Special Operations Forces to the Fore

Remembering the Forgotten War

Non-Lethal Weapons

Force Structure in an Interwar Period

Reassessing Joint Experimentation
**Report Documentation Page**

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Once war is forced upon us, there is no other alternative than to apply every available means to bringing it to a swift end. War’s very object is victory—not prolonged indecision. In war, indeed, there can be no substitute for victory.

—Douglas MacArthur
As I look back on 38 years of service, the central experience for officers of my generation was Vietnam. Americans lost faith in the integrity and professionalism of the military during that conflict. We must never allow the Armed Forces to be placed in that situation again.

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I do not want to dwell on Vietnam in my last words as Chairman. Instead I want to stress two lessons of that defining experience. One is the need for morale and discipline without which military capabilities are useless. The Vietnam War almost tore the Nation apart, and the so-called hollow force of the 1970s was not just a matter of aging systems. We were hollow in spirit. Morale and discipline depend on various factors. Foremost among them is leaders who set high standards and insist on realistic training. We must have good weapons and equipment. And finally, we must deal with the material and emotional well-being of our people and their families. If we take care of those things, then we will accomplish our missions.

The second lesson is the need to maintain a bond between the military and the American public. This is absolutely vital in a democracy. It also depends on a number of factors. We must be stewards of the public trust and exemplars of professionalism. Integrity must be our watchword. We must take advantage of the bridge between the Armed Forces and society provided by members of the Reserve components. When they leave their civilian livelihoods for active duty, they ensure that our all-volunteer force remains connected with the people it serves.

Moreover, a free and unfettered press is important to an open dialogue with the public. We must work closely with our civilian leaders to tell our story and take advantage of opportunities to explain how and why we do what we do.

We rebuilt our forces spiritually and physically after Vietnam. Results of these efforts were displayed to the world in Desert Storm. And they’re on display today wherever our magnificent forces serve around the globe. Everywhere I go, I see young enlisted troops, noncommissioned officers, and officers doing everything their Nation asks of them—and doing it with competence, energy, and an unmatched devotion to duty.

As Chairman over the last four years, I have had the utmost confidence in each member of the Armed Forces. I know that if needed, regardless of where or when, they are ready to fight and win, keep the peace, and provide aid both at
home and abroad. Although we have faced numerous challenges and frustrations, the finest military in the world has come through with flying colors. I am confident it will persevere in the future. For those in leadership positions, the greatest impact you can have is on training and retaining your replacements. Your subordinates are your legacy. I know that you will pick the best, mentor them, and make them better. Having that trust makes it easier for me to lay aside my uniform, for I know that the security of the Nation is in good hands.

For almost four decades, in peace and war, I’ve had the privilege of being a soldier. It has been a spectacular adventure. The outstanding men and women with whom I’ve served have made it all worthwhile. I’m eternally indebted to them for their support and friendship. When I render that last salute, I’ll recall great times and good friends as well as tough days and lost comrades. I’ll recall the enthusiasm with which I began the adventure and the searing realities of combat. I’ll recall the thousands of young faces, united in a purpose unique to men and women in uniform, regardless of service or specialty. I’ll think of the myriad sights and sounds and smells that have made this life so special and rewarding. But mostly, I’ll think about you, knowing that you will continue to do your duty. And I will remember how proud I was to be one of you.

Thank you for who you are and what you do for the Nation. May God bless all of you and keep you safe wherever you serve. As always, we stand ready to face the task.

HENRY H. SHELTON
Chairman of the Joint Chiefs of Staff
Letters . . .

COUNTERATTACK

To the Editor—I appreciated the comments by Eric Michael and Patrick Carroll on my article “Rethinking Army-Marine Corps Roles in Power Projection” (JFQ, Autumn 00), which appeared in your last issue. But neither addressed my central focus: advocating a battle/war division of responsibilities in order to rapidly defeat an unanticipated conventional enemy. My main concern is that we do not have a capability, other than airpower, to fight a strong enemy in the first days of a conflict in an area not previously considered vital. We need to either squelch a small threat decisively and rapidly to keep it from growing—or hold off a serious threat so we can execute a successful halt phase. The Army already has forces where we expect conflict—Europe, the Republic of Korea, and Kuwait. We need the Marines to be ready to go anywhere else.

The expeditionary battle force concept is my suggestion. Army airborne forces are rapidly deployable but are too light for this role by themselves. The Marines, who are already forward deployed at sea, should both accept the battle and complementary urban warfare roles to reduce the pressure on the Army to create its own urban combat forces. Army infantry-heavy light mechanized intermidiate brigade combat teams (IBCTs) will take over this role if the Marines do not step up. IBCTs will give the Army the expediency role and in the process degrade the traditional Army warfighting mission of defeating a large, well-equipped conventional enemy. Emphasis on mobility rather than power will gut heavy forces. I have no confidence that we can build future tanks as light as light armored vehicles yet as lethal and survivable as the Abrams. My proposal promotes a proper division of labor and builds on Marine expeditionary units (MEUs) already deployed. Notwithstanding Carroll’s justifiable confidence in the power of a Marine light armored reconnaissance company, it is still only a company and a MEU is just a battalion.

And despite Carroll’s contention that the Marine Corps is embracing expeditionary warfare, his list of weapons and operating concepts supports deliberate two Jima-style operations rather than quick reaction capabilities in brigade strength. With all due respect, unless a Marine expeditionary brigade is already forward deployed, it will not even arrive in time to fight a battle—let alone win it. Planes are faster than ships.

I am not sure how to address Michael’s complaints. I heartily disagree with his boasts of National Guard peacekeeping roles. Peacekeeping harms the active Army and is a particular hardship for Reservists. I applaud the Marines for avoiding it. It is true that for both some leaders and support units peacekeeping provides real-life experience. Our soldiers in the field may be proud of the hard job they perform. Nonetheless, peace operations compromise warfighting capabilities by requiring units to lose their fighting edge performing con-stabulary roles.

—Brian J. Dunn
Ann Arbor, Michigan

BETWEEN IRAQ AND A HARD PLACE

To the Editor—I basically agree with the critique by Ted Galen Carpenter in “Postwar Strategy: An Alternative View” (JFQ, Winter 00-01) on the U.S. policy of dual containment. The Persian Gulf is a region with friendly nations who do not always share American beliefs in democratic institutions and prefer to strike a balance with governments that we define as rogues—even though we warn that they pose great risks to their security. Carpenter finds this balance contradictory because it comes at a time when the six members of the Gulf Cooperation Council—Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates—are seeking greater security commitments from the United States, but with a more limited military presence.

But there are several discrepancies in his analysis. The dual nature of containment policy was neither equally applied nor equally successful. It contained Baghdad for a long time because it was applied under U.N. resolutions and supported by both Iraq’s neighbors and the international community. Most importantly it restrained but has not prevented Saddam Hussein from rebuilding his military and weapons of mass destruction (WMD) programs and threatening his neighbors. As Carpenter indicates, Iraq retains a significant capability to harm its people, in particular Kurds in the north and any potentially rebellious Shi’a Muslim elements in the south. Considering the ten-year military embargo, Baghdad has created a leaner, meaner military machine in reducing force size and cannibalizing spare parts to maintain equipment, even if it is old and serviced. Clearly, the Iraqis have been able to manufacture, repair, and purchase new radars and telecommunications systems to monitor and threaten U.S. and British aircraft flying missions over the no-fly zones.

I am especially concerned about the rather blase statement that Iraq would be deterred from using its long-range missiles—which it is almost certainly developing—and any WMD arsenal it has retained, hidden, or will reconstruct. Saddam Hussein has not, in my view, shown himself capable of such admirable restraint, especially when he has suked under a heightened sense of insult, as he did after signing the accord with the Shah of Iran in 1975 (revenge came in 1980), and in invading Kuwait in 1990 (whom he blamed for taking advantage of Iraq by refusing it more loans and allegedly slant drilling into Iraqi oilfields).

Of course, containment is draying. It has been for several years, a victim of weak public diplomacy by the United States, lack of interest by Saddam’s neighbors, and an overwhelming urge on the part of Europe, Russia, and China to make money in the post-sanctions scramble for Iraqi dinars and oil. Washington must take some responsibility for refusing to ease economic sanctions sooner, and it could have done more to demonstrate commitment to rebuilding civilian economic infrastructure rather than letting Saddam manipulate who would receive help under sanctions and who would not.

But the burden of Iraq must be shared by those states closest to it—Jordan, Kuwait, Syria, Turkey, et al.—which face growing domestic criticism for ignoring the plight of the Iraqi people while assisting the United States. Carpenter fails to mention the impact of the ongoing Israeli-Palestinian intifada on our relations with Arab friends and former allies against Saddam. For the first time since 1990, it is impossible to separate events in Israel from U.S. security policy in the Gulf. Indeed, Saudi and other spokesmen have made it clear that we risk local host support for U.S. force deployments, prepositioned equipment, and bridge sets should the intifada continue and the United States not take a lead role in resolving the tensions with the Palestinians.

My main point is that Saddam’s neighbors know they can afford to explore what Carpenter calls “alternative security measures” with Iran and even cozy up to Iraq at some point with or without Saddam in power, because they have guarantees of U.S. protection—a 911 call. If Carpenter accurately reflects current thinking—and I do not think he does—then the Arabs would be correct to question American willingness to stay the course in the Gulf. Carpenter’s conclusion, that the “neighbors of Iraq have the wherewithal to contain another episode of Iraqi aggression” and that “military forces exist for a local balance of power that would prevent any state from exercising hegemony,” reflects a theoretical reading of numbers and not a practical understanding of regional military capabilities and resolve.

—Judith S. Yaphe
Institute for National Strategic Studies
National Defense University
To many observers the NATO air campaign against Serbia in the spring of 1999 represents the future face of war. The long-distance, high-tech application of force is an attractive template as the United States and other nations become ever more casualty-averse. Indeed, Allied Force was the first major operation in which aircraft achieved victory without the need for a land campaign. What really encouraged airpower enthusiasts was the apparent vindication of decades-old theories that air attacks could achieve a psychological effect on an enemy that would force it to yield even when its military remained in the field able to resist.

Allied Force was a manifestation of the revolution in military affairs (RMA). Several types of aircraft dropped precision-guided munitions (PGMs) on urban areas with astonishing accuracy, save for a few well-publicized miscues. In fact, PGMs constituted the bulk of the weapons used, continuing an RMA-derived trend begun in the Persian Gulf War. Advanced command and control platforms such as the airborne warning and control system (AWACS) and joint surveillance target attack radar system (JSTARS)—previewed during Operation Desert Storm—allowed perceptions of the battlespace to reach new levels, especially when combined with information.
from surveillance satellites and augmented by unmanned aeronautical reconnaissance vehicles such as Predator.

At first blush the achievements of high-tech warfare demonstrated during Allied Force may be troubling for Special Operations Forces (SOF). Of the principal SOF missions, three of the most important and most legendary could face technological shrinkage if not obsolescence: direct action, special reconnaissance, and unconventional warfare. What is the role of the special operator when PGMs can strike high-value targets with relative impunity and effective and pervasive surveillance systems can produce battlefield intelligence without risking lives? Likewise, technology may have a serious impact on traditional SOF peacetime missions. Although other nations once viewed SOF trainers as essential in improving their armed forces, technology may render that need superfluous. This is particularly true as inexpensive, user-friendly software makes operating complex weapons systems relatively simple, thereby obviating the need for training. Software innovations bring self-paced computer-assisted instruction within reach of poor countries. Basic infantry skills can be learned from a computer program which costs less than $50.

Although Special Operations Forces will not disappear any time soon, one cannot assume that they will be unaffected by new technology or the post-Cold War landscape. They will change or atrophy. It is not enough to inculcate new devices piecemeal into existing mission concepts to meet such challenges; instead, the SOF community needs to fundamentally reconsider how it will fit into the 21st century security architecture.

**In Search of the Warrior Ethos**

Since the Persian Gulf War, much SOF dynamism has gone to what may not be considered classic warfighting. Nonwarfighting missions have grown in scope and importance. While these missions are critical, they cannot maintain Special Operations Forces as organized today. Despite interservice squabbling, the Armed Forces are bonded in the end by the mutual respect of comrades who go into harm’s way together. Special Operations Forces lose relevance when alienated from the defense community. Absent a realistic warfighting role, they could become marginalized.

At the same time, the American way of war today suggests that SOF combat missions may be a thing of the past. Few commanders will seriously contemplate ordering a direct action mission against a high-value target if it can be destroyed with standoff systems. As Allied Force illustrates, commanders will readily look to other options in the future, including robotic platforms.

While strikes by Special Operations Forces against command and control nodes and similar targets will become increasingly rare, it does not necessarily follow that the end of the fabled direct action missions is at hand. No matter how casualty-averse decisionmakers have become, there are times in any conflict when American lives are in jeopardy. Allied Force highlighted such an occasion—a prisoner of war rescue. Three soldiers captured early in the conflict became pawns in a diplomatic game. Although they were eventually released, intense media exposure demonstrated a tool which an enemy can use to mold public opinion. Given the manipulation of American prisoners by North Vietnam, clumsy efforts by Saddam Hussein to leverage captives in
the Gulf War, and the recent detention by China of EP–3 crew members, the United States should anticipate similar episodes.

Decisionmakers must prevent an enemy from gaining advantage with captives. An obvious solution would be a robust rescue capability. Theoretically, Special Operations Forces can perform such missions through combat search and rescue (CSAR). But what is required is not necessarily an operation with the immediacy of CSAR, but rather one of greater dimensions aimed at rescuing incarcerated personnel. But when such operations have been mounted, organization and planning were done on an ad hoc basis and the results were usually disastrous. Large-scale operations have not been the centerpiece of focused, dedicated SOF assets, but forces should be organized, trained, and equipped for that mission now. Such raids may require new capabilities such as non-lethal weapons to minimize friendly casualties and encourage inventive ingress and egress methods.

A parallel benefit to a stronger snatch capability would be a potential to hold enemy leaders at risk, not necessarily through physical destruction but rather by enforcing the rule of law. Many observers agree that one reason no pro-Nazi resistance movement emerged in Germany after World War II was the Nuremberg trials. Trying Nazi leaders and exposing their evil deeds to the German public in detail aborted any nascent defiance of the Allied occupation. The same effect can be noted in Panama with the capture and trial of Manuel Noriega on drug charges.

Conversely, putting enemy leaders to death can create martyrs and further resistance. The death of Che Guevara at the hands of Bolivian troops in 1967 turned him into a cult hero who is still revered by leftists. Obviously, the capture of well-guarded enemy leaders deep in their territory is a challenging task demanding an extraordinarily disciplined and skilled force. This capability is especially valued when Western interests are served by bringing villains to trial. Moreover, it plays to the existing strengths of Special Operations Forces.

**Shadow War**

Facilitating unconventional warfare is another SOF core competency that some might think has been superseded by Allied Force. Political imperatives curtailed the role Special Operations Forces might otherwise have played. The decision was made to minimize contacts with the Kosovo Liberation Army. Similar constraints may be anticipated in the future. The Nation will be reluctant to align itself with groups that pursue controversial agendas, especially when fueled by ethnic or religious hatred. This factor, along with a growing desire to not risk SOF losses unless absolutely necessary, means there will be relatively few opportunities to organize indigenous forces behind enemy lines.

Nevertheless, unconventional warfare is pertinent to commanders of conventional forces. The Air Force, for example, expended considerable resources in developing small footprint forward air operations centers (AOCs). Replacing people with such technology means deploying much faster and beginning air operations sooner. But flexibility comes at a price. The smaller numbers make AOCs—the critical linchpins of air campaigns—less durable and thus extremely vulnerable as high-value targets. As attacks on the
Marine barracks in Beirut, Khobar Towers, and USS Cole demonstrated, even weak enemies can strike defended targets. Surprisingly, few AOCs are hardened or have plans to be.

Role playing also can help identify limitations and vulnerabilities. Red teaming by Special Operations Forces could draw not only on its generic unconventional warfare proficiency but also on its expertise in the culture and mindset of specific threats, providing a realistic assessment of a too-often overlooked aspect of modern air operations.

Such factors suggest an enhanced SOF role in intelligence analysis and strategic planning. For example, getting the right kind of insight into enemy thinking has bedeviled airpower planners for years. Consider the following remark by Lieutenant General Charles Horner, who commanded U.S. air forces during the Gulf War:

*Our peacetime-trained intelligence organizations are taught never to be wrong. They like numbers and don’t like to talk about what the other guy is thinking. They don’t predict, they just give you the rundown, like TV news anchors. Yet as a commander I had to think about what the other guy was thinking. I needed to get inside the other guy in order to find ways to spoil his plans and make his worst fears come true.*

Failures in this regard result in the misapplication of airpower.

There is no indication that traditional intelligence organizations can meet analytical needs of decisionmakers. Special Operations Forces, however, are peculiarly well situated to fill the void. They are trained to think like an adversary and are adept at infusing their analysis with the historical and cultural context of a particular enemy worldview. This point of view would be invaluable to conventional warfighters, especially when facing unconventional threats.

As a case in point, one purpose of deploying Apache helicopters during Allied Force was to create fear of a ground assault in the minds of the enemy, driving it to coalesce its forces into lucrative targets for air attacks and other standoff fires. Regrettably, there is little evidence that it had that effect. Imbued with an understanding of the Serb mind, Special Operations Forces might have suggested that NATO organize the deployment or exercise of Turkish troops. That might have genuinely alarmed Belgrade, for whom defeat at the hands of the Turks in 1389 is not just an historical footnote but part of the Serb psyche. Most conventional commanders think in terms of what makes sense in modern, parochial contexts; the unconventional warrior readily draws upon historical and cultural analogies that are all but invisible to others.

**A Different Path**

To make unique contributions in the future, Special Operations Forces must participate in the planning process. Beyond CSAR, they are largely limited to responding to the targeting plans produced by others rather than actively deciding what should be targeted. Yet they have the clearest understanding in the military of warfare as essentially imposing one’s will on an enemy. Much conventional strategic thinking by airpower advocates overemphasizes coercion through denial, which in essence requires reducing capabilities to the point where an enemy can no longer use force. The viability of such strategy in 21st century warfare is plainly suspect.

The oft-understated lesson of Allied Force is that the quantum of combat power that must be brought to bear on the adversary to render his military capability physically ineffective simply may not be politically possible. Walter Boyne predicted as much, stating that the American public demands that “we must win our wars with a minimum of casualties inflicted upon the enemy.” Thus the SOF expertise in identifying psychological vulnerabilities that may not require the same level of destruction as coercion through denial is exactly the kind of talent conventional commanders will need in politically sensitive conflicts.

Similarly, psychological operations (PSYOP) must be reexamined in light of Allied Force.
Many experts believe the Serbs won the information war. The reasons for this conclusion include the fact that SOF resources were relatively limited. The inventory of Commando Solo aircraft, the platform that broadcasts radio and television programming into enemy or denied areas, is only four planes. But more critical is finding the creative personnel with expertise for the PSYOP mission. It is not clear that it is feasible for Special Operations Forces to recruit and retain the talent needed to produce effective 21st century PSYOP products even within the Reserve components.

PSYOP is clearly a function in which America should dominate. The United States created Madison Avenue and the advertising techniques that have proven effective worldwide. Special Operations Forces must develop better ways to tap into what should be an obvious asymmetrical advantage for this country. That may require greater reliance on contractors and other commercial sources to produce media that work against modern and modernizing societies. Even if much of the development of material is contracted out to private vendors, the process must remain under the aegis of Special Operations Forces.

Thus to the extent SOF units engage in information operations in the psychological warfare context, continued emphasis on this area makes sense. However, it would be improper for Special Operations Forces to create a capability to conduct computer network attack operations, a mission recently and appropriately given to U.S. Space Command.

**Engagement Blues**

As Special Operations Forces seek to enhance their warfighting utility, the pull of military operations other than war remains powerful. The question becomes one of prioritization. Although it is difficult to anticipate the next hot spot, there is no value in expending resources on a training mission simply because it offers an opportunity for military-to-military engagement. Nevertheless, Special Operations Forces may come under pressure from the Department of State to continue or even increase their presence in certain
nations. Ambassadors and country teams working on the margins of national interests have little chance of competing for foreign aid. Thus SOF assets may represent the best, perhaps only, opportunity for U.S. representatives to provide host nations with American largess. If those resources were unconstrained, there could be merit in honoring such requests under some kind of expanded global scout concept, but not in an era of fiscal austerity. Pressures to do more with less and place a premium on engagement must be resisted.

Beyond resources, there is the issue of focus. Diffusion of energy is a continuing threat to the small SOF community. Accordingly, its leaders may want to exercise considerable discipline regarding the scope and intensity of peacetime operations. For example, Special Operations Forces should be relieved of counterdrug missions when possible. The reasons include the fact that U.S. policy may be headed toward a less aggressive interdiction mode. More importantly, it is the risk of military participation in what is essentially a law enforcement effort. There are relatively few historical cases of military organizations that have successfully performed law enforcement missions without compromising either warfighting ability or democratic liberties. Counterdrug missions, which are inherently tied to a rights-oriented criminal justice system, leave SOF assets vulnerable to losing the public support they need.

Likewise, the civil affairs mission deserves to be reconsidered. Conceptually, the capability exists to administer occupied enemy territories as required by international law. In practical terms, it has become the preferred diplomatic fix for a range of failed and failing states. The problems of such states are deeper and longer-term than civil affairs can be expected to solve. If ever there was a function worthy of civilianization and privatization, civil affairs is it. Moreover, having evolved in a larger, often unfriendly military environment, SOF capabilities, including those earmarked here for either deemphasis or elimination, are adept at self-preservation. Consequently, change may not come easily, and fierce bureaucratic struggles loom.

Nevertheless, change must come. Even staunch advocates realize that technology is creating new challenges and opportunities for every component of the military. Those that refuse to change may find themselves caught in a tailspin of decline. Special Operations Forces were established as an innovative solution to global military and political conditions. In important respects, therefore, their very roots are founded in adaptability.

The revolution in military affairs has stimulated change and Special Operations Forces must evolve once again. The stakes are high; only by leveraging these special capabilities can the Nation fully meet the security demands of the new millennium.

NOTES


This article is adapted from the prize-winning entry in the first annual Special Operations Forces Essay Contest sponsored by U.S. Special Operations Command. See page 111 for details on this year’s contest.
Cyberspace *clicskrieg* represents a dramatic shift in strategic thinking that changes the way we look at war. As an information medium and vehicle of influence, the Internet is a powerful tool in open societies as well as others where the only glimpse of the outside world increasingly comes from Web pages, e-mail, and chat rooms. This electronic innovation cuts both ways, as enemies adopt the Internet as a vehicle for influencing public opinion or inciting hostility against the United States. The Armed Forces must be able to wage war online. Consequently, the realm of military psychological operations (PSYOP) must be expanded to include the Internet.

**The Information Battlefield**

Together with both public diplomacy and military public affairs, psychological operations is an important instrument of national security strategy. While all three elements play a key role in information operations and reinforce each other, they have separate functions and unique missions. Public diplomacy is an interagency effort focused on foreign audiences. Psychological operations uses specific techniques to influence non-U.S. audiences. By contrast, public affairs activities do not “focus on directing or manipulating public actions or opinion” and by law “must

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By Angela Maria Lungu

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be separate and distinct” from psychological operations. Similarly, public affairs cannot be used as military deception or as disinformation for domestic or foreign audiences, nor can “propaganda or publicity designed to sway or direct public opinion . . . be included in [Department of Defense] public affairs programs.”

Because of new technology and global media, there is an increased overlap of information between public affairs and psychological operations. The public affairs mission has shifted from delivering specific products (newspapers and radio/television) to the processing of themes and messages. This refocus makes it crucial that public affairs, psychological operations, and public diplomacy, as well as other elements of information operations, be fully integrated and synchronized. Public information, both domestic and international, must be consistent on all levels to preserve the credibility of each instrument. Although psychological operations, public affairs, and public diplomacy messages may differ, it is critical that they do not contradict one another.

**Limits of Mind War**

Psychological operations convey selected information to foreign audiences. A key mission is serving as the voice of a supported commander to political decisionmakers, other commanders, forces, and civilian populations, as well as sources of external support, to influence their emotions, motives, and objective reasoning, convey intent, and affect behavior. It is critical that every theme and objective reflect and support national policy, and informational programs must be integrated into all international information programs to ensure consistent, complementary messages.

There is renewed interest in coordinated information programs, in particular military psychological operations, for three compelling reasons. First, there is a politically-driven effort to prevent escalation by a potential enemy toward violent resolution of differences. Second, because of the Internet and other communications technologies, it is almost impossible for governments to regulate the flow of information across their borders, thus making target audiences more accessible to PSYOP messages. Third, the growing world trend toward urbanization, particularly in the third world, makes the use of overwhelming firepower on battlefields brimming with noncombatants far less palatable. Moreover, all these lessons have been learned and applied by potential enemies.

The capability of the Armed Forces to communicate effectively and persuasively with local leaders will be key to achieving both political and military goals. More importantly, in many cases the destructiveness of conventional weapons and limits of diplomacy make non-lethal instruments such as psychological operations useful in filling the gap between diplomacy and force.

But significant legal constraints remain. Laws governing public diplomacy, because many PSYOP products and their dissemination constitute a form of public diplomacy, also control military psychological operations. The Smith-Mundt Act (1948) forms the basic charter for public diplomacy after World War II and established the U.S. Information Agency (USIA). The Foreign Relations Act of 1972 amended the Smith-Mundt Act to ban disseminating any “information about the U.S., its people, and its policies” prepared for dissemination abroad within the United States. The Zorinsky Amendment further restricted public diplomacy by prohibiting that any funds be used “to influence public opinion in the [United States], and no program material . . . shall be distributed within the [United States].” In addition, the Foreign Relations Restructuring Act of 1998 merged several agencies, placing USIA under the Department of State.

The point of contention derives from the difficulty of sending one message to international audiences and another to domestic media, particularly when seen through a legal lens. Presidential Decision Directive 68 focused on this point, stating that international public information activities “are overt and address foreign audiences only,” while noting that domestic information should be “deconflicted” and “synchronized” so as not to send a contradictory message. As one official said, “In the old days, [USIA] and State were the main agencies for communicating internationally. With the information revolution, all agencies now have the ability to communicate internationally and interact with foreign populations.” The directive serves to ensure that these actors are coordinating their efforts.

In addition to domestic limitations, there are international legal barriers to using the Internet for psychological operations. Explicit regulations of particular actions and more general principles of international law may inadvertently constrain PSYOP efforts because information technology is newer than existing laws. This results in both ambiguity in the definition of war and a lack of provisions explicitly prohibiting information attacks. Consequently, areas of contention remain in the realm of information warfare.
There are several reasons for difficulty in resolving these issues. Although the perpetrators of cyberwar may be formally organized militaries, netwar attacks may not involve traditional forces. Additionally, it is not clear that information attacks, especially when they are not lethal or physically destructive, constitute the use of force under such provisions as the United Nations Charter and may thus be legal forms of coercion even in peacetime. Conversely, distorting enemy perceptions may be illegal or limited by laws against perfidy.

Despite legal constraints, many areas of psychological operations are considered within the realm of international law. For example, the rules of the International Telecommunication Union do not apply to belligerents, making communications in war fair game. Specifically, manipulating enemy perceptions, spreading confusion by covertly altering official announcements or broadcasts, or frightening leaders by spoofing intelligence or other communications would not violate the laws of war in principle. However, manipulating an enemy until its citizens or leaders became unhinged from reality, or using propaganda, video morphing, or deceptive broadcasts to spur unrestrained civil war or genocide might be considered illegal.

**Tactics and Strategies**

Given the opportunities afforded by the Internet, and without violating law, there are several options for employing this medium. The Armed Forces could use it offensively to help achieve unconventional warfare objectives as well as to address and counter enemy propaganda, disinformation, and neutral party information.
The major arguments against Internet PSYOP concern isolation of target audiences, namely preventing Americans from receiving Internet products. Without changing the restrictions against specifically targeting U.S. citizens, however, it is still possible to alter existing policies prohibiting the use of the Internet by military PSYOP. Unintended consequences can be avoided by focusing on disseminating credible information to specific groups. For example, USIA maintained separate Web sites for American citizens and foreign audiences until it was incorporated into the Department of State. Today the English-language Web site of the Office of International Information Programs (formerly USIA) still differs from French and Spanish sites, primarily in that the non-English sites contain links to articles on human rights (specifically on Cuba and Peru), drugs, and corruption, as well as reports on democracy and the AIDS epidemic, none of which appear on the English site. Of particular note is that French and Spanish sites are linked to the Voice of America, which by law cannot be broadcast into the United States.

There are examples of the potential capabilities of the Internet as a PSYOP medium. State and nonstate actors increasingly turn to the Internet to gain domestic and international support and approval, which helps legitimate the issue for international organizations. As the executive agent for the Dayton Accords, the Organization for Security and Cooperation in Europe (OSCE) used the Internet to complement conventional public information and voter information efforts to reinforce its legitimacy as an international organization.

In addition, the Internet was employed to indirectly distribute information to both local and international media, as noted by the OSCE public information officer in an e-mail to the author:

All BiH [Bosnia and Herzegovina] media use our webpage to gather information on the OSCE and elections, and in turn distribute it to the BiH public. As well, over 100,000 out-of-country voters, in more than 80 countries, use our webpage as a source of information on the elections—with the OSCE BiH webpage, general election information and election results which would normally be impossible to find is only as far away as their fingertips. In the month leading up to the last election, the OSCE BiH webpage received over two million hits, but the majority of these were from outside of BiH rather than within.

Beyond simply providing information, Serbs and Kosovars used this technique in what has been described as the first online war in which both sides used Web sites and e-mail to “make their case, to set goals, retell histories, and make stands.” As information operations become more popular and refined, it is apparent that instead of a denial of service, information operations should increasingly focus on affecting the perceptions and behavior of selected audiences by manipulating the information available.

After NATO bombed Serb media outlets considered the source of Milosevic’s propaganda, for example, the U.S. Government decided not to cut off Serb Internet sites. As the Department of State spokesman observed, “Full and open access to the Internet can only help the Serbian people know the ugly truth about the atrocities and crimes against humanity being perpetrated in Kosovo by the Milosevic regime.” Even though the Serbs used the Internet to spread campaign themes, the Department of State countered with a rigorous online effort to defend U.S. credibility. During the Kosovo crisis, the former chief information officer at USIA stated, “the measure of [USIA] success is the extent to which we are perceived not as propaganda but anti-propaganda.”

Yet another implication is the changing dynamic that the Internet brings to information war, namely, talking to enemies without the intervention of either governments or propaganda. During the NATO bombing of Serbia, the media and even individuals maintained open communication via e-mail and chat rooms. The international editor of MSNBC.com had an ongoing conversation with three dozen Serbs. The online magazine Slate published the diary of a correspondent in Belgrade during this period.
The ability of the Internet to forge personal contacts can also be turned into an information advantage. A recent report by the Defense Science Board on psychological operations suggested some less obvious possibilities such as chat rooms and instant messaging services for guided discussions to influence citizens on certain topics and noted that both U.S. presidential candidates and the Chinese government have used similar technology to disseminate information. In addition to Web sites, preempting messages and developing Internet products such as streaming audio/video, online games, mediated news groups, and ad banners can also be leveraged for their strategic value and reach.

Information could also be transmitted over the Internet to sympathetic groups in areas of concern, allowing them to conduct operations in which Special Operations Forces might otherwise be needed to reach target groups. The Internet can also be invaluable for getting news out of the region and into U.S. Government hands, as well as getting information from the United States into a region and cultivating political (and even operational) support. Because journalists may not have access to crisis locations, they might also rely on Internet sites for information, which serves to further multiply the effectiveness of the side able to get its story out.

Kosovo and Chechnya provide examples. Both the Serb government (http://www.serbia-info.com) and Kosovo Liberation Army (http://www.kosova.com) are using Web sites and e-mail to make their cases. The Chechen site (http://kavkaz.org), run by a former information minister, learned from the Serbs and features video footage of Russian bombing and shelling. As a result, Moscow launched the Russian Information Center (http://www.gov.ru). After losing the propaganda war in 1994–96, senior Russian strategists developed a concentrated media plan to target popular support for actions during the second Chechen war.

The Internet can also be employed as a defensive technique, primarily by guarding against defacement of official Web sites and databases. Filtering and blocking software can be installed on individual computers, at an Internet service provider, or on country gateways linking to the rest of the world, and Web sites themselves can block users based on Internet protocol addresses, which can identify particular computers as well as their locations.

The Internet is an inevitable extension of the battlefield, and using it as a critical capability for psychological operations in war is essential. Clearly, a growing number of state and nonstate actors are taking advantage of this tool, given its low cost, particularly in less developed nations. Equally obvious is the need to amend existing policies to allow PSYOP assets to embrace the range of contemporary media. Although current international law restricts many aspects of psychological operations, there is ample legal room for the United States as well as its enemies to conduct psychological operations using modern technology and media such as the Internet.

As the Defense Science Board warned, “while the U.S. is years ahead of its competitors in terms of military technology, in terms of PSYOP there are already competitors on a par with or even arguably more sophisticated than the U.S.” Thus the Armed Forces must address the use of the Internet for psychological operations directly and explicitly as an integral asset instead of an uncontrollable instrument whose role is determined by happenstance or afterthought.

Notes

5 Ibid.
Most advanced states have begun exploring the integration of non-lethality in their militaries, and many have elaborate programs to develop the weaponry and operational concepts to use them. Although the evolution of technology facilitates the development of effective non-lethal weapons, shifts in the strategic environment and nature of warfare also give rise to interest in their utility.

Over the last decade defense officials and strategic thinkers around the world concluded that a fundamental change in the conduct of war—a revolution in military affairs (RMA)—is underway. Most agree that non-lethality is part of this development. But except for a few futurists, defense analysts and military leaders regard non-lethality as a sub-theme in force planning, largely because the revolution in military affairs has been considered technological and operational, assuming that the nature of war will remain constant. But global trends suggest otherwise. Some changes underway in the form and substance of warfare indicate that more lethal forces are not

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what is needed, but rather greater precision and strategic utility in an interconnected world.

