

Asymmetry and Adaptive Command

D. Robert Worley

THERE IS NOTHING NEW about asymmetry. Strategists and tacticians have always sought to pit their strength against opponents' weaknesses. During the Cold War, Western allies adopted an offset strategy, relying on technological superiority to offset numerical inferiority. Both East and West found acceptable responses to the asymmetry. The nature of asymmetry has changed dramatically, and organizational processes developed and institutionalized in response to Cold War realities inhibit appropriate responses to the new.

Some aspects of government behavior are best understood as "outputs of large organizations functioning according to standard patterns of behavior."¹ These standard patterns develop over time and become routine and institutionalized. Habitual relations and practices become part of the unquestioned way of doing business. They are often honed and optimized for measures such as efficiency, effectiveness or safety. When tasked, an organization's response is generally limited to its existing patterns of behavior.

Planning, training and adapting are three complementary ways a country prepares for war. A strong, deliberate planning culture developed during the Cold War in large and important segments of the military, particularly in Europe, Korea and Washington. In addition to deliberate planning methods, equally strong processes were established to support intelligence preparation of the battlefield (IPB). A sophisticated training method was developed to complement the deliberate planning process. The deliberate planning process yielded decisions at the strategic and operational levels of war. The output of deliberate planning, the operation plan (OPLAN), was input to training events. Plan *execution*—including daily, tactical planning—was the training focus.

Higher-level decisions typically caused no observable effect during a real-time, week-long exercise. Doctrine, organization and equipment remained constant for NATO and Warsaw Pact forces during a training event, but throughout the Cold War, equip-

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ment and doctrine changed, and US forces adapted. Adaptation to change centered in combat development organizations, part of the producer chain of command far removed from the operational chain of command. Separate organizational responses for plan development, plan execution and adaptation to change are pronounced Cold War legacies.

Organizational Responses to the Cold War

The Soviet Union was formidable, and we studied it continually for decades. We knew, with reasonable certainty, the enemy order of battle, his methods of operations, his equipment and the battlefield terrain. The Soviets were doctrinaire, known for centralized planning and withholding latitude from tactical commanders. Much was fixed, except whether and when war would be fought.

The US response was a complex biennial deliberate planning process. The typical output was a lengthy OPLAN, including time-phased force deployment data (TPFDD), which detailed unit movement. In theater, our knowledge of the enemy and the environment was so detailed that we produced voluminous catalogs of targets matched to preferred destruction means and doctrinal templates that aided in predicting enemy intent. The response to the wealth of available information was the sophisticated IPB process. Deliberate planning became institutionalized in US defense culture—in Washington and in the field.²

The deliberate planning process emphasizes plan development; a separate training methodology was developed to exercise plan execution. The classic training event is conducted in real time, begins when the first shots are fired, runs 24 hours a day for five to seven days, executes a previously constructed plan and traverses a single path in detail through a very bushy tree of possibilities.³ Typically, two full echelons of command and staff constitute the primary training audience. If the training audience is sufficiently tactical, real forces and equipment are in the field, the air or at sea. If the training audience is at higher echelons, then some form of simulation represents echelons below the staffs.

Perhaps the most insidious consequence of training focused on plan execution is that strategic, operational and tactical echelons all are trained in the tactical time context. Strategic and operational thinking are the domain of deliberate planning. Training in the tactical time frame does not allow senior commanders to exercise strategic and operational decisionmaking. In addition to the deliberate planning and training responses, a third response solidified—adapting to change. The services implemented the combat development process separately in garrison. A long-term intelligence process focusing on Soviet evolution supported combat development. Unified commands nominally generated the requirements that drove the combat development process. But, as often as not, technological opportunity, the need to replace aging weapons and visions within various organizations in the producer chain of command, drove combat developments. Adapting to the evolving threat was the combat developers' responsibility.

Over the past several decades a complex of sophisticated processes has spread across the department's bureaucracy, each office operating with specialized skills in a different time frame. One element of the larger process is deliberate planning with voluminous output every two years. A separate training process produced units trained to doctrinal standards to accomplish the specific missions derived from OPLANs. Warfighting commands trained to execute tasks doctrinally in real time; they did not train to adapt in real time at the strategic, operational or tactical levels of war. The services also implemented the combat development process. Combat developers were continually challenged to absorb new technology and weapon systems and respond to Soviet advances with doctrine, organization and equipment.

