the Daily Telegraph from 1925 to 1935 and as corespondent and defense adviser to The Times from 1935 to 1939. He was knighted in 1966. Then Captain B.H. Liddell Hart was a frequent contributor to Military Review in the late 1950s and early 1960s.

Strategic Underpings of a Future Force

Congressman Richard B. Cheney and Major (P) Thomas N. Harvey, US Army

This article, published in the October 1986 issue of Military Review, foreshadowed several changes that would be made in the US Department of Defense (DOD) over the next 10 years—many of them under Congressman Richard B. "Dick" Cheney after he became defense secretary on 21 March 1989. Some of these changes include: DOD's increased emphasis on joint doctrine, the Joint Chiefs of Staff (JCS) chairman's increased power in acquisitions, the creation of the JCS vice chairman position, the founding of the Army Acquisition Corps, our success in Operation Desert Storm, the development of the force-projection Army and our current emphasis on information age warfare. The authors even seem to predict Secretary of Defense Les Aspin's "bottom-up" review and our subsequent national military strategy of being prepared for two major regional contingencies. The article also foreshadows the House Armed Services Committee's name change to House National Security Committee.

GROWING RECOGNITION WITHIN the US Congress and Department of Defense of the sterility in our reactive approach to strategy formulation should create increasing demands for more creative military thought and greater flexibility in force building. However, it does not appear that the defense establishment has the institutional inclination, nor Congress the bureaucratic restraint, to allow the integration of interservice thinking to produce truly cohesive global and regional strategies-strategies that are realistically consistent with available resources.

US military thinking tends to become dominated by the logic used to win congressional support for the acquisition of weapon systems and force structure. This "acquisition" logic is usually built around commonly accepted threats. This logic often does not address military requirements that are more complex to express and defend but which, though likely to be needed, do not fit into conventional scenarios. Consequently, the military often develops a force proposal which is understandable and acceptable to a Congress more interested in resource efficiency and hometown economics than force adequacy. There are two principal themes around which this article is constructed:

• Combat developments have been too reactive and are not being linked to a realistic, forward-looking

future strategy—a strategy that reflects the intellectual potential of the defense establishment.

• Military force applications in the future are likely to be of significantly greater variety and complexity than presently being implicitly considered in our force structure.

It will be argued that the national military force developed to support strategies in the year 2000 must encompass two basic dimensions—strategic nuclear stabilization and flexible global response using technologically advanced conventional forces with chemical and tactical nuclear capability. New and more independently derived flexible response policies oriented to protecting access to critical resources and attracting Third and Fourth World countries into Western affiliations add needed dimensions to a strategic outlook which has been constrained by a reactionary relationship with the Soviet Union.

The United States' ability to implement more imaginative and robust future strategies will be highly dependent upon uncovering and harnessing combat-multiplying technologies that will exponentially increase military force effectiveness. More than ever before, technology will be a prime determinant of superpower influence or lack of it in world affairs, assuming prerequisite national will, determination and geopolitical comprehension.

With the exception of World War II, nothing in our national experience will rival this decade and the next in terms of military capability requirements and the related demands on systems, doctrine and leadership to overcome the growing threat.

Accelerating military activity, such as the ponderous weapons systems acquisition mechanism, to realize extraordinarily ambitious but critically essential 1990 force capabilities is stressing peacetime military structures. The methods, organizational arrangements and systems that have matured within the services since the late 1950s will not be adequate to absorb the multiple surge rates of the 1980s and 1990s. Even now, force modernization impacts, strategic reorientations and the sudden availability of "get well" funding are exerting overload pressures on military systems.

While there has been progress, there is not a *consistent* mechanism permitting the candid exchange of concerns and ideas among the services, unconstrained by parochial budget strategies. This kind of intellectual merging is needed to bring about the maximum integration of modernization and related strategic planning. Despite the superb efforts of the chiefs of staff of the Army and the Air Force to improve *jointness*, a situation exists where only in a coincidence of desire do things go well.

There is an urgent need to assign responsibility for formalizing a unifying concept for various development processes, strategic and otherwise. This concept should:

- Consider all aspects of multiservice development—strategic concepts, technological development, sustainability and force design balance, ensuring that the program is realistic in terms of our nation's physical, technological and resource ability.
- Encourage synchronization to the degree that the military capability of our allies is enhanced as a collective deterrence.
- Realistically address the interservice integration of technology, concepts and doctrine.
- Integrate the development efforts and products of the services to maximize the ability of a system across the spectrum of the battlefield.
- Assist in the early identification of those nonsynchronous programs which do not provide realistic and affordable advantages.
- Be so understandable, so clear and so well-articulated that Congress, all military services and the nation will recognize the value and the need for the recommended programs.