Non-lethality can play a significant role, but its continued development is not guaranteed. To help it reach its full potential, policymakers must treat such weapons as fundamental to the revolution in military affairs. Thinking in this field must become historic and strategic.

Lost in the Woods

Few publications and discussions that stimulate thought on the revolution in military affairs accord non-lethality a central role. This is not to say that the defense establishment is disinterested. The Secretary of Defense established the Non-Lethal Warfare Study Group in 1991. Overseen by the Under Secretary of Defense for Policy and chaired by the Assistant Deputy Under Secretary of Defense for Policy Planning, the group supported policies and programs to foster development and fielding, advocating an approach modeled on the Strategic Defense Initiative. But for the Pentagon this proved to be too much too soon. When the Under Secretary of Defense for Acquisition argued that existing programming architecture could adequately handle non-lethal weapons, his opposition helped blunt the findings of the study group.

Military operations in Bosnia, Somalia, and Haiti as well as the domestic disaster at Waco revived interest in the subject. The impetus came from commanders rather than strategic theorists. Based on his experience during the withdrawal of United Nations forces from Somalia, Lieutenant General Anthony Zinni, USMC, became the prime advocate for developing and fielding non-lethal weapons. By identifying counterproliferation, information warfare, peace operations, and military operations other than war as high priorities, the Commission on Roles and Missions lent support to advocates of non-lethal weaponry. In 1996 the Office of the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict issued DOD Directive 3000.3, Policy for Nonlethal Weapons, designating the Commandant of the Marine Corps as executive agent for the program. A memorandum of agreement among the services dated January 1997 established the Joint Non-Lethal Weapons Directorate (JNLWD) that reported to the Commandant. This organization, dealing strictly with joint non-lethal programs and with tactical applications, soon developed a joint concept for non-lethal weapons. JNLWD, in cooperation with the joint experimentation staff (J-9) at U.S. Joint Forces Command, briefed its plan to the Joint Coordination and Integration Group in 2000. JNLWD also has academic partners. For example, the University of New Hampshire has formed a Non-Lethal Technology Innovation Center and Pennsylvania State University...
organized the Institute for Non-Lethal Defense Technologies to complement efforts in this field.

Internationally, the NATO Defense Research Group, for instance, has held seminars to find common ground. In a policy statement issued in 1999 the Alliance declared:

*It is NATO policy that non-lethal weapons, relevant concepts of operations, doctrine, and operational requirements shall be designed to expand the range of options available to NATO military authorities. [Non-lethal weapons] are meant to complement the conventional weapons systems at NATO’s disposal.*

JNLWD has endeavored to winnow out non-lethal technology unlikely to be either effective or affordable and focused on suitable technologies. Recently, for instance, it attracted attention by unveiling a vehicle-mounted active denial system, with which a transmitter fires two-second bursts of focused microwave energy that causes burning sensations on skin up to 700 yards away. This system can break up an unruly mob without killing or maiming.

Various service programs operate in parallel with JNLWD. The Marine Corps has been the most active in assessing and developing non-lethal weapons. While the Air Force has shown less interest, it has made some astute contributions. The Army set the parameters for its efforts in 1996 with the publication of *Training and Doctrine Command Pamphlet 525-73, Concept for Nonlethal Capabilities in Army Operations*, while many Navy programs are designed to work in conjunction with the Coast Guard on the drug interdiction mission.

JNLWD and service programs focus on non-lethal technology with tactical applications. But most work on the strategic, political, and normative levels has taken place outside the defense establishment at national laboratories and institutes. Moreover, there is interest in Congress where Senator Bob Smith, the chairman of the Acquisition and Technology Subcommittee of the Senate Armed Services Committee, became a vocal supporter, arguing that non-lethal weapons “can offer U.S. and NATO troops the capability to manage, contain, and diffuse certain volatile and low-intensity situations.”

**Obstacles by the Score**

Despite various efforts, non-lethality has remained on the periphery of RMA thinking. Part of the problem is the structure of the defense establishment. A study conducted by the Council on Foreign Relations in 1999 found that JNLWD had not attained the degree of authority intended by Congress because the services want to maintain full control over weapon and system development. Although such problems can be easily overcome, conceptual obstacles are more difficult. Official pronouncements repeatedly stress that the revolution in military affairs will make the Armed Forces more lethal. Mainstream thinking is forward looking with regard to technological and operational concepts but conservative when it comes to the global strategic environment and the nature of conflict. It focuses largely on state-on-state warfare where a belligerent commits aggression for geostrategic reasons or to seize natural resources. Subsequently, a U.S.-led coalition or the United States alone can then project military power into theater through a campaign designed for a decisive outcome, usually the reversal of the aggression. The American revolution in military affairs thus sees future armed conflict as a reprise of the Persian Gulf War.

Yet state-on-state warfare involving conventional combined-arms combat may not be the most common or even the most strategically significant form of armed conflict in the 21st century. War may in fact undergo a devolution. Some analysts contend that the proliferation of weapons of mass destruction, particularly nuclear weapons, will obviate traditional state-on-state war. This argument has pushed farther: the increasing interconnectivity of the modern world on all levels could make the cost of old-fashioned war to seize territory or resources too high for expected benefits. There may be instances when an...
objective has such emotional appeal that a state may be willing to pay the price to gain it, but in most cases, aggression is likely to be incremental and carried out by proxies rather than through armed intervention. The revolution in military affairs, in other words, may be a classic example of preparing for the last war.

Three broad sources are likely to pose the most common and complex security problems in coming decades: domestic disruptions and instability; economics or ethnicity; and organized crime or other transnational issues. None are amenable to the revolution in military affairs, at least as it is described in Joint Vision 2020. When advanced states undertake humanitarian intervention, fight organized crime, or combat terrorism from anti-globalization or other radical movements, a military capable of decisive victory against another state may not be very helpful. Such operations will be fraught with moral and political ambiguities and transparent as the entire world looks on. The line between law enforcement— with its restraints on the use of force—and the military will be blurred. And often those against whom force is used will not be traditional enemies, but rioters, protesters, narcotraffickers, smugglers, or terrorists commingled with noncombatants. Decisive force and lethal precision munitions will have limited utility. Information technology will allow images of the use of force to be transmitted around the world in real time. Future warfare will be theater as much as combat. To sustain public support for the use of force, governments will have to go to lengths to limit its destructiveness.

The above suggests that advanced states should pursue a parallel revolution designed specifically to deal with nontraditional and nonstate threats. Like the Joint Vision 2020 revolution, it will rely on information. But the sort of data needed will be culled from sources other than an electronic sensor-based system of systems underpinning the first revolution in military affairs. Miniaturized robotic sensors and human intelligence will be more important than overhead or orbital sensors. More importantly, the information will be less concerned with the location of physical assets than psychological factors that are beyond satellite imagery. Moreover, this second revolution must be based on minimum destruction since the theater will often be an urban environment crowded with noncombatants. The enemy may need to be restrained rather than killed. Nonlethality will thus be a defining characteristic of the second revolution in military affairs rather than a peripheral one as it is in Joint Vision 2020.

Dropping the Hammer

The core dilemmas for the Armed Forces will be finding ways to execute traditional military operations while faced with weapons of mass destruction and missile technologies and performing stability and relief operations in weak or failed states. The old adage that “When your only

non-lethality will be a defining characteristic of the second revolution in military affairs

Subduing aggressor with flexi-cuff.
tool is a hammer every problem looks like a nail” also holds for the militaries of advanced states. Most are highly skilled forces designed to defeat other states. They are capable of decisive victory when the enemy is identified and the rules of engagement are permissive. In the future some states are likely to use the military hammer against threats that are not nails. But advanced states will eventually find that forces that are trained, equipped, and organized for traditional warfighting missions are not effective in countering new threats. They will have to either develop alternative organizations or radically transform existing ones. The second revolution in military affairs with its dependence on non-lethality will then take shape.

The second RMA variant might prove beneficial. States that embrace it might be effective at humanitarian intervention, peace operations, counterproliferation, and counternarcotics. Moreover, they might not cause inadvertent destruction and thus sustain public support. But the second variant could have adverse outcomes. Non-lethality can allow decisionmakers to avoid tough choices associated with using force. Or if force is used without bloodshed, decisionmakers might be tempted to intervene in internal conflicts where they might otherwise have resisted. In the long term, lowering the threshold for intervention may be a mixed blessing. Lives may be saved but the net result may be increased global violence. Sadly, most internal conflicts must run their bloody course before the antagonists are ready for resolution. Serious negotiations only occur when both sides tire of violence. Outside intervention may hold the lid on a boiling pot and thereby postpone resolution rather than facilitate it.

Most ominously, the second RMA variant could threaten individual rights. Miniaturized sensors could erode privacy, which is a core Western value. And non-lethal weapons would be considered usable under more circumstances. Particularly frightening, non-lethal weapons could have psychological rather than physiological effects. For instance, would restrictions on using a weapon that causes fear be less than those of a firearm? Since most restrictions on the use of force, whether by militaries or law enforcement agencies, are based on deadly force, the development of effective non-lethality will require reformulating those rules to preserve human and civil rights. This reformulation will be a vital component of the second variant of the revolution in military affairs.

Strategists tend to focus on the technological aspects of conflict or on strategic, operational, and tactical issues over the political and normative framework of warfare. This applies to thinking on the revolution in military affairs, which attempts to harness emerging technology with the larger strategic framework and assumes that both who fights and under what conditions remain constant. But trends suggest that traditional interstate war using the time-tested laws of conflict is unlikely to be the primary security challenge of the 21st century. In all probability, non-lethality will be key in responding to new threats. But developing non-lethal weaponry will create a need for altering or reconstructing the political and normative framework of armed conflict. Ultimately, this will be the most difficult and important challenge.

NOTES

In June 1950, some 135,000 North Korean troops attacked South Korea, sparking a bitter struggle that many have called the “Forgotten War.” While it may have been forgotten by some, it certainly was not by the soldiers, sailors, marines, airmen, and coastguardsmen who served in that remote theater. Today, more than fifty years later, we should reflect on the courage, sacrifice, and devotion of the men and women who served during the conflict. Indeed, I hope that every American is exposed to their story over the course of the ongoing commemoration. It is equally important that those of us in uniform today consider the hard lessons of Korea in developing the strategy and force structure to meet the challenges of the 21st century.
North Korean offensive from June–September 1950
Pusan Perimeter on September 15, 1950
U.N. counterattack in September 1950
U.N. gains to October 1950
Chinese counterattacks from November–December 1950 and April 1951
Front line on December 18, 1950
Limit of Chinese advance to 1951
Ceasefire line on November 1951


Reflecting on the three years of bitter fighting in Korea, I am reminded of two critical themes: first, ordinary Americans have the capacity to accomplish extraordinary things under unbelievable conditions; and second, thousands of brave citizens—both active and Reserve, draftees and volunteers—distinguished themselves in Korea, a distant land that few people in this country knew much about before the events of June 1950.

Indeed, in the best tradition of the Armed Forces, those who fought in Korea demonstrated great skill and commitment. They overcame the obstacles posed by a ruthless enemy, nature, an astounding lack of preparation, and a woeful state of readiness which was tolerated in the months and years leading to the war. In the end, they fought to a bloody draw; but by doing so, the U.S. military proved to the world that America is a reliable ally who puts its sons and daughters in harm’s way for the cause of freedom.

From the fight by 24th Infantry Division to slow the enemy until reinforcements arrived, to the Inchon landing by 1st Marine Division and 7th Infantry Division, to the brave flyers and sailors who patrolled the skies over Korea and waters surrounding the peninsula, young Americans rallied to the cause of freedom and proved their courage and resourcefulness time and again.

The Cost of Freedom

We have all heard of Pork Chop Hill and Heartbreak Ridge, but the struggle encompassed much more than a few well-known engagements. It included thousands of firefights as troops from the United States and allied nations desperately fought their way across the jagged
mountains, broad valleys, and terraced rice fields so common in a country known as the land of morning calm. It included thousands of aviators who flew into dense enemy fire while others faced perils at sea. It was a bitter contest against a determined, motivated, and well-equipped foe.

By the time the guns fell silent in 1953, nearly 37,000 Americans had made the ultimate sacrifice. One of them was a 25-year-old Marine lieutenant, Baldomero Lopez, who led his platoon over the seawall at Inchon on September 15, 1950. After climbing the wall, he attacked an enemy pillbox. Pulling the pin from a grenade
as he prepared to throw—he was shot in the shoulder and chest. The grenade dropped to the ground. Realizing he had exposed his men to danger, Lopez crawled to the live grenade and pulled his body over it, absorbing the explosion and saving members of his platoon.

On that day Lieutenant Lopez became a casualty of the Korean conflict. For his action, the President posthumously bestowed on him the Medal of Honor. His display of courage in battle, self-sacrifice, and devotion to duty continues to inspire everyone in uniform to this day. Moreover, it is a vivid reminder of the price paid by America during the fight for South Korea’s freedom.
In fact the war is a testimony to the cost of freedom. It is a story about standing shoulder-to-shoulder with allies who share a common ideal. Most importantly, Korea reminds us that peace dividends—if not carefully calculated and prudently distributed—can break the bank when it comes to readiness. We must never again allow the euphoria surrounding the end of one war (either the hot or cold variety) to render us unprepared for the next. This lesson must not be forgotten.

Indeed, the experience of the Korean War also suggests that the strategy of deterrence in the early 1950s, built upon a capacity to mobilize and an ability to employ atomic weapons, needed to be reconsidered. In retrospect, the state of readiness of those American forces forward deployed was a major factor in the enemy decision to invade the South. The communists gambled that
they could conquer South Korea before the United States could mobilize. That gamble almost worked. If the Nation plans to depend on a strategy of deterrence to maintain peace in the future, its military capabilities and warfighting readiness must be preserved.

**The Joint Team**

Korea also reminds us of the powerful synergy and combat capability that are created when we fight as a team. For example, jointness was only given lip service in June 1951. That month, *USS New Jersey*, together with allied warships, provided naval gunfire support to U.N. forces on the ground along the east coast of Korea. Close air support for operations by Eighth Army was furnished by squadrons of 1st Marine Aircraft Wing, and 1st Marine Division fought bravely as part of X Corps. In addition, naval aircraft from fast carriers of Task Force 77 provided close air support and air interdiction in support of Eighth Army operations as aircraft from Fifth Air Force cleared MiGs from the skies and supported troops on the ground by raining 500-pound bombs on enemy positions both day and night, in good weather and bad.

As this account illustrates, the services worked well together when required. They formed a joint team and focused on common goals and the pursuit of victory. But the jointness achieved in Korea was driven by operational imperatives and implemented on an ad hoc basis. In the wake of the passage of the Goldwater-Nichols Act, the Armed Forces are no longer cobbled together at the last minute in a crisis. Today, the services routinely come to the fight as part of a joint task force, ideally a joint team that has planned and trained to fight as a unified combat force. They are led by commanders who have been schooled in the art of joint warfighting and understand the unique and complementary capabilities which each member of the team can bring to the fight.

In the future, when we fight it will be as a joint team. We have developed a structure designed to be more capable and better prepared for joint operations. Indeed, with the establishment of U.S. Joint Forces Command,
we have a unified command that is focused on joint experimentation and training before the first shot is fired. Moreover, we continue to expand and refine joint doctrine while pursuing new concepts that will enable us to better fight together. Equipment is increasingly interoperable and joint forces are more capable.

A powerful monument to the veterans of the Korean War stands across the Potomac River from my office at the Pentagon. It depicts a squad of men moving in the rain—watchful, ready, and determined. It memorializes those Americans who fought bravely alongside their allies to free South Koreans from the grip of communist invaders. It serves as a permanent reminder to the fact that freedom does not come easily or cheaply. On a personal level, it reminds me that when the military is called on to fight, it is individual soldiers, sailors, airmen, and marines who put their lives on the line. In the event, the Armed Forces continue to underwrite the peace, prosperity, and freedom all Americans enjoy.

Fifty years after the conflict, South Korea is a free and prosperous strategic ally that radiates hope and confidence, thanks to a generation of Americans who fought the first hot war of the Cold War. But while reflecting on the past, we should recall that maintaining peace and security falls on another generation today. They must be watchful, ready, and determined from Kansas to Kuwait, and from Kosovo to Korea.
The planning and execution of Operation Chromite by General Douglas MacArthur in 1950 established the operational art that guides U.S. joint operations today. The Inchon invasion was one of the best operational-level case studies in the recent past.

The rapid response to the North Korean attack of June 1950 was both bold and brilliant. Though notoriously self-centered, MacArthur was not a micromanager and he had a good sense of his role in developing a response. He delegated authority to subordinates to meet wartime needs while focusing on defeating the enemy. Moreover, as Commander in Chief, Far East (CINCFE), he realized that his headquarters was ill-suited to the demands of war and formed subordinate staffs for such responsibilities. This decentralization in a crisis added to the responsiveness of Far East Command (FECOM) component forces.

MacArthur properly concentrated on strategic issues, mainly keeping South Korea in the fight. He also dealt with coalition issues, addressing command and control as well as readiness concerns. Moreover, he led the concept development process for Chromite.
Desperate Measures

A believer in reconnaissance, MacArthur embarked key members of his staff on June 29 in his aircraft, Bataan, and flew to Suwon, 20 miles south of Seoul, where Ambassador John Muccio had fled with remnants of the U.S. mission. He then travelled by jeep to the Han River to observe South Korean forces in retreat and North Korean forces in action. He found that morale was not sufficient to the challenge. He mourned “I’ve seen many retreating Korean soldiers during this trip, all with guns and ammunition at their side and all smiling and I’ve not seen a single wounded man. Nobody is fighting.”1 He also knew that U.S. forces in Japan were not prepared and commented that his first decision was to “rely upon strategic maneuver to overcome the great odds against me. It would be desperate, but it was my only chance.”2

MacArthur formulated a strategic estimate. At its core was the Bluehearts plan, an indirect approach designed to shatter enemy cohesion. This concept remained the driving force in developing and executing Operation Chromite. It sought to counter the strong communist attack indirectly with limited U.S. capabilities as a lever at a decisive point. MacArthur cabled Washington to ensure that decisionmakers grasped that “the alternative is a frontal attack which can only result in a protracted and expensive campaign.”3

One task was ensuring support at home for the forces which MacArthur thought necessary. Operational sponsorship of the FECOM theater had been given only recently to the Chief of Staff, U.S. Army. General J. Lawton Collins had to supply forces and argue for naval and air assets. As MacArthur told Collins, “Unless provision is made for the full utilization of our Army-Navy-Air Force team in this shattered area, our mission will be costly in life, money, and prestige. At worst it might be doomed.”4

The concepts and judgment required for operational level decisions were central to the role that MacArthur played in Chromite. The concepts and judgment required for operational level decisions were central to the role that MacArthur played in Chromite. In particular, his grasp of ideas such as depth and timing was crucial to his counterstroke, but his knowledge of other operational areas also warrants attention. For example, there can be no doubt that he applied his version of the center of gravity. Seoul was the hub of all movement in the South and became the most critical node in the supply line of the communist attack. Moreover, MacArthur knew that the city had immense symbolic value and retaking it would inflict a “devastating psychological setback.”5 He focused on this point.

MacArthur had encountered supply shortages during World War II and learned the value of operational reach. He understood enemy vulnerabilities. Despite tactical accomplishments, as the communists moved southward their lines of communication grew increasingly exposed. CINCFE also appreciated that he must gain time by deploying troops to lure the North Koreans into a conventional battleline. This would extend enemy road networks in depth and breadth while opposing forces hardened and entrenched forward lines. Value would also accrue as the communist forces shifted tactically from movement operations to close assaults against the allied defensive line around Pusan. All this increased enemy dependence on supply lines and magnified the surprise effect of a deep counterassault.
Because of this commitment to an indirect attack on a key vulnerability, MacArthur drove planning in ways that most regarded as extreme, especially those who did not share his operational vision. His plan was also disconcerting because it was not primarily oriented on the enemy. In his first call to Washington for reinforcements on July 7, the benefits of Chromite were not immediately obvious to the Pentagon. Collins denied the request because he, like others in Washington, feared a global conflict. Fortunately, World War II had made MacArthur confident in the capabilities of the Marine Corps. Thus when Lieutenant General Lemuel Shephard, USMC, offered a division, CINCFE jumped at the chance to acquire amphibious units. The Marines could maximize naval striking power and execute deep penetration with special units, a plus over the concept of using 1st Cavalry Division as the heart of the counterattack.

As the North Koreans continued to press the attack against Eighth Army around Pusan, FECOM oriented logistic support on reinforcing General Walton Walker, USA. By August 23, numerical parity between the two combatant forces north of Pusan was surpassed and Walker soon had 150,000 soldiers and marines with 500 tanks. More important for the long term, his supply lines moved 1,000 tons each day. The enemy had reached a culminating point while Eighth Army was growing stronger.

Eighth Army was not the only tool available to CINCFE. Simultaneity requires that, once vulnerable, an enemy should be hit across the range of operations and in every combat dimension for maximum effect. Both Lieutenant General George Stratemeyer, USAF, and Admiral Turner Joy, USN, had been striking targets since the invasion began, engendering an increasing need for lateral coordination. By July 15, the need for cohesive air operations was such that a new form of authority known as coordination control was instituted by MacArthur to breach service impasses, deconflict operations, and improve effectiveness. During the same week, pilots under Stratemeyer started large-scale bombing within the theater of operations but outside normal control of Walker’s advanced ground elements. From then on the full capability of FEOM air forces was brought to bear on the enemy, from strategic marshalling areas down to tactical employment by B-29s for ground forces. This included land-based Marine air in support of the Pusan Perimeter.

Transitioning from withdrawal and stabilizing defenses at Pusan to shaping the battlespace for the Inchon assault occurred in August. Balance among three subordinate efforts became a task of the FECOM staff as transport, support, and prioritizing combat power became more complex. Freedom of action for component commanders and synchronization of effort by MacArthur’s staff should have been the watchword at the Dai Ichi Building in Tokyo. But staff expertise was not abundant and components were often left to fend for themselves.

The counterattack plan, however, featured the element of surprise to make up for execution inefficiencies, something that MacArthur considered the most vital element of war. Unfortunately, it is difficult to either predict or measure. CINCFE provided an estimate of the effects of surprise on the operational level to the Joint Chiefs of Staff: “The very arguments you have made as to the impracticabilities involved will tend to ensure for me the element of surprise. For the enemy commander will reason that no one would be so brash as to make such an attempt.”

On August 23, after detailed course of action development by a joint planning group and staff estimates by service component staffs, MacArthur conducted an estimate to select a course of action for the counterattack. The staff made recommendations after an analysis of potential options and reactions. Rear Admiral James Doyle, Commander of Amphibious Group 1, led the course of action assessment to ensure that CINCFE understood the risks identified with Inchon. Among the commanders attending was Admiral Arthur Radford, Pacific Fleet; Admiral Joy, Naval Forces Far East; and General Shephard, Fleet Marine Forces Pacific. General Collins, together with Admiral Forrest Sherman, Chief of Naval Operations, and Lieutenant General Idwal Edwards, operations deputy on the Air Staff, represented the Joint Chiefs.

Doyle was the most experienced amphibious officer in the Far East. He had studied Inchon and alternative sites and, with others, attempted to dissuade MacArthur from executing Bluehearts. But CINCFE would not abandon
the plan even when faced with opposition supported by Collins. An alternative, attacking Kunsan, was seen as ineffective and indecisive. After assessing Kunsan, MacArthur commented “it would be a short envelopment which would not envelop. It would not sever or destroy the enemy’s supply lines or his distribution center and would therefore serve little purpose.”* Thus he concluded: “We shall land at Inchon and I shall crush them.” On August 29, after anxious debate, the Joint Chiefs formally concurred, although they continued to be concerned over the risks while MacArthur remained firm.

THE JOINT CHIEFS CONTINUED TO BE CONCERNED OVER THE RISKS WHILE MACARTHUR REMAINED FIRM IN HIS DECISION

1st Marine Brigade and its tactical airpower from Pusan before the assault. Collins felt that a weakened Eighth Army might not be able to break out or would suffer crippling fights along the 180 miles to the link-up point.

Timing among these various efforts would be orchestrated specifically by MacArthur based on conditions at the moment. The plan had to be flexible, but it clearly relied on the Inchon landing shocking and demoralizing the enemy immediately prior to the attack by Walker. CINCFE planned to accompany the landing force to assess its effectiveness and set the timing for Walker’s breakout. The only reserve kept to counter the friction of war was an airborne regimental combat team—in all likelihood only useful to soften an impending defeat.

Both MacArthur and Almond embarked aboard USS Mount McKinley on September 13. In keeping with doctrine, the initial phase of the operation was run by Admirals Arthur Struble and Doyle. After pre-assault bombardment and advanced force operations, X Corps captured Inchon on September 15 and advanced toward Seoul. Rapidly retaking the capital was key to creating the effect that MacArthur needed. Within a week 1st Marine Division took Kimpo airfield in Suwon and reached the outskirts of Seoul. CINCFE remained embarked until control shifted from the commander of the amphibious task force (Doyle) to the landing force (notionally Almond, but in reality General Oliver Smith of 1st Marine Division) on September 20.

Walker had already started his breakout on September 16. But in the first five days Eighth Army had little success. The effects of the Inchon attack did not appear until September 20. MacArthur knew the tide of battle had turned. He remembered determining the hour for best effect on the enemy with apparent calm saying, “Kimpo was captured and signs of weakness began to be evident in front of Walker. I directed him to attack.”* But in reality he had an anxious two days, even considering another amphibious assault before the impact of the fall of Seoul was clear. Soon there was complete disintegration and Eighth Army was chasing a fleeing mob.

The nature of the defenses around Pusan in late August also pushed for early action.

MacArthur had to ensure that North Korean cohesion was crippled prior to a breakout from Pusan—otherwise Walker would have difficulty generating the offensive combat power needed to link up with X Corps under Major General Edward Almond, USA, south of Seoul. This problem had greatly concerned Collins, particularly because it required withdrawing

CALM BEFORE THE FALL

MacArthur understood that timing for the assault at Inchon and the breakout from the Pusan Perimeter by Eighth Army would be crucial. His cable to Washington on July 23 had said that the “operation planned mid-September is amphibious landing of a two-division corps in rear of enemy lines for purpose of enveloping and destroying enemy forces in conjunction with attack from the south by Eighth Army.” Mid-September was critical because ferocious tides made landing viable only at mid-month, and by October the weather would be too poor for the rapid result MacArthur desired.

Transporting personnel at Inchon.
Breakout

MacArthur established command and control for Operation Chromite to ensure appropriate warfighting headquarters on the operational level (the equivalent of a component command today). Stratemeyer took on the operational air command function from the initial U.S. response and, by the end of June, Walker had organized a command post at Taegu to manage land forces, which left a naval headquarters under Joy, who delegated the operations at Inchon to Seventh Fleet, his warfighting component, commanded by Struble. Thereby Joy and his staff could remain focused on the big picture and continue to support the FECOM staff as its naval component.

Based around Seventh Fleet, and augmented by the Marine Corps, CINCFE created JTF–7. Liaison officers were exchanged among headquarters and their numbers increased as planning continued. When MacArthur and his staff boarded USS Mount McKinley in Sasebo on September 12, the invasion rested in Struble’s capable hands. JTF–7 had even been allocated an amphibious operations area to deconflict support operations with ongoing efforts by Far East Air Forces (FEAF) but otherwise had flexibility to execute the plan as required.

By then, joint force coordination was being accomplished on several levels and by several joint groups. The FECOM staff had actively used joint targeting approval and operations planning since August. FEAF and Eighth Army had worked through a series of issues to develop a joint operations cell, with an air operations center for support in Korea. Stratemeyer and Joy had hammered out an airspace control plan that integrated the JTF–7 amphibious operation area in the FEAF attack plan, including both strategic and tactical targets. Although MacArthur retained command of the U.N. effort, the execution of the counterattack was decentralized.

CINCFE and his staff were aboard the flagship of Seventh Fleet during the landing but had little effect on the operation. That was just as well because MacArthur was not in a position to take an active role in what was a largely tactical event. Thus the operational commander gave authority to his subordinates and watched for exceptions, prepared to intervene.
Back to the Future

In many respects Operation Chromite foreshadowed the command and control structures of current joint operations. This was not regarded as novel in 1950, as the lessons of World War II had proven time and again. But it is surprising that such practices fell into disuse after the Korean armistice and were nearly forgotten during Vietnam. Fortunately, they returned during the AirLand Battle era of the 1980s and 1990s. The Armed Forces readopted many of these tools because they were particularly appropriate for warfare on the operational level.

Some of MacArthur’s contributions to Operation Chromite seem applicable for the kit bag of today. The first is the recognition that operations on the strategic, operational, and tactical levels are related but not cohesive. Success on one level cannot balance deficiencies on the others over the long term. The operational brilliance of MacArthur turned the tide against the North Koreans despite tactical deficiencies and lack of strong regional policy, but without strategic context it soon led to overconfidence, his relief by Truman, and stalemate in theater. Operational brilliance cannot overcome tactical defeats or strategic shortsightedness.

Operation Chromite foreshadowed the command and control structures of current joint operations

Effectively balancing centralized planning and decentralized execution—a maxim of current joint operations—was a practice of MacArthur. Although he dominated concept development, he established supported commanders in their areas of operation—Walker within the Pusan Perimeter, Stratemeyer in overall air support operations, and Struble in the amphibious objective—and trusted them to conduct their specialties. He intervened to minimize conflicts but not to micromanage.

MacArthur’s dominance provided a vision for staff and component action that reinforced the aim. Through long bleak weeks he almost single-handedly kept efforts focused on the desired operational outcome. He knew command relations and ensured unity of effort. He was hampered more than commanders today by service rivalries that distorted achievements and used the media as a weapon to undermine the joint team. Still he worked with subordinates, particularly Stratemeyer, to resolve conflicts or mitigate them. CINCFE organized and supported joint groups to facilitate cooperation. He also extended the same type of activities to multinational partners.

Even superb commanders make mistakes. MacArthur misjudged the size and implications of the communist attack. Still he was an inspirational leader, even in the eyes of his critics, and one who orchestrated all the elements of the U.N. force into a single instrument in the right place at the right time for maximum effect.

Douglas MacArthur understood operational art. After decades in uniform he valued service core competencies, sensed the critical elements of battle, grasped crucial vulnerabilities, maintained good timing for large-scale operations, and knew where to focus. An asymmetrical attack on the enemy rear was his response to the reality that he could not wage attrition war and win. He could not adequately describe the effect required because few commanders had his operational expertise. They doubted that the cohesion of an enemy force could be shattered by such a risky maneuver; but they recognized it when the enemy disintegrated in late September.

NOTES

3 Ibid., p. 346.
4 Ibid., p. 334.
7 Ibid., p. 346.
8 Ibid., p. 354.
Following World War II, Korea was divided into two zones of occupation along the 38th Parallel. The United States occupied the southern zone while the north was controlled by the Soviet Union. When no solution to the issues of reunification emerged, the Republic of Korea (ROK) was created in August 1948 and Syngman Rhee was elected president. The north held separate elections that autumn which led to the formation of the Democratic People’s Republic of Korea and inauguration of Kim Il-Sung as president. The United States maintained a military presence through the Korean Military Assistance Group (KMAG). The Soviets aided in the buildup of the North Korean military, while Kim pressed Josef Stalin for support to unify the country by force.

A ciphered cable from the Ambassador of the Soviet Union to Pyongyang, General Terentii Fomich Shtykov, to the Deputy Commissar for Foreign Affairs in Moscow, Andrei Vyshinsky, sent on January 19, 1950, reads as follows:

I report about the frame of mind expressed by Kim Il-Sung during a luncheon at the Ministry of Foreign Affairs. . . . He said “The people of the southern portion of Korea trust me and rely on our armed might. . . . Lately I do not sleep at night, thinking about how to resolve the question of the unification of the whole country. . . .” Further Kim stated that when he was in Moscow, Comrade Stalin said to him that it was not necessary to attack the south; in case of an attack on the north of the country by the army of Rhee Syngman, then it is possible to go on the counteroffensive to the south of Korea. But since Rhee Syngman is still not instigating an attack, it means that the liberation of the people of the southern part of the country and the unification of the country are being drawn out, that he thinks that he needs again to visit Comrade Stalin and receive an order and permission for offensive action by the People’s Army for the purpose of the liberation of the people of Southern Korea.

Cable from Stalin to Shtykov on January 30, 1950:
I received your report. I understand the dissatisfaction of Comrade Kim Il-Sung, but he must understand that such a large matter in regard to South Korea such as he wants to undertake needs large preparation. The matter must be organized so that there would not be too great a risk. If he wants to discuss this matter with me, then I will always be ready to receive him and discuss it with him. Transmit all this to Kim Il-Sung and tell him that I am ready to help him in this matter.

With support from Stalin, the war began with a surprise attack across the 38th Parallel on June 25, 1950. Many North Korean troops were battle tested, having served with the Chinese and Soviet militaries during World War II and also with the Chinese in their civil war. The ROK army, poorly equipped and with its combat training incomplete, was aided only by the 500-man KMAG and proved no match.

To the Yalu and Back

By STANLIS D. MILKOWSKI

The Korean War is a case study in operational art, not only historically but as a paradigm for U.S. strategic thinking. General Douglas MacArthur was the last operational level commander until the Persian Gulf War in 1990–1991. Paradoxically, operational planning conducted in a strategic backwater some fifty years ago may have greater applicability to the new security environment than lessons from Desert Storm. The United States must be able to deploy limited forces around the world for ambiguous missions in ad hoc coalitions. It is likely that operational planners may find themselves on unfamiliar terrain, in a theater lacking logistic and intelligence support, and without command and control tailored to the mission, similar to the situation that confronted MacArthur after Inchon.

