

# 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."*

**T**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 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.<sup>1</sup> 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.<sup>2</sup> 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.<sup>3</sup> 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. Guerilla 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 respon-

sibilities 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 dic-

***Senior 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.<sup>4</sup>

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 long-term 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 background—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

***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.***

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.<sup>5</sup>

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 Colloquium," 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 journal *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.
3. 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.

*Lieutenant General L.D. Holder is the commander, Combined Arms Center; commandant, US Army Command and General Staff College; and deputy commander for Combined Arms, US Army Training and Doctrine Command, Fort Leavenworth, Kansas. He commanded the 2d Armored Cavalry Regiment during Operations Desert Shield and Desert Storm. He is the co-author of the 1982 and 1986 editions of US Army Field Manual 100-5, Operations, and has been a frequent contributor to Military Review. His first article for the journal, "Seekt and the Fuehrerherr," was written when he was a major and appeared in the October 1976 edition.*