Changes in the Environment

Many Cold War assumptions are now invalid, including known threat, known doctrine and known

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order of battle. Our organizational responses are still based on those assumptions and must be reconsidered in light of asymmetry.

One of the most dramatic post-Cold War trends is from permanent to temporary commands, for example, from the dominant role of unified commands and their component headquarters to a reliance on ad hoc joint task forces (JTFs). A corollary trend is from a regional commander in chief's (CINC's) area of operations to a JTF commander's joint operations area (JOA), the former characterized by an established and familiar infrastructure and the latter by immature and unfamiliar infrastructure. A second corollary trend is from forward-deployed forces assigned to a specific unified command to deployable forces apportioned to multiple commands. The trend in planning is from deliberate planning to time-sensitive, or crisis-action, planning. The final related trend is from warfare between conventional forces to military operations other than war involving conventional, unconventional and irregular forces.⁴

Future conflict likely will bring together elements of both war and operations short of war. Asymmetric actors will engage US forces in complex terrain—including mountain, jungle, forest and urban settings—with small bands of dedicated warriors using low-technology weapons. They will attempt to defeat US forces before destroying them by attacking the command, control, communications, computers, intelligence, surveillance and reconnaissance systems that unify dispersed units. Asymmetric threats recognize that the United States cannot employ forces that it cannot deploy, and they will attack ports of embarkation and debarkation and lines of communications.

There is always uncertainty in war, but the overriding trend following the Cold War is a dramatic increase in uncertainty. So much of what was known and could be planned for is now and will remain unknown. A useful way to summarize the changed environment is the dramatic shift in balance between what is fixed (relatively certain) and what is variable

(relatively uncertain). The natural tendency is to apply familiar and institutionalized processes and procedures to the new environment. But adapting to the new threat environment is not a matter of replacing the Soviets with a different enemy that we

In training, repetition is key to making performance second nature. Observation and feedback are necessary to diagnose shortfalls and correct them in the next iteration. In learning, multiple trials are necessary to explore alternatives; recognizing unexpected outcomes may be more important than measuring expected ones.

can come to know as well as our old foe. Some future opponents may not exist today as formal organizations. Some unforeseen event may bring together disparate groups into a new, loose coalition.

Not knowing the actors and conditions in advance requires adaptable organizations and processes to cope with emerging threats. Adaptations must continue throughout military missions. As US forces succeed at countering a recently recognized method, an asymmetric foe will adapt to find other vulnerabilities. US forces must be trained, organized and equipped to adapt quickly and proactively.

Responding to the Changed Environment

The United States and its allies had decades to understand the Cold War problem and propose solutions in the form of war plans. All that remained was to execute. We trained execution. Against a world of asymmetric actors, we must be prepared to learn as we go. That does not mean that we should not plan for what we can, but we must build organizations that can improvise. Those that can only execute a plan according to fixed doctrine will fail in the new environment. A proper response to the changed environment is to adopt different command habits—adaptive command. It is not so much a new command model as a shift in emphasis that parallels the shift in emphasis between what is fixed and what is variable in the environment. Thomas J. Czerwinski offers a lucid and useful taxonomy: command by plan, command by direction and command by influence.⁵

The pervasive Soviet model was clearly command by plan. The air tasking order (ATO) is another example, as are many of our Cold War deliberate planning processes. Command by direction brings to mind Napoleon Bonaparte sitting atop his horse, surveying the entire battlefield and directing a cavalry charge at the decisive point. It also con-

figures up pejorative images of the so-called “four-star squad leader.” The third model, command by influence, involves broad, mission-oriented orders and maximum initiative at the lowest echelons. Any real command employs a hybrid of the three. For example, the Navy often describes its model as command by negation. Ship captains’ independent command at sea subject to occasional interventions from above constitutes a hybrid of command by influence and command by direction. When the airborne warning and control system overrides the ATO in real time, there is a command-by-plan and command-by-direction hybrid.