Was the command and control system that MacArthur employed responsible for the plight of the United Nations Command (UNC) deep inside North Korea in November 1950? In
doctrinal terms, the command was defeated when it passed the operational culminating point without gaining its objectives. Accounts variously assign blame for this near catastrophe on MacArthur’s hubris, schizophrenia at general headquarters, intelligence failure, or misplaced trust in airpower to isolate the battlefield. Elements of these problems arguably existed, but they offer little understanding of how UNC operations fell into disarray on the eve of the Chinese counterstroke and why miscalculation turned to calamity. The reversal shows that it was a failure of operational command and control more than single-mindedness on the part of MacArthur that made defeat inevitable.

**Riding High, Falling Fast**

By crossing the 38th Parallel in October 1950, U.N. and South Korean forces launched an aggressive pursuit across a broad front, encountering no serious checks until the surprise Chinese counterattacks. After a period of consolidation and unit boundary adjustment dictated by tactical withdrawals of forward elements, the final offensive began on November 24. Within 72 hours, the Chinese had struck hard at several points on an extended front and threatened to cut off major forces inside North Korea. Though U.N. forces kept lines of communications open and extricated most forces in danger of encirclement, the cost was heavy in terms of casualties, matériel, and loss of hard-won gains in the offensive. By Christmas, UNC found itself almost exactly where it had set out three months earlier. It was an entirely new war.

Although MacArthur received his authority as Commander in Chief, Far East (CINCFFE), from the Joint Chiefs, and his command included both major Navy and Air Force headquarters, Far East Command (FECOM) headquarters was staffed almost entirely by the Army. In deference to jointness, planning was carried out by a joint strategic plans and operations group (JSPOG), but the lack of balanced representation from all services prevented it from being truly joint. MacArthur was also Commander, U.S. Army Forces Far East (AFFE), though he did not use that title. Thus Lieutenant General Walton Walker, Commander of Eighth Army, was not only the senior subordinate commander within AFFE rather than a ground component commander in a joint headquarters.

When Walker became commander of ground forces in July 1950, the area of responsibility of Eighth Army was simply extended to Korea, and this subregion was designated Eighth Army Korea to differentiate it from the base structure. Although Walker effectively exercised control of South Korean army units, he did not have command authority over them. As quickly as a skeleton corps headquarters could be organized in the continental United States, it was rushed to the theater. To achieve the movement, MacArthur needed a corps headquarters separate from Eighth Army. Despite the fear of some that it would be a half-baked affair, he was determined to form a staff with FECOM personnel, even selecting his chief of staff, Major General Edward Almond, USA, to head it. This organization was designated X Corps and assigned one Army and one Marine Corps division that were placed in reserve until the Inchon operation began.

**change of mission**

While U.N. forces were consolidating their gains at Inchon and breaking out from Pusan, operations north of the 38th Parallel were explicitly authorized, but the directive had one constraint and two caveats. Above all, no forces commanded by MacArthur were allowed to enter Manchuria or the Soviet Union, and no naval or air action could be undertaken against...
Racing to the Yalu (September–November 1950)


those areas. Moreover, CINCFE was free to undertake operations anywhere in North Korea only so long as there was no sign of entry by major Chinese or Soviet forces. Finally, as a matter of policy, he was prohibited from using non-Korean forces in northern provinces bordering Manchuria and the Soviet Union. As long as these conditions obtained, MacArthur was enjoined “to feel unhampered tactically and strategically to proceed north of the 38th Parallel.”

MacArthur had anticipated such restrictions and the operational latitude he could expect in selecting objectives. Likewise, the FECOM staff had earlier completed a preliminary estimate of the post-Inchon situation and already was drafting courses of action based on the assumption that the President would not settle for restoring the 38th Parallel. But CINCFE obviously had not communicated his concept of operations; nor had the staff validated assumptions of their plans. One day before receiving the directive from the Joint Chiefs, MacArthur surprised the staff by calling for developing plans for an offensive into North Korea which would feature another deep amphibious envelopment, in conjunction with a cross-country advance across the 38th Parallel. Although he did not specify the formation to be used for the amphibious landing, there was obviously only one candidate—X Corps.

MacArthur’s principal staff officers had assumed that he intended to give Walker command of X Corps. The staff of Eighth Army shared this mistaken assumption and planned accordingly: after Seoul was retaken, X Corps would continue the attack north toward Pyongyang, maintaining the offensive as Eighth Army came up behind. Depending on conditions, X Corps might continue the thrust in the west toward the Yalu or move laterally along the Pyongyang-Wonsan corridor to help the South Koreans advance along the east coast. In either event, operations by both forces would be coordinated under Walker.

Because Inchon had originally been conceived as only one pincer of a double envelopment with a second amphibious operation on the east coast, JSPOG had gathered data on likely landing sites, and within hours of receiving guidance from MacArthur was able to give him an outline plan. The most likely candidate was Wonsan, an excellent deep-water port on the opposite side of the peninsula from Pyongyang which was connected by the only east-west line of communication of consequence north of the
38th Parallel. MacArthur accepted the hybrid plan, calling for X Corps to land at Wonsan and be prepared either to effect a juncture with Eighth Army, advancing in the west to take Pyongyang, or advance north to the coastal industrial complex of Hamhung-Hungnam. X Corps would constitute an operational maneuver force under MacArthur. He apparently based his concept of operations on four assumptions, which seem not to have been explicitly stated but tacitly accepted as conditions for operations in North Korea. First, the extremely difficult, nearly trackless mountain terrain running north-south divided maneuver into eastern and western sectors. Second, given the primitive transport system and efficiency of Far East Air Forces in interdiction, logistic support throughout North Korea could not be sustained from Inchon and Pusan alone. Third, a turning movement on the east coast might cut off large numbers of North Koreans who had escaped across the 38th Parallel. Fourth, there would be no interference by the Soviet Union or China with UNC operations.

MacArthur had identified remnants of the North Korean army as the enemy center of gravity, which was true as long as his fourth assumption remained valid.

Walker was soon disabused of the notion that he would get X Corps under his command. Informed of this plan, the Eighth Army staff objected vigorously. They believed their forces could reach Wonsan faster by road from Seoul, which was substantiated by a report on October 1 that South Koreans under Walker had crossed the 38th Parallel on the east coast highway against negligible enemy resistance. Furthermore, Eighth Army would be forced to delay its offensive for lack of supplies because of requirements to embark X Corps elements through Inchon and Pusan. Adding their voices, Commander, Naval Forces Far East, and his staff objected to the amphibious operation as unnecessary, holding with the Army that X Corps could march there faster than they could be lifted. Perhaps Navy planners, realizing they no longer enjoyed the element of surprise, foresaw the slow and dangerous job of clearing Wonsan harbor of mines. But MacArthur held to his plan for a Wonsan amphibious landing.

FECOM could not support an operational commander. First, it had been raided for officers to serve in the nascent X Corps headquarters. Second, there was a lack of joint service expertise; naval and air planners had served component commanders and were seen as outsiders. The lack of a joint campaign plan was most conspicuous in the realm of air-ground coordination until CINCFE named Lieutenant General George Stratemeyer, Commander, Far East Air Forces, as operational controller of all land-based air operations and coordination controller of all carrier-based Navy and Marine air operations. This resulted from Air Force efforts to centralize theater air allocation and targeting that had been going on since July—resisted by the Navy and FECOM staff. At no time, however, was the air campaign fully integrated into operational level planning.

Finally, there seems not to have been a means of disseminating guidance to staff principals. Perhaps this is because of the failure to name a permanent replacement for Almond, who was chief of staff when selected to command X Corps and expected to resume that post after the campaign. Given MacArthur’s Olympian style of command, in which access to his office in the Tokyo Dai Ichi Building was limited to advisors, there was no conduit for the routine exchange of critical information.

**On the Offensive**

CINCFE issued orders on October 2 assigning the main attack in the west to Eighth Army, which was to take Pyongyang. X Corps would land at Wonsan to encircle enemy forces escaping north across the 38th Parallel and remain under the direct command of MacArthur. Adding insult to injury, Walker was also ordered to provide logistic support to X Corps without control over operations, imposing an added
burden on Eighth Army. In October the advance of Eighth Army would be limited by the logistic situation; its troops had nearly reached Pyongyang before it got supplies through Inchon. Yet it was not relieved of logistic support responsibility for X Corps until well after the landing at Wonsan and beginning of operations in North Korea. This burden was so onerous, according to General Matthew Ridgway, USA, that to have given Walker tactical control of X Corps “would have added little to the load already awarded him.”

Distance, terrain, lack of regular communications between the fronts, guerrilla activity, and a fragile transport system frustrated the best efforts of Eighth Army. Inevitably, mutual resentment arose between the two commands.

The X Corps staff wrestled with problems beyond its organizational abilities, performing army-type functions with a corps-size staff. The decision by CINCPAC to coordinate the operations of both the eastern and western maneuver forces from Tokyo was based on an appreciation of the nearly impassable terrain separating them. Yet the assignment of theater logistic responsibility to Eighth Army indicates a lack of such understanding. One must conclude that MacArthur was out of touch with the situation as the campaign shifted to the offensive.

In the final event, those who had expressed doubts concerning the efficacy of the Wonsan operation were proven right: South Korean troops advancing up the east coast took the town on October 11, several days before the last X Corps units had even boarded transports. Undeterred, MacArthur announced his intention to detach South Korean troops (I Corps) in the northeast from Eighth Army and place them under the operational control of X Corps. If the merits of the Wonsan landing appeared dubious, the operation was soon to become a debacle. The Navy found Wonsan Harbor heavily mined. Arriving off the objective area on October 19, X Corps steamed back and forth until they were

Advancing through Hyesanjin near Manchurian border.
Milkowski

1st Cavalry Division shored up the South Korean position, with one regiment badly mauled in the process. The Chinese attacks ceased on November 6 as suddenly as they had begun, leaving Eighth Army holding a shallow bridgehead across the Chongchon, but with a South Korean corps crippled. To the east, X Corps encountered Chinese in divisional strength but repulsed them with limited losses. There, too, the enemy forces broke contact.

Eighth Army was shaken, X Corps sobered, and FECOM left unsure as to the actual scope of Chinese intervention. On November 14 another ominous sign was recorded as the temperature plummeted some 40 degrees to well below zero. Nevertheless, Walker made clear that he had no intention of going on the defensive, bringing up IX Corps in the center to renew the advance in greater strength. Similarly, there was confidence in Almond’s headquarters. Diminishing contacts led its assistant chief of staff for intelligence to conclude that the enemy was again withdrawing.

This optimism was striking given the circumstances. FECOM had sufficient intelligence by mid-November to raise serious doubts over the wisdom of plunging into the unknown. MacArthur was privy to key national intelligence reports, which suggested hardening resolve by the Chinese leadership to intervene, and he had information on the movement of additional enemy forces into Manchuria. That the intelligence community regarded such indicators as ambiguous does not let theater intelligence analysts off the hook, for they were receiving concrete tactical information that, together with national reporting, suggested exercising greater caution in renewing the offensive. Yet the FECOM intelligence staff appeared unable to provide an unqualified forecast or clear warning. Indecisiveness over enemy capabilities and intentions was found in vacillating, even contradictory daily intelligence estimates. In the absence of solid intelligence, the fact that MacArthur relied on his own intuition that the Chinese were bluffing is more understandable.

finally able to begin landing on October 25. But probably the most pernicious effect of the operation befell Eighth Army in the west: not until October 9 did its spearhead division strike across the 38th Parallel for Pyongyang, delayed primarily by supply shortages.

When it became clear that the capital of North Korea could fall to U.N. forces long before X Corps debarked, MacArthur issued a new operations order on October 17 that drew a proposed boundary between Eighth Army and X Corps, to become effective on his further order. The line ran north-south, generally along the watershed of the Taebaek Mountains, to an objective line deep inside North Korea corresponding to the limit of advance directed by the Joint Chiefs of Staff for non-Korean elements. Eighth Army was to advance to the western extension of the line, X Corps to the eastern. On the eve of the X Corps landing, MacArthur modified his instructions, ordering both commanders to drive rapidly to the Yalu River.

Red Dawn

With Wonsan and Pyongyang both in friendly hands, the concept of two operational forces maneuvering independently on either side of the Taebaek range appeared eminently sound. It minimized the difficulties imposed by formidable terrain and promised rapid destruction of the North Korean army as an organized force, assuming the continued forbearance of the Soviet Union and China. But events almost immediately cast doubt on that assumption. Eighth Army units encountered Chinese troops for the first time on October 25, north of the Chongchon River. The following night, the Chinese struck at South Korean forces on the right of Eighth Army and over the next three days caused the South Koreans to pivot northeast to face the main enemy attack. That created a huge gap in the Eighth Army front, leaving open the right flank of I Corps. Elements of 1st Cavalry Division shored up the South Korean position, with one regiment badly mauled in the process. The Chinese attacks ceased on November 6 as suddenly as they had begun, leaving Eighth Army holding a shallow bridgehead across the Chongchon, but with a South Korean corps crippled. To the east, X Corps encountered Chinese in divisional strength but repulsed them with limited losses. There, too, the enemy forces broke contact.

Eighth Army was shaken, X Corps sobered, and FECOM left unsure as to the actual scope of Chinese intervention. On November 14 another ominous sign was recorded as the temperature plummeted some 40 degrees to well below zero. Nevertheless, Walker made clear that he had no intention of going on the defensive, bringing up IX Corps in the center to renew the advance in greater strength. Similarly, there was confidence in Almond’s headquarters. Diminishing contacts led its assistant chief of staff for intelligence to conclude that the enemy was again withdrawing.

This optimism was striking given the circumstances. FECOM had sufficient intelligence by mid-November to raise serious doubts over the wisdom of plunging into the unknown. MacArthur was privy to key national intelligence reports, which suggested hardening resolve by the Chinese leadership to intervene, and he had information on the movement of additional enemy forces into Manchuria. That the intelligence community regarded such indicators as ambiguous does not let theater intelligence analysts off the hook, for they were receiving concrete tactical information that, together with national reporting, suggested exercising greater caution in renewing the offensive. Yet the FECOM intelligence staff appeared unable to provide an unqualified forecast or clear warning. Indecisiveness over enemy capabilities and intentions was found in vacillating, even contradictory daily intelligence estimates. In the absence of solid intelligence, the fact that MacArthur relied on his own intuition that the Chinese were bluffing is more understandable.
JSPOG recommended that X Corps attack northwest towards the Chosin Reservoir. There were serious problems with that idea. Most obvious was that it assigned a mission that was basically incompatible with the scheme of operational maneuver: the main reason for control of X Corps as a separate force by the operational commander was the impracticality of coordinating its operations with Eighth Army. Much worse from a maneuver commander’s point of view, the ground over which JSPOG wanted X Corps to attack in support of Eighth Army was the worst on the peninsula. Avenues of approach from the line of contact were extremely restricted because of rugged, compartmented terrain, a paucity of usable roads, and the virtual impossibility of cross-country motorized movement. The difficulty of mounting mutually supporting operations across the Taeback Mountains had been illustrated by the fact that, despite several efforts following the Chinese attacks in October, it had been impossible to establish patrol contact between Eighth Army and X Corps. There was almost no liaison between the fronts in November. JSPOG was clearly ignorant of such subtleties, probably because it was isolated in Tokyo. After Seoul was retaken, its personnel rarely visited the theater. The essential misunderstanding by JSPOG of enemy strengths and weaknesses reflected its lack of firsthand familiarity with the ground on which U.N. forces were maneuvering and a nearly complete breakdown in operations-intelligence interface. There seems to have been little awareness in Tokyo that, once in motion, X Corps forward elements might find themselves on the end of a long and precarious limb if anything went wrong. As Almond later put it, “the principal problem facing me as X Corps commander, with a fighting force extended over a 400-mile front, was how to concentrate these forces to meet a rapidly deteriorating tactical situation.”

But even as 1st Marine Division launched its attack west on the morning of November 27, the Eighth Army offensive was halted by strong counterattacks on its right and center. Within one day, South Korean forces collapsed on the right of Eighth Army and many penetrations elsewhere led to withdrawals by I and IX Corps. Heavy counterattacks halted an attack by 1st Marine Division, while major elements of 7th Infantry Division were isolated and under heavy pressure. “Having done everything humanly possible,” MacArthur announced that his plan for the immediate future was to pass from the offensive to the defensive with such adjustments as were dictated by a “constantly fluid situation.” He concluded that the ultimate objective of the Chinese was “undoubtedly” the complete destruction of U.N. forces and that it was “quite evident” that his
Milkowski

The failure to ensure unity of effort by the ground component at this juncture is perplexing. Perhaps it can be attributed in part to the fact that MacArthur had not seen the ground on which the campaign would be fought. Prior to Inchon he had visited Korea only three times, and there is no indication that he conducted a personal reconnaissance north of Seoul. If allocation of resources is the key logistic problem on the operational level, control of the logistic spigot also gives an operational commander the means to either weight the main effort or change its direction by reinforcing success. Making the commander of Eighth Army responsible for resupply of X Corps, a force not under his control, reduced MacArthur’s flexibility to exploit tactical advantages developed on either front, quite apart from seriously encumbering Eighth Army at the critical point in the campaign. The Eighth Army-X Corps predicament demonstrates a major difficulty with multiple lines of operation in a single campaign: it tends to produce competition for resources which might better be concentrated in support of one commander or the other.

The greatest operational failure for the offensive was intelligence. Operational intelligence represents the point of convergence of national and tactical intelligence collection. It collates data from both above and below, correlates it with weather and terrain, and disseminates to subordinate commanders what they need to know. Above all, operational intelligence provides estimates on enemy intentions and capabilities. By this standard, it is hard not to conclude that CINCFE was badly served by his intelligence staff. In general, the more prior strategic intelligence preparation of the battlefield is afforded to theater commanders, the more operational intelligence will have a better feel for enemy intentions than national intelligence agencies.

The Korean War was unique because it was fought on the margin of U.S. strategy, beyond the line that demarcated vital national interests. It was also fought on the periphery in the sense that resources were limited to ensure unity of effort by the ground component, thus naval and air coordination was usually an afterthought. Certainly contributions by the four services were never synchronized in a single operational campaign plan, although the Inchon landing was clear evidence of the tactical merits of synchronization. This points to perhaps the most difficult task in a contingency like Korea: tailoring a joint operational staff that is functionally organized to deal with the specific problem at hand.

The lack of a joint campaign plan was also evident in the failure to prepare for the exploitation of the success of Inchon. That resulted in loss of momentum at the critical point. Because a seam was introduced in operations, the effects of friction were greatly increased. Moreover, the greatest cause of friction was the decision to continue the independence of X Corps. Failing to prepare for the exploitation of the success of Inchon. That resulted in loss of momentum at the critical point. Because a seam was introduced in operations, the effects of friction were greatly increased. Moreover, the greatest cause of friction was the decision to continue the independence of X Corps.

Flawed Command

MacArthur had an overriding belief in his mission and a willingness to call what he surely regarded as a Chinese bluff. But that flaw need not have been fatal if the command and control system had provided CINCFE some margin for rashness, accidents, or chance. The system was simply unequal to the demands. In essence, it lacked the structure and flexibility to succeed. FECOM had not been a joint headquarters when the war began, nor did it become joint until long afterwards. Its staff tended to see the conflict almost exclusively in terms of the ground component, thus naval and air coordination was usually an afterthought. Certainly contributions by the four services were never synchronized in a single operational campaign plan, although the Inchon landing was clear evidence of the tactical merits of synchronization. This points to perhaps the most difficult task in a contingency like Korea: tailoring a joint operational staff that is functionally organized to deal with the specific problem at hand.

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The United Nations Goes to War

On July 7, 1950 the U.N. Security Council appointed President Harry Truman as executive agent in its fight against aggression in Korea. The text of the resolution read as follows:

Resolution 84 of July 7, 1950. The Security Council,
Having determined that the armed attack upon the Republic of Korea by forces from North Korea constitutes a breach of the peace;
Having recommended that Members of the United Nations furnish such assistance to the Republic of Korea as may be necessary to repel the armed attack and to restore international peace and security in the area,

1. Welcomes the prompt and vigorous support which Governments and peoples of the United Nations have given to its resolutions 82 (1950) and 83 (1950) of 25 and 27 June 1950 to assist the Republic of Korea in defending itself against armed attack and thus to restore international peace and security in the area;
2. Notes that Members of the United Nations offers of assistance for the Republic of Korea;
3. Recommends that all Members providing military assistance pursuant to the aforesaid Security Council resolutions make such forces and other assistance available to a unified command under the United States of America;
4. Requests the United States to designate the commander of such forces;
5. Authorizes the unified command at its discretion to use the United Nations flag in the course of operations against North Korean forces concurrently with the flags of the various nations participating;
6. Requests the United States to provide the Security Council with reports as appropriate on the course of action taken under the unified command.


and borrowed from strategic assets elsewhere. Future crises may arise in the same way, where map sheets end and no sound contingency planning exits. Against that day, operational planners should consider the lessons of 1950.

NOTES

1 This is true in the classic meaning of operational level command. Although the definition is somewhat elastic, certain criteria can be adduced. Operational commanders are responsible for selecting military objectives to accomplish strategic goals assigned by the National Command Authorities. Their forces are joint and likely combined as well. Distances involved in movement, fire, and maneuver are likely to be great. They allocate logistics within theater and serve as a focal point for integrating national and tactical intelligence. Given these criteria, no U.S. officer between MacArthur and Schwarzkopf fully qualified as an operational commander, though Generals William Westmoreland and Creighton Abrams in Vietnam came close in some respects.
2 The culminating point indicates that an attacker’s strength no longer significantly exceeds that of a defender’s, and thus beyond it offensive operations risk over extension, counterattack, and defeat (see Department of the Army, Field Manual 100-5, Operations, p. 181).
The jump-off dates were set for late November. What followed was a severe test for the ability of the Marines to integrate land and air operations in an austere theater, under rapidly changing tactical conditions. The offensive and a counterattack by regular Chinese forces stressed logistics, organizations, and tactics to the breaking point.

Into the Maelstrom

With the concentration of 1st Marine Division north of Hungnam preparing to march to the Yalu River, 1st Marine Aircraft Wing, under Major General Field Harris, made plans to consolidate operations at the Yonpo airfield in the Hungnam-Hamhung area. The move was highly anticipated because it would considerably reduce

Major General John P. Condon, USMC (Ret.), commanded two Marine aircraft groups during the Korean War and is the author of U.S. Marine Corps Aviation.
the response time for close air support. On November 6, Marine Aircraft Group-33 (MAG–33) was ordered to Yonpo from Japan. It became operational in time to receive Marine Fighter Squadron-212 (VMF–212) from Wonsan. On November 15, VMF–214 was ordered ashore from USS Sicily and set up at Wonsan with MAG–12.

Because of shortages in shipping, it took a long time to move essential shore-based equipment from storage in Japan. Without this heavy support equipment, many operational and maintenance activities required the Marines to adopt the same improvised methods they used in island hopping campaigns during World War II. That meant that for a considerable period bombs were loaded by muscle power and aircraft were refueled by 440-pound hand pumps from 55-gallon drums. In addition to manhandling fuel, ordnance, and spare parts, maintenance activities were done without the benefit of heated workspace as the temperature fell and weather conditions worsened each day. Operating on a small, primitive airfield packed with planes and ringed with frozen mud, Marine ground crews readied sortie after sortie for combat operations.

While Harris organized Marine air support, ground troops prepared to renew the offensive. There had been repeated sightings of Chinese troops well below the Yalu River in late October and early November. Press releases issued by Far East Command, however, claimed that these forces were only volunteers. They usually were observed in small groups in remote areas, but in some instances there were thousands of footprints in the snow. Moreover, in a significant five-day battle November 4–9, 7th Marine Regiment took 62 Chinese prisoners at Chinhung-ni.

The commander of 1st Marine Division, Major General Oliver Smith, conferred with General Almond on November 25. The news from the Eighth Army sector was troubling. The South Korean corps on the Eighth Army right had been overrun. In fact, Walker’s whole front was falling back. At the time, intelligence identified five divisions from interrogations of prisoners, and line-crossing agents gave firm indications of even more Chinese immediately to the north. In spite of these signs, Almond ordered Smith to attack on November 27 as planned.

By the time the division offensive was prepared, Marine air support had been put in place. Though a sixth squadron, VMF–323, was still flying off USS Badoeng Strait, the rest of the wing, with five squadrons, was operating from Yonpo, all in close striking distance of potential targets. In addition to fighters, the wing included VMO–6 with both OYs and HO–3S helicopters.
On November 27, the division converged around the Chosin Reservoir, with its command post at Hagaru. Smith attacked on schedule but the lead regiment advanced a mere 2,000 yards when it was stopped by stiff resistance. That night the Chinese attacked the Marine positions in strength from Yudam-ni to Koto-ri. At the same time, a division-sized assault was launched against a three battalion task force of 7th Infantry Division east of the reservoir. Intelligence reports suggested the Chinese force was massive—comprised of 9th Army Group, 3rd Field Army with four corps-sized units, and the five divisions previously identified. The communists totaled over 100,000 seasoned Chinese infantry troops. With the Marine divisional units north of Hungnam and Hamhung, plus attached units of the Army and Royal Marines with 20,500 in all, the balance favored the Chinese by better than 5 to 1.

The situation had changed so radically that on November 28, General Douglas MacArthur, Commander in Chief, Far East, brought Walker and Almond to Tokyo for a conference that led to a new strategy. U.N. forces would pull back to a more defensible line to the south. Smith began redeploying and ordered 5th and 7th Marine Regiments from Yudam-ni to Hagaru, the first leg of what would be a long fight to the sea.

The Air Situation

From the time of the decision to fight south, Fifth Air Force gave 1st Marine Aircraft Wing the sole mission of supporting 1st Marine Division and the rest of X Corps. Backup for additional close support was provided by Combined Task Force 77. Meanwhile, both the Navy and Fifth Air Force tactical squadrons attacked troop concentrations and interdicted approach routes all along the withdrawal fronts of Eighth Army and X Corps. Far East Air Forces coordinated constant requests for air drops of food and ammo, directed aerial resupply of all types from basic supplies to bridge sections, and coordinated casualty evacuation from improvised landing strips at both Hagaru and Koto-ri.

During this phase of the campaign and indeed throughout the entire war, Marine air-ground operations differed significantly from those conducted by other forces. For conventional close air support, the Air Force centralized control of fighter aircraft, then doled out sorties on the basis of preplanned or immediate requests as needed. This method of operation was
based on lessons from the campaign in North Africa during World War II, where each ground command was allocated its own air support. As a result, some units in heavy contact lacked adequate support, while aircraft supporting commands not involved in the battle could find no targets.

Air support was coordinated on a centralized basis and apportioned mission-by-mission for most of the European campaign. The Marine system also stemmed from World War II, although with different results. During combat on Guadalcanal and in subsequent action, the Marine Corps found that decentralized control and dedicated fighter support were essential for responsiveness and close coordination. Thus its air arm was considered an integral and inseparable part of the force.

The Marines brought this approach to air-ground operations in Korea. Their organization would prove ideal for supporting a fighting withdrawal and covering long columns on the ground which were confined to the winding mountain roads.

From the beginning of the battle to the sea on December 1 to its completion at Hungnam on December 12, air-ground coordination was continuous and effective. During the withdrawal from the Chosin Reservoir, the most critical asset may have been the tactical air control party (TACP) of the Marine air control system. Strikes against enemy positions along the route, whenever a column was held up, were under the control of experienced Marine pilots on the ground, known to the flyers in the air delivering the attacks. Other methods were tried repeatedly, but as one veteran put it, “there ain’t no substitute for the TACP.”

Underlying the air support plan for the operation was the commitment to have a sortie over the key movement at first light. This flight would be assigned to the forward air controller (FAC) of the unit most likely to require immediate close air support. In turn, as soon as that flight was called to a target by TACP, another sortie would be assigned to relieve it on station. That meant that the response time from request to delivery on target could be reduced. The weather had to cooperate, but if minimum visibility and ceiling made the positive delivery of weapons possible, planes were invariably in place and targets were hit in minimum time. When aircraft on station could not eliminate the targets, additional sorties were called from Yonpo, the carrier task force, or suitable aircraft in the area for a diversion from assigned missions. The last option was usually handled by the tactical air direction center (TADC) or tactical air coordinators airborne on the scene.

The Chinese troops could not mass in daylight because they were subject at once to devastating strikes of napalm, bombs, rockets, and 20mm guns. Not one successful enemy mass attack was delivered against the column during the daytime.

After nightfall the column would be defended by units at key positions along the perimeter. That was when Marine units were most vulnerable to the massive and fanatical attacks of superior numbers. Heckler missions conducted at night over the defensive perimeter reduced enemy fire from artillery tubes, mortars, and heavy machine guns, but fighters could not provide controlled close air support as they did during daylight. The troops on the ground were invariably relieved when dawn arrived and circling fighters appeared overhead.

The Long War Back

The first leg of the fight south followed a line from Yudam-ni to Hagaru, a movement that would reunite 5th and 7th Marine Regiments with elements of 1st Marine Regiment and the
division headquarters. During this period, 1st Marine Aircraft Wing flew more than a hundred close support sorties daily, most in the service of the division. At the same time, the wing flew in support of three battalions of 7th Infantry Division east of the Chosin Reservoir, which was also trying to withdraw to Hagaru. Aided by a Marine TACP, soldiers could also call in close air support, enabling them to break contact with the enemy, at least in daylight. The detachment FAC directed critical strikes for the Army on December 1. Meanwhile, of three Army battalions, only a few hundred scattered soldiers reached Hagaru, where they joined the assembling Marine ground forces.

Holding Hagaru was essential because it gave the division an opportunity to evacuate the seriously wounded. Until a makeshift airstrip became operational on December 1, evacuation was limited. The only aircraft that could land at Yudam-ni, Hagaru, and Koto-ri were helicopters from VMO–6. For example, between November 27 and December 1, VMO–6 lifted 109 casualties from Yudam-ni, 36 from Hagaru, and 7 from Koto-ri. In the extreme cold and at the altitudes of the operation, these light aircraft had much less power and considerably reduced lift, making each flight a real test for pilots and their machines. The evacuations were eventually shifted to a slightly less hazardous but serviceable airstrip at Hagaru, which had been hacked out of the frozen ground. It was a feat of improvisation by Company D, 1st Engineer Battalion, working around the clock and under fire most of the time, using flood lights at night and fighter cover when possible. From December 1 to 6, C–47s evacuated 4,287 men, augmented by every Marine R4D in the area.

As the casualties left, more and more troops poured into Hagaru. The Yudam-ni to Hagaru leg was completed by the afternoon of December 4, with the first unit arriving in early evening on December 3. On December 4 and 5, the wing provided uninterrupted support, generating almost 300 combat sorties against the enemy throughout the Reservoir area. On December 6, it switched the focus of air operations to covering the second leg of the withdrawal to Koto-ri.

The air planning for the second leg drew heavily on the experience gained during the move from Yudam-ni. FACs were again positioned along the column and with each flanking battalion, augmented with two airborne observers who flew ahead and to each side of the advancing column. The addition of a R5D transport configured to carry a complete TADC controlled support aircraft as they reported on station and assigned them to the ground or airborne observers from TACPs, who directed attacks against ground targets. The system worked smoothly and made it possible for the column to keep moving on the road most of the time. By the evening of December 7, the division rear guard was inside the perimeter of 24th Battalion, 1st Marine Regiment at Koto-ri. During those two days, the wing flew 240 sorties in support of the X Corps withdrawal, with almost 60 percent conducted in support of the division and most of the balance backing other units in the column. In addition, X Corps received 245 sorties from Combined Task Force 77 and 83 sorties from Fifth Air Force. Navy sorties were almost entirely close support missions and Air Force flights were mostly supply drops. Over 500 additional wounded were also flown out of the Koto-ri strip, although the airfield was even more treacherous than the makeshift strip at Yudam-ni.

The third leg of the withdrawal, from Koto-ri to Chinhung-ni, included a perilous passage through the precipitous Funchilin Pass, plus a blown bridge three miles from Koto-ri that had to be made passable. This situation led to engineering conferences from Tokyo to Koto-ri. A test drop of a bridge section was conducted at Yonpo. A hasty improvisation of parachutes and rigging proved successful and subsequent drops at Koto-ri provided materials to rebuild the span.
The ground and air plans for the descent to Chinhung-ni amounted to essentially using the same cover and column movement coordination as were employed successfully on the first two legs, with the addition of a spoiling attack. 1st Battalion, 1st Marine Regiment, from a position in Chinhung-ni, would attack up the gorge and, backed by air support, take the dominating terrain on Hill 1081, which overlooked a major portion of the main route. The attack was set for dawn on December 8, simultaneous with the start of the withdrawal south from Koto-ri by the main body.

A blizzard on the evening of December 7 reduced visibility almost to zero and ruled out air operations the next day. As a result, although movement began on schedule, little progress was made from Koto-ri. The installation of the bridge was also guarded by an air cap. With the completion of the bridge site, the column began its move down to Chinhung-ni on the plain below. Good weather continued the next day and the passage over the tortuous line of march was completed by nightfall. Truck movement from Chinhung-ni to Hungnam began early on December 11. The last unit cleared the town by afternoon. During this period, one milestone for Marine aviation was its first jet squadron to see combat when VMF–311 operated at Yonpo for the last few days of the breakout.

With the departure of the division from Hungnam, the three remaining shore-based fighter squadrons moved to Japan on December 14. Four days later, the last of the equipment belonging to 1st Marine Aircraft Wing was flown out of Yonpo. Air coverage of the evacuation of Hungnam became the responsibility of the light carriers.

Between October 26 and December 11, 1st Marine Aircraft Wing flew 3,703 sorties for a total of 1,053 missions controlled by TACPs assigned to Marine, Army, and Korean units. Close air support accounted for 599 missions, with 468 allocated to 1st Marine Division, 67 to Korean units, 56 to 7th Infantry Division, and 8 to 3rd Infantry Division. The balance of the missions were search and attack. Logistically, VMR–152, the wing transport squadron, averaged a commitment of five R5Ds a day, serving all units across the U.N. front.

