U.S. Army (Justin Lee Losack)

SLICING THE ONION DIFFERENTLY