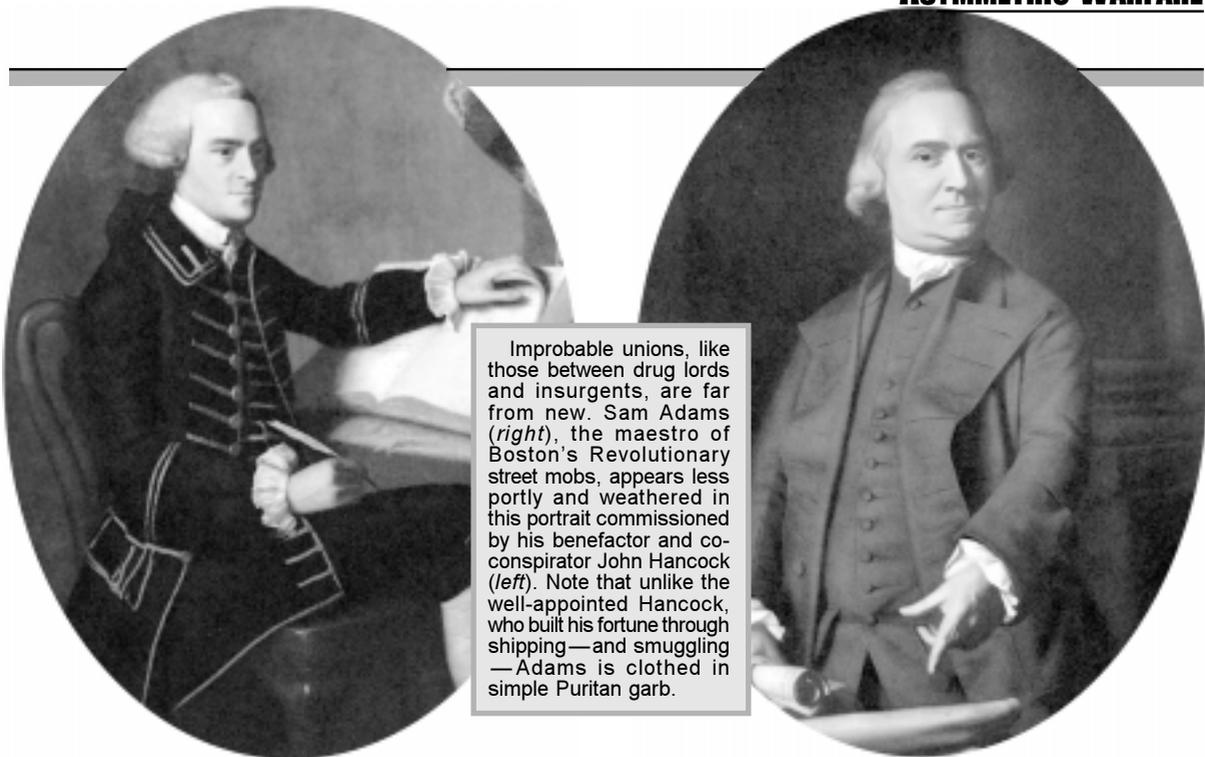
These command models are determined by who exercises command and when. Command by plan centralizes command in the higher-echelon commander, who exercises it in advance by creating and promulgating plans. Command by direction also centralizes command at the top, but it is exercised through real-time orders. Command by influence distributes command to lower echelons, where it is exercised by on-scene leaders. Adaptive command is not about who commands or how but concerns the command function; adapting doctrine, organization and the concept of operations to the situation must be a function of all command levels.

US forces must adapt their doctrine—including tactics, techniques and procedures—as asymmetric opponents develop theirs. This response will be driven more by contact with the enemy than by intelligence gathered in advance. Adaptive command will require different and tighter integration of intelligence and operations functions. Intelligence functions that monitor the enemy’s physical disposition before contact and assess battle damage afterward will be inadequate. The intelligence function must include monitoring enemy behavior during engagement and recognizing its evolution. Rather than train to doctrine, US forces must learn to anticipate, recognize and adapt on the fly.

Teaching, Training and Learning

“Teaching,” “training” and “learning” have specific meanings here. Teaching imparts an assembled body of knowledge, often through traditional classroom methods, including reading and lecture. Training improves the performance of a particular skill set through practice. Learning creates new knowledge over a problem space through exploration and discovery. Teaching and training assume an existing body of knowledge; learning does not.