The continuous support provided by the wing came at a cost. 1st Marine Aircraft Wing had eight pilots killed, three wounded, and four missing. The division suffered 718 killed, 3,485 wounded, and 192 missing as well as 7,338 non-battle casualties, mostly from frostbite. A third of the non-battle casualties returned without being evacuated or requiring additional hospitalization. Against these figures stands an estimate of enemy losses at 37,500, with 15,000 killed and 7,500 wounded by the division, plus 10,000 killed and 5,000 wounded by the wing.

In a letter to General Harris dated December 20, General Smith wrote:

Without your support our task would have been infinitely more difficult and more costly. During the long reaches of the night and in the snow storms many a marine prayed for the coming of day or clearing weather when he knew he would again hear the welcome roar of your planes as they dealt out destruction to the enemy. Even the presence of a night heckler was reassuring. Never in its history has Marine aviation given more convincing proof of its indispensable value to the ground Marines. A bond of understanding has been established that will never be broken.

The Marines departed from Hungnam believing there was little room for compromise in the structure of the air-ground team.

This article is adapted from an unpublished monograph, “The Korean War, 1950–1953,” held in the archives of the History and Museums Division at the Marine Corps Historical Center, which kindly granted permission for its publication.
Disaster at Inchon

In response to the communist invasion of South Korea in June 1950, the U.N. Security Council (with the Soviet representative absent from the chamber in protest) approved Resolution 84, which made the United States executive agent for military operations. Thus General Douglas MacArthur commanded both the U.S. troops in the theater under Far East Command and all allied contingents. At the request of President Syngman Rhee, American forces also assumed control of the ROK army. Meanwhile, North Korean commanders relied on Soviet advisers and matériel. After the counterattack at Inchon, street-to-street fighting raged to liberate Seoul as Stalin fired a stream of directives from the Kremlin.

The following message was sent by Stalin to the deputy chief of general staff of the Soviet army and the ambassador of the Soviet Union in Pyongyang on September 27, 1950:

*The serious predicament in the area of Seoul and in the southeast in which the Korean People’s Army has found itself lately has to a great extent been caused by a series of grave mistakes made by the Frontline Command, the commands of the army groups, and army groupings in matters related to command and control over troops, as well as to the tactics of their combat use in particular. It is our military advisers who are even more to blame for these mistakes. Our military advisers failed to implement scrupulously and in a timely fashion the order of the Supreme Commander in Chief [Stalin] for the withdrawal of four divisions from the central front to the area of Seoul despite the fact that at the moment of adopting this decision such a possibility existed... One cannot help taking serious note of erroneous and absolutely inadmissible tactics for tank use in combat. Lately you have used tanks in combat without preliminary artillery strikes aimed at clearing the field for tank maneuvers. As a consequence, the enemy easily destroys your tanks. Our military advisers who have personal experience from the Great Patriotic War must be aware that such ignorant use of tanks leads to their loss. One cannot help noticing the strategic illiteracy of our advisers and their incompetence in intelligence matters. They failed to grasp the strategic importance of the enemy’s assault landing in Inchon, denied the gravity of its implications... The assistance provided by our military advisers to the Korean Command in such paramount matters as communications, command, and control over troops, organization of intelligence, and combat is exceptionally weak. As a result of this, the [North Korean] troops, in essence, are beyond control: they are engaged in combat blindly and cannot arrange the coordination between the various armed services in battle.... Stalin hoped that supporting North Korea would demonstrate solidarity with the world communist movement while humiliating the United States. Instead he faced the prospects of a crushing defeat in Asia as well as escalating confrontation with the United States in Europe.*

The two great military extractions from the beach of the 20th century occurred at Dunkerque in 1940 and Hungnam in 1950. In both cases a large number of troops were withdrawn in the face of superior enemy strength. And although they are often invoked in the same breath, Hungnam may be the more impressive. Conducted by Rear Admiral James Doyle, Commander, Combined Task Force 90 (CTF 90), the operation was a true redeployment.

The tally was staggering: 105,000 troops, 91,000 civilians, 17,500 vehicles, and 350,000 tons of supplies were pulled from Hungnam. When the port was closed on Christmas Eve 1950, all facilities were blown up and nothing was left to the advancing communists.1 By every standard, the redeployment was a success on the tactical, operational, and strategic levels.

**Into a Doctrinal Void**

Notwithstanding their amphibious capabilities, the Navy and Marine Corps were geared to assaults, not extractions. Experience during World War II included no such reversals,
though it was thought that some operations were in doubt (such as Buna and Biak in New Guinea and Salerno in Italy) and evacuation might be required. Extant amphibious doctrine only provided for planning and organizing assaults. Thus commanders on the scene had neither specific doctrine nor comparable experience to guide their decisionmaking.

Hungnam presents an ill-structured problem. It is not that these conundrums have no structure, rather that decisionmakers cannot discern it. Problems are distinguished by the degree to which their constituent parts and relationships among those parts are understood. Typically, ill-structured problems are those not encountered previously in exactly the same form and for which no predetermined and explicitly ordered responses exist.

Such problems seldom stand still while decisionmakers try to impose a structure on them. Their components and interrelationships may change enough in a short time to make initial attempts to grasp them obsolete. This was the case in Korea. The strategic situation evolved rapidly, altering tactical decisions and, accordingly, operational problems for the Navy.

The magnitude of the Hungnam problem had to be discerned and reevaluated before as well as during its execution. This claim runs contrary to the conventional wisdom on command relations. But Admiral Doyle clearly understood the challenges posed by ill-structured issues and connections between the type of problem and appropriate command relations. He proceeded accordingly.

**War for Command**

After the Wonsan-Iwon operation in 1950, Doyle told Vice Admiral Charles Turner Joy, Commander, Naval Forces, Far East, that he would not serve under Vice Admiral Arthur Struble, Commander of Seventh Fleet, in the future. When the time came to organize for Hungnam—a plan for the evacuation of U.N. forces was issued on November 13—Joy acceded to Doyle on the grounds that he needed him more than Struble. Doyle reported directly to Joy and enjoyed significant leeway in the redeployment, including command of amphibious ships, naval gunfire, and Marine ground-based air as well as carrier aircraft. He coordinated additional naval gunfire and air support with Struble. Doyle reported directly to Joy and enjoyed significant discretion. His duties were quite broad and included redeployment, shipping protection, control of air support and naval gunfire in embarkation areas, and maintenance of the blockade along the east coast of Korea.

Admiral Forrest Sherman, Chief of Naval Operations, was uncomfortable about giving such authority to Doyle. He feared disaster if the evacuation went awry. Sherman had already told Joy that he favored Struble for Inchon and Wonsan. In particular, Sherman was unwilling to pass control of fast carriers to an amphibious commander. Sherman arranged for Lieutenant General Lemuel Shepherd, Commander, Fleet Marine Force Pacific, to assume command of the Hungnam operation if Doyle proved ineffective. For his part, Doyle found that “Sherman knew little, if anything, about amphibious operations.”

Despite Sherman’s concern, the decision by Joy stood. Doyle had considerable leeway in the redeployment, including command of amphibious ships, naval gunfire, and Marine ground-based air as well as carrier aircraft. He coordinated additional naval gunfire and air support with Struble. Doyle adopted a hands-off policy and his command served largely in a supporting role for CTF 90 in the redeployment. Arrangements also allowed Seventh Fleet to maneuver as necessary should an air- or sea-based threat develop against Japan or Formosa. The
In June 1950, Amphibious Group One arrived in Japan to train Eighth Army in amphibious operations. Though only a token element in the months before Hungnam, it became a full-fledged amphibious force. Equally important, Doyle was a distinguished officer. And his staff, which had gained experience during World War II, had comparable backgrounds. They were senior and were overqualified for their billets. Thus they provided a tremendous pool of talent.

Embarked with Amphibious Group One when it went to Japan was Mobile Training Team Able, the troop training unit of Amphibious Training Command. Led by Colonel Edward Forney, USMC, the officers assigned to Team Able had worked together for some time and were known to Doyle. Like the group staff, the team had been integral to operations over the preceding months. Doyle initially seconded the team to 1st Cavalry Division (which had no proficiency in amphibious operations) to plan the landing at Pohang Dong. It was formally placed with X Corps for Inchon and Wonsan-Iwon, with Forney as corps deputy chief of staff executing the bulk of the planning. This meant that Team Able and the amphibious group staff were not strangers. Neither were Team Able and X Corps. Doyle said that Forney “could get along with anyone—and without compromising himself. This facility proved invaluable, for the corps commander [Lieutenant General Edward Almond, USA] was at best prickly, at worst arrogant and overbearing.”

At Hungnam, Doyle granted his subordinates considerable authority to make arrangements for redeployment as their experience suggested. This was key. What made the operation possible was the deep reservoir of practical knowledge of amphibious operations among Navy and Marine Corps staffs. Doyle could grant discretion to his subordinates, confident that they understood their craft. Elements then coordinated their efforts through direct lateral communications.

Retreat in the Making

General Douglas MacArthur directed X Corps to concentrate around Hamhung-Hungnam on November 30.
while Eighth Army retired southward to Pyongyang and Seoul. Doyle placed all ships on two-hour notice and they sailed on November 30 and December 1 from Japan.

It remained unclear whether U.N. forces would withdraw to Japan or maintain lodgements at Pusan and Hungnam over the winter. However, the Joint Chiefs told MacArthur on December 1 to withdraw X Corps. Discussions in Tokyo on December 7 modified that plan, with Eighth Army holding Seoul until it was necessary to retire to Pusan and then ferrying X Corps back south.

Doyle and his staff initially regarded redeployment as an amphibious landing in reverse. It was an apt comparison and provided a starting point for imposing some sort of structure on the problem and devising plans to solve it. Doyle intended that “excess supplies and supporting troops would be the first to leave, and as the beachhead shrank with the embarkation of combat forces, gunfire and air support would assure no diminution of combat power ashore. In the final stage, bombardment would be our only force ashore.”

An opportunity to test this tentative plan for Hungnam was presented in a smaller extraction executed by Transport Division 11 at Wonsan commencing on December 3. X Corps reported that Wonsan was under heavy enemy pressure and that roads and rail lines to Hungnam had been cut, requiring amphibious redeployment. Doyle explicitly wanted this initial evacuation to be a small-scale test of the plans and procedures proposed for Hungnam, which were as yet only hypotheses. The evacuation was simple and direct. The troops ashore deployed around the city in an arc that was progressively reduced as men and supplies within the beachhead loaded and left. Support ships isolated Wonsan by shellfire, firing as requested, providing random harassing at night, interdiction fires on selected targets, and star shells to illuminate the battlefield.

When Doyle arrived at Wonsan on December 4, there was no serious enemy pressure, and all but rear elements of 3rd Infantry Division had moved to Hungnam by road.
The amphibious group prepared evacuation and redeployment plans based on the lessons of Wonsan. Subordinate unit planning proceeded simultaneously, and continual communication was maintained with Doyle and his staff in Hungnam harbor on the flagship USS Mount McKinley. Task Element 90.04 left Wonsan on December 6 to lift a Korean corps from Songjin to Hungnam, completing embarkation December 9. Operations at Wonsan ended the following day, when Doyle took command of port functions. The group began outloading X Corps personnel and equipment. It also shifted from shore-based to airborne logistics, with floating petroleum, oil, and lubricants and ammunition dumps, along with an evacuation center and prisoner of war camp afloat.

Doyle issued his loading and control scheme and completed plans for naval gunfire and air support on December 11. Two days later he issued operation order 20-50, specifically covering redeployment from Hungnam. The same day, orders for gunfire support and air support were finalized and coordinated.

**Operations Ashore**

The control and loading plan, based on a staff study of the physical features of the harbor, established a series of control posts at Hungnam which formed a special task organization. The CTF 90 operations section aboard USS Mount McKinley, under the operations officer, coordinated ship movement, assigned anchorages, provided docking instructions, and issued sailing orders for all shipping. In addition, it supervised operations of other control stations. Actual shipping control was accomplished by stationing a radio-equipped harbor control vessel in port. An officer boarded all vessels on arrival to ascertain load status, capacity, amount and condition of loading equipment, and loading peculiarities. The information was radioed to CTF 90 operations. Ships were directed to be ready for movement on immediate, two-hour, or later notice as required.

On December 9, X Corps Embarkation Control Group was established to supervise corps loading. It included a control officer, executive officer, representatives from the technical services of each corps, and the CTF 90 staff combat cargo officer who served as liaison officer. At various times it included groups from 1st Marine Division, 7th Infantry Division, 3rd Infantry Division, and a South Korean corps. Like landings at Inchon and Wonsan, planning for X Corps was done by marines under Forney. In a shed on the docks, he assigned personnel to key positions in the control group where their four months with X Corps had created strong relationships.

Doyle remembered that Almond had “ensured that his subordinates followed his example. He established the embarkation priority as personnel, vehicles, equipment, supplies, and refugees. But he never objected to departures from that order, knowing that we had good reason. . . .”

Forney and his staff selected:

- X Corps units to be loaded on the basis of available tactical and administrative information and assigned shipping in consultation with the operations section of Task Force 90. Port operating units were then advised of dockside requirements, the loading section ground out its plans, the movement section got the traffic down to the water, and the rations people laid down these useful items alongside.

This group was in direct communication by telephone with all relevant units and CTF 90 operations.

Each corps provided the embarkation control group a readiness for loading report (covering personnel, vehicles, bulk cargo, et al.) prior to its time to commence loading as promulgated in the master time schedule, which in turn relied on the tactical situation. X Corps broke down data into shipping requirements as advised by a combat cargo officer. CTF 90 operations assigned shipping based on these requirements and available berths. The embarkation control group was given
the identity of ships assigned along with data on their capacity and features, and a paper load was planned. Shortages and overages in shipping were reported to CTF 90 and the control group adjusted plans as necessary.

The port director had operational control over the movement of all shipping in the inner harbor. Three officers were assigned to port director control. The director and beachmaster shared a radio-equipped landing craft as a dispatch boat. Ships berthed along one of four docks in seven berthing spaces. Experimentation quickly led to procedures for best use of the spaces, including double-banking ships at docks. Two radio-equipped Army yard tugs helped to dock and undock rapidly. Doyle and his staff timed the process so a ship reached its berth just as the first troops and supplies to go on board arrived.

CTF 90 operations told the port director that a ship would be docked at a particular berth. The ship was then directed to proceed from its anchorage and wait in the vicinity of the breakwater for a pilot to dock it. The embarkation control liaison officer advised CTF 90 when a ship would finish
Doyle had organic naval gunfire support under his control. Ships were stationed to deliver emergency support for X Corps and simultaneously defend shipping against air attack. Beginning December 15, positioned in assigned mineswept channels extending 10 miles north and south of Hungnam, the element began deep support fires (corps artillery provided close support), principally interdiction and harassing fires and illumination rounds since the enemy tended to press lines at night. When the perimeter contracted, the gunfire support ships moved to closer stations for direct support. Observation and fighter aircraft found targets of opportunity and supplemented ground observers. Rocket craft were used for reverse slope fire to attack the enemy on the right flank overlooking Hungnam. USS Missouri arrived December 24 to provide added firepower. Naval gunfire was maintained in a zone 2,500 yards wide at a distance of 3,000 yards from the beaches and harbor. In addition to the barrage, observers called in fires that prevented movement by the enemy through the zone by day. When the last allied troops were off the beaches, destructive fires were delivered into the port area. Particular attention was given to railroad cars.

The Chinese elected not to seriously interfere with operations at Hungnam. Combined with weather, 1st Marine Division hindered the enemy. “Their losses would certainly have been greater than they could have hoped to inflict,” Doyle noted. “Fire power from the sea would have dwarfed what they had already absorbed during their attack on the Marines at Chosin.”

Beyond surface fires, support was also provided by 1st Marine Aircraft Wing from Yonpo airfield near Hamhung. The wing controlled all planes (including carrier-based) and acted as tactical air support center until December 15. The center then moved to USS Mount McKinley, and CTF 90 assumed control within a 35-mile radius of Hungnam, including Task Force 77 and Task Group 96.8 assets.
Marine observers provided forward air control throughout the operation. Doyle recollected that they “understood the requirements of the troops and the capabilities of the covering aircraft and their armament loads.”

Detachments of a Marine air and naval gunfire liaison company assigned to units of X Corps maintained radio contact with the forward air controllers, supporting aircraft, and naval gunfire ships. At sea there were never fewer than four carriers to provide air support, coordinated by CTF 90 operations with CTF 77 as experienced in the Pohang Dong operation. Air and naval gunfire communication was handled as prescribed for assault amphibious operations.

**Meeting the Unexpected**

Based on Wonsan, planners estimated that lift would be needed for some 25,000 refugees. The actual evacuation included more than three times that number. Moreover, the refugees required both food and shelter while awaiting embarkation. To meet this challenge the Navy delivered rice. When the redeployment order was received, ships were unloading supplies for the defensive perimeter and sustenance for the refugees, tying up some port facilities for several days. Unloading halted when possible and evacuation began in earnest. A marked acceleration occurred on December 12. By the next day, 55 percent of the men, 40 percent of the vehicles, and 70 percent of bulk cargo of 1st Marine Division had been loaded.

Plans were also developed to lift a Korean corps from Hungnam to Samchok. Originally, X Corps estimated that only 12,000 troops, a few vehicles, and three ships would be committed. But lift requirements climbed to 25,000 men, 700 vehicles, and heavy equipment. More shipping would be needed. Intelligence reports on December 13 led to the choice of...
Bokuko Ko as a site for landing the South Koreans. Task Group 90.8 was formed on December 16 and departed the next day to begin disembarking. Operations continued despite 40-knot winds, heavy seas, and freezing weather. Ships dragged anchor and small boats drifted loose. At sea, winds reached 60 knots and flight operations were suspended.

At 1600 on December 19, Almond arrived aboard USS Mount McKinley, and command of all shore operations passed to Doyle who, to avoid any confusion, pointedly told Almond: “You understand, general, that these troops are now under my command.” This was precisely the reverse of the procedure for changing command in amphibious assaults, when command passes to the ground commander once troops are established ashore and amphibious commanders are notified.

7th Infantry Division was loaded on December 20, giving Doyle enough confidence in the operational trajectory to set December 24 as a tentative D-day when all troops would be withdrawn. Two days later it became clear that there was sufficient shipping to add 4,000 tons of ammunition and 13 boxcars to outloading. Instructions for D-day embarkation were distributed. The next day refugees were loaded. The port director was ordered to commence undocking ships at 2200 hours. Harassing fire from gunfire support ships was increased. The port was closed an hour later.

At 0950 hours on December 24, H-hour was confirmed as 1100. Simultaneously, aircraft dropped napalm on enemy units that had begun pressing the perimeter. At 1217 hours, two ammunition dumps in the Pink Beach area were prematurely exploded by the Army, causing a loss of lives and boats. The first elements of combat forces, less covering forces, commenced loading at 1100. All beaches were clear of friendly forces by 1405. Five minutes later, demolition charges were detonated around the inner harbor. General sortie from the harbor started at 1457 hours, USS Mount McKinley departed at 1632, and the operation ended. No allied personnel had been left.

The key to this remarkable feat is found in Doyle’s recognition that, although vastly experienced in amphibious operations, he and his staff had never encountered a problem remotely resembling Hungnam. The linchpin was deciding to form an ad hoc organization and devise a plan predicated on conducting an amphibious operation in reverse—an arrangement that enabled experts to exercise judgment, identify problems, generate solutions, and directly and quickly communicate with others.

Doyle established and maintained a decentralized, self-organizing system that proved highly adaptive, flexible, and suited to the principal constraint, time. Experimentation and rapid learning essential to resolve ill-structured problems were the rule. The plan and organization resulted from consultative planning conferences that facilitated input from those members of the staff with the requisite expertise. The profound lesson of Hungnam is found in how the operation was approached and organized.

The worst fears of commanders in Korea and media in the United States were not realized in December 1950. Hungnam was no Dunkerque, nor had it been likely to turn into one from the perspective of the Navy and Marine Corps. Many factors led to success, including the availability of specialized amphibious shipping and control of sea and air, but the defining element was effectively organized, experienced professionals and the willingness of their commander to let them do their jobs.

NOTES

1 The operations were not without matériel and personnel casualties. On December 20–22, eight soldiers died and 12 became severely ill by ingesting methyl alcohol. On December 24, prematurely detonated ammunition killed a Marine lieutenant and Navy seaman and injured another 34 personnel. And an ROK landing ship fouled its propellers with Manila line and wire. Loaded with more than 7,000 people, it was extracted from the beach but remained in harbor overnight to have its propellers cleared. When a gale came up, an unknown number of refugees died of exposure. See Walter Karig, Malcolm W. Cagle, and Frank A. Manson, Battle Report: Volume VI, The War In Korea (New York: Rinehart, 1952), pp. 432–33.


4 Ibid., pp. 51–52.


7 Malcolm W. Cagle and Frank A. Manson, The Sea War in Korea (Annapolis: U.S. Naval Institute Press, 1957), p. 188.


During two global conflicts the National Guard mobilized and provided both ground and air capabilities to defeat totalitarian powers in Europe and Asia. Its contribution reflected the American reliance on citizen-soldiers who serve their states and the Federal Government. On the state level, the National Guard protects life and property and preserves peace, order, and public safety. In the event of a national emergency, it provides integral components of the Armed Forces.

The Korean War saw a break with past practice. Instead of undertaking a full mobilization, the National Guard provided a limited number of units. Nonetheless, nearly 200,000 members of the Army National Guard (ARNG) and the Air National Guard (ANG) were ordered to active duty. National Guard units fought in Korea, bolstered European security, and replenished the Strategic Reserve in the continental United States (CONUS). Key reforms
after Korea laid the foundation for a more capable National Guard establishment which could participate fully in the long-term prosecution of the Cold War.

After the Battle

The Pentagon began shaping the postwar National Guard before the end of World War II. One influence was General George Marshall, who believed the Guard should resume its traditional place in national defense after the war. He sought to avoid a repetition of the bitter dispute between the Army and National Guard that followed World War I and resulted in the National Defense Act of 1920. Nonetheless, friction occurred among the War Department, National Guard Association of the United States, and state adjutants general. Finally, the War Department issued a directive in October 1945 outlining the purpose, mission, and force structure of the National Guard. It would remain an integral part of America’s first line of defense and also retain its unique status as both a state and Federal force.

The Guard received approval to organize as many as 425,000 members into 27 divisions, 21 regimental combat teams, 12 wing headquarters, 24 fighter groups, 3 light bomb groups, and hundreds of support units. Authorized manpower was twice the prewar level. Beginning in 1946, reorganization was rapid and widespread. The first unit to be activated after World War II was 120th Fighter Squadron in Colorado. By the end of 1948, 288,427 Army personnel were formed into 4,646 units, and within two years, the Army Guard reached 325,000. By 1950, ANG units consisted of 72 fighter and 12 light bomber squadrons, and nonflying assets included 36 aircraft and warning units. The ANG inventory had more than 2,400 aircraft including 211 jet fighters, and Manning stood at nearly 45,000. By 1950, 21 states and the territory of Hawaii had completed National Guard reorganizations.

Citizen-airmen faced an uphill struggle integrating efforts with the Army Air Forces from the National Guard during World War II, AAF generals who favored an independent Air Force following the war put little faith in the Guard. Leaders such as General Henry Arnold were determined to build the largest, most modern Air Force possible based on nuclear-capable heavy bombers. The same leadership was convinced that citizen-airmen could only operate complex aircraft with extensive training and during a national emergency. Guardsmen had no place in the new Air Force. After considerable bickering in the Pentagon and Congress, however, these leaders reluctantly accepted a separate air arm in the National Guard. Auster defense budgets after 1945 precluded building a robust Air Force, and citizen-airmen were essential to providing the balance of air assets.

The National Security Act of 1947 reorganized the Department of Defense and resulted in recognition of the National Guard as a distinct entity. In September 1947, the Air Force became a separate service and ANG came into existence. In October 1948, the National Guard Bureau was reorganized to better fulfill its mission as the official channel of communication between the states and secretaries of the Army and Air Force. The Chief of the National Guard Bureau retained direct control over several special staff sections, but daily ARNG and ANG operations fell to two staff divisions, both headed by Guard major generals.

Despite this progress, the National Guard faced challenges. Bad relations with the Air Force and problems with budgets, recruiting, and equipment made the initial years difficult. Many active officers regarded ANG units as little more than state-sponsored flying clubs.

The Army National Guard also suffered. Equipped with heavier, more numerous weapons than before the war, it experienced chronic shortages in facilities and training sites.

But the greatest concern was that training and mobilization planning had changed little since 1940. Training normally took place during two-hour drills on weekday nights and focused on individual skills. Unit training occurred only in summer encampments. As late as 1950, the National Guard
was still wedded to the notion of deliberate and total mobilizations similar to the events of 1916, 1917, and 1940 when it brought trained individuals to mobilization stations and most unit training was conducted after the declaration of a national emergency.

**Into the Morning Chaos**

Within days of the invasion of South Korea, President Harry Truman, who had served in the National Guard during World War I, committed the Armed Forces to the conflict. The United States rushed reinforcements, but by late summer the communists backed U.S., allied, and Korean troops into a defensive perimeter around Pusan. On July 19, Truman announced a partial mobilization for 21 months that was later extended to 24 months. The first ARNG units ordered to active service arrived at their armories August 14. By late September, thousands of guardsmen had reported for duty. The lion’s share of soldiers came from 28th Infantry Division (Pennsylvania), 40th Infantry Division (California), 45th Infantry Division (Oklahoma), and 43rd Infantry Division (Connecticut, Rhode Island, and Vermont). In addition, dozens of separate combat, combat support, and combat service support units were mobilized. By summer 1951, nearly 110,000 ARNG soldiers were on active duty. Many units lost over half of their experienced personnel, who were rushed to Korea as individual replacements. The wholesale loss of seasoned soldiers severely tested morale, and many guardsmen served as individuals rather than as members of National Guard units. The Army allocated training facilities to active duty units preparing to deploy while limiting access for Guard units. In addition, ARNG surrendered nearly a quarter of its equipment—including 748 tanks, 5,595 vehicles, and 95 aircraft—to Army units already in Korea. The Chief of the National Guard Bureau reported that these transfers resulted in training limitations for units preparing for combat duty.

Though the early crisis required a large and immediate response, the Truman administration believed that a total national mobilization was unnecessary and that active forces would be sufficient, particularly after the spectacular Inchon landing in September 1950. Among guardsmen, views on partial mobilization were mixed. In autumn 1950, the National Guard Association asserted that the fighting in the Far East, while essentially the responsibility of active forces, might still necessitate the callup of specific Guard and other Reserve elements. At the time, no definite expectation existed that state units would eventually see combat. In fact, the association contended that a full mobilization might adversely affect the economy and that too many Guard units would be mobilized only to sit in their armories.

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The Army eventually deployed two ARNG divisions and 41 nondivisional units to Korea. Eleven field artillery battalions and 30 support units helped alleviate critical shortages in firepower, engineer assets, and logistic support. Some units deployed quickly. The first to reach Korea was 231st Transportation Truck Battalion, an all-black unit from Maryland which arrived in Pusan on New Year’s Day in 1951 and remained on active duty until 1954. The first ARNG unit to enter combat was 936th Field Artillery Battalion from Arkansas. Armed with towed 155mm howitzers, the battalion entered Federal service in August 1950, and after five months of training arrived at Pusan the following February. Its artillery first fired on March 29 during an offensive to restore the 38th Parallel. In one hundred days of support, the artillerymen fired 50,000 rounds.

Both 40th and 45th Infantry Divisions were selected for service and underwent extensive post-mobilization training in CONUS. The repeated stripping of experienced personnel for duty in Korea upset training, and these units spent considerable time drilling new volunteers and draftees. The divisions deployed to Japan in April 1951 to focus exclusively on combat training. At first, the high command in Korea wanted them to remain in Japan as replacement centers and security for the home islands. The Army formed such depot divisions during World War I and regretted that it did not have the luxury of similar units during World War II. Prodding by the Pentagon secured commitment of the two divisions. In winter 1952 these two divisions were deployed to Korea and relieved 24th Infantry and 1st Cavalry Divisions. But within months guardsmen nearing the end of their individual tours began returning to California and Oklahoma.

Army guardsmen performed critical missions in both the United States and Europe. One key task was bolstering the North Atlantic Treaty Organization. Constabulary forces in Germany were drained of personnel for Korea, and it fell to the National Guard to deter a Soviet attack. Accordingly, 28th and 43rd Divisions moved to Europe.
Doubler
tations, experience rather than youth was the most important factor in the effectiveness of jet pilots. Air National Guard pilots, almost all World War II combat veterans, performed with distinction. Four achieved the status of ace. But Guard achievements in Korea came at a high price; 101 guardsmen were either killed or declared missing in action.

After the armistice was signed in July 1953, some units remained on active duty until 1957 when the last unit returned to state control. ANG units also contributed to the defense of NATO and strengthening the Strategic Reserve in CONUS. Ten squadrons operated from airfields in Britain, France, and Germany. Both poor weather and lack of in-flight refueling capabilities forced units to island hop across the treacherous North Atlantic. Once in Europe, ANG aircraft served as interceptors and trained for bombing and reconnaissance missions. Most mobilized Air National Guard squadrons remained in CONUS to help prepare for a global confrontation with the Soviet Union. ANG augmented Strategic Air Command and Air Defense Command. In addition to avia-

Global Reach
Korea provided the first mobilization and combat experience ANG gained as a separate Reserve component. While only a third of ARNG participated in the Korean War, 80 percent of ANG became directly involved. Overall, 486 units—including 22 of 27 ANG wings and 67 of 84 flying squadrons with 45,594 personnel—were activated between October 1950 and April 1951. Members of the Air National Guard made major contributions in Korea and to a global buildup by the Air Force for a possible war with the Soviet Union. A total of 67 squadrons were mobilized: 51 remained in the continental United States, 10 went to Europe, and another 6 fought in Korea.

Like the Army National Guard, the mobilization of the Air National Guard suffered from external and internal factors. When the Air Force found that inadequate airfields in Korea could not support jet aircraft, it stripped ANG units of 296 propeller-driven F-51 fighters. Several ANG squadrons reported for duty with severe aircraft shortages. Trained pilots were in short supply in the early months, so the Air National Guard pilots with extensive World War II experience were levied to serve as replacements in active squadrons. Many ANG squadrons arrived at mobilization sites short of personnel, aircraft, equipment, and supplies. Active recruiting by the states and the assignment of draftees and Air Force Re-
servists brought Air National Guard units up to strength. In the early stages of mobilization, citizen-airmen worked to bring their flying proficiency and aircraft maintenance up to Air Force standards. Limited access to bombing and gunnery ranges resulted in deficiencies in gunnery and bombing. In other cases, Guard units were designated as not ready for battle while they transitioned to jet aircraft.

Three ANG units, 111th Fighter Squadron (Texas), 182nd Fighter Squadron (Texas), and 154th Fighter Squadron (Arkansas) were formed into the all-Guard 136th Fighter Bomber Group, which began operating in June 1951 from Japan before being moved within a few months to a base in Korea. 116th Fighter Bomber Wing—made up of 158th Squadron (Georgia), 159th Squadron (Florida), and 196th Squadron (California)—arrived in Japan shortly after. To increase flying time over Korea, Guard squadrons became the first in the Air Force to experiment with in-flight jet refueling in combat. ANG pilots flew 39,530 sorties and destroyed 39 enemy aircraft. Contrary to expectations, experience rather than youth was the most important factor in the effectiveness of jet pilots. Air National Guard pilots, almost all World War II combat veterans, performed with distinction. Four achieved the status of ace. But Guard achievements in Korea came at a high price; 101 guardsmen were either killed or declared missing in action.

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the Guard provided control and warning, meteorological, construction, and communications support.

Postwar Transformation
The most significant strategic result of the Korean War was strengthening national defense for the long-term prosecution of the Cold War. For ARNG and ANG, the post-Korea period was one of increased capabilities and closer integration with their parent services. Overall, the National Guard became more capable by embracing reforms that both increased readiness and made ground and air units better able to respond to unexpected crises.

Even before the Korean War ended, the Armed Forces Reserve Act of 1952 enhanced the stature of the Reserve components. Congress formally organized the structure of the Reserve and National Guard and codified many previous statutes dealing with citizen-soldiers. The legislation identified seven Reserve components: the Army Reserve, Army National Guard, Naval Reserve, Marine Corps Reserve, Air Force Reserve, Air National Guard, and Coast Guard Reserve. The services were to maintain a Ready Reserve, a Standby Reserve, and a Retired Reserve with each subject to different degrees of recall to active duty. The Ready Reserve was authorized a strength of 1.5 million personnel who were subject to 24 months of active duty in a national emergency. Of all Reserve components, the entire ARNG and ANG structure was placed in the Ready Reserve with no standby or retired elements.

Korea had an immediate effect on ARNG organization. Though the active Army expanded to 15 divisions, ARNG increased its strength to nearly 405,000 by 1956. Both combat and increasing concern over a Soviet attack
in Europe led the Army to add heavier units to its force structure. The Army National Guard activated nine additional armored cavalry regiments and also converted four infantry divisions to armored divisions, yielding a mix of 21 infantry divisions and six armored divisions. The helicopter had proven effective in Korea, and in April 1953 the first rotary-wing aircraft came into service with the Alabama Army National Guard.

Mobilization during Korea highlighted the inadequacies of a system that had endured in the Army for nearly 200 years—unit basic training for recruits. The need for combat units manned by fully trained soldiers in a crisis led the Army to introduce centralized basic training. Legislation passed in 1955 required guardsmen to attend basic training on active installations. The following year, 4,400 members of the Army National Guard attended an eight-week basic training program while another 3,600 received advanced individual training.

Free of the burden of basic training, ARNG leaders sought increased time to concentrate on unit training. In September 1955, the Chief of the National Guard Bureau authorized unit commanders to consolidate weekly drill periods in an extended training period held on one weekend per month. By 1966 weekend drill was mandatory. The term weekend warrior entered the lexicon.