An obvious recipient for such a challenging responsibility is the Joint Chiefs of Staff (JCS) in conjunction with those essential elements of the Office of the Secretary of Defense and the federal agencies with input to

the system. The head of such an integrating body must not have a single-service orientation but, in the tradition General John W. Vessey Jr. established, must be dedicated to synchronizing service and joint programs with national strategies.

Changes recommended by Congress and the president's Packard Commission to strengthen the role of the JCS chairman will enable him to act as a much-needed benevolent dictator, guiding the services in adherence to a stated and understood *national strategy*. To be truly effective, he must also have the ability to ensure that money is allocated for service cross-boundary purposes, and he must be able to move money from one service account to another to support required "joint" initiatives. While strengthening the chairman's role can be beneficial to the implementation of forward-looking military strategies, the realistic formulation of those strategies will depend on the *corporate* cooperation of all service representatives. Extraordinary attention must be given to this integrating mechanism to enable the Department of Defense to provide the highest return on the nation's defense investment.

Needed Strategic Mind-Set

More than 30 years ago, the Soviet Union embarked upon a campaign of observable military forcebuilding surpassing any historical peacetime precedent. At present, the Soviet Union possesses an impressive conventional force superiority. It has enormously greater stocks of military hardware than it needs to defend its frontiers, and it has the capability to launch an attack with overwhelming quantitative and considerable qualitative advantages against us and our allies. If the Soviet economy can endure, by the year 2000, the Soviets could have a quantitative edge of such magnitude that would permit expansionistic military enterprise in many regions while still maintaining dominant frontier forces.

The inherent nature of Western democratic political systems makes it improbable that future defense budgets will be large enough to substantially close the quantitative conventional force lead the Soviets have established. Without the stimulus of some significant crisis to galvanize public support, US conventional capabilities will continue to lag behind those of the Soviet Union. There is no indication that the US industrial base will possess a future surge capacity to respond to the demands of conventional military emergencies.

Simply stated, the United States will not be willing to match the Soviet Union with military resources, and there is no indication that our North Atlantic Treaty Organization (NATO) allies are prepared to improve their military posture to compensate for the imbalance. It follows, then, that future strategies must orient on achieving advantages and leverage opportunities in other ways. Technology and the ability to outthink and outmaneuver the Soviet Union over the long run will be pivotal aspects in achieving these advantages.

Until the United States regains the strategic leverage that assures national viability for itself and its allies, a new understanding of its role in the world must influence strategic thought. As Peter Rodman has pointed out: "No longer possessing a preponderance of military strength, the United States will have to find ways to wield its still considerable power with more finesse and courage."

In the less congenial global environment presently emerging, virtually all nations will eventually be caught up in the inevitable jousting for influence among the superpowers. In a world with bipolar superstructure and emerging multipolar pressures—OPEC (Organization of Petroleum Exporting Countries), blocks of nonaligned nations, common markets and so on—there will be a special premium on ingenuity, maneuver, prioritization and decisive action.

Strategists and planners can no longer rely upon simplistic linear extensions and arithmetic solutions to forecast future environments and recommend national courses of action. The human desire to evade the sheer anguish of creative decision making will have to be suppressed in the conceptualization of future strategies. In the 1980s and 1990s, US leaders must understand that the pivotal aspects of successful strategies are not only just the mobilizations of power but are also the imaginative uses of it.

As a starting point, US leadership must arrive at a general consensus that our traditional strategic underpinnings cannot have indefinite application in strategy development. In fact, many of the foundational concepts derived from World War II and containment-era experiences have questionable future relevancy. Edward N. Luttwak highlights this point when he says: "... we need a fundamental reappraisal of our strategy since our plans, our fossilized alliance arrangements, and the very structure of our Armed Forces are all based on outdated premises—and notably the implicit assumption of superiorities that we will not soon regain. New strategic solutions must be found, and often they will only be suggested by new operational methods and new tactics-which only the active and persistent interest of our most senior officials can elicit."

One way to accomplish the reappraisal might be through an existing interaction between Congress and the Department of Defense. Instead of the congressional oversight committees' concentration on the military's ability to successfully micromanage resources, they need to be more involved in developing strategies in coordination with the executive branch. Congressional debate regarding strategy would be far more productive than the countless hearings which are devoted to ultradetailed budgetary reviews.