Both training and learning rely on multiple iterations and observation. In training, repetition is key to making performance second nature. Observation and feedback are necessary to diagnose shortfalls and correct them in the next iteration. In learning,



Improbable unions, like those between drug lords and insurgents, are far from new. Sam Adams (*right*), the maestro of Boston's Revolutionary street mobs, appears less portly and weathered in this portrait commissioned by his benefactor and co-conspirator John Hancock (*left*). Note that unlike the well-appointed Hancock, who built his fortune through shipping—and smuggling—Adams is clothed in simple Puritan garb.

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A learning event, in contrast to a training event, would be conducted in fast or skip time and run eight hours a day for several days, engaging the commander and principal staff of only a single echelon.⁶ Students would prepare sketchy plans, construct alternative doctrine and organization, execute the assemblage and repeat the process. Several alternative courses of action are explored in a learning event. Only one course of action is executed in a training event. Doctrine and organization are necessary inputs to a training event; candidate doctrinal and organizational concepts are possible outputs of a learning event. At the nexus of training and experimentation, the learning process investigates the unknown, guided by questions.⁷ Learning *is* training—for adaptive command.

Appropriate preparation for a relatively certain threat environment is deliberate planning and IPB; training to doctrine; and a separate, long-term combat development process. Appropriate preparation for a relatively uncertain threat environment refines crisis-action planning, reconnaissance and adaptive

command—learning to anticipate, recognize and respond to change. Learning events are anchored in a problem space and are designed to generate possible solutions through better recognition of a problem's breadth and depth.

Learning at the Tactical Level

Leaders at the tactical level must be prepared to adapt. The asymmetric actor may apply low-technology means and methods against US conventional forces. Asymmetric actors continually adapt through trial and error, and the opposing tactical commander with limited doctrinal responses will be the victim. General Montgomery C. Meigs, Commander, US Army Europe and 7th Army, puts it this way:

“We have become adept at replicating a set-piece enemy for our units. We do a good job of giving them an opponent that fights with consistent, predictable doctrine and tactical procedures. We must now move to the next level and present an enemy that uses asymmetrical approaches and who learns from our Blue Force, adapting to avoid our strengths and to exploit our tactical weaknesses as he moves from battle to battle. . . . Units must

learn to anticipate the enemy's actions, find him, assess what he is doing, preempt him and reassess."⁸

Greater emphasis needs to be placed on forming combined arms teams in response to evolving threats. Military operations in urban environments, for example, consistently show that combined arms teams are required at the lowest tactical levels to deal

During regional conflicts, asymmetric tactics may be applied out of area as part of a larger strategy or as the sole elements of a long-term strategic offensive. Protecting the joint deployment system continues to be a strategic imperative but cannot be separated from more general force protection. Learning at this level focuses on developing a strategic response that subordinates means to ends.

with this asymmetric environment.⁹ However, small teams of combat, combat support and combat service support elements are not found in garrison or in doctrine. Units that experiment with new combinations (methods of employing a mix of arms) are more likely to adapt to an evolving enemy than units that train to design standards against a doctrinal opponent. The problem then becomes learning, training and adapting combined arms warfare across branches and services at the lowest tactical echelons.

There are a host of impediments to exploring new combinations at the tactical echelons. In garrison, homogeneous units, such as artillery battalions and fighter squadrons, achieve efficiency. On the other hand, combined arms teams achieve effectiveness. Training opportunities are optimized for a specific type of force and range of operations. Peacetime efficiency militates against combined arms learning opportunities.

The problem extends well into the hierarchy. Division tables of organization and equipment, like their battalions', are designed and optimized for a specific range of operations. Training opportunities like the Battle Command Training Program are designed accordingly. The range of possible combined arms operations in an armored division is limited. The same is true of light infantry, airborne or air assault divisions. The somewhat defunct infantry division may offer the widest range of combinations to explore. At all levels the force must be designed for competence across a broad range of missions but optimized for none.

Learning at the Operational Level

Some interpretations of the operational level focus on picking the point in space and time for the

decisive battle—the close-with-and-destroy-the-enemy school. Another school of thought focuses on geography—the seize-and-hold-terrain school. Yet another focuses on penetrating a linear defense to move deeply to the enemy's soft rear area—the maneuver-warfare school. None of those may be relevant in the asymmetric environment. The US Army needs *coping mechanisms* as a dominant characteristic of the operational level of war in asymmetric environments.