With far more time to train, units began to hone their skills on the squad and platoon levels. In the parlance of the day, guardsmen referred to collective training as unit basic training. In October 1958, the Army declared that the focus of training would be unit level, starting at the squad or comparable level and progressing to larger units. All organizations would attain sufficient training to be combat ready with only a minimum of post-mobilization training. By 1960, the Army National Guard had determined that after mobilization the most ready brigades would require an added 10 weeks of field exercises and maneuvers prior to deployment. It was determined that ARNG divisions could be ready for battle just nine months after mobilization and support units sooner.

At Home and Abroad

Perhaps more than for the Army National Guard, the Korean conflict was a turning point for the Air National Guard. Despite the accomplishments of individual ANG pilots and units, the war demonstrated that closer harmony was needed between the active and Reserve components. Air Force and Air National Guard leaders started initiatives to regularly integrate citizen- airmen into planning, budgeting, exercises, and operational missions. The primary aim of these reforms was to make ANG units combat-ready the moment they were ordered to active duty. In the following years, it became a valued and professional Reserve component of the Air Force.

Various training and operational innovations changed the face of ANG. It began training on weekends even before the Army National Guard. Concentrating training hours in one weekend per month allowed pilots better opportunities for extended flight periods and ground crews more time to perform maintenance. The Air National Guard soon received authorization for 36 annual flight training periods. The Air Force developed innovative means to employ citizen- airmen on short periods of active duty. ANG volunteers and aircraft were integrated into active duty missions such as airlift and air defense.

A great step forward in integrating the active and Reserve components occurred in 1953. The Air Force approved an Air National Guard proposal for the Runway Alert Program. Pilots and aircraft stood alert from an hour before daylight until an hour after sundown. The program was one of the greatest ANG successes and by 1961 included 25 fighter squadrons on alert at selected airfields around the clock. It marked the start of the integrated Air Force approach to training and employing Guard assets.

Throughout the 1950s ANG evolved into a more capable force that was increasingly woven into the fabric of day-to-day Air Force operations. By the end of the decade, citizen- airmen were involved on a near continuous basis with airlift, special operations, and aeromedical evacuation. The Guard of 1960 numbered 71,000 personnel who flew and supported an inventory of modern aircraft. The evidence of improvements came in late 1961 during the Berlin Crisis when 11 fighter squadrons were dispatched to Europe in the largest jet deployment in ANG history. All aircraft arrived safely. During the Korean War, units had taken as long as seven months to reach the war zone, but in 1961 they were in Europe and operational only thirty days after mobilization.

Korea remains the most significant achievement by the National Guard since World War II. Guardsmen performed several important functions. They served around the globe from Europe to the Far East. Units stationed in the United States strengthened the Strategic Reserve and facilitated the expansion of the Armed Forces. In addition, guardsmen who were not on active duty remained a Ready Reserve of untapped manpower available for domestic and overseas missions.

More importantly, reforms instituted following the Korean War posted the National Guard for greater exertions and prompted closer cooperation with the active force. The Guard began the transformation away from a focus on full mobilization, in which units required extended post-mobilization training. Its ideal became service in units capable of deploying faster in the face of unexpected crises. Closer integration of the Army and Army National Guard and the Air Force and Air National Guard produced a defense establishment more capable of coping with long-term challenges. The implementation of a total force policy after the Vietnam War built on reforms that went back to the 1950s. In reality, the close integration between the National Guard and the Army and Air Force that has been evident throughout worldwide operations since the Cold War can trace its beginnings to the immediate aftermath of the Korean War.
As U.N. forces advanced north during autumn 1950, the United States concluded that the Chinese leadership was preoccupied with consolidating control over its country and would not intervene in Korea for fear that the fragile Chinese economy could not withstand such a major military effort. But there is evidence that Peking began preparing for war as early as July 1950. For their part, senior Chinese officers respected the experience of General Douglas MacArthur and suspected that an invasion at Inchon could precipitate a collapse of the North Korean offensive. Mao Tse-tung believed a U.S.-led invasion of the north would threaten China. In October 1950, he deployed volunteers to aid North Korea in a counteroffensive. Meanwhile the Soviets provided limited and highly secret air defense and support.

The message below was sent from the Soviet embassy in Peking to Stalin on October 14, 1950:

Our leading comrades [Central Committee of the Chinese Communist Party] believe that if the U.S. troops advance up to the border of China, then Korea will become a dark spot for us [the Chinese] and the Northeast will be faced with constant menace. Past hesitations by our comrades occurred because questions about the international situation, questions about the Soviet assistance to us, and questions about air cover were not clear to them. At present, all these questions have been clarified.

Mao Tse-tung pointed out that now it is advantageous for them to dispatch the Chinese troops into Korea. The Chinese have the absolute obligation to send troops to Korea. At this point, they are sending the first echelon composed of nine divisions. Although it is poorly armed, it will be able to fight against the troops of Syngman Rhee. In the meantime, the Chinese comrades will have to prepare the second echelon. . . .

In conclusion, Mao Tse-tung stated that the leading comrades in the Central Committee of the Chinese Communist Party believe that the Chinese must come to the assistance of the Korean comrades in their difficult struggle.

Chinese entry into the war dramatically changed the course of events, though it did not result in the course Mao anticipated. He had concluded that intervention would result in a brief conventional war that would lead to victory. He believed that the skill, tenacity, and tactics of Chinese forces would overwhelm U.S. advantages in artillery and airpower, but his commanders underestimated the logistical demands and the ability of U.N. forces to recover from their initial defeat.

were lacking in artillery, American units were frequently tasked for support. U.S. artillerymen had inadequate doctrine, combined operations training, and equipment. Moreover, they had to overcome differences in language, culture, and skill levels, and also fears that the Koreans would collapse when attacked, leaving the artillerymen exposed to enemy infantry.

Efforts to provide field artillery support were successful overall. American gunners often made the difference between victory and failure despite linguistic and cultural barriers even
though firepower by itself could not always compensate for the weaknesses of ROK forces. Thus a lot of emphasis was placed on expanding Korean firepower in the last two years of combat, especially field artillery, and improving the skill of the units employing it.

**Starved for Support**

When the war began in June 1950, the South Koreans had little in the way of field artillery. There were just six battalions, which had only finished initial training in October 1949, to support its eight divisions. The battalions were equipped with 15 light M–3 105mm howitzers, a shorter-range version of the standard howitzer. Ammunition stocks were low. The South operated an artillery school and a few Koreans had attended the U.S. Army Artillery School. American artillerymen had served with the Korean Military Advisory Group (KMAG).

The U.S. field artillery establishment showed the effects of lean postwar budgets. Eighth Army in Japan lacked corps-level support battalions, and division artillery battalions were all short one of their three firing batteries. The General Reserve contained only 11 nondivisional battalions, all short of personnel. The Army National Guard had 32 battalions of nondivisional artillery, all on reduced tables of organization, short of equipment, and needing months of training.

American artillerymen faced other problems. The skills of officers and enlisted men varied considerably. World War II veterans were experienced but were a minority by 1950. Junior enlisted training since 1945 suffered from cuts in initial training and, in many cases, from inadequate unit training. Artillerymen also faced a unique problem, the decision in 1946 to merge field and coast artillery into a single branch. In practice, field and antiaircraft artillery skills had little overlap, so officers trained in one specialty but posted to the other were usually an encumbrance.

Combat in Korea found American artillery unprepared in several areas. Although there was doctrine on mountain operations, units had little training. Moreover, most units were unprepared to defend battery positions and convoys. And finally, there was no guidance on supporting non-U.S. infantry beyond standard teachings on artillery liaison with maneuver units.

ROK artillery performance, like the rest of the Korean army, varied in early engagements. Some units quickly broke while others fought on stubbornly. The surviving units withdrew to the Pusan Perimeter with U.S. forces. In August, reinforcements joined Eighth Army, including firing batteries, bringing division field artillery battalions to full strength and providing separate battalions to serve as corps artillery.

Growing artillery strength and the positioning of American and ROK divisions side by side on the perimeter allowed U.S. artillerymen to shoot in support of Korean units. An early instance occurred when 1st Cavalry Division artillery operated with 1st ROK Division. The American units remained in 1st Cavalry’s sector, firing across its right flank, supporting the South Koreans in both attack and defense. Korean forward observers, sending data through 1st Cavalry Division artillery liaison officers, directed most of the firing. The greatest difficulties in these missions were the language barrier and inexperienced Korean observers, who exaggerated mission results.1

**A Perfect Partnership**

The deeds of 1st ROK Division in mid-1950 earned it a good reputation among Americans. On September 18, 10th Antiaircraft Artillery (AAA) Group was attached to 1st ROK Division to act as artillery headquarters. The group brought with it 78th AAA Gun Battalion, with towed 90mm guns, and 9th Field Artillery Battalion, with towed 155mm howitzers. The headquarters mission presented 10th AAA Group with a problem: although doctrinal manuals included using antiaircraft units as field artillery, it was assumed that they would reinforce the fires of field artillery units, not act as the field artillery headquarters. Colonel William Hennig, USA, the 10th Group commander, found that only a few of his officers knew anything about field artillery operations. Fortunately, Eighth Army had earlier attached 10th Group to 1st Cavalry Division for several days. Hennig had his operations section staff observe the divisional fire direction center. A member of the section later wrote, “the effective operation of 10th Group can be traced to this helping hand.”2

While together from September to December 1950, 1st ROK Division and 10th AAA Group proved a formidable combination. Their success resulted from a harmonious relationship between their commanders and professional competence, generating mutual respect. The 1st ROK Division commander, Major General Paik Sun Yup, remembered Hennig as a “truly humble officer” who told him that the “job of the artillery and the other combat arms is absolute support of the infantry.” According to Paik, “every time [our] division faced a combat crisis thereafter, Hennig provided every practical cooperation.” Paik’s energy and leadership from the front impressed the Americans as well. The record of 10th Group noted that he “has gained the personal respect of all personnel.”

A consistent obstacle in combined operations was a fear on the part of Americans that they could not rely on the Koreans. However, the competence of 1st ROK Division laid that concern to rest. When Paik presented Hennig a division patch, the group’s war diary recorded it as a “signal honor,” as the division was a “great fighting force.” In return, the eagerness of 10th Group and its subordinate units to support 1st ROK Division impressed the Koreans. Hennig routinely traveled with Paik, and antiaircraft liaison officers moved with division and regimental headquarters and worked with both Korean commanders and KMAG advisors to coordinate fire support. A notable case of American willingness to offer support came in the advance on Pyongyang: group vehicles shuttled Korean infantry forward and M–55
machine gun mounts, placed on trucks, moved with division lead elements to bring tremendous firepower to bear on enemy road blocks.

The climax to the partnership occurred at the Battle of Unsan on October 25 to November 1 and withdrawal from the Chongchon River in late November. At Unsan, as the Chinese checked the drive by the division into North Korea, the battle culminated with an enemy attack on the night of October 31. 78th AAA Battalion, exploiting the 360-degree capability of 90mm guns, fired in three directions, expending 1,319 rounds. With the 4.2 inch mortars of 2nd Chemical Battalion and 9th Field Artillery, this fire support enabled 1st ROK Division to repulse the attack. Withdrawing from the Chongchon, 10th Group, reinforced by 68th AAA and 555th Field Artillery Battalions, supported the division as it covered 24th Infantry Division’s withdrawal, then withdrew itself south of the river. On December 1, in retreat and increasingly fearful of Chinese and Soviet air attacks, Eighth Army reassigned 10th AAA Group to air defense. Paik later wrote that with the departure of the group, “I felt like the [division’s] firepower had shrunk to nothing.”

**Trial and Error**

Most field artillery support for Korean units during the mobile phase was less successful. On February 5, 1951, X Corps mounted an attack north of Wonju with two Korean divisions. Because these divisions still had only one battalion of field artillery, X Corps ordered the American 2nd and 7th Infantry Divisions to assist. Supporting 5th ROK Division was 49th Field Artillery of 7th Division, reinforced with a battery of 155mm howitzers, automatic weapons antiaircraft battery, engineer company, infantry battalion, and reconnaissance company of 7th Division. Supporting 8th ROK Division was 15th Field Artillery, reinforced with a battery of 155mm howitzers as well as an automatic weapons antiaircraft battery and an infantry battalion. By this point, Eighth Army had lost so many howitzers that protection of field artillery was paramount; each support force included American antiaircraft weapons and infantry because of concern over Korean reliability.
Available to fire reinforcing missions was 96th Field Artillery, a 155mm howitzer battalion.

Operation Roundup support forces had little time to establish a relationship with the Korean divisions; after receiving the mission on the night of February 3, they moved into Korean sectors. The commanders of 15th and 49th Field Artillery met with the division commanders the next day to plan fire support. Forward observers and liaison officers from the battalions only arrived at the infantry regiment level within the division a few hours before the attack began February 5.

While 8th ROK Division advanced on the left, its 20th Field Artillery failed to impress the Americans because of poor shooting. 5th ROK Division hit strong resistance on the right from the start. The commander of 49th Field Artillery assumed the duties of division artillery headquarters; he also had to direct resupply of the artillery battalion with howitzer ammunition. On February 8, artillery fire broke up a North Korean attack on an infantry regiment. Increasing resistance led X Corps to add 674th Field Artillery Battalion in support on the same day. Then on February 10, X Corps moved 5th ROK Division to blocking positions on the right flank and brought up 3rd ROK Division to continue the attack with fire support from 49th Field Artillery and its attachments. The battalion sent forward observers and liaison officers to the infantry regiments of 3rd ROK and liaison officers to its command post and artillery battalion; 674th Field Artillery remained with 5th ROK.

The communists counterattacked on the night of February 11. Three divisions poured over 8th ROK Division as another Chinese force hit 3rd ROK on the right flank and North Korean units attacked 5th ROK Division. All three divisions collapsed by first light. American liaison officers and forward
observers with infantry regiments reported the collapse of their field artillery battalions and attempted to move south to safety among the routed South Koreans.

Uncertainty in 2d Infantry Division and X Corps over who held the authority to order the support forces to retreat was a disaster for units with 8th ROK Division. When the commander of 15th Field Artillery got permission to withdraw around 0300 hours on February 12, the Chinese had established strong positions between the support force and 2d Infantry Division at Wonju. The support force, with American and Dutch infantry battalions, had to fight its way back to Wonju. The unit was beaten with the loss of 14 howitzers, 349 enlisted men, and 28 officers, including the battalion commander, executive and operations officers, four liaison officers, two battery commanders, three firing battery executive officers, and most of the forward observers. An attached battery belonging to 503d Field Artillery lost all its 155mm howitzers.

The support force with 3d ROK Division did better. X Corps Artillery informed 49th Field Artillery of the developing situation and gave it a movement warning order. Two and a half hours later, the 49th Field Artillery liaison officer with 23d Infantry Regiment notified his battalion that the Korean infantry was withdrawing in haste. Learning that the Chinese had blocked the road south to Wonju, engineers were ordered to cut a road with bulldozers. The support force reached safety with the loss of only one 155mm howitzer; battalion losses were two killed, thirty-eight wounded, and thirteen missing. Infantrymen in the 5th ROK Division sector withdrew in rout order and one battery was forced to use direct fire on advancing enemy infantry to escape. The battalion was able to withdraw without losing any howitzers.

The Chinese continued to attack on the morning of February 14, seeking to capture Wonju. Unfortunately for them, X Corps had assembled a powerful concentration of field artillery. Eleven infantry battalions—seven American, three Korean, and one Dutch—shielded this concentration. Coordinated by 2d Infantry Division Artillery headquarters, American gunners repulsed the attack, killing some 5,000 Chinese and leaving four divisions combat ineffective. The “Wonju shoot” dramatically demonstrated the power of American field artillery when its infantry shield held firm and the enemy presented a lucrative target.

**Building the Fire**

In January and February 1951, Eighth Army received sizable field artillery reinforcements, one Reserve and nine National Guard battalions mobilized the previous summer. While these units still left Eighth Army far short of what doctrine and commanders with World War II experience anticipated, they played a key role in defeating the communist offensives in April and May 1951.

Reinforcements also allowed Eighth Army to provide more field artillery support to Korean divisions. Added firepower helped Korean divisions during the enemy spring offensives but could not compensate for inadequate equipment, training, and leadership. An example of the capabilities and limitations of American field artillery support occurred in IX Corps during the April offensive, when 987th and 92d Armored Field Artillery Battalions supported 6th ROK Division.

The Korean division and artillery battalion had not impressed 92d Field Artillery during the previous month; ROK 27th Field Artillery had great difficulty maintaining communications with its forward observers and the division did not know how to exploit the capabilities of a U.S. artillery unit. As IX Corps prepared for an expected communist offensive in April, it attached 987th to 92d Battalion and gave the units a mission to reinforce 27th ROK Field Artillery fires.
Both U.S. battalions provided liaison to 27th ROK Field Artillery, and 987th Field Artillery sent a liaison officer and three observers for the division infantry. Because its 105mm howitzers had a shorter range than the 155mm howitzers in 92d Battalion, 987th Field Artillery had to move further forward in the division sector. The terrain in the 6th ROK Division area made that difficult; to reach assigned positions in the vicinity of Sachang-ni, heavy tracked vehicles had to move over steep hills on a narrow dirt track that crossed several streams. The entire route was subject to cave-ins and landslides. By nightfall on April 22, only nine howitzers had reached the battalion position; the other nine remained in the previous position five miles away as battalion personnel and Korean engineers cleared the road.

The nine howitzers in the new position began firing as soon as registration was completed, as 6th ROK Division came under heavy pressure. Retreating Korean troops appeared in such numbers that the Americans could not prevent them from passing between their guns. To the rear, 92d Field Artillery commander placed an officer and an interpreter on the road to rally the Koreans. The pair collected between 500 and 600 soldiers, who were put under the control of a KMAG officer. By 0900 hours, 987th Battalion liaison officers informed their commander that 2d Infantry Regiment had collapsed and 27th Battalion position had been overrun. The commander of 987th Battalion contacted the 92d Battalion command post for instructions. When none arrived, he ordered his forward batteries to withdraw. However, the road collapsed at a chokepoint, trapping the howitzers, and fire from Chinese on the adjacent high ground forced the cannoneers to abandon their vehicles. A scratch force attempted to recover the guns after dawn, but it was ambushed and withdrew. Marines trying to retrieve the vehicles later in the day were also turned back.

IX Corps ordered the newly arrived 213th Battalion to replace 987th Battalion in support of 6th ROK Division on April 23. This new 105mm howitzer unit moved into position only to find that the Koreans were quickly withdrawing. Returning to their old position, the Americans fired 200 rounds in support of retreating forces. The situation led IX Corps to move 213th Field Artillery the next day to support a harder-pressed unit, but it later returned to fire for 6th ROK Division from April 25 to 27, which the Korean commander cited as the largest factor in breaking the attacks on his division. Then 213th Field Artillery helped cover the withdrawal by 24th Infantry Division.

Finding Common Ground

U.S. officers identified several impediments to cooperation in their analysis of field artillery support. The first was language; 987th Battalion recorded that “good interpreters are a great asset to a unit, particularly when supporting an ROK division.” Unfortunately for the battalion, it had received civilian interpreters, and most were “practically worthless under combat conditions.”

The South Korean military traces its origins to the constabulary unit organized in 1946 to assist the American occupation forces and national police in maintaining public order. When the Republic of Korea was established in 1948, the constabulary served as the core of a nascent armed forces.

Army. The Korean army was formed on December 15, 1948. The U.S. Korean Military Assistance Group (KMAG) was organized on July 1, 1949, replacing provisional detachments that had been training Korean ground forces. By June 1950 the army included eight poorly equipped divisions with 115,000 troops. When the war ended, South Korea had three corps with 590,911 men under arms. Each regiment, division, and corps had a compliment of KMAG advisors.

Navy. The Coast Guard helped in organizing the Korean coast guard in 1946, which became the nucleus of the new coast guard/navy in 1948. During the conflict, South Korean naval forces included frigates, minesweepers, and landing ships which operated under the command of U.S. Naval Forces Far East.

Air Force. South Korea formed its own air force on October 10, 1949. When war broke out, the United States provided ten F-51s to South Korea. Korean pilots flew as part of a composite U.S.-Korean unit organized by U.S. Far East Air Forces during the conflict.

South Korean military losses from 1950 to 1953 totalled 415,000 killed and 429,000 wounded.
A second obstacle was the quality of the Korean troops. American artillery units could not overcome the inability of some ROK units to stand and fight, which in turn stripped the artillery of infantry protection. During the May 1951 communist offensive, X Corps dealt with this situation by not placing American battalions in Korean division sectors. Instead, a 155mm howitzer battalion was positioned on the flank of a U.S. division so it could fire into the 5th ROK Division sector, with a liaison team dispatched to the division KMAG detachment. In addition, X Corps Artillery positioned 8-inch howitzers and 155mm guns to support 7th ROK Division without having to enter its sector.

Another facet of the deficiencies in Korean training and experience was a virtual absence of liaison between infantry and artillery units. ROK infantry commanders treated American artillery units in a similar way; 987th Field Artillery was not warned when 213th Infantry Regiment decided to withdraw. U.S. liaison officers discovered that constant close contact with KMAG officers was essential.

A third obstacle was the clash between American field artillery doctrine and the problems of supporting an army lacking in artillery with little experience in combined arms operations. During Chinese spring offensives, U.S. corps artillery headquarters usually gave a reinforcing or general reinforcing mission to field units supporting the Korean units. For American artillerymen, doctrine dictated specific responsibilities in such missions. In a reinforcing mission, the unit “receives calls for fire from the unit whose fires it is to reinforce” and is prepared “to establish command liaison with, and to reinforce the observation of, the unit whose fires it is to reinforce.” In a reinforcing mission, the first priority is shooting missions from corps artillery headquarters, and then being prepared to shoot reinforcing missions for a specific subordinate artillery unit of the corps. The reinforcing commander needed to coordinate with the rein-forced artillery and put a liaison officer in the unit command post.

After the communist spring offensives, American artillerymen concluded that when supporting Koreans, “it is almost impossible to accomplish a mission of supporting them in the manner to which our training and experience has accustomed us.” The weaknesses of equipment, training, and experience in Korean artillery battalions meant that American units had to approach reinforcing them more as a direct support mission. The 987th Battalion recorded, “The efficiency of artillery units in support of ROK units is almost directly proportional to the number of liaison and forward observer parties used. To send your liaison officer to the reinforced ROK field artillery battalion is not sufficient.”

This judgment created trouble for corps artillery units. Their organization did not include the personnel and equipment found in divisional direct support battalions to field sufficient liaison and forward observer parties. A corps artillery 105mm battalion was authorized one liaison officer and three forward observers. In April 1951, 213th Battalion fielded four liaison officers and nine observers. In support of 2nd ROK Division in May 1951, 987th Field Artillery provided liaison to division headquarters, 18th Field Artillery, and three infantry regiments. Officers, enlisted men, and equipment for these parties were taken from battalion headquarters and firing batteries, creating a corresponding difficulty for them to accomplish their missions.

American field artillery support for Korean units met with mixed results. On occasion, like the destruction of 15th Field Artillery in Operation Roundup, poor teamwork led to a disaster for supporting artillery. In instances when both U.S. and Korean units were competent, had dynamic leadership, and developed a long-term relationship, like the association of 1st ROK Division and 10th Group, the results were equal to or superior to those found on average in U.S. units. These two examples, however, were at the extremes. More typical were the experiences of 921st, 213th, and 987th Battalions in the spring 1951 offensives. During the mobile phase of the war, Eighth Army lacked adequate nondivisional field artillery to develop regular relations, thus American and Korean units had little time to form associations. The absence of skill and experience in Korean units meant that reinforcing missions had to be performed more as direct support by American units, which were ill-equipped for the role. Language and cultural differences were only partially overcome by bringing KMAG advisors into fire support operations.

Finally, U.S. firepower could often, but not always, prevent the collapse or destruction of Korean units which, because of weaknesses in firepower, skill, and leadership, became a focus of enemy offensives. American artillerymen—called upon to conduct missions for which they were unprepared in doctrine, training, and resources—usually persevered, though not without extensive improvisation, hard work, and heavy losses.
The staff of Far East Air Forces (FEAF) conducted the first systematic study of measures to produce a negotiated settlement in a limited war through airpower some fifty years ago. As both the conflict and truce talks continued, stalemate on the ground and ineffective interdiction inspired Brigadier General Jacob Smart, FEAF deputy commander for operations, to look for a better way to utilize resources. He directed Colonel R.L. Randolph and Lieutenant Colonel B.I. Mayo to find a means of unhinging the communist forces in North Korea. The result prompted a new vision for employing airpower—pressuring enemy leaders to abandon the fight.

**Out of the Blue**

Randolph and Mayo began by examining the interdiction campaign, which had focused on cutting rail lines to force the enemy to move supplies primarily by road. Planners hoped that Fifth Air Force aircraft could cause enough attrition of enemy trucks that front line armies could not be supplied. This had not worked despite...
The communists had twice used the excuse of air attacks on the negotiating venue to break off the talks.

243 aircraft destroyed and 290 heavily damaged, and only 131 were replaced. The campaign had cost over 15,000 railway cuts and the destruction or damaging of 199 bridges. Enemy repairs, night movement, and MiG–15 jet fighter attacks foiled FEAF efforts to close transportation routes. Randolph and Mayo also observed that the daily enemy mortar shell requirement could be carried by one truck or 100 men with A-frames. It was virtually impossible for interdiction to halt such traffic. In addition, FEAF losses were heavy. The campaign had cost with airpower, but his resolve was tempered by his disappointment in the interdiction campaign and early battles with the Joint Chiefs about bombing both North Korean ports and Pyongyang. He also was hesitant to risk disrupting the peace talks. The communists had twice used the excuse of air attacks on the negotiating venue to break off the talks, once with suspect evidence and another time in the wake of an actual U.N. bombing error.

Ridgway’s successor, General Mark Clark, USA, was not as skeptical about the efficacy of airpower nor as reluctant to confront the Joint Chiefs, who were increasingly frustrated by intransigent armistice discussions.

Clark believed the communists only responded to force. Moreover, he had great respect for air interdiction. During World War II, he commanded an army in Italy, where Operation Strangle caused the enemy great logistic difficulty and produced some success, even though it did not result in a swift conclusion. When Smart and Lieutenant General Otto Weyland, the FEAF commander, approached their new boss about air pressure strategy, they found a willing listener. Weyland dealt with Clark personally from then on, freeing the Far East Command staff of target selection and reinforcing Clark’s belief in the importance of hitting targets in rear areas.

By early July, FEAF target committee members agreed that a revised target attack program had to be developed reflecting new priorities. Smart cautioned that modifications should not be regarded as a major policy change but instead as an emphasis on destruction rather than delay and disruption. This terminology was intended to minimize Army desires for more close air support and avoid controversial headlines. The FEAF directive outlining the new program was published in the second week of July. The highest priority remained air superiority, followed by maximum selected destruction, and then direct support of ground forces.

New Targets

The first focus for the escalated air campaign would be enemy hydroelectric plants. In March, Ridgway rebuffed a FEAF request to attack them, stating that intelligence did not justify bombing targets whose primary use was for the civilian economy, and their destruction would not hasten a communist agreement on armistice terms. He would sanction attacks only if negotiations were deadlocked or broken off. A message in May from the Joint Chiefs, probably intended to goad Ridgway into action, reminded him that the most recent directives only specifically prohibited attacking Suiho Dam on the Yalu; other power facilities were outside restricted areas. On June 11, 1952, Weyland sent a plan to Clark calling for bombing all complexes except Suiho. Meanwhile, the Chief of Staff of the U.S. Air Force, General Hoyt Vandenberg, shepherded a proposal which removed all restrictions on attacks against Yalu River hydroelectric sites through the Joint Chiefs. Far East Command was notified in time to add Suiho to the list, and Clark approved the attack.

The addition of Suiho presented difficulties to planners aside from its location in MiG Alley. It was the fourth largest dam in the world. Even smaller dams were difficult to attack. Smart reviewed techniques used by the Royal Air Force in World War II but discovered they could not be emulated. As a result, penstocks, transformers, and power distribution facilities were targeted at Suiho as well as other hydroelectric sites instead of dams. The difficulty of totally destroying diverse objectives limited long-term effects. Still a successful strike against Suiho was critical to applying effective pressure on decisionmakers. While most other hydroelectric facilities supplied domestic needs, planners knew that much of the output from Suiho went to China.

The Suiho raid was a model of interservice cooperation. It began with 35 F–9F Navy jets suppressing defenses, followed by 35 Skyraiders with 5,000-pound bomblets, all launched from Task Force 77 of Seventh Fleet. Ten minutes later, 124 F–84s from Fifth Air
Force hit the target, while the operation was protected by 84 F–86s. Within four days, 546 Navy and 730 Fifth Air Force fighter-bomber sorties destroyed 90 percent of North Korean electric power potential. Such joint air operations would have been impossible earlier in the war. The Navy and Air Force seemed incapable of overcoming interoperability problems caused by doctrine and technology. Eventually each service had its own sphere of action. But by 1952 the relationship that Clark and Weyland had developed with Vice Admiral Joseph Clark of Seventh Fleet encouraged cooperation.

The next indication of increasing activity was an all-out air assault on Pyongyang. Operation Pressure Pump on July 11 involved 1,254 sorties from Fifth Air Force, Marine, Navy, Korean, Australian, South African, and British aircraft by day and B–29s at night. Psychological warfare leaflets warning civilians to leave the city were dropped before the strike as part of Operation Blast, which was designed to confirm the omnipotence of U.N. airpower and disrupt industry. Radio Pyongyang was knocked off the air for two days but announced when it restored service that threats to punish the enemy through airpower had been repeated on August 29 with over 1,400 sorties to achieve the psychological benefit of demonstrating an ability to punish the enemy through airpower during a conference between China and the Soviet Union. Smart also scheduled attacks during a conference between China and the Soviet Union. Smart also scheduled attacks.

mass strike warnings were curtailed, though occasionally civilians were given advance notice of raids

U.N. fighter-bombers of five nations, using footage supplied by the Department of Defense. Like the hydroelectric attacks, American papers portrayed the air activity as part of an initiative to illustrate to the communists the perils of prolonging the deadlock.

Meanwhile, an Asian delegate to the United Nations summed up his fears:

*It seems ... a dangerous business, this policy of mass air attacks while the truce talks are going on. Knowing the Chinese, I think it likely that they would regard the signing of an armistice under such military pressure as a loss of face.*

Chinese representatives in Delhi were characterizing the attacks as “19th century gun boat tactics,” assuring Indian diplomats that the operations would not affect their forces or negotiators.

U.N. forces expanded the campaign as the world watched. A FEAF operational policy directive issued on July 10 outlined the new attack program to subordinate units, and they moved swiftly. Navy Task Force 77 also participated. Some thirty joint maximum effort air strikes were conducted by Navy and FEAF aircraft in the latter half of 1952 against power, manufacturing, mining, oil, railway, and other centers. On July 20, Fifth Air Force B–26s began night attacks on communications centers using incendiary and demolition bombs as part of the implementation of operations plan 72–52, aimed at concentration points, vehicle repair areas, and military installations in damaged buildings in towns.

Operation Strike dropped propaganda leaflets on 78 towns warning civilians to move away from military targets. Illustrations depicted North Korean transport routes and support facilities. The text announced that U.N. Command knew where all military targets were located but wanted to spare innocent lives. The civilians were advised to stay away because of delayed action bombs. In addition to the 1.8 million leaflets, Fifth Air Force dropped July 13–26, Radio Seoul broadcast warnings before each nightly attack advising civilians in specific areas to seek shelter. Newsreels called the bombing operation a “warn ‘em, sock ‘em campaign.”

Lieutenant General Glen Barcus, who commanded Fifth Air Force, announced the attacks and explained that radio notifications and leaflets were a humanitarian effort to minimize casualties. Nevertheless the FEAF publicity campaign drew protests from the Department of State. It feared that warnings and bombing might be exploited by enemy propaganda and harm the U.N. position in world opinion. Weyland, who believed few useful targets remained in North Korean cities and towns anyway, relayed the concerns of both General Clark and Washington about the release to the embarrassed Barcus, who said he got the idea from Weyland’s own public information officer.

Press releases and mass strike warnings were curtailed, though occasionally civilians were given advance notice of raids. But bombing North Korean urban areas continued unabated. Even B–29s from Bomber Command were enlisted in attacks on communication centers. By early 1953 the command considered small cities and towns the only remaining vulnerability in the communist logistic system. Intelligence revealed that they had been taken over as supply and troop centers, but there was too much flack for daylight attacks by light bombers. Contrail problems and bright moonlight which aided night interceptors limited operations along the Yalu to...
one week a month, so medium bombers spent most of their time hitting airfields and communication targets in the rest of North Korea.

Clark was pleased with strikes against both hydroelectric facilities and Pyongyang and was anxious to continue the air pressure campaign. Weyland gave him a detailed briefing on FEAF target selection in late July and said it was unlikely there were any targets in North Korea of comparable importance to the power facilities. Key military installations in most cities and towns had already been hit. Weyland estimated their destruction at 40 to 90 percent. He indicated that he could wipe out the remainder of urban areas but was reluctant because they were primarily residential. Clark agreed. Weyland then covered the remaining target possibilities: Rashin, Sinuiju, Uiju, and some metallurgy plants and installations. Clark offered to check the remaining restrictions imposed by the Joint Chiefs on the port of Rashin and pondered the idea suggested by Weyland to conduct preemptive strikes on Manchurian airfields. Weyland did not expect Clark to submit the request to the Pentagon, nor for the Joint Chiefs to grant it, but Clark did authorize photo reconnaissance over Manchurian airfields on August 1.²

Second Thoughts

Some members of the FEAF staff remained skeptical about the shift from interdiction to destruction, notably the deputy for intelligence, Brigadier General Charles Banfill. In late August, he sent Smart a detailed memo questioning the cost-effectiveness of the program. The enemy had moved most industrial facilities to a safety zone in the northeast, which was heavily defended and out of range. Smaller targets had been placed underground. But the principal sources of supply and the most important strategic targets were situated outside of the country. As Banfill lamented, “We are somewhat in the position of trying to starve a beggar by raiding his pantry when we know he gets his meals from his rich relatives up the street.” He was concerned that while FEAF aircraft searched for the few lucrative targets, unrestricted transportation was allowing enemy forces to increase their artillery fire by a factor of ten and triple U.N. casualties. He concluded that railway interdiction should be resumed even if it might not prove decisive.