This shift of attention might also reduce some of the immense burden on the military leadership of developing and presenting endless testimony to support the funding of each piece of equipment needed to implement a strategy-a strategy that Congress is often unaware of or had little part in developing. Congressional involvement in strategy development could have other desirable results:

- Congressional approval of the strategy would facilitate approval of the force needed to implement it.
- The interested constituency would become more informed regarding the rationale of the defense budget.
- The military and Congress would devote more time to strategic thought and change the composition of their staffs from a predominance of specialists and micromanagers to one of broad-gauged, national security-minded visionaries.

Winning congressional support for defense budgets is difficult enough based on "time-honored" traditional strategies. Gaining congressional support for robust proactive strategies that the committees had little or no involvement in developing would be virtually impossible. Important also is assuring a general understanding of the objectives and potential of proactive military strategies versus traditional reactive strategies. The public must understand that proactive military strategies are designed to create future national security conditions advantageous to the country and which usually disadvantage the opponent by forcing him to react in a way unplanned or undesired or both. Reactive strategies cannot shape a desirable future for the United States, only proactive strategies can.

Proactive Strategy and the Future Force

By the year 2000, the nation will need two types of ground combat forces—a "stabilizing" heavy force in Western Europe linked to the deterrent strategy and optimized for NATO combat and a highly flexible force that can be more creatively employed to deal with contingencies anywhere in the world. The evolution of these conventional forces derives from a recognition that the Army forces of the 1990s and the supporting POMCUS (pre-positioning of materiel configured to unit sets) forces will be required in the

NATO structure well into the first decade of the 21st century. However, this logistically heavy, European-oriented, modernized Army force is unsuitable for the flexibility demands of the 21st-century missions in other scenarios.

This emphasizes the need for a radically different kind of force to support a wide range of nontraditional future strategies—a force that is unconstrained by nostalgia in concept development and free of the kind of design predictability that prematurely dismisses military surprise options. The future requires a set of flexible forces with design links to an array of scenarios.

The proactive strategy discussed here is designed to achieve regional stabilization by rapidly developing a significant US force presence anywhere in the world outside the NATO region. It is designed to protect vital areas and maintain access to critical resources, preserve stability in pro-American governments in the Southern Hemisphere and counter overseas terrorism and dissidence directed against the United States. The strategy is focused on securing vital US interests in areas with little or no US force presence which are or could be threatened by a significant military power with modern weapons and advanced logistics.

The execution of this strategy involves the generation of superior and more flexible combat power in remote regions so rapidly that the opponent abandons his attack plans. Or, having already attacked, he loses the initiative by being forced to change his plan in reaction to US maneuvers. The overall objective is to project sufficient military force to blunt an attack or cause the enemy to abort his attack and then to create a residual environment conducive to peaceful diplomatic negotiation to resolve the conflict.

Given the anticipated absence of logistical infrastructure in most of the likely power projection areas, the force must be highly self-sufficient and must develop a logistical doctrine that is dramatically different from the traditional European-based doctrine. Also, the tremendous distances over which these forces will have to operate and fight will make the battle far more difficult to execute than in the NATO setting. The conventional forces in the power-projection strategy must have an optimum mix of strategic deployability, lethality and tactical mobility.

The political portion of this strategy is to establish US influence or conditions favorable to the United States in areas of the world (predominantly in the Southern Hemisphere) where future vital interests could be in jeopardy. Aggressive military assistance programs characterized by large, in-country US training programs in conjunction with economic and technological support will be the key operative ingredients.

The military goal is to establish the kind of defense affiliation that permits US force presence for peacetime "combined" training with host nation armed forces and the development of combined war plans to protect vital areas of the country and to combat aggression or insurgency. These combined war plans would call for the in-country stationing or regional pre-positioning of a vanguard element of US troops, command, control and communications systems and certain key logistical items as required to facilitate the deployment and employment of larger forces in the event of an emergency.

One dimension of this strategy is focused on developing a military capability to generate dominating force in remote regions faster than the adversary and to achieve controlling technological superiority in crisis situations. The Army will play a significant role in this strategy, given the remote inland location of the many areas of vital national interest and the requirement for speedy strategic deployability which can only be accomplished by aerial delivery.

The Army forces should be organized into self-sufficient brigade "packages" optimized for a general deployment target area and an array of related ground missions. Each brigade would have the highest technology weapon systems and equipment and would act collectively as high- and super-technology testbeds and concept developers for the rest of the Army. The technology and concepts validated by these brigades would be selectively exported to the NATO modernized Army force as considered appropriate.

These brigades would operate within a new tactical framework deriving from new mission area analyses:

- Sublimited conflict.
- Remote area stability operations.
- Counterterrorism.
- Vital resource security operations.
- Anti-infrastructure operations.