A JTF's mission may be dominated by long periods of maintaining peace while responding to sporadic flare-ups. Or, responding to asymmetric incidents may be part of larger, conventional operations. In either case, insufficient resources will be available to prevent all potential asymmetric attacks. They must be detected and dealt with as they emerge. Preparation means emplacing coping mechanisms in advance.

Urban emergency services, including police, paramedics and fire fighters, offer a useful model for the operational level of war in asymmetric environments. With insufficient resources to prevent all accidents, crimes and fires, city managers cannot plan to be in the right place at the right time in advance, but they can implement mechanisms in advance to monitor and respond with the critical resources necessary. These are the bases of coping mechanisms.

Coping mechanisms at the operational level of war are not new. One was implemented after the incident in Mogadishu on 3 and 4 October. That small, independent units in the city would come under attack could be known in advance; when and which ones could not. A monitoring network and quick-response force was established to cope with what could be anticipated but not prevented. Air mobility as employed in Vietnam could be considered as an operational-level coping mechanism. US forces could neither prevent enemy troop concentrations nor predict and plan for them. They could, however, detect them as they emerged and respond rapidly. Close air support, when tightly integrated with dynamic ground operations, can also be seen as a coping mechanism.

Law enforcement may also offer instructive insights for intelligence. Rather than conventional-force templates, mug shots, family trees, and telephone and bank records may be appropriate intelligence products. Intelligence staffs will learn to provide different products, and operators will learn to ask for them.

Learning will certainly continue to occur in the unforgiving laboratory of ongoing operations. JTFs created for real operations offer opportunities to experiment with a wide-ranging combinations of cop-



Fire fighters practice decontamination procedures during a hazardous materials exercise in Berks County, Pennsylvania.

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ing mechanisms. JTFs are not part of standard military organizations in garrison. Just the opposite is true; garrison forces are pure and rarely join a heterogeneous force. Without standing JTFs, garrison and learning operational readiness will be weak.

Adaptive command is a daunting task for a good team and perhaps impossible for a last-minute “pick-up team.” Yet, we plan to form our command team at the last minute. The newly appointed commander must build a team at the same time the team is building a response to an emerging crisis. The ad hoc JTF headquarters will defy adaptive command, or any type of command, until the command team is built. The learning curve will be slow and costly. US forces and objectives will be vulnerable at the operational level of war until the joint command team forms.¹⁰

Learning at the Strategic Level

The US military is accustomed to fighting abroad. This reality presents an enduring strategic vulnerability for an asymmetric actor to exploit. During regional conflicts, asymmetric tactics may be applied out of area as part of a larger strategy or as the sole elements of a long-term strategic offensive. Protecting the joint deployment system continues to be a strategic imperative but cannot be separated from more general force protection.

Learning at this level focuses on developing a strategic response that subordinates means to ends.

In the event of a crisis, a JTF commander will be appointed and assigned a JOA within a unified command’s area of responsibility (AOR). There will be significant opportunities for asymmetric actors to attack outside the JOA and even outside the AOR. For example, another Middle East scenario might involve bombers and strategic airlift operating out of Rota, Spain. An asymmetric actor might be willing and able to disrupt operations there or to raise Spain’s cost of providing basing. The mere potential for asymmetric attack caused significant problems to planners of Operation *Eldorado Canyon* when Spain and France denied overflight rights to US FB-111s flying from Great Britain to Libya.

Asymmetric attacks can be less direct than physically destroying military facilities. They may include inciting locals to riot or strike. Throughput capacity would be seriously degraded if forklift operators, railroad engineers and stevedores did not report for work. Attacks on family housing would have great strategic effect. How can the United States learn to anticipate, prevent and cope with out-of-area attacks?

A learning event could be designed to focus attention on the joint deployment system, including ports of embarkation, lines of communication, ports

of debarkation and forward operating bases. A learning event should explore as many potential asymmetric attacks as possible and determine how to cope with the most dangerous and most likely. At one extreme, resources can be statically preallocated to protect the force against all potential threats. Such a prevention strategy is exhausting and cannot be sustained. A strategy that subordinates means to ends would dynamically allocate resources to the force element most critical to mission accomplishment. Additional resources would be allocated to monitor threat conditions and to respond accordingly.