Smart sent back an equally detailed response explaining his rationale for the new program. Although conceding that most medium bombardment targets that remained in North Korea were of relatively minor value, he argued that attacking them was more useful than interdiction. Political and military restrictions combined with a static battle front to make effective interdiction virtually impossible. Smart related that the new policy had elicited a more telling response from the enemy, as evidenced in their “references to our ‘savagery’ by even the communist armistice delegation.” He interpreted the increase in enemy artillery fire as retribution for current air action rather than use of a surplus amassed since the curtailment of interdiction. He concluded,

I feel that the purpose of any air action is to bring about defeat of the enemy as expeditiously as possible, not merely to complicate his maintenance of a position in which demonstrably he not only can support but actually can replenish himself, despite our efforts to prevent his doing so. However, interdiction was deemphasized, not prohibited, while air pressure was applied against an expanded target list.

Occasionally FEAF found a few industrial targets. Mining facilities were attacked as well as remnants of North
Korean industry mostly concentrated on the Soviet and Manchurian frontier. The largest carrier strike of the war occurred in September when 142 planes from three carriers destroyed the Aoji oil refinery and attacked other targets at Munsan and Ch’ongjin five miles from Manchuria and ten miles from the Soviet border. The raids caught enemy fighters and flak defense completely by surprise.

**Hanging Tough**

In messages to the Joint Chiefs in late 1952, Clark stressed “firmness in negotiations to be supported militarily by continued heavy bombing attacks.” Washington concurred. The program deprived the communists of the ability to support larger forces, enabled outnumbered U.N. ground forces to hold their positions, and constituted the most potent means of pressuring the enemy to yield to acceptable armistice terms. At one point the Chairman, General Omar Bradley, USA, even proposed to intimidate China by threatening Shanghai with a B–29 raid. The aircraft would approach close enough to appear on radar and then veer off and fly down the coast. The Department of State disapproved, fearing such a show of force might boomerang with allies and world opinion.

At the same time, agencies in both Washington and the Far East continued to be concerned over the communist build-up that threatened U.N. air superiority. The Central Intelligence Agency reported increases in aircraft based in Manchuria and declared that “Soviet participation in enemy air operations is so extensive that a de facto air war exists over North Korea between the U.N. and USSR.” Ironically, coordination between the Chinese air force and its Soviet advisors had almost completely broken down by mid-1952, but concerns that Moscow was running the communist air war became strong enough that the Secretaries of the Army and Air Force attempted to persuade the Department of State to allow more publicity on Soviet personnel fighting directly against American forces. Planning also continued on actions to be conducted in case negotiations broke down or the war escalated. Far East Command and the Joint Chiefs considered air options, including attacks on Soviet territory, the use of atomic or chemical weapons, and bombing of Chinese airdromes and communication centers.

They also remained alert for signs that the air pressure campaign might be working. In September, Clark sent an intelligence report to Washington stating that bombing was breaking down civilian morale. Cities and towns which had been hit were “bordering on panic.” Civilians who had joined labor battalions because of job and food shortages or conscription were deserting to return home. They believed air attacks were the prelude to a general offensive to end the war. The report noted that Pyongyang feared air attacks would motivate civilians to join U.N. guerrillas. Further information provided to the FEAF target committee added that the enemy had to send special agents to control unrest in cities hardest hit by air strikes. Clark’s optimism was seconded by the U.S. ambassador to Japan but did not persuade either the Department of State or Joint Chiefs that an armistice was imminent. They continued to look for other indications that air pressure was producing results. Optimism waned as peace talks dragged into 1953, and the search continued for ways to apply more effective airpower.

The Pentagon supported the efforts by Clark and his subordinates and, except for delaying an attack on a supply complex at Yangsi because of a nearby prisoner exchange, approved all target requests submitted by Clark, including hydroelectric plants. But the Joint Chiefs prohibited public statements on intentions to pressure the communists to accept an agreement and the search continued for ways to apply more effective airpower.
more raids were directed at achieving a political settlement, the less that could be admitted in public as justification for them.

The Last Targets
In March 1953 the FEAF formal target committee began studying the irrigation system for 422,000 acres of rice in the main agricultural complexes of South Pyongan and Hwanghae. The deployment of North Korean security units to protect key reservoirs from guerrillas in the growing season indicated to Banfill the importance of those targets. His staff estimated that denying the rice crop to the enemy would cause food shortages, tie up transportation by necessitating the import of rice from China, and require the diversion of troops for security and repair work. Clark advised the Joint Chiefs that in case of a prolonged recess in the peace talks, he planned to breach 20 dams to inundate these areas and destroy an estimated quarter million tons of rice, curtailing the enemy ability to live off the land and aggravating a Chinese rice shortage and logistic problem.

That was not the only proposal to escalate the air campaign. Weyland held back an attack by Bomber Command that would have largely obliterated what remained of Pyongyang, keeping it as another way to ratchet up pressure if required. He also seems to have doubted the military utility of the attack, just as he was skeptical of attacks on the rice irrigation system. However, his planners convinced him to authorize strikes on three dams to wash critical railway lines away as part of the interdiction program, although among themselves they considered that rationale a mode of deception to deceive the enemy about destroying the rice crop. Fifth Air Force fighter-bombers hit the Toksan and Chasan Dams in mid-May, a most vulnerable time for newly-planted rice, followed by Bomber Command night missions against Kuwonga Dam.
The Joint Chiefs approved the bombing of two more dams by fighter bombers to inundate jet airfields at Namsi and Taechon. Clark knew that further dam attacks risked a negative reaction from allies and might affect negotiations, but he and Weyland believed the missions were needed to eliminate the airfields. North Korea decried raids on agricultural installations and on water reservoirs which were not military objectives. But communist complaints about U.N. air atrocities had been so persistent that they perhaps were not taken seriously. Or maybe since no mention was made of targeting rice crops, reservoirs did not seem to merit attention in the press as a particularly noteworthy objective.

**Blue on Blue**

Press releases from FEAF did not mention naval air operations, which increasingly were integrated into the overall campaign. By June 1953 the Navy was coordinating target selection with Fifth Air Force, under the command of Lieutenant General Samuel Anderson, who was impressed enough with Navy cooperation to request its representation on the FEAF formal target committee. Weyland indicated that while he could not order the Navy to participate because the carrier aircraft were not under his operational control, Anderson was to invite the Navy to send a representative from the joint operations center. The armistice was signed a few days later, so the offer was not extended. Ironically, as service cooperation increased in Korea, the Air Staff at the Pentagon was gathering combat data emphasizing the superiority of land-based over carrier-based aircraft to counter Navy attempts to increase the budget priority for carriers. Using numbers of sorties and tons of bombs dropped, Air Force analysts argued that their planes were far more cost-effective than their Navy counterparts.

The last few target committee meetings were dominated by discussion over the exploitation of dam attacks. Proposals included employing delayed action bombs to deter repairs and dropping leaflets blaming the continued air attacks and loss of water for irrigation on the Chinese. Weyland was adamant that dam attacks constituted interdiction and vetoed a proposal by Smart for mounting a psychological warfare campaign to warn endangered populations of the imminent destruction of dams. Although Weyland and Clark justified the attacks as interdiction raids, neither planners nor the communists perceived them that way. Attacks on Toksan and Chasan led to the inundation of two railway lines and many roads as well as villages and rice fields. A flash flood from Toksan washed out 27 miles of the river valley, and both raids sent waters into the streets of Pyongyang. Bomber Command delayed its attack long enough for North Korea to develop countermeasures, and by lowering the level of the reservoir the catastrophic results of the earlier raids were avoided. This measure also worked for the last two dams. The communists put more than 4,000 laborers to work on the Toksan Dam and emplaced antiaircraft defenses around it. Weyland was amazed at the speed of their recovery. Only 13 days after the strike a temporary dam had been built and all rail repairs had been completed. When Clark queried him about targets on which to exert more pressure for an armistice, the all-out blow on Pyongyang was all that came to mind. Clark had Weyland prepare a message for JCS to get approval but it was never sent.

Hostilities ended on July 27, 1953. The role of the air pressure campaign in the settlement was unclear. President Eisenhower implied at a National Security Council meeting on July 23 that he did not think the agreement was a result of such threats, although there were obvious signs that U.S. patience was wearing thin and that the war might be expanded. Rumors of Eisenhower’s intent to “raise the ante unless a cease fire was negotiated” were rampant in Korea. But there were other factors aside from military pressure involved in the communist decision to sign the armistice. The death of Stalin and instability in the Kremlin combined with riots in Czechoslovakia and East Germany gave the Soviet Union a substantial incentive to disengage from Korea and also shocked China. Late gains against ROK troops allowed the communists to save face while making concessions for the armistice.

Instead of influencing the armistice talks with a specific operation, the likely contribution of airpower was its cumulative effect on both Chinese armies and North Korean towns throughout the war. Eighteen of twenty-two cities were at least half obliterated, and most villages were reduced to ashes. That destruction is what Pyongyang remembers most about American airpower, and their programs to develop missiles and advanced weapons have been motivated to an extent by the desire to deter future applications of air pressure.

**NOTES**


2 Entries for July 24 and 28, and August 1, 1952, Weyland memoranda for record, File 168.7104-6, 52/06/01–52/12/31, Air Force Historical Research Agency.
By 1951, Stalin recognized that his support for the Korean War was a disaster. The United States and its allies in Europe, galvanized by communist aggression in Asia, expanded NATO capabilities while lending sufficient support to carry on U.N. operations in Korea. For its part, China realized that prospects for a limited war and quick victory had vanished and that it lacked the means to fight a protracted conflict. Meanwhile, Dwight Eisenhower became President in 1952 determined to end the war. The new administration launched a series of diplomatic and military initiatives, including a veiled threat to use nuclear weapons, although recently released Soviet documents suggest both the Soviet Union and China were already prepared to bring the war in Korea to a close.

A top secret Soviet history entitled "On the Korean War, 1950–53, and Armistice Negotiations" reveals the following:

*By the middle of 1951, the situation clearly indicated that it was in practice impossible to resolve the unification of Korea by military means. Both the Chinese and the Korean leaders equally were forced to acknowledge this. After preliminary consultations with the Chinese and Koreans, the Soviet government on June 23, 1951, put forward a proposal for settling the military conflict in Korea. "As a first step," the Soviet representative declared, "it would be necessary to begin negotiations for a cease-fire, for an armistice with a mutual withdrawal of troops from the 38th parallel." This proposal attracted universal attention. . . .

*By the beginning of May 1952, an agreement was reached on all questions, with the exception of the question regarding prisoners of war. Later that question was also resolved on a mutually acceptable basis. Measures undertaken by the Soviet government after the death of Stalin in many ways facilitated the conclusion of the agreement. While in Moscow for Stalin’s funeral, [Foreign Minister] Zhou Enlai had conversations with Soviet leaders regarding the situation in Korea. . . . Zhou Enlai, in the name of the government of the [People’s Republic of China], urgently proposed that the Soviet side assist the speeding up of the negotiations and the conclusion of an armistice. Such a position by the Chinese coincided with our position. . . .

A special representative was sent to Pyongyang from Moscow in March 1953 with a proposal for speeding up the peace negotiations. By that time the Koreans also showed a clear aspiration for the most rapid cessation of military activity.

The armistice was signed at Panmunjom on July 27. Although hostilities were concluded in 1953, no formal peace treaty was ever signed. The Geneva conference in 1954 failed to resolve obstacles to reunification. The Soviet Union, China, and North Korea blamed the United States for blocking proposals to create a “single, genuinely democratic government.” The headquarters of U.N. Command was relocated from Seoul to Tokyo in 1955 where it remains to this day.

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Source: Cold War International History Project Bulletin, no. 3 (Fall 1993), p. 17.
The past just is not what it used to be. Once we believed that 54,000 Americans died in the Korean War, but we have learned that slippery math and double-counting swelled that death toll by 18,000. Perhaps that should make the war seem less terrible; but Korea still is seen as a loss by many people—including Koreans—because it did not end, like World War II, with victory parades. When General Mark Clark, USA, signed the armistice on behalf of United Nations Command on July 27, 1953, he remarked that he was the first American soldier to conclude a war without a triumph. The Chinese gloated because Clark said what they wanted to hear, that they had fought the war to a standstill. If Korea is a puzzle, it is because so few people ask the right questions.

First, the conflict had an internal dimension of people’s war that could not be eliminated by internationalization. How many researchers investigate the precursor to the events of June...
the Korean War provides relevant and unexplored experiences for all services in virtually every operational area

since. What did we learn about the challenges of creating an effective military institution in a non-Western culture? That is what the Nation did in Korea with a degree of success not obtained elsewhere. Why did the lessons go unlearned?

And what did Korea teach the Armed Forces about conducting joint and coalition warfare? It should have provided lessons galore since by 1953 almost a third (20 of 63) of the infantry battalions in Eighth Army—excluding the South Koreans—were not American units. How did we coordinate artillery fire, close air support, weapons, food, and training for those battalions? How many people know that the commander of 1st British Commonwealth Division refused to establish a combat outpost line because he knew it would only cause unnecessary casualties? How many know that the legendary Foreign Legion officer, General Ralph Monclar, who went to Korea as a lieutenant colonel, did not lead a French battalion, but spent his time insuring that American corps and division commanders did not squander French lives? In terms of joint operations, the conduct of the air war—the greatest combat multiplier in the minds of three successive commanders of the Far East Command—requires far more attention, especially in the area of close air support and the birth of helicopter operations.

The Korean War provides relevant and unexplored experiences for all services in virtually every operational area inherent in extended expeditionary warfare. It speaks to combat in a theater with extreme weather, on a battlefield filled with refugees, and confronting enemies unfamiliar in their ferocity and stupidity. Unless the United States either relights the Civil War of 1861–1865 or falls into a campaign like the British waged in the Falklands, future American wars and near wars will encounter the same sorts of problems.

How many servicemembers, for example, could cope with a civil war in a prisoner of war camp as one group attempts to avoid enemy status while being assaulted by former comrades? And what of atrocities committed by the host nation police or the military manipulation of the native assembly to make a new constitution? How can the Armed Forces work with a range of domestic and foreign civilian agencies? The United Nations? A hostile foreign media covering the war with their adopted First Amendment rights? The Korean War speaks to all these issues.

But the most compelling question is strategic: must limited wars end through negotiations or concessions, or should not war aims, however limited, be gained by unambiguous competence, by the limited war equivalent of unconditional surrender? That question remains unanswered some fifty years after the Korean War.
The United States remains at war with Iraq. Since the imposition of no-fly zones, Baghdad has developed a new form of strategic response—unconventional operations targeted at air forces. An American-led coalition exercises dominance over the Iraqi military through air superiority, but this advantage is fragile. We must realize that unconventional warfare against conventional airpower is a potent and serious threat. Downplaying it will lead to faulty, misguided, incomplete, and even irrelevant responses. Interest in the region is too important to risk defeat by a strategy that could be overcome by a more appropriate use of military force.

**Out of Weakness**

As one author has observed: “Other countries can challenge the United States effectively by fighting indirectly, moving away from our military strength, and avoiding large concentrations of weapons and men that we can locate and de-
Another has warned that this approach is not beyond even small powers:

The situation, problems, and challenges of the environment, popular support, organization, unity, and external support must be set forth as cogently, comprehensively, and clearly as possible. Once this is done, an overall counterstrategy tailored to relevant problems can be devised.2

The task for any would-be challenger of U.S. power is to focus limited assets on a point that is both vulnerable and decisive.

Unconventional warfare is a time-honored method of confronting an enemy with superior military capability. Successful stratagems define the capabilities and will of an enemy, determine a style of engagement, and establish an overarching approach to affecting the resolve of the dominant force. The taxonomy used by Mao Tse-tung for revolutionary war presents one of the simplest and most logical prescriptions for guerrillas.3 His phases of revolutionary war include organizing and preserving forces; challenging enemy dominance and will indirectly, covertly, and persistently; and challenging enemy dominance. As practiced by Baghdad unconventional warfare has adhered to this three-phase approach and resulted in an effective counterstrategy.

Preparing the Battlefield

In the initial phase, guerrillas develop doctrine and tactics, acquire technology to challenge enemy will, and create a political base through diplomacy, manipulation, and propaganda. They gather strength and support but do not directly challenge dominance.

While the dominant force remains complacent in its ability to muster overwhelming power, guerrillas seek any possible niche to develop the means to resist. The Iraqis, for example, train at night because allied forces maintain direct control of the skies by day with active patrols and exert only indirect dominance at night by monitoring operations inside the country. Allowing training at night seems a small concession, but it erodes coalition resolve and establishes legitimacy for Iraqi actions. Fighting at night is a new concept and capability for Iraq and represents a tentative step towards developing both the will and capacity to act.

With regard to acquiring the necessary weapons, electronic warfare has emerged as a major way of undermining an air campaign. Electronic means of fighting include highlighting aircraft, uncoordinated missile launches, and the threat of vectoring conventional fighters for aerial combat. As Iraq gains experience, observing the operational practices of the forces supporting Northern and Southern Watch, its options for employing limited electronic warfare assets multiply. It can use electronic intelligence to hide real attack assets or deny electronic intelligence through alternative tactics and unconventional employment. The most effective use of the electromagnetic spectrum is for U.S. forces to not know when they have been attacked. This can be achieved by using friendly and enemy electronic emissions to gather data to evaluate response capabilities of coalition aircraft as well as command, control, intelligence, and targeting systems, all without necessarily inflicting physical harm. When Iraqi radars illuminate aircraft, U.S. forces react to the threat and the enemy documents this action. Moreover, Iraq may lull America into complacency. Repeated activity may be evaluated as nonthreatening. As coalition forces do not react, they will be at risk.

The goals of these initially subtle operations may vary. They could be to force the enemy to remove part of its dominant forces from a theater or compel it to maintain a presence and provide more lucrative targets for future unconventional operations. On the one hand, chirping away at the enemy force structure could ultimately bring about a loss of military dominance, or the escalating costs of maintaining a dominant force may weaken political will. In tentatively reaching for these goals, the guerrilla will use enough force to constitute a threat but not enough to require serious retribution. Iraqi goals appear to be to break containment and the force of U.N. resolutions by undermining the legitimacy of U.S. efforts abroad or eroding domestic support for sanctions and military action. Baghdad may wish to convey that air operations are costly and counterproductive.
It is admittedly difficult to counter unconventional methods on this level of conflict. Time remains on the side of the insurgent. The dominant force is restrained as it waits to see if sanctions are having the desired affect. Thus in the case of Iraq, it is understandable that the United States demonstrated moderation in the wake of Desert Storm as friends and allies argued for time to allow Iraq to comply with ceasefire resolutions. And while the use of force was constrained, the threat to coalition air forces and the ability of Iraq to challenge air containment were extremely low, so there was little need to act vigorously.

The best that can be done is demonstrating both the will and capacity to remain decisively engaged. In some cases, such resolve alone will prove sufficient to deter would-be insurgents.

**Challenging a Great Power**

Guerrillas test enemy will and resolve by violating sanctions and conducting limited acts or threats of aggression in the second phase. Iraq’s long-term responses to a decade of containment reflect elements of this level of traditional unconventional warfare, as Baghdad attempts to wear down the United States and its allies.

A disadvantage for the dominating force is that an enemy learns to adapt, grow, and think out of the box. Thus it attains an advantage from weakness. Meanwhile, the complacent dominant force becomes vulnerable. One analyst has pointed out that “All intelligence is based on pattern recognition. As strategic and operational doctrines generate patterns, they do become predictable. If a force is predictable, it can be defeated.”

Air operations over Iraq are particularly susceptible. Nations have different training opportunities, assets, and technology. Coalition practices and force packages are quite predictable because command and control is simplified to facilitate multinational operations among American, Turkish, and British forces. Dominance becomes a vulnerability as actions are driven by consistent operations, ceding initiative and surprise to the enemy.

One must consider the impact of asymmetric warfare on actions in the Persian Gulf. The Iraqis will use any means to achieve small victories that will force the United States to reevaluate its political objectives. Dominance of the air is the most fragile of environments and only requires the loss of political will to break it. Such might be achieved by downing only one or two aircraft or an inadvertent attack on a nonmilitary target combined with diplomacy, propaganda, and manipulation of the global media by Baghdad. Following the tenets of insurgency, Iraq will attempt to distract the United States to divert air forces to an unexpected threat. Deception will be used as a matter of course. Forces may be fooled to maneuver away from protecting friendly high value air assets. Another means of manipulation is enticing an air attack on innocents. Also as Iraq rebuilds integrated conventional air defenses, its potential to threaten coalition air forces grows.

There are seams in coalition operations that Iraq could exploit to inflict a tactical defeat and public relations disaster. In unconventional warfare there is no distinction between friendly and enemy territory. But America and its allies are constrained by coalition agreements. Cheating is the prerogative and sanctuary of the guerrillas. Although the United States is fighting in the context of international law and strict rules of engagement, unconventional warriors can elect not to conform to moral or legal constraints. Insurgents can shoot down one of their aircraft or cause destruction on the ground and blame the United States. In the case of Northern and Southern Watch, where sensitivity to regional allies as well as international opinion is critical for Washington, the options for Baghdad are bounded only by its imagination.

Countering an insurgency at this stage demands serious effort. The other instruments of power—diplomatic, political, economic, and informational—must be marshalled to support the use of force. This will make the use of military power deliberate and effective and, most importantly, will send a specific and telling message. In turn, insurgents will counter or mitigate the effects of strikes by placing their personnel and equipment in civilian areas, relocating high value assets, and using information operations to discredit enemy actions.

So far the coalition has failed to deter Iraq on the second level of conflict. In retrospect, it is clear the United States was neither sufficiently proactive nor persistent in the use of force. Nor did the attacks that occurred threaten key components of Iraqi power; rather they ceded an ability to slowly but surely rebuild the weapons, doctrine, tactics, and political support to wage an unconventional war. By mitigating the employment of force in the hopes of facilitating the work of U.N. weapons inspectors, in the end the United States lost both the inspection regime and the opportunity to crush Baghdad’s counterair campaign at the outset.
The End Game

If Iraq continues on its current course following the tenets of insurgency warfare, it should be anticipated that U.S. resolve will fail, giving Baghdad a bloodless victory, or that confrontation will escalate to phase three, a direct challenge to American dominance. Iraq is likely to follow the traditional course of taking the path that is easiest and most efficient. Here, the insurgent does not need to win. Rather, if the guerrilla is seen to possess the capability to strike randomly and with impunity, the political and military instruments of a great power can be neutralized. Because Iraq seeks to force the United States to abandon dominance or else make the cost militarily or politically prohibitive, attempts to strike at coalition forces either directly or indirectly are likely.

So far the policy of containment has survived phase one and two threats. But the danger of phase three is more ominous and demands a proactive response if Washington hopes to continue exercising a stabilizing role in the region. If the United States can predict how the strategy of unconventional warfare will be used against its dominance, a counterstrategy can be developed.

One likely tactic will be further campaigns to drive a wedge in the coalition. The guerrilla can indirectly challenge dominance by violating restrictions. A variety of seemingly logical excuses will be offered to induce positive public opinion. The insurgents will continue to push and pull on the edges of dominance until they can openly defy sanctions. If Iraq, for example, can create the illusion of a credible threat, the United States will be forced to commit added forces to prevent an attack or other violation of U.N. sanctions. The increase in operations tempo may cause a coalition member to question the cost effectiveness of its participation.

The guerrilla will cultivate coalition infighting by threatening the weakest members, making the dominant force appear impotent and unable to protect friends and allies; or alternatively, he can strike at the dominant force and elicit a response.
that will expose weaker members to danger or criticism. Either way the strategy forces the enemy to react on insurgent terms. Fractures in the coalition can be exposed and exploited by targeting the weak, the unsure, or high value assets.

The disadvantage of a direct assault on coalition credibility is that guerrillas must gain a lot of return for the sacrifice. The results must be graphic and suited for propaganda. But insurgents must remain wary. The risk of prematurely escalating conflict is attracting a military response for which they are unprepared.

An alternative strategy for Iraq is merely extending confrontation by prolonging the shift to phase three. Baghdad could develop offensive and defensive capabilities without actually attacking U.S. assets, doing enough to induce America to continue or increase its regional commitments. Maintaining theater forces is costly, drives up operational tempo, and affects morale. Washington may eventually find containment too costly.

**Counterstrike**

Understanding likely future Iraqi strategies is only the first step. The next is organizing the components of an effective counterstrategy. Currently, the United States uses a strategy of direct dominance. American power is retained with the continuous presence of air forces. This requires all elements of the total force needed in order to project airpower, including intelligence, command and control, battle management, and offensive and defensive systems, as well as political capital to keep the force in the field.

Direct dominance, if executed properly and decisively, is appropriate for dealing with phase two threats when insurgent forces are still weak, but as time wears on it becomes more of a burden than an asset. Direct dominance is both extraordinarily expensive and visible, hence it stresses the will and capacity to act while providing lucrative targets for insurgents. Unconventional warfare is most effective against a strategy of direct dominance, which explains why, in large part, the United States continues to have difficulty enforcing sanctions against Iraq and why enforcing the no-fly zones is increasingly burdensome.

Washington should consider an alternative strategy. Indirect dominance calls for removing the preponderance of the force structure from the theater, both depriving the enemy of ready targets and reducing costs. Rather than enforcing sanctions, indirect dominance focuses on the responses to violations. The focus of offensive action shifts from providing self protection for enforcement monitors to punishment for broken sanctions. The key is striking with overwhelming force when challenged. The responses need not be immediate, but operations must be calculated and credible. Insurgents are on the defensive because they do not know where or when the dominant power will choose to enforce its will.

Indirect dominance puts insurgents at a disadvantage. Without a list of available targets, guerrillas have to wage a reactive war. They can no longer calculate the immediate cause and effect of offensive action. They are not able to undertake a series of independent strikes, chipping away at force structure or making the cost of keeping forces in theater prohibitive. In addition, the threat of retaliation may discourage insurgents from acts of terrorism and hijacking.

The transformation of the Air Force deals with the requirements for an indirect dominance force. The service restructuring is largely solving the challenges of increased operations tempo and personnel demands. Aerospace expeditionary forces can complement assets required for strikes at intercontinental range. In future operations, a team of B–2 bombers, F–22 fighters, and long-range unmanned reconnaissance offers the right platforms, while the continued integration of both air and space operations promises the range of support capabilities needed to facilitate global reach.

It is essential for indirect dominance that the United States maintain sufficient intelligence in theater to monitor Iraqi activities. Since there are likely to be fewer platforms to gather intelligence, strategic assets and interpreting and assessing data, intentions, and capabilities will be critical.

With potentially less information provided by a smaller forward presence, there is a risk of paralysis through analysis in intelligence briefings.
to political leadership. Without overwhelming evidence, there may be a reluctance to act until all political agendas are appeased. The success of indirect dominance is absolutely dependent on focused and decisive political action. The guerrillas seek to blur the truth and splinter coalition resolve and domestic support. If the coalition is strong, indirect dominance is effective. If the coalition is weak, direct dominance is more appropriate. In the latter, military action is more decisive because will is not continuously challenged. Thus one of the first requirements for the United States in moving to the alternative approach of reducing its footprint in theater means rebuilding the political will of the coalition so military might can be forcefully employed when needed.

Unconventional warfare against air superiority has proven increasingly effective. Defeating Iraq and other air insurgents requires recognizing the three phases of conflict, the methods, strengths, and weakness of each, and the appropriate means to defeat them. America must maintain a flexible strategy. The proper response to threats in phase one is posturing to dominate on land, at sea, and in the air. Phase two responses need overwhelming and immediate direct dominance. An enemy must realize that it faces overwhelming force that is unwavering. The appropriate counterstrategy in phase three is transitioning to indirect dominance, thus limiting risks and mitigating expenditures while providing sustainable long-term deterrence.

A counterstrategy using a transition from direct to indirect dominance is effective because it disrupts development of insurgent movements and deprives advocates of unconventional warfare of their most effective asset—the initiative. Responding with the appropriate force in a timely way is key to maintaining airpower as an instrument of deterrence and containment.

NOTES

The contemporary era does not represent a strategic pause, but rather an interwar period, and history suggests that the next significant conflict will not be as distant as many would believe. Since 1648 major powers have engaged in a full-scale war approximately every thirty years. And from 1783 onward the United States has sent sizable forces into harm’s way every twenty years. To assume that this cycle has suddenly ended is wishful thinking. It is no more the case than the notion that the economic cycle of booms and busts has come to a halt. Accordingly, maintaining international stability and preparing to deter or defeat enemies in the future are urgent tasks. They cannot be put off, underresourced, or ignored except at grave peril. The primary security goal for the Nation in this interwar period must be prolonging the current epoch of peace and prosperity as long as possible and being ready to fight and win the conflict that will ultimately end it.

Labor of the Liberal State

The requirement to remain engaged and ready even in an era of relative peace is the most difficult challenge that can face a democracy. The track record of democratic nations is poor. After the Crimean War and the Wars of German...
Unification, Great Britain largely disengaged from the international scene and maintained a peacetime army so small that German leaders quipped that they would have it arrested if the British landed to support an ally. As a result, Britain conspicuously failed to prevent a series of wars in the 1860s and 1870s and proved utterly unable to deter the Germans in 1914. Britain’s weakness, appeasement, and consequent failure to deter Hitler in the 1930s has been well rehearsed elsewhere. But the record of the United States is little better. The refusal by America to remain engaged in Europe after World War I greatly facilitated efforts by Hitler and Mussolini to shatter the peace. Failure to manage international affairs in the Pacific over the same period led directly to the Japanese attack on Pearl Harbor.

The only recent occasion when a liberal democracy maintained the necessary force to deter an enemy in peacetime and to win without a conflict was the Cold War. For almost half a century, with conspicuous ups and downs, the United States fielded combat formations capable enough to persuade the Soviet Union that victory would be unlikely. The willingness to engage in Korea and Vietnam, whatever the regional consequences of such conflicts, illustrated American resolve. This prolonged policy of engagement was made possible largely because the Soviets were so clearly and obviously an imminent threat. It was also relatively easier to persuade the public of the need for large peacetime defense expenditures. At the same time, leaders remembered Munich and were determined to avoid a repeat.

The lack of an obvious threat makes the task much harder today, recalling the 1920s when weakness and disengagement laid the groundwork for disasters in the 1930s. Only by recognizing that military preparedness is urgent in periods of apparent peace just like during periods of tension can the United States avoid falling into the same trap. Such readiness requires the accomplishment of three tasks: constantly shaping the international environment to maintain stability in regions of vital national interest and to deter aggression anywhere; maintaining the ability to defeat at least two major regional aggressors simultaneously; and preparing for a future large-scale conflict.

Shaping. The aim of military operations other than war like Somalia, Haiti, Bosnia, and Kosovo is two-fold. One is maintaining peace and stability in regions of vital national interest, such as Europe and the Western Hemisphere. Any failure to ensure stability in those regions will create power vacuums when traditional structures collapse. The likelihood that such vacuums will be filled by friendly nations is low, because most allies have disarmed even more thoroughly than the United States and abandoned their responsibility for maintaining peace, placing the burden on America’s shoulders.

On the other hand, if the United States permits an actor to use force it signals that would-be aggressors will not be opposed. That message is likely to encourage the boldest to try to revise the international order by arms. In the best case, failing to engage in a lesser conflict against weaker enemies can draw the Nation into a far more serious conflict against greater threats. In the worst case, unchecked aggression may lay the groundwork for the extremely rapid destruction of a peaceful world order.

Maintaining. Though the military is most likely to be engaged in small-scale contingencies day-to-day, they must above all be ready to meet the challenges of a major regional aggressor with little notice. In fact, they must be ready to meet two such challenges at once. Yet it has become
fashionable to claim that the two major regional contingency (MRC) force sizing paradigm simply preserves the status quo. Because this force requirement has been explicitly tied to specific threats, Iraq and North Korea, and as both now seem weak, many argue that this concept can be abandoned. Moreover, such a change would allow the United States to reduce forces and refocus resources on military transformation or domestic needs. Both assumptions are wrong.

First, the United States has not maintained a two theater capability since 1993. The study of the origin of the force structure adopted at that time reveals that even its architects did not believe that it was able to handle two major theater wars nearly simultaneously. Nor was the Chairman, General Colin Powell, USA, confident that even the larger structure dubbed the base force in 1991 could deal with two wars. Powell stated that responding to a Desert Storm contingency at the same time as a contingency on the Korean peninsula would push the Armed Forces to the breaking point and that the United States would then no longer have the capability to deal with anything that might happen elsewhere. And the military has been significantly cut since that claim was made. Simply abandoning the two war requirement does not provide any rational basis for reducing the military.

Second, a two theater capability is not simply a randomly generated construct. It is a vital component of strategy. The failure to maintain a force capable of dealing simultaneously with two major theater wars means that, in responding to one major act of aggression, the President must be unable to respond to others for the duration of the conflict. Such an inability means the National Command Authorities are likely to shirk from committing all or most all available forces to a single contingency if it leaves U.S. interests and allies vulnerable elsewhere. More likely, the Nation would simply fail to take action.

This is precisely what happened to Great Britain in the 1920s and 1930s. Contemplating major theater conflicts in Europe, the Mediterranean, and the Far East, London did not support forces to meet even a single theater standard. British military leaders repeatedly advised against acting during the Corfu crisis of 1923, the Ethiopian crisis of 1935–36, and German remilitarization of the Rhineland in 1936 as it would expose vital interests in the Far East to Japanese aggression. Partly because of that advice, Britain did not respond adequately to any of those crises, paving the way for further aggression.