These brigades would be highly compatible with the US Air Force and Navy and would be organized into combat and support modules that are standardized in all brigades targeted on the same region. This modular force structuring concept would allow maximum prepackaging and standardized containerization to facilitate rapid strategic deployment and the echeloning of the force into the target area.

Conventionally, the brigades with their dedicated air support would be capable of successfully attacking or defending against a numerically superior Third or Fourth World military force without significant reinforcement. In a more unconventional sense, this force would also be able to implement the kind of new techno-tactics that can disrupt not only the

military cohesion but also the political control and societal infrastructure of the target country. These highly flexible forces, with state-of-the art technological capabilities, will be the primary instruments of future Southern Hemisphere strategies-strategies which must be executed successfully to assure US access to critical resources and to preserve adequate US hemispheric influence.

This article has described a conceptual future that suggests the Department of Defense become less traditional in combat developments, more independent and coherent in strategy development, highly sensitive to technology in force-structuring concepts and better prepared for multi-scenario future force requirements. Selected initiatives to facilitate these proactive ideas are:

- Spearhead a defense effort to involve Congress more in the strategy development process and less in the micromanagement of resources. This effort has already taken on momentum with the innovative initiative by Senator John W. Warner in the Senate and similar action in the House of Representatives to develop the means for a clear and comprehensive national strategy. It is hoped that this initiative will cause key members of the Senate Armed Services Committee and the House Armed Services Committee, their counterparts on the Foreign Relations Committees and their staffs to get more actively involved in strategic issues and less fixated on "line item" authorizations. In turn, congressional consensus on strategies and priorities could ease the traditionally tendentious appropriations process.
- Develop and link networks of geopolitical, strategic and technological planners within the JCS and individual service structures to make the strategic product more enlightened, cohesive and more sensitive to technological opportunity. These linked networks should integrate strategy development and create the technology-policy interface which is currently inadequate.

- Develop doctrine and tactics that are realistically consistent with the missions, environment and equipment of required force projections and the forces involved in future low-level conflicts-for example, resource security, anti-infrastructure, remote area stability operations. Tactics for these forces should include "core" technology targeting which could be a significant combat multiplier in all future crisis situations, given the anticipated proliferation of high-technology weapons and equipment worldwide.
- Incorporate more technical and scientific courses in the professional development education of officers and enlisted personnel. These courses would orient on the basic scientific concepts of key military technologies and would be structured to meet the needs of various levels of responsibility. In addition, officers should develop a more substantive background in geopolitics, art of war, military history, Soviet studies and so on which is needed to provide the framework for their professional development.
- Begin a large-scale effort to increase expertise in Soviet affairs, for, unless we thoroughly understand the Soviet policies, programs and "grand strategy," the rest is meaningless. The military must also improve its understanding and skills in the area of Latin-American and African affairs. Future trends indicate that African and Hispanic language and area skills may be required in a significantly greater portion of the military.
- Aggressively continue the development and evolution of the Army's high-technology light division and light infantry divisions to provide a highly lethal, mobile, deployable and self-sufficient force that can bring overwhelming military power to bear in remote regions of the world.

While these initiatives are not all-inclusive, they represent the potential for redirecting the nation's efforts toward a military strategy which looks to the future. Only such a proactive strategy will enable us to meet our responsibility of "providing for the common defense"—preserving the freedoms we all enjoy. **MR**

Richard B. Cheney is chairman of the board, president and chief executive officer for the Halliburton Company in Dallas, Texas. He served as the nation's 17th secretary of defense from 21 March 1989 to 20 January 1992.

Thomas N. Harvey is the president of GlobeQuest, Ltd.; chairman of the board for Global Initiatives Inc.; and chief executive officer and chairman of the board of the Global Environment & Technology Foundation, Annandale, Virginia. He retired from the Army in 1991 after an Army career of more than 20 years.

The President's Responsibility

President Harry S. Truman

In 1947, President Harry S. Truman signed the bill that established today's Department of Defense. Truman's intent, as he states in this article written for the September 1962 issue of Military Review, was to create an organization that would be responsive to the president as commander in chief. His tone is reminiscent of one of his most famous quotes: "The buck stops here." This article was solicited by Military Review and introduced two following articles: "The President as Commander in Chief" by Francis H. Heller, an associate dean at the University of Kansas College of Liberal Arts and Sciences; and "Our Modern Military Establishment" by then retired General J. Lawton Collins. Collins' piece was described by the editor as being based on an article for Union Worthies, a publication of Union College, Schenectady, New York.