Coping mechanisms—resources organized to monitor and respond—underwrite this second strategy. If intelligence detects a rising threat condition and operations can mount a timely response, then coping mechanisms can be effective in a prevention strategy. If this real-time, stimulus-response cycle cannot be built, then coping mechanisms should be designed to deal with the aftereffects. The real-time interaction of intelligence and operations is critical and should be a focal point for both learning and training.

Examples of coping mechanisms used to respond to out-of-area attacks in the Mediterranean region during a Middle East scenario include an amphibious ready group with a Marine expeditionary unit, a special operations task force, an air assault-based task force, a chemical-biological incident response force or a fleet antiterrorist security team supported by closely linked intelligence.

Neither the JTF commander nor the CINC will be positioned to deal with all out-of-area attacks, but the total system must anticipate and prepare for them, and the JTF commander must be prepared to cope with the effects. The risk of a potential asym-

metric attack outside the JOA must be evaluated in terms of strategic priorities and the JTF commander's theater priorities.

The balance has shifted between what could be known and planned for in advance and what could not—between what was fixed and what was variable. Increasingly, being prepared is less a product of deliberate planning, training execution to doctrinal standards and long-term combat development processes and more a product of warfighting organizations that are trained in crisis-action planning and adaptive command. Adaptive command, as defined here, is becoming more common. Coping mechanisms can be found in military history but may become central doctrinal concepts in asymmetric environments.

Centering learning in the user chain of command will produce organizations that can more readily adapt and more effectively lead long-term combat development rather than be its belated recipient. Combat developers must more actively convert lessons learned in operational commands to doctrine, organization and training. Combat developers must produce a more diverse playbook of combined arms at the lowest tactical levels and coping mechanisms at higher-level commands. But, combat development is conducted principally by services and branches within them. When competing for acquisition funds, branches dominate combined arms organizations, and services dominate joint organizations. Only leadership, another precious resource, can overcome the inevitable imbalance accompanying the flow of money. More important, to overcome limitations that standard patterns of behavior often place on government action, adaptation must become a hallmark of US military behavior. 

NOTES

1. Graham T. Allison, "Conceptual Models and the Cuban Missile Crisis," *American Political Science Review*, September 1969, 689–718.

2. Deliberate planning is distinct from the crisis-action planning that naval expeditionary forces, XVIII Airborne Corps and special operations forces, among others, commonly practice.

3. This description characterizes the exercises conducted by the European Command's Army and Air Force components at the Warrior Preparation Center, by the Army's Battle Command Training Program; and more recently, by the Joint Forces Command in its *UNIFIED ENDEAVOR* series of exercises.

4. For a more thorough discussion of post-Cold War trends and the implications for higher-echelon training, see D. Robert Worley, Michael H. Vernon and Robert E. Downes, *Time and Command Operations: The Strategic Role of the Unified Commands and the Implications for Training and Simulations*, IDA-3222 (Alexandria, Va: Institute for Defense Analyses [IDA], October 1996).

5. Thomas J. Czerwinski, "Command and Control at the Crossroads," *Parameters* (Carlisle, PA: US Army War College [USAWC], Autumn 1996), 121–32.

6. An event conducted in fast time would represent more than one hour of real-

world time in every hour of event time. An event conducted in skip time might represent decisionmaking in slower than real-world time to allow greater deliberations, adjourn for the evening and resume the next morning as if weeks or months had passed.

7. This pedagogical technique is commonly referred to as "heuristically guided investigation," a process driven by seeking answers to questions rather than by testing hypotheses. For a more thorough discussion of military experimentation, see D. Robert Worley, *Defining Military Experiments*, IDA D-2412 (Alexandria, VA: IDA, February 1999).

8. General Montgomery C. Meigs, "Operational Art in the New Century," *Parameters* (Carlisle, PA: USAWC, Spring 2001), 12.

9. D. Robert Worley, Alec Wahlman and Dennis J. Gleeson Jr., *Military Operations in Urban Terrain: A Survey of Journal Articles*, IDA D-2521 (Alexandria, VA: IDA, October 2000).

10. Charles E. Heller and William A. Stofft, *America's First Battles, 1776–1965* (Lawrence, KS: University of Kansas Press, 1986); D. Robert Worley, "Joint Task Forces: Options to Train, Organize and Equip," *National Security Studies Quarterly*, Winter 1999, 31–48.

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