A great power that can meet only one major challenge at a time makes it more likely that a second enemy will take advantage of that power’s preoccupation with the first. The focus on the European conflict in 1941 was a precondition to the Japanese attack on British and American possessions. Great Britain looked to the United States to protect its interests in the Far East, but one cannot control the military policy of its allies. As a result, even though Britain was victorious, its position in the Far East and in the world was compromised.

Preparing. While no state can challenge the Nation globally at present, such a threat could arise in the form of either a single state which devotes energy to obtaining such a capability—like Russia or China—or a coalition of states. In that regard, the steady improvement in relations between Russia and China that has gone largely unremarked on may be an ominous sign.

It is commonplace in strategic discussions to assert that the United States would have ample warning of the rise of such a threat, thus there would be plenty of time to either deter or defeat it. Such confidence is unwarranted. There probably would be considerable warning, but alarms that alert planners that it is time to rearm are almost always insufficient to convince democratic leaders and legislatures. Hitler’s rise to power in 1933 should have been warning enough to Great Britain, and indeed its military leaders concluded in 1932 that the time had come to rearm. But it was only the crises of 1935–36, coupled with the expansion of the Luftwaffe, that convinced politicians to support massive increases in defense spending.

There is no reason to think that the United States will behave more responsibly. The desire
for peace is in fact likely to work against it. What is more, the change that triggered the rise of Hitler and the turn by Berlin toward aggression was the Great Depression—an event that also hampered Britain’s ability to respond. Likewise, a global economic slowdown could precipitate, without warning, the growth of our next major enemy. America is likely to focus on the domestic consequences of that economic crisis for far too long at the expense of starting a prudent rearma-
ment while there is time.

The Nation should thus consider what is neces-
sary to meet a major challenge. The military in-
dustrial base has been dramatically contracted in tandem with the reduction of the Armed Forces. The defense conversion since the Cold War has succeeded too well. It could be that when the next crisis arises the United States will find itself unable to spend the funds that a nervous Congress appropri-
ates because there will be no firms to bid on
the contracts. This is precisely what occurred in Britain in the mid-1930s. Its base had atrophied and been converted to civilian production in the lean years of peace, and when Parliament finally authorized increased defense expenditures, the money could not be spent.

Force expansion will also require a cadre of experienced leaders on every level to train others even as they lead their units. Too small a force cannot meet that challenge, so training will be rushed and haphazard, and units will go into combat under inexperienced leaders, as occurred in World War II. It must be remembered that although the Armed Forces are sized primarily to deal with current and likely contingencies, the need to expand them rapidly should not be ignored.

**Heavy Lifting**

These tasks must all be achieved at once. All accomplish essential parts of the same whole. We must continually shape the international environment by the use of force or its threat, and by stability and peace operations when appropriate. The best way to take advantage of a time of peace is aggressive involvement in the world, and the maintenance of adequate forces to accomplish all three of the tasks outlined above will make that possible.

Beyond the three main tasks any leading state must perform in peacetime, the United States must transform the military to meet the changing nature of war. This demand is particularly great because an apparent technological lead convinces many that no enemy can ever challenge America in that arena. Thus technological transformation now poses two great dangers. First, the United States is likely to be complacent and delay transformation, avoid fielding systems, and defer costs on the grounds that the Nation still has a comfortable lead. The likely result will be failure to prepare the Armed Forces to fight future wars. Second, it may be led to believe that America has found a technological panacea that makes it unnecessary to maintain large forces at all, since small, highly-technical forces seem so effective. The peril is that the Nation will move toward having the most technically advanced brigade in the world, which could be overwhelmed by larger if less sophisticated enemies.

Such was the fate of the British expeditionary force in 1914. At that time Great Britain was the only major power with a long-service volunteer force rather than universal military service and a trained reserve. As a result, that force was the best in the world and fought with incredible skill and tenacity against the German attack. But it was both too limited to deter the attack and too small to stop it; so it was wiped out almost to the man. Britain was forced to sit the war out in 1915 and into 1916 as a new force was raised and trained from scratch. That force, in its turn, inadequately trained and inexpertly led, suffered horrendous casualties and came very near to complete collapse before America was drawn into the conflict.

Worse, since the technological emphasis is now on long-range precision-guided munitions, some may come to think that global presence is unnecessary because the Nation can respond decisively with forces based in the Continental United States. Action taken on such a conviction could be catastrophic. It makes sense only when military capabilities are divorced entirely from the strategic goals they are designed to accomplish, which occurs in academic circles but not in the real world. Global forward presence signals commitment to opposing aggression and maintaining peace. Withdrawing forces from their positions would immediately increase instability by signalling that America is no longer committed to the peace.

For over half a century the United States has taught the world to understand that its commitment in any region can be measured by the number of troops deployed, not by its global strike capabilities. Strike capabilities did not deter North Korea in 1950, North Vietnam in the 1960s, Iraq in 1990, or Serbia more recently. They are unlikely to deter aggressors in the future.

Moreover, a mixture of ground forces, theater air and missile forces, and global strike capabilities is more powerful than global strike capabilities alone. When an enemy knows that it faces only a bomber attack, it can turn off radars, bury equipment, disperse forces, and sit tight. If its will is not broken under attack—and the historical record suggests that it will not be—there will be only two options. The United States must abandon the conflict without achieving its objectives or exterminate the enemy force. Even if it annihilates an enemy the Nation may not achieve its goals without deploying ground forces to secure them. Airpower can only provide an argument, however persuasive, that an enemy should change its way of doing business. Ground forces alone can force it to change.

When ground forces are added to precision-strike systems, the task is greatly complicated for an enemy. Now it must maintain forces in combat formations, which provide better targets for missile strikes; and it must keep its radar and communications going, making it easier to hit targets. In short, eliminating the possibility of
ground force deployment greatly complicates efforts to use precision-strike capabilities and makes it difficult to meet objectives. The history of the military art is the history of the increasing integration of all types of forces into combined-arms and joint units that bring an array of capabilities to bear. Forces that have performed that integration best have almost always won.

Technological transformation must thus be fully joint. It must be tied to an agreed vision of future warfare that is flexible enough to allow for unforeseen changes in war and the international environment. Above all, it must be undertaken much more urgently. America’s apparent technological lead can be largely attributed to the fact that no other state has been working arduously to prepare to fight us. We depend heavily on computerization while civilian computer technology is spreading across the globe. If an enemy concludes that war with America is imminent, it will find ways to convert civilian technology to military purposes, and any technological lead will evaporate.

**Transformation Trauma**

The next war will almost certainly begin at a time and a place chosen by the enemy. Delays and failure to maintain and deploy adequate forces may even encourage a preemptive attack, as happened in 1939. Hitler was well aware that by 1942 the British would field large and modern forces equipped with excellent aircraft and decent tanks. His attack on Poland in 1939 resulted in part from the belief that it was then or never. America must be cautious and not present an enemy with a window of temptation, though the current pace of technological transformation suggests that it may do precisely that.

Transformation cannot come at the expense of readiness. Adopting such a military policy would be destabilizing internationally and encourage, rather than deter, war in the middle distance. The United States must accomplish transformation while also maintaining the full spectrum of necessary capabilities.
Current force structure is based on an unfounded assumption: in 1990 the active components of the Armed Forces were prepared to defeat a Soviet attack and, since that threat was clearly much greater than any threat or combination of threats today, the military in this interwar period should be smaller and less costly. This assumption does not accord with historical reality; it prejudices the question of what force structure we need, coming to what is clearly a wrong answer.

U.S. strategy during the Cold War was supported by nuclear forces, conventional forces, and NATO forces, nuclear as well as conventional. By far the most important elements of that strategy from the standpoint of deterring the Soviet Union were American nuclear forces in Europe and elsewhere and the independent nuclear forces of France and Great Britain. The ground forces of Britain, France, and Germany added 18 heavy and six light divisions to the theater, bringing the total of immediately available divisions to 43. NATO hoped that such a force might halt the more than 200 divisions of the Warsaw Pact. It is certain that American forces alone could not have met that threat, nor were they intended to.

Today only the conventional forces of the active components figure into the calculus of responding to major regional crises. It is universally believed that the United States would never use nuclear weapons as long as an enemy refrained from using weapons of mass destruction—and perhaps not even then. Nuclear capabilities, important to deterring the Soviets, have thus become largely irrelevant to regional security. Nor can the United States depend on NATO. In the first place, its forces are not ours to command. Their significant involvement, particularly in any out-of-area campaign, will require time to secure and arrange. Secondly, NATO allies have cut their forces dramatically. The only extant forces to deter regional aggression are American.

Finally, conventional forces maintained during the Cold War were only the leading edge of U.S. military power. A conflict with the Soviet Union would surely have involved mobilization. Perhaps millions of Americans would have been called to arms. Standing conventional forces were calculated based on what was needed to halt or delay an advance by the Soviets long enough to mobilize behind that shield, not on what it would take to win. MRCs are not wars of national mobilization. The conventional forces maintained in peacetime will be the only assets available for such conflicts. Mobilization would take place only in a real military catastrophe.

**The Biggest Battalions**

Moreover, in considering the likely flow of events in a major theater war, it becomes clear that America’s force posture is as mistaken as its force structure. The major theater war of the future is likely to begin with an enemy attack on a regional ally. It will follow the enemy’s timetable. It will probably incorporate the salient lesson of the Gulf War: don’t let the Americans build up. It will likely be designed to deny access to the region and to culminate in an acceptable situation before the United States can react in a meaningful way. Thus the task will be to respond rapidly and decisively to a fast-paced, no-notice attack in the face of efforts to deny access to the region. If accomplished, the likelihood of rapid and relatively inexpensive success is high. If not, the war may drag on, perhaps stalemating and imposing a greater burden and higher casualties than the Nation is prepared to bear.

While current heavy forces militate against such a rapid deployment, something that must be addressed, it is essential not to compromise lethality and survivability once forces arrive in theater. But transformation plans that focus only or even primarily on technology miss the point. The real test will be how many troops are ready to go without notice at any time. The short answer is that a third can be expected to be prepared while another third trains to relieve it and the last third stands down. Therefore the basic sizing metric must be that forces should be large enough that one-third will be able to deploy and defeat a large-scale attack.

But this metric must not be applied to potential enemies as they exist. If, as many believe, neither Iraq nor North Korea could attack with any reasonable guarantee of success even in the face of a minimal U.S. commitment, then they will not attack. Instead, if either they or other states are determined to take actions that will bring them into a conflict, they are almost certain to wait until they are better prepared. Forces must not be sized against what enemies can field today but against what they could field in the future by preparing now. It is apparent, for instance, that our ten-division Army, which provides in principle (if not in practice because of budget-related training shortfalls) three ready divisions, could not face such a threat, nor could the three air expeditionary forces that the Air Force might be expected to keep on alert. The precise force cannot be calculated without reference to possible threats, theaters, and missions, information available in detail only to military planners and their chiefs; but it seems unlikely that any force short of fifteen divisions and fifteen air expeditionary forces would be sufficient.
Forces adequate to conduct smaller-scale operations such as Haiti and Bosnia cannot be drawn from this pool for an extended time without cutting into the ability to respond to no-notice attacks. This fact will not be lost on an enemy. The past decade suggests that the United States will need another division-equivalent on call to deploy to sustain operations in smaller-scale contingencies around the world.

Finally, it is time to abandon the Cold War model of Army organization. The Air Force and Marine Corps have already largely reorganized. The Army, however, retains the division as the basic maneuver unit and the corps as the fundamental chess-piece in the operational theater. It still attempts to benefit from economies of scale which such an organization provides in areas of combat support and combat service support. Unfortunately the Army has not generally deployed divisions over the past decade but has sent brigade-sized units as necessary, supported by combat support and combat service support units drawn from division and corps support groups. Thus when one brigade deploys, the ability of the entire division to train or deploy suffers. At the same time, divisions do not train to fight as a unit; rather the Army trains one brigade at a time. To send forces into a large-scale conflict without notice, the Army would either have to send divisions that represent a hodgepodge of ready and unready units or cobble together ready brigades from all divisions in the force. It is time to break this pattern, and the concepts laid out in *Breaking the Phalanx: A New Design for Landpower in the 21st Century* by Douglas Macgregor offer a solution. He would create all-arms, brigade-sized units with robust organic support that can deploy, fight, and sustain themselves independently as well as fit neatly into a fully joint theater environment. Whether that model or another is chosen, it is clear that such an organizational transformation is essential.

America is at a crossroads. It can address the underfunding the Armed Forces have suffered over the past decade, undertake the reorganization, reequipping, and reorientation so badly needed in this interwar period, and take seriously the tasks that must be accomplished to maintain the peace, or the Nation can withdraw from the international scene, cut forces, reduce preparedness, fail to transform, and reap the whirlwind. America’s best hope lies in learning the lessons of history and avoiding past mistakes.
Reassessing Joint Experimentation

By THOMAS M. COOKE

Joint experimentation has reached a juncture. U.S. Joint Forces Command (JFCOM) is the focal point for joint experimentation and implementing concepts found in Joint Vision 2020. While the command has embraced these tasks as its preeminent mission, it remains hamstrung by internal reluctance to think outside the box and pursue authentic experimental issues. Its efforts remain tied to current operational paradigms and demonstrate an incremental rather than revolutionary approach to anticipating requirements. Moreover, JFCOM is competing with CINCs who conduct their own experiments, which are primarily service-oriented but may have joint applicability. The result is a fragmented effort not necessarily oriented on joint requirements. This uncoordinated venture must be streamlined and consolidated under a single organization. JFCOM is best suited for this mission. It should exercise proprietary ownership of joint experiments and develop joint doctrine. If it does not, the command could find itself irrelevant and the military could lose its last and best hope for dramatic advances in operational art.

Command without a Plan
The unified command plan (UCP) in 1993 called for forces in the continental United States to be merged “into a combatant command whose principal purpose will be to ensure joint training and joint readiness of our response forces.” The result was the establishment of U.S. Atlantic Command (ACOM), which had its role...
expanded further in 1997 to develop strategy that would “maximize America’s military capability through joint training, force integration and deployment of ready U.S.-based forces to support forward commanders in chief (CINCs), the Atlantic Theater, and domestic requirements.” ACOM was assigned primacy over three major missions: joint force trainer, integrator, and provider. Two years later, UCP realigned ACOM (and also redesignated it as JFCOM) with responsibilities for homeland defense and military support to civil operations.

JFCOM thereby remained a four-star organization but fell short of justifying its status as a warfighting command. Therein lies the rub. Without a clear threat or geographic responsibilities, the command seemed relegated to a secondary position. There are few scenarios in which it would direct combat forces. In addition, Title 10 responsibilities mandate that each CINC train (and equip through the services) its forces to support regional operations, giving JFCOM a supporting role rather than a combatant command in its own right. The challenge was to obtain a mission uniquely its own. The Joint Chiefs provided one—joint experimentation.

While other joint commands perform experimentation in their areas of responsibility, only JFCOM is mandated to support this task. In that regard, the command has made great strides. It built on its legacy and resourced a joint experimentation (J-9) staff to specifically direct the effort. This staff element also serves as commander of the Joint Futures Lab.

The joint experimentation charter is unambiguous. JFCOM is designated “DOD executive agent, and functionally responsible to the [Chairman], for joint experimentation.” This effectively places all joint experimentation firmly in its command charter. To cement the function, the Defense Authorization Report defined this charter as “exploring the most critical warfighting challenges at the operational level of war which will confront U.S. joint military forces.”

The key to joint experimentation is Joint Vision 2020, which calls for the Armed Forces to concentrate on full spectrum dominance—that is, to supporting the military capability to perform missions from peacekeeping to conflict deterrence/prevention to fighting and winning against fully capable enemies. The vision laid the groundwork by focusing the services on accomplishing these tasks with superior technology, information superiority, improved jointness, precision operations, dominant maneuver, focused logistics, and full-dimensional protection.

The Joint Futures Lab forecasts joint capabilities over the next ten to fifteen years and also determines whether those capabilities back the goals of JV 2020. Every experiment is designed to support assessments of future capabilities with an eye on modifying current doctrine, organization, training, matériel, leadership, and procedures. These are daunting tasks with no precedent to either design a plan or gauge success.

As a point of departure the lab identified joint concepts to guide experiments on anticipated capabilities: rapid decisive operations, common relevant operational picture, and interactive plans. The concepts were chosen in part because actual operations revealed them as areas which required further work. They also represent what many consider the most difficult tasks in modern warfare. The lab experiments are built on a worst case warfighting scenario and support the premise that if units can perform general warfare missions they are likely to be able to perform all other missions.

Flawed from the Start

Unfortunately, JFCOM concepts do not demonstrate novel thinking but are based on tried-and-true notions that, while requiring reconfiguration or adjustment, are neither revolutionary nor experimental in basic concept. For example, rapid decisive operations is founded on the premise of “getting there the fastest with the mostest” and exacting as much effect on an
enemy as quickly as possible with the minimum expenditure of ordnance and supplies. It is a legacy of Desert Shield based on the realization that future strategic lift will be insufficient to move forces and matériel such as was employed in the Persian Gulf War. In a future scenario, the United States may not have the luxury of moving echelons-above-corps level troops, tanks/armored personnel carriers, artillery, air defense, or the logistical tail associated with each.

The key enabler of rapid decisive operations is knowledge. The prime vehicle for gaining superior knowledge is operational net assessment, envisioned as a continuously updated system analysis of total enemy warmaking capability. It would provide a pre-crisis understanding to facilitate planning focused on combat effects designed to erode leadership will and capabilities. This effects-based planning would allow Desert Storm effectiveness with fewer combat systems.

The above hypothesis holds that the judicious employment of disparate service assets will provide synergy to achieve sufficient lethality in the battlespace. This force could include a collage of such combat elements as redesigned ground forces, more lethal helicopters, stealth fighters and bombers, reconnaissance craft, carriers, Aegis cruisers, and attack submarines. By organizing and deploying specific combat systems into theater, less lift would be required for the same result.

The problem with experimentation is that it only rarely considers revolutionary concepts. JFCOM usually leverages assets already involved in CINC exercises and service experiments and overlays a strategic and operational scenario, inside which the lab does testing. Typically exercises do not support experiments geared toward more asymmetric or information operations themes—the concepts that would make rapid decisive operations genuinely experimental. Because the exercises usually stress traditional operational practices, asymmetric threats, alternative methods of conflict deterrence, and support to peace operations are relegated to secondary importance.

The common relevant operational picture improves shared battlespace awareness by giving commanders and staffs timely and tailored information through digital displays. Behind each icon would reside a hyperlink to a virtual warehouse of associated data for consumers. This concept would also provide information to consumers based on previously identified requirements through established profiles. Such a system no doubt has application, but is not a new concept. Air traffic controller displays, basic Internet surfing, and automated message handling systems are all examples, as are the legacy systems in use throughout the Armed Forces. It makes little sense to invest in new experimentation on proven capabilities.

Likewise, joint interactive planning in which multiple organizations can meet in a virtual environment has been around for years. At present, JFCOM is involved in providing a venue for testing several collaborative tools under simulated field conditions. But the crucial aspects of joint interactive planning are not being addressed by experimentation. While the benefits of multi-tiered collaboration may appear obvious, a case can be made against such collaboration. The Vietnam War witnessed helicopters being stacked one above the other, each with a more senior commander directing operations on the ground, illustrating the negatives of collaboration, which some call micromanagement. Indeed, basic leadership requires a commander to provide clear guidance and allow subordinates latitude to perform the task. In sum, the current concept is primarily a joint application of a traditional tactical level debate that deals more with command style and theory than technology and operational art.

The principal challenge is the lack of resources for a vigorous experimentation program. While JFCOM proudly claims “the future is our AOR,” it is continually pulled back to the present by operational reality. Because it cannot build and execute a joint warfighting experiment, it must rely on other assets that are heavily involved in planning, training, and perhaps executing current operational plans and doctrine. UCP provides the authority to leverage service experiments and, by extension, the joint training thereof, in support of the “most critical warfighting challenges.” In reality experimental objectives
are often at variance with operational requirements—operations each warfighting CINC must be prepared to execute. As a consequence, training requirements achieve primacy over experimental goals, with results gained more through serendipity than design.

Clearly, each warfighting command must retain the authority to experiment with forces and train staffs in a manner consistent with its regional focus and contingency plans. Indeed, the joint strategic capabilities plan requires CINCs to use adaptive planning principles to develop a menu of options from all to nothing in their operation plans for regional contingencies, including flexible deterrent, deploy-decisive force, and counterattack. It is unfair to expect combatant commanders to invest precious training time in support of experimental concepts that may not support warfighting missions. A balance between training and experimentation must be met, but that implies that each side is an equal partner. Part of the solution is getting both CINCs and services out of the joint experimentation business and focusing all effort on JFCOM.

Going Deep

Rather than concentrating on operational activities in which every CINC has extensive and mature mission essential tasks, JFCOM should focus on areas where little joint doctrine exists and where assessments reveal that forces are most likely to be employed. Doctrine ensures appropriate interoperability and compatibility in combining disparate organizations with differing applications of operational art. The joint experimentation role could augment combatant commander readiness by conducting interoperability experiments, while CINCs focus on general warfighting techniques in support of potential regional conflicts.

JFCOM must apply its talents to helping CINCs with nontraditional roles that cross service and command boundaries, conducting experiments with an eye on the future, as regional CINCs continue to deal with the here and now, using legacy systems and approved contingency plans. The command should apply current lessons from the regional efforts and the lessons learned from real world contingencies with a focus on the distant future.

Assigning joint experimentation to one command is risky. Nontraditional thinking means overcoming the conventional wisdom, much of which directly affects individual services or CINCs. This is where the command must be assertive. JFCOM must make joint experimentation a mantra, and the Pentagon leadership must support it. There must be a modification to Title 10 requirements that ensures JFCOM can garner assets to conduct experiments that are revolutionary in concept and design. Moreover, the services must accept the command as the only venue for testing capabilities in a genuinely joint environment. Insulated from service parochialism and the regional CINCs, the command could tackle this mission.

On the other hand, JFCOM must guard against overselling its capabilities and also control expectations. Congress is keen on getting it right and supports the Joint Futures Lab as the way to plan technology acquisition on the drawing boards. But if lab experiments produce little more than marginal improvements and other CINCs continue to conduct similar experiments without more funding, Congress might withdraw additional money and disband the entire effort. JFCOM must prove that its experiments are unique and will result in significant applications or risk losing joint experimentation in a future UCP revision.

JFCOM must think in innovative ways, focusing less on the present by looking more to the future. But without sole propriety for a primary task, the command risks further mission erosion. It offers the Nation the best opportunity to strengthen national defense by joint experimentation. If the JFCOM area of responsibility is truly the future, the command needs to show the fortitude to leap into the unknown.
General David Monroe Shoup  
(1904–1983)  
Commandant of the Marine Corps

VITA

Born in Battle Ground, Indiana; graduated from DePauw University (1926); attended basic school in Philadelphia with temporary duty assignments both at home and in Tientsin (1926–28); served at Quantico, Pensacola, and San Diego (1928–29); assigned to USS Maryland (1929–31); company officer, San Diego and Puget Sound (1931–33); temporary duty with Civilian Conservation Corps in Idaho and New Jersey (1933–34); served with 4th Marines in Shanghai and at American legation in Beijing (1934–36); student and then instructor with junior officer course at Quantico (1937–40); 6th Marines, San Diego and Iceland (1940–42); operations and training officer, 2nd Marine Division in San Diego and New Zealand; served at Guadalcanal and New Georgia; commanded 2nd Marines on Tarawa and awarded Medal of Honor; served on Saipan and Tinian (1942–44); logistics officer at Headquarters, Marine Corps (1944–47); commanding officer, Service Command, Fleet Marine Force, Pacific (1947–49); chief of staff, 1st Marine Division (1949–50); commanding officer, basic school, Quantico (1950–52); served in fiscal office at Headquarters, Marine Corps (1953–56); appointed inspector general of recruit training and then inspector general, Marine Corps (1956–57); commanding general, 1st Marine Division at Camp Pendleton (1957–58); commanding general, 3rd Marine Division on Okinawa (1958–59); commanded recruit depot, Parris Island (1959); served as chief of staff at Headquarters, Marine Corps (1959–60); appointed 22d Commandant of the Marine Corps (1960–64); died in Arlington, Virginia.

I sit in on all matters before the [Joint Chiefs] and have a voice in matters of direct concern to the Corps—and the interesting thing about it is that it is up to me to determine whether it is of direct concern or not. I have been accused of being interested in a lot of things.

Since national security strategy is largely shaped by the Joint Chiefs of Staff, you might be interested in my personal views concerning defense structure.

I am wholly in accord with the existing JCS system. It seems logical that discussions and recommendations will be more sound when made by people who are totally or even partially responsible for doing what they recommend be done. Then too, the corporate nature of the JCS assures that all views will be considered before a final decision is made. The service chiefs are in day to day contact with their organizations. They are aware of the capabilities, limitations, and the many other problems confronting their respective services.

—Remarks to the Armed Forces Staff College (November 7, 1963)
The 20th annual Chairman of the Joint Chiefs of Staff Strategy Essay Competition was held on May 17–18, 2001 in Washington. This event was established by General David Jones, USAF, the 9th Chairman, to challenge students at the intermediate and senior colleges to write original essays on significant aspects of national security strategy.

**FIRST PLACE ESSAY**

LIEUTENANT COMMANDER STEVEN M. BARNEY, USN  
(Naval War College)  
“Innocent Packets? Applying Navigational Regimes from the Law of the Sea Convention by Analogy to the Realm of Cyberspace”

**SECOND PLACE ESSAY**

LIEUTENANT COLONEL HARRY W. CONLEY, USAF  
(Air War College)  
“Not with Impunity: Assessing U.S. Policy for Retaliating to a Chemical or Biological Attack”

**THIRD PLACE ESSAYS**

LIEUTENANT COLONEL KATHLEEN A. MAHONEY-NORRIS, USAFR  
(National War College)  
“Huntington Revisited: Is Conservative Realism Still Essential for the Military Ethic?”

and

LIEUTENANT COLONEL NATHANIEL H. SLEDGE, JR., USA  
(U.S. Army War College)  
“Broken Promises: The United States, China, and Nuclear Non-Proliferation”
On March 23 a glittering but somber crowd of active and retired officers from all services, present and former government officials, distinguished academics, and civilians from all walks of life gathered at the National Defense University (NDU) to memorialize Alvin H. Bernstein. A well-known figure in defense circles, he served as the chairman of the Strategy Department at the Naval War College, director of the policy planning staff at the Pentagon, director of the Institute of National Strategic Studies at NDU (where he was the first editor-in-chief of *Joint Force Quarterly*), and founding director of the George C. Marshall Center in Germany (an institute that teaches civil-military relations to officers from former Warsaw Pact countries). His was a seemingly conventional in-and-out, academic-turned-government career, marked by its ups and downs and a dash of controversy. It also illuminated the gap between life in the academy and the bureaucracy as few careers have.

Al Bernstein began as an ancient historian, teaching classics at Cornell, then strategy at the Naval War College and later at The Johns Hopkins University. He could keep several hundred officers alternately mesmerized and roaring with laughter while he lectured, without a note, on the strategy of the Peloponnesian War, or used analogies from the screenplay of *The Godfather* to illuminate how the Romans maintained intricate policies of alliances, patronage, and nicely timed brutality to build an empire. By introducing his students to Alcibiades and Scipio Africanus, Al taught them how to think about strategy. Understanding the relationship between Sparta’s oligarchy and its military tactics, for example, offered a way of thinking about how the United States might defeat the Soviet Union. Still, at life’s end, Al had concluded that those things that had...
made him a superb teacher had also rendered him radically discontented with government life. His disenchantment may seem odd because one of the clichés about a Washington career is supposedly the easy shift from the world of government to that of the classroom and back. There is, to be sure, a whiff of disdain in the bureaucratic view of the academic world. Nary a cocktail party attended by a professor goes by without the labored production of Henry Kissinger’s little witicism about the disputes in academe being so great because the stakes are so small. Of course, after watching a Washington fray about whether soldiers will wear baseball caps versus black berets, one may wonder about a supposed academic monopoly on intensity about trivial matters. One surely knows some senior political appointees who devote just as much loving care to bullet placement on briefing slides as professors do to obscure historical data. Nor do all professors find it difficult to manage anything bigger than their in-baskets. Academic leaders like Al have to hire and fire (and inspire) subordinates, juggle budgets, and in general do everything that non-academic managers do. In this respect, the two worlds differ less than many think.

Moreover, many a bureaucrat would like to teach. For some, it offers continuity with earlier intellectual interests reluctantly set aside for government service, or simply the exhilaration of time spent guiding thoughtful and inquisitive minds. For others, a prestigious academic institution is admittedly a comfortable place to await a change of administrations, and respectful young people serve as a fine audience before whom one may reflect upon one’s own achievements. The academy, for reasons of its own, may abide these less worthy motives, not caring much about what ensues in the classroom. Students may know better, but out of awe or indifference hold their tongues, no matter what the size of their tuition bills.

The truth is that the teaching vocation calls for skills different from many of those needed in government life. It’s best, in fact, teaching requires a different type of personality than that found in the higher reaches of officialdom. In government one must take people as one finds them, leading, managing, or simply driving them for the public good, not for their individual betterment. Great teachers, on the other hand, scrutinize each student’s soul, looking for the opening that will allow them to jar each individual out of complacency, awaken their interest, alert them to disturbing contradictions or unpleasant possibilities, and perhaps even inculcate some humility. The Al Bernsteins of this world cunningly lure students down the path of conventional belief into intellectual ambushes from

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**Alvin H. Bernstein**
(1939–2001)

Named a research professor at the National Defense University (NDU) in 1997, Dr. Bernstein previously served as founding director of the George C. Marshall European Center for Security Studies from 1993 to 1996 and director of the Institute for National Strategic Studies at NDU from 1990 to 1993. During his tenure at the institute he was the first editor-in-chief of *Joint Force Quarterly*, a professional military journal published by NDU for the Chairman of the Joint Chiefs of Staff.

Before coming to the university he was Assistant Deputy Under Secretary of Defense for Policy Planning from 1989 to 1990.

Dr. Bernstein was a professor at the Naval War College from 1982 to 1989 and also chairman of its Department of Strategy from 1984 to 1989. He was a professor of classical history at Cornell University from 1969 to 1982 and chairman of its Department of Near Eastern Studies from 1979 to 1982.

Appointed a scholar-in-residence in the Center for Advanced Studies at National University in Singapore in 1985, he also served on the National Council of the Humanities from 1988 to 1992. In addition, he was an adjunct professor in the Paul H. Nitze School for Advanced International Studies at The Johns Hopkins University as well as the Cornell-in-Washington Program of Cornell University in recent years.

He was the author of several books and numerous articles on classical history, strategy, and international security affairs. Dr. Bernstein received a doctorate from Cornell University in ancient history with minors in medieval history, classics, and ancient philosophy, was awarded a B.A. and M.A. from the University of Oxford where he read *Literae Humaniores*, and earned a B.A. in classics from Cornell.
which they can escape only at the price of learning and growth, which can entail pain as well as delight. They teach in odd places, too; not just in the classroom but around the coffeepot, at departmental meetings, and in the gym.

Some of the teacher’s skills serve well in government life, such as the ability to read body language or dissemble in order to elicit an audience’s real opinions. The techniques for masterful running of a seminar (a pejorative term in government circles) somewhat resemble those needed to chair a committee’s deliberations. At their best, both teaching and government service are altruistic callings, and for most academics and officials neither way of life leads to wealth. But in two large respects academic and bureaucratic cultures clash.

The university teaching career is at best remarkably static. Some honors may come one’s way—a prize or festchrift from one’s students—but there is no promotion beyond tenure, with its grant of perpetual academic freedom. As a writer, the professor may hunger for fame and even wealth; as a teacher, though, he can aspire to nothing beyond doing better what he already does. He cannot rise through the civil service to the Senior Executive Service, nor leap from the post of deputy assistant secretary to under secretary. The teacher exercises real influence—the serried ranks of distinguished mourners at Al Bernstein’s memorial proved that—but indirectly, in the long term, and in immeasurable ways. The official operates in an elaborate, confining hierarchy, but has more tangible achievements: a negotiation concluded, démarché delivered, ship launched, or force deployed. The context, incentives, and measures of effectiveness of the two callings vary greatly.

Furthermore, the values of a good teacher are in at least some sense irreconcilable with those necessary for effectiveness in government. Academic life is about the pursuit of truth, while the art of government lies in getting things done. Academics are irresponsible in the best as well as the worst sense. They revel in the freedom that allows them to toy with ideas, to intrigue students with outrageous possibilities, and to propound the subversive notion that the official consensus rests on slipshod reasoning, questionable data, and unexamined assumptions. They know intellectual loyalty to neither party nor boss, but if they are any good, only to the truth. They delight in exploring inconsistency and exposing error. Government would be impossible if bureaucrats thought or acted that way. The official must defend the institutional position of the moment, at least to the outside world and to his subordinates. Loyalty to one’s superiors is, when not confused with servility, a real virtue and not merely a fulcrum for ambition. To write a speech defending a policy with which one only partly agrees inflicts no particular pain upon a bureaucrat, nor should it. For someone steeped in academic values it is—or ought to be—agony.

There are, of course, remarkable and rare individuals who move between these worlds while keeping their integrity, effectiveness, and equanimity intact. Both ways of life have their appeal. Both can demand the highest qualities of selflessness and ability; both can also degenerate into mean-spirited self-absorption. The corruption of government life lies in the effects of power and publicity—as Henry Adams put it, an “aggravation of self, a sort of tumor that ends by killing the victim’s sympathies; a diseased appetite, like a passion for drink or perverted tastes.” The corruption of academic life is pettifoggery, captiousness, and preening vanity which differs from but is just as harmful as its governmental counterpart. Nevertheless, the aspiring in-and-out should realize that to say “I think I will spend my life making policy and teaching” makes almost as little sense as saying “I think I will spend my life teaching and commanding nuclear submarines.” Sooner rather than later one must choose. As Winston Churchill once observed, “A man must nail his life to a cross either of thought or of action.”