UST 15 YEARS AGO this past July, I signed into law the bill that set up the National Military Establishment and created the Office of the Secretary of Defense. The bill was not all I had asked for from the Congress, but it was a first step in the direction of unification. Even while World War II was still on, I had spoken out for unification. After I became President, I called on Congress to give us the kind of defense machinery that would fit the needs of the times.

As Commander in Chief, the President knows perhaps better than anyone else how much it takes to get all the services pulling in the same direction. There are a great many different factors that go into the making of a command decision, but in the end there has to be just one decision—or there is no command. I learned that lesson in France in 1918.

The Presidency of the United States is the greatest and most honorable position in history. It is actually six jobs rolled into one-and, under the Constitution of the United States, there is no way for the man who has that position to get out of any of them. You can talk about lightening the burdens of the Presidency, but no matter how the Government is reorganized there are always these six functions to be carried out,

and there are always decisions that can be made only by the man who is in the White House at the time.

There are some who would change our system of Government so that the responsibility would be more widely distributed. Under our Constitution this is not possible; and I just happen to think that the Constitution has served us pretty well for all these years. I think that it is good for the people to know who is responsible: that is the only way a democracy can function.

That is not to say that the responsibilities have not become graver and the decisions tougher than was true when Henry Knox was Secretary of War under George Washington and the whole Army had less than 5,000 men. There are five times that many today in the Pentagon alone! It is a far cry from the cavalry captain who would take his troop to rifle practice in the sagebrush to the huge organization of Joint Task Force 8 that carried on the nuclear testing this spring. The older readers will remember, as I do, the days when the mess sergeant went out and did his own shopping for the company's needs: now Mr. McNamara has set up a Defense Supply Agency—and it is high time we got it!

As Commander in Chief, the President knows perhaps better than anyone else how much it takes to get all the services pulling in the same direction. There are a great many different factors that go into the making of a command decision, but in the end there has to be just one decision—or there is no command. I learned that lesson in France in 1918.

Size is only a small part of the change.
I suppose it takes someone of my age to appreciate the difference between horse-drawn artillery of the kind we had in World War I and intercontinental ballistic missiles, between using runners on foot and the electronic communications of our day. But you do not have to be very far along in age to understand what difference nuclear weapons make.

Of course, size is only a small part of the change. I suppose it takes someone of my age to appreciate the difference between horse-drawn artillery of the kind we had in World War I and intercontinental ballistic missiles, between using runners on foot and the electronic communications of our day. But you do not have to be very far along in age to understand what difference nuclear weapons make.

Today, the defense of the United States is wherever the Free World is being defended. The strength of our allies is part of our defense, and our strength contributes to theirs. Someone has said that the President of the United States is now the Commander in Chief of the Free World; I suppose that in the sense that the United States has the responsibility of providing the leadership for the Free World, the President is the one who carries that burden.

How does he do it? I am sure that the burden has become even greater than it was when I was President, and of all the President's functions, that of Commander in Chief has grown the most in importance and in its demands upon the incumbent. But I think that the basic principles that I tried to follow have always applied and apply now.



First of all, the President has to be on top of the situation. Getting the facts, and all the facts, takes hard work and very little can be done by others. You cannot make a decision if you do not know what the alternatives are. You cannot know what the alternatives are if you do not have all the facts.

Second, the President has to find the best men he can to be on his staff and in his Cabinet. I was fortunate to have such outstanding men willing to serve as Dean Acheson, General George C. Marshall and Robert A. Lovett: they were outstanding leaders and remarkably capable organizers.

Third, the President needs an organization that can and will give full effect to his decisions. This has been the most difficult thing to accomplish because of the many traditions and special interests. I believe that we made progress 15 years ago when I signed that unification bill and that we are making progress today. We need to go on making progress. We need to use every new technique available, every bit of new knowledge, so that in the end the President will always be prepared to face with confidence the many decisions that our position in the world and his position in the Nation require him to make. **MR**

Harry S. Truman became the 33rd president of the United States following the death of President Franklin D. Roosevelt in April 1945. He was elected president in 1948 but chose not to run in 1952. He occupied the White House until President Dwight D. Eisenhower's inauguration in January 1953, after which he retired to Independence, Missouri.



Articles to Watch for:

Third US Army: Preparing for the Future Lieutenant General Steven L. Arnold, US Army

Information Operations for the Ground Commander
Major General David L. Grange, US Army, and
Colonel James A. Kelley, US Army

Task Force XXI: An Overview
Colonel Thomas R. Goedkoop, US Army, and
Captain Barry E. Venable, US Army