If Al Bernstein could have spoken at his own memorial service, he would have told us that despite achievements as a manager and a leader, a chasm divides the worlds he seemed to straddle so well over the years. I believe that he would have admitted that he had hoped otherwise and would have liked to disprove Churchill’s view. But in the end he recognized the clash of values and temperaments for what it was and remained true to himself and his calling.


Al Bernstein, great leader that he was, had come to understand that choice. Unlike Master Rich, however, throughout his career Al followed his vocation and taught, and his many friends and students, by their grief at his loss, gratitude for what he gave them, and joy in his memory, testify to what a great teacher can achieve.
THE REAL AIR WAR

Joint Pub 3-51, *Joint Doctrine for Electronic Warfare*, provides an overview as well as definitions of key terms and concepts. Moreover, the volume covers multinational aspects of electronic warfare. Friction has occurred in recent operations when allies discovered that various electronic warfare (EW) assets employed together caused interference, and that critical signals intelligence was not being passed along. This publication explains how both NATO members and Asia-Pacific allies can move toward the concept of multinational electronic warfare.

Planning, coordinating, and using electronic warfare is described in a usable format. This is important because past operations have not always fit into the joint doctrine model. Appendices cover special cases such as frequency deconfliction, EW reprogramming, and modeling. Service perspectives on the subject could be more robust since all four branches have different needs and usually want to accomplish different tasks.

The pub also stresses the importance of coordinating EW activities with intelligence, which is frequently not done and has led to embarrassment and potential operational failure.

Information operations is an overarching term currently in vogue in DOD channels, electronic warfare is a major part of this effort and is crucial to future military operations.

SOCOM ESSAY CONTEST

U.S. Special Operations Command (SOCOM) has announced the second annual Special Operations Forces Essay Contest, which solicits innovative concepts on Special Operations Forces (SOF) doctrine, training, education, employment, organization, and technologies.

Competitors may write on any aspect of special operations. Entrants may be military personnel or civilians from the public or private sector and of any nationality. Essays by individual authors or groups are eligible as is work carried out at staff and war colleges, service schools, civilian universities, and other educational institutions. Submissions must be original and not previously published.

Entries must not exceed 5,000 words and be double-spaced on 8.5 x 11 white paper, with 1-inch margins and 12-point typeface. Documentation may follow any standard form of citation, but endnotes are preferred. Each entry must be submitted with (1) a letter indicating that the essay is a contest entry together with the author’s name and preferred contact information (mailing address, phone or fax number, and e-mail address); (2) a cover sheet containing the contestant’s full name, essay title, and word count at lower left corner; (3) a summary of no more than 150 words; and (4) a biographical sketch of the author (optional). If possible, submit the manuscript on a disk (Word format is preferred). Entry materials will not be returned unless requested. All entries must be unclassified.

Content, purpose, organization, scope, and style are all weighed. The Joint SOF Education Council will select the best essays and forward them to the Commander in Chief, Special Operations Command, who will determine the overall winner and present prizes, including a SOCOM coin and book selection. The command will also sponsor the winning entry for potential publication in a leading professional military education journal.

Entries must be postmarked no later than May 1, 2002. Students at the Industrial College of the Armed Forces and National War College should submit their essays through the SOF chair at the National Defense University. All others should be mailed directly to Headquarters, U.S. Special Operations Command, ATTN: SOOP–PJ–E, 7701 Tampa Point Boulevard, MacDill Air Force Base, Florida 33621–5323.

THE FORGOTTEN WAR

The National Defense University Library Korean War Bibliography, containing over a thousand entries, is a comprehensive tool for researching the history of the conflict. It is organized by topic and includes references to books, scholarly journals, magazines, and Web-based resources. It can be found online at http://www.ndu.edu/library/pubs/koreanwartitl.html. Many entries contain hyperlinks that allow materials to be accessed over the Internet. For more information call (202) 685–3972/DSN 325–3972 or write to Reader Services, National Defense University Library, 300 Fifth Avenue (Bldg. 62), Fort Lesley J. McNair, Washington, D.C. 20319–5066.

Attention Air Force Personnel!

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In 1990, the Air University commissioned Carl Builder, an analyst with RAND, to study the institutional Air Force culture. The president, Lieutenant General Charles Boyd, and the commandant of the Air Command and Staff College, Brigadier General Phillip Ford, believed that careerism amongst occupational specialties had eroded the military professionalism of their service. In particular, both officers decried stovepiping, by which specialists looked to their own profession rather than the operational chain of command and allowed their loyalties to follow their professional needs rather than the operational mission. Boyd and Ford surmised that careerism was linked to the confusion over the Air Force mission. Builder concurred, and The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force resulted from his study.

Builder argues that the cause of careerist malaise is service abandonment of an overarching theory of airpower in the early 1960s. The Vietnam War shattered the myth inspired by Strategic Air Command (SAC) that bombers could win wars by striking deep at the heart of an enemy, and no follow-on theory has replaced that concept, leaving the Air Force without a clear sense of purpose. Boyd and Ford surmised that careerism was linked to the confusion over the Air Force mission. Builder concurred, and The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force resulted from his study.

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Historians and other realists may shudder at the notion that every service problem can be solved by theory alone. Still, Builder's analysis of airpower theory and its role in shaping service culture is sharp and insightful. His discussion of how the all-sufficiency of strategic bombing came to shape the service and then how the myth was dismantled also correlates with much of the new history being written.

America's Pursuit of Precision Bombing, 1910–1945 by Stephen McFarland, for example, examines the thinking on precision bombing in World War II through the lens of the Norden bombsight and arrives at many of the same conclusions about strategic bombing as Builder. The Norden Mark XV bombsight, first tested in 1931, promised to provide the Army Air Corps with a means of destroying precision targets such as canal locks, oil refineries, bridges, rail terminals, and power plants. Air Corps leaders grasped its significance immediately and made it the centerpiece of planning. The Norden, they reasoned, would allow them to realize the goals originally established by airpower theorists in the 1920s and 1930s. Even before the technology existed to prove their ideas, these theorists had long argued that the Army Air Corps could paralyze a nation's ability to wage war by striking industrial choke points. The marriage of the bombsight with the B–17 and B–29 pushed bombing technology forward and gave life to ideas percolating in the minds of airpower advocates since World War I.

World War II, however, would prove both the theorists and Air Corps leaders wrong. While tests of the bombsight in perfect weather and at low altitudes assured planners that American bombers could achieve a circle error probable of 150 feet, in war conditions only 32 percent of Eighth Air Force sight-aimed bombs fell within 1,000 feet of targets. Not only did the Norden not hit the proverbial pickle barrel, but it rarely hit the broad side of a barn, or for that matter the farm itself. General Curtis LeMay, commander of 305th Bombardment Group, attempted to compensate by salvo bombing “on the leader.” Following this technique bombers flew in tight formations at high altitude and salvoed their entire bomb load on the command of the lead bombardier. Salvo bombing improved performance marginally by allowing the best bombardiers to drop
the bombs of a formation and creating larger patterns over a target. Nevertheless, according to the postwar Strategic Bombing Survey, only a few bombs hit small targets while “the rest spilled over on adjacent plants, or built up areas, or in open fields.” In the case of the air campaign against Japan, high winds and poor weather rendered the Norden completely useless and the Army Air Forces turned instead to low level night fire bombing of cities—the antithesis of precision bombing.

Despite the utter failure of precision bombing in both Europe and Japan, the myth of strategic bombing as a war-winning weapon endured. According to Builder, “the theory was accepted as validated beyond question because of the atomic bomb.” Airpower leaders held to the theory tenaciously because it helped justify their plans for a postwar Air Force independent of Army control. These bureaucratic imperatives caused airpower leaders to plan to fight the next war with weapons and techniques proven largely ineffective in World War II. Tragically, these same imperatives also convinced them to ignore the technique which saved American lives and helped this country prevail in World War II: close air support with tactical fighters.

No book does better at analyzing this forgotten aspect of airpower in World War II than Over Lord: General Pete Quesada and the Triumph of Tactical Airpower in World War II by Thomas Alexander Hughes. Through an examination of the generalship of Pete Quesada, the ICONOLASTIC young officer who ran 9th Tactical Air Command, Hughes demonstrates how tactical airpower proved crucial in two tests of American arms, Operation Cobra and the Battle of the Bulge. In Cobra, the breakout from Normandy, Quesada’s tactical fighters provided column cover for the armored breakthrough led by Major General J. Lawton Collins, beginning on July 26, 1944. With new radios capable of communicating directly with tanks, units of 405th and 368th Groups ranged over the battlefield, blazing away at German resistance points. During the last week of July, these fighter pilots claimed the destruction of 384 tanks, 2,200 motor transports, and a hundred artillery pieces. Impressed, General Omar Bradley stated that without airpower, “we would not have broken out of the beachhead like we did.”

Quesada’s fighters proved equally successful in a defensive role during the German Ardennes Offensive in December 1944. On Christmas, the biggest day of the campaign for airpower, fighters destroyed 500 vehicles and 50 gun positions and attacked 32 towns and strongpoints. Quesada’s major innovation during this battle was the use of napalm against troop concentrations hidden in the forest. Brigadier General Anthony McAuliffe, commanding general of the besieged town of Bastogne, wrote that napalm attacks in his area “were a tremendous boost to morale and were a vital contribution to the defense of Bastogne.”

The Air Force turned its back on Quesada and his achievements despite the obvious success of tactical airpower. The Strategic Bombing Survey instead appropriated his achievements to buttress the contributions of strategic airpower. Furthermore, Tactical Air Command (TAC), established in 1948 as a coequal to Strategic Air Command, was downgraded and stripped of most of its planes just months after its inception. Quesada retired in 1951 at the age of 47, believing that his continued service as the TAC commander would make him “a conspirator in an ugly mistake.”

The Korean War did not change matters dramatically. Tactical airpower did not break the stalemate which began in March 1951 but, then again, neither did strategic bombing. Yet the bombing theory remained intact after Korea because, as Builder states, it “was the wrong war, in the wrong place, at the wrong time.” SAC advocates blamed political restrictions against striking targets in China and the Soviet Union for the failure of airpower in Korea. Airpower theory, they argued, could not be held accountable in conflicts of less than all-out war. It would take another brush fire war in huts and villages of a different Asian country to finally shatter strategic bombing theory and release the Air Force from the domination of Strategic Air Command.

To Hanoi and Back: The U.S. Air Force and North Vietnam, 1966–1973 by Wayne Thompson focuses on the watershed event which led to the institutional crisis Builder addresses. In contrast to Builder, Thompson, an official Air Force historian, does not see the Vietnam War as a complete disaster for the Air Force. Rather, he considers the second half of the war (1968–72) a “rebirth or rebound” for American airpower. New technology and doctrines developed during this period helped “transform the Air Force from an almost total focus on potential nuclear warfare with the Soviet Union into a more varied and flexible force wielding increasingly more sophisticated conventional weapons.”

Thompson, in particular, focuses on the second revolution in precision bombing. The laser guided bomb (LGB) finally gave the Air Force the precision its theorists had dreamed about in the 1920s and 1930s. In the later stages of Vietnam, this capability was used to destroy bridges that had seemed invulnerable. However, it was not in interdiction that precision munitions had their most profound impact but in close air support. Over half of all LGBs used in 1972 were against targets in South Vietnam and Laos, especially artillery and tanks. More ironic, one of the most successful close air support weapons was not the fast-moving jet fighter but the slow, high-flying B–52. Using a greatly improved version of ground based radar technology
first pioneered by Quesada for blind fighter bombing in World War II, ground based controllers were able to direct B-52 strikes within yards of friendly positions. Thompson is less sanguine about the impact of the B-52 in the only strategic bombing campaign of the war, the 1972 Linebacker II air raids, claiming that President Richard Nixon utilized these weapons primarily to terrorize the North Vietnamese government into submission. Nixon didn’t care what the bombers hit so long as they struck targets near Hanoi and did not kill too many innocent civilians. While Thompson points out that the “buffs” scored some big hits in a raid against a surface-to-air missile storage facility at Phuc Yen, and that missile launches did decrease dramatically as the campaign progressed, poor weather made bomb damage assessment difficult. “The critical requirement of Linebacker II was to drop bombs near Hanoi.” In this endeavor, the B-52s succeeded. Whether it was this terror campaign or other factors that led the North Vietnamese to agree on a peace settlement will not be known until greater access is granted to the North’s archives. What remains clear is that the Air Force as an institution did not walk away from the war convinced that strategic bombing was the end all, be all. Rather, the high B-52 loss rate during Linebacker II convinced most leaders that the age of the big bomber was coming to an abrupt end. The big lifters were no longer the precision guided munitions so much as intelligence, surveillance, communications, navigation capabilities. More importantly, the model for the future is probably not the Gulf War, but regional conflicts such as Somalia and the Balkans. In these conflicts, and even more in disaster relief, the Air Force ability to provide infrastructure (transport, communications, surveillance, rescue, and humanitarian assistance) may be more significant than firepower.

A new book which captures the essence of the other Air Force is Tail of the Storm by Alan Cockrell, a memoir about the author’s experiences flying C-141 Starlifters with the Mississippi Air National Guard. Cockrell started out as an A-7 fighter pilot but left the Air Force shortly after Vietnam. “I had the right stuff or else I wouldn’t have been there. What I didn’t have was the right heart.” Instead, he moved to Mississippi to pursue a civilian career as a petroleum geologist and continued to satisfy his love of flying as a transport pilot with the Air Guard.

Like Antoine de Saint Exupery and other pilot literati, Cockrell writes about flying C-141s with a panache unexpected from what fighter pilots sneeringly refer to as “a trash hauler.” He does wonderfully at discussing the intricacies of flying a 334,000-pound beast across the ocean and back for weeks on end. He also probes into the unique culture of the heavy lift Air Force—defined more by patience, thoughtfulness, and stoicism during seemingly endless sojourns than bold seat-of-the-pants flying. Cockrell derives great satisfaction from flying a transoceanic mission in a C-141 despite in-flight mechanical or electrical failures, not to mention the dangers imposed by tiny cracks on the wings of these aging birds. He also took great pleasure in the company of those he flew with—officers and enlisted men making great sacrifices in their personal and work lives to serve their country.

For Builder, transport pilots like Cockrell as well as the people who manage space systems, surveillance systems, and a range of other support activities are becoming the heart and soul of the Air Force. The sharp end of the spear is still the fighter plane (although unmanned cruise missiles may soon supplant it), but the shaft is getting longer. To retain the personnel who comprise this shaft, Builder argues that a new mission is required which encompasses all the activities of the force, not simply fighters and bombers. He proposes “The mission of the Air Force is the military control of the aerospace continuum in support of the national interests.” The Air Force, in turn, has accepted his suggestion with a few vocabulary changes: “The mission of the U.S. Air Force is to defend the United States and protect its interests through aerospace power.”

Whether the new mission statement will solve the institutional problems first identified in the early 1990s remains to be seen. A quick review of the 2020 vision statement (http://www.af.mil/vision/vision.pdf) indicates that great strides are being taken by the senior leadership to build an organization that encompasses all facets of American aerospace power. The histories reviewed, however, suggest that it takes more than revised mission and vision statements to transform such
a vast and complex culture. It takes the dynamism of war, or multiple wars, to overthrow a dominant subculture in any service. The problem with the Air Force, even more than the other services, is a historical tendency to allow a single technology to shape the institutional culture and vice versa. Careerism is merely a symptom of the disease, not the cancer itself. To contain this proclivity, McFarland, Thompson, and Hughes suggest that policymakers must monitor the relationship between technology and culture. If it appears the traditions, ideas, and values of the service are too intertwined with a single technology, leaders should ensure that other technologies and their operators can flourish. This might be achieved by providing more financial resources to the other subcultures and their instruments or by creating incentives for personnel to enter and stay in those fields. What should be emphasized throughout any mandated change is that reform is not about breaking rice bowls but about seeing the future as unpredictable and ensuring that the Air Force can handle whatever challenge confronts it.

The histories reviewed, all somehow critical of the Air Force culture, together form an excellent reading list for learning how the service got to its present state. Each author does well at examining his chosen subject and associated issues. Any criticism pertains to style, not substance. Builder’s book contains more direct quotations than prose and makes repetitive reading. McFarland gets so technical in his descriptions of bombsight technology that only a physics major can follow portions. By contrast, Hughes and Cockrell write more like novelists than historians, and their works are pure pleasure to read. McFarland’s book, an official history sponsored by the Air Force, falls in the middle. It contains long technical descriptions of air campaigns which will challenge the lay reader, but it also rewards the patient with interesting anecdotal material on some of the highly unusual and iconic officers who fought in America’s longest war. Furthermore, the book stands as the definitive single-volume history of the air war in Vietnam.

Interestingly, only one work on this list, Over Lord, can be found on the Air Force Chief of Staff’s reading list for officers. As the list gets revised, the Cockrell book should be considered for the basic level, the Thompson volume for the intermediate, and the Builder and McFarland volumes for the advanced.

FROM THE SEA
A Book Review by
JEFFREY G. BARLOW

The Sea War in Korea
by Malcolm W. Cagle and Frank A. Manson

Originally published in 1957, The Sea War in Korea has been out of print for years. Its authors, Malcolm (“Chris”) Cagle and Frank Manson, were naval officers. Both were involved in writing The War In Korea in 1952, an account of the Navy during first six months of the conflict that was published as a companion volume to the popular Battle Report series dealing with World War II. Later they set out to detail the role of the Navy during the entire three years of the Korean conflict.

This book is one of only two encompassing the totality of the naval effort in Korea, the other being the official history by James A. Field, Jr., History of United States Naval Operations Korea. Each has its own strengths. Field, a noted historian at Swarthmore College, produced a work solidly grounded in official sources. Yet like many government histories, it is focused primarily on the elements of higher-level military decisionmaking and can make dry reading. The Sea War in Korea, however, is leavened by the personal accounts of dozens who took part in the fighting, including senior naval officers. The liberal use of interviews brings greater readability to the subject, though one should not infer that the book is merely made up of popular recollections. Cagle and Manson were sent to Japan early in the war by Admiral Forrest Sherman, Chief of Naval Operations, to serve on the staff of Vice Admiral C. Turner Joy. While collecting material for the prospective Battle Report volume, they also flew out to the aircraft carriers of Task Force 77 and rode cruisers and destroyers on the gunline that provided fire support for U.N. forces on the ground. And Sherman’s backing gave them access to official documents on the highest classification levels.

The volume opens with a substantial chapter that provides useful context.

USS Buck, USS Wisconsin, and USS Saint Paul off Korea, February 1952.

Jeffrey G. Barlow is an historian in the contemporary history branch, Naval Historical Center.

After detailing the diplomatic background to the conflict, the authors discuss the evolution of American military strategy in the early postwar period. They conclude with an examination of the military background of the war, which is the most dated part of the text since a great deal more is known today about the roles of the Soviet Union and China in North Korea’s decision to invade, thanks largely to the diligent foreign archival research of historians such as Katherine Weathersby and Chen Jian.

Cagle and Manson devote a third of the book to the first six months of the war, up through the evacuation of Lieutenant General Edward Almond and
Michael Hickey has exercised great diligence in collecting both facts and accounts concerning one of the 20th century’s most understudied conflicts, calling on personal recollection as well as original research. And though *The Korean War: The West Confronts Communism* has as many flaws as strengths, it contains much useful information and addresses crucial issues of both historical and current importance.

The author is best at describing battles and engagements on the tactical level. The most striking is his account of the psychopathology of military failure—the earliest days of the Korean War when untrained and poorly prepared soldiers and their untried leaders coped with the unexpected contingency of a full-scale attack by a well-trained, disciplined, and motivated enemy. The most telling illustration is found in chapter 4, “Bilko Goes to War.” Sergeant Bilko was of course the shifty leader of a platoon of laughable characters in the early television sitcom that lampooned postwar military life. Venal though they were, Bilko and his men were cunning enough to maneuver out of serious trouble. Bilko serves as Hickey’s metaphor for the mentality that plagued shabbily equipped and undermanned garrisons after World War II, a mindset that proved wholly unsuited for the Korea contingency. The description of the fate of this force in the opening battles is compelling and troubling.

As for America’s allies, there is an extensive description of the Commonwealth Division, not surprising given that the author is a veteran of the British force that fought in the theater. There are already a number of good histories on such units, so it is curious that the author does not alert the reader to works produced by the Army Historical Branch, nor does he reference important sources in archives such as the Royal Artillery Institution in Woolwich.

Coverage of the forces of other participating nations suffer from neglect compared to the British and Commonwealth contingents. After the opening battles, there is some description of the U.S. Army and Marine Corps, particularly more spectacular or tragic events. There is far less information about South...
Korean forces, other allied contingents, or the North Korean army.

Still other chapters deal with the higher levels of war. They cover political activities in the United Nations. Most useful is the discussion of the divergences of opinion concerning the nature of the Korean conflict and policy towards the People’s Republic of China that arose among the United States, Great Britain, France, and other allied governments.

On the operational level, chapter 3, “ Assault and Battery,” describes some of the questions that arose in the early stages of what quickly became a coalition war. There is a worthwhile consideration of the issues that had to be resolved in managing U.N. combat operations, though the author’s claim that Korea was “the baptism of fire for the young United Nations organization and the pattern, however flawed, for its subsequent coalition wars and peacekeeping operations” is highly debatable. Korea was the only real U.N. war. Nor does there seem to be much resemblance to the consensual and more traditional of its peacekeeping operations since.

The policy fractures within the U.S. administration, where the separation of powers seemed to guarantee fragmentation of action, are also examined. Much is made of the well known conflicts between Washington and General Douglas MacArthur and his court in the Far East. Familiar arguments concerning the general’s infamous behavior. MacArthur is compared to Caesar, although his state of mind at times seemed closer to Coriolanus.

The author ventures into less familiar territory in describing the high political and civil-military aspects of the war on the communist side. This account omits the Chinese command structure, particularly in ignoring the reasons why Peng Te-huai eventually succeeded Lin Piao as commander of the People’s Volunteers. These events have been studied and explained clearly by a number of scholars, amongst them Alexander George, whose work The Chinese Communist Army in Action, the Korean War and Its Aftermath is cited in the text. John Gittings also dealt with these matters in The Role of the Chinese Army; but Hickey apparently believes Gittings has a Marxist bent, so perhaps doubts his credibility. He could have consulted the works of William Whitson, on the other hand, which provide chapter and verse on Chinese command relationships.

Some of the author’s comments are also difficult to reconcile. For example, the United States is commended for its readiness to expend lives and resources in defense of democratic principles, but liberal democracy is also blamed for a lack of prudent preparation before the outbreak of war and for subverting discipline during its course. Nor does the author fully reconcile his views on the U.S. relationship with a troubled and autocratic South Korean regime.

In the final analysis, Hickey prompts but does not answer the questions raised when democracies and near-democracies are unexpectedly thrown together in partnership, fighting for a good cause but with imperfect instruments. That the United States did not resolve the dilemma was reinforced by its experiences in Vietnam. Whether the United States or the United Nations is any better prepared to deal with such issues today is debatable.

A noticeable gap in Korean War studies is the near absence of a Korean perspective, either north or south, available in English. The North Korean story is the most obscure. The Origins of the Korean War, by Bruce Cummings, uses extensive Korean sources to provide insight on the outbreak of the conflict. Although one may not subscribe to his larger thesis on American culpability, Cummings’ work remains the most comprehensive account of what happened between August 15, 1945 and June 25, 1950. Remarkably, the South Korean role in the war is also largely unknown to many Westerners. As Allan Millett wrote in the introduction to The Korean War: Volume One, “when the army of the Republic of Korea enters the story, it is almost always as a South Korean division fleeing to the rear in panic.”

Indigenous accounts of the Korean War by Koreans are available. There has been a long-term, large-scale effort by the Ministry of National Defense to collect oral histories and documents. These have resulted in extensive studies. From the mid-1960s to the mid-1970s, South Korea issued a monumental official history of twenty-two volumes. It remains the most detailed tactical and operational history of the war, with accounts accompanied by a profusion of operational maps of every engagement. It is unfortunate that there are no plans to translate these volumes into English as even the Korean version remains difficult to find.

New academic studies incorporate evidence from Moscow and Beijing that was unknown until the 1990s. These works include the acclaimed two-volume 1996 work by Myung-lim Park, Hanguk j njaeng’1 palbalkwa giwon (Origins and Development of the Korean War). Unlike Cumings, Park takes much of the traditional evidence along with the new

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archival material and concludes that socialism was not an inevitable force in the South which led to the Korean War when it was obstructed by the U.S. military government. Park's work will soon appear in an English language translation.

Over the years, numerous Koreans have published recollections. Only General Sun Yup Paik's From Pusan to Pusanmunjom, a memoir published in 1992, has appeared in English. Recently, retired Brigadier General Lee Chi-op, a member of the first group of officers commissioned into the newly formed ROK army in 1946 and a key figure in the first days of the war, published his candid account, Call Me "Speedy Lee": Memoirs of a Korean War Soldier, which provides first-hand details on the formation of the Korean army and the war. Millett has begun to lend his authority to this endeavor with "The Forgotten Army in the Misunderstood War: The Hanguk Gun in the Korean War, 1946–53," available in The Korean War 1950–53: A 50 Year Retrospective, edited by Peter Dennis and Jeffrey Grey. Millett is also working on a history of the war.

Publication of The Korean War: Volume One, the first of a three-volume official history written by the former Korea Institute of Military History, now known as the Institute for Military History Compilation, is the first work in English that comprehensively treats the entire war from a Korean perspective. Millett joined the project early on, lending his experienced eye. This series is an exact offset of the institute's translation of the original Korean language three-volume study published from 1995 to 1997. Save for Millett's introduction, the University of Nebraska version is essentially a duplicate.

The Korean War: Volume One covers the origins of the war and the details of operations until the intervention of the Chinese in October–November 1950. The background begins in the late 19th century when the peninsula became the pawn in a power struggle between Japan, China, and Russia. Japan intrigued to dominate the country and the Sino-Japanese and Russo-Japanese Wars were both fought with the annexation of Korea in mind. The book moves on to the Japanese defeat in World War II and the subsequent squabble over the occupation and administration of the peninsula by the United States and the Soviet Union that led to permanent division. The linear portrayal of historical events for nearly a hundred years and the centrality of Japan is a notable feature, though polemical language like the "treacherous Japanese colonial regime" detracts from objectivity. Ironically this work glosses over the crucial and decisive role played by Koreans who had served in the Japanese military in its discussion of the beginnings of the ROK military. Although it implies continuity and therefore historical legitimacy from armed anti-Japanese fighters in Manchuria to the ROK army, the truth is that most of those fighters went North, whereas the South Korean officer corps is, in part, the product of Japanese training.

It is apparent that these and other issues remain sensitive despite the depoliticization of the 1990s. Although the existence of prewar right and left wing factions is discussed, the assassination of the leading leftist leader, Kim Ku, which assured dominance of domestic politics by Syngman Rhee, is not mentioned, while similar conflict and purging in the North (of Cho Man Sik) is included. Accounts rarely mention the depth of problems South Korean forces faced on the battlefield, and there is a distinct bias toward highlighting the good and ignoring the bad, leaving the impression that anything that might challenge the legitimacy of the ROK military, due to poor performance or behavior (for example the alleged mass execution of so-called leftists and communist sympathizers as the army marched north), has been either softened or left out. One of the most significant events before the war was the purge in 1949–50 after a series of leftist uprisings racked the country. These events remain controversial because, as is wont to happen in purges, it was likely used to remove political opponents who may have been innocent. It is also probable that such a large purge on the eve of the war affected readiness and morale.

Yet this study does demonstrate, with the help of newly accessible Soviet and Chinese documents, the premeditation that went into Kim Il-sung's invasion of the South. This area has been covered in several other English works in far greater detail (for example, the 1993 Uncertain Partners: Stalin, Mao and the Korean War, by Sergei N. Goncharov, John W. Lewis, and Xue Litai, and William W. Stueck's 1995 The Korean War: An International History).

This study undertakes diplomatic, strategic, operational, and tactical analyses of the war in addition to details of the tactical action. For the most part, they are adequate, but operational examination of the opening days of the war falls short. For example, there is no detailed discussion of the collapse of 7th Division along the Oijongbu corridor that exposed the flanks of 1st and 6th Divisions, thus forcing their premature retreat.

The true operational significance of 6th Division actions on the Ch'unch'on front is also inadequately examined. This a mystery. The division’s operations were heroic, and one can make a strong
case that by spoiling the North Korean envelo
ing movement towards Seoul, the de
defensive success there bought time for the
disintegrating front to consoli
date, and the subsequent delaying
actions allowed the entry of U.S. forces.
It was possibly the most important suc
cess of ROK forces in the opening days
of the war.

This volume falls short on scholar
ship. Most obvious is inadequate docu
mentation. There is no discussion of the
location of sources cited nor their rela
tive value. The titles of Korean language
sources are translated, giving the erro
neous impression they were published in
English. The lack of an index makes it
difficult to conduct topical searches.
Maps are hard to read and sometimes
confusing, and the few illustrations are
largely unhelpful. The text itself, how
ever, is surprisingly well written, which
makes this an important work for the
serious student, complementing Ameri
can accounts with stories of the bravery
and resourcefulness of Korean soldiers
and leaders.

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COVERT ACTION IN KOREA
A Book Review by
RICHARD W. STEWART

In the Devil’s Shadow: UN Special Operations During the Korean War
by Michael E. Haas
243 pp. $29.95
[ISBN 1-55750-344-3]

There are always problems in writing
anything substantive about covert action. In the Devil’s Shadow: UN Special
Operations During the Korean War by
Michael Haas tries to offer a comprehen
sive study of a still secret campaign and
comes as close as the evidence probably
permits. The cloak of secrecy, real or
imagined, clouds what happened, why it
happened, when it happened, and who
made it happen. This cloak can also pre
vent even a careful historian from filter
ning out dubious tales of derring-do. The
problem is more pronounced in writing
about Korea because there was no organ
ization for special operations within the
Armed Forces in 1950. What structure
existed in 1945 was disbanded immedi
ately after World War II, and the institu
tional memory was soon gone. Without
an established organization, much of the
record was either simply not kept or sub
sequently lost, as often happens when
ad hoc bodies disappear.

That the author succeeds at all is a
testimony to his persistence in getting
the most out of available evidence. He
has put together a lively and readable
book that helps fill one of the largest
voids in the history of the Korean War.
Haas attempts to tell each aspect of the
story of special operations conducted by
the Army, Navy, Air Force, and Central
Intelligence Agency (CIA). Where the
account is found wanting, it is often from
lack of data rather than lack of effort
or failure in interpretation.

As Haas warns at the outset,
“Attempting to capture the history of
United Nations special operations dur
ing the Korean War is an exercise in
humility, in some respects the histo
rian’s worst nightmare.” In trying to
impose some order on a “kaleidoscope
of uncoordinated activity,” he thus fore
warns the reader to be prepared for a
story which includes many unknowns
and unknowables. What was the fate of
the hundreds of brave Korean agents
parachuted into the North, never to be
heard from again? (This same practice
was repeated with blind drops of agents
into North Vietnam in the 1960s.) What
was the interplay between South Korean
and U.S. participants? Why did the
fledgling CIA wage such a bitter struggle
with the equally parochial special opera
tions structure of Far East Command
(FECOM) at the cost of its entire war
time effort? Haas does his best to
address such questions.

In the Devil’s Shadow should be read
if for no other reason than for its account
of the bureaucratic backbiting—and its
operational consequences. FECOM and
CIA squabbled over resources, priorities,
control, and personnel as agents died
and missions were aborted. Was it just
bureaucratic turf-fighting of the worst
kind or would a unified structure really
have helped prosecute the secret war? If
there is a central lesson in covert action,
it is that muddled organizations and
fighting lead to failure. And failure
generally means loss of life.

As for the actual missions con
ducted by the U.N. forces, little of value
was accomplished. Agent operations were
unmitigated disasters—all infiltrators
were captured by the North or seemingly
double agents to begin with. Even
comparatively successful raids launched
from islands off North Korea by the U.N.
Partisan Infantry, Korea, were little more
than operational pinpricks along the
coast. Their impact was small, but their
human cost to the North Korean refugees
who made up the bulk of their numbers
was great. Their tragic fate cannot be
retold too often. Exiled from their own
country and reduced to small bands of
off-shore raiders, they were finally
absorbed into an unfriendly South
Korean military establishment.

Haas takes due care in recounting an
often murky aspect of the Korean War.
Given the challenge, In the Devil’s Shadow
is a careful and straightforward account
that includes memorable acts of personal
heroism and disgraceful scenes of bureau
cratic warfare. Both are stories that need
to be told.

Richard W. Stewart is chief of the histories
division, U.S. Army Center of Military
History.
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# IN MEMORIAM

## Korean War U.S. Casualties

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<tr>
<th></th>
<th>Army</th>
<th>Navy</th>
<th>Marine Corps</th>
<th>Air Force</th>
<th>Total</th>
</tr>
</thead>
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<tr>
<td>Number Serving</td>
<td>2,834,000</td>
<td>1,177,000</td>
<td>424,000</td>
<td>1,285,000</td>
<td>5,720,000</td>
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<tr>
<td>Battle Deaths</td>
<td>27,731</td>
<td>505</td>
<td>4,267</td>
<td>1,238</td>
<td>33,741</td>
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<tr>
<td>Other Deaths</td>
<td>2,124</td>
<td>154</td>
<td>242</td>
<td>307</td>
<td>2,827</td>
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<tr>
<td>Wounds Not Mortal</td>
<td>77,596</td>
<td>1,576</td>
<td>23,744</td>
<td>368</td>
<td>103,284</td>
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Source: Washington Headquarters Services, Directorate of Information Operations and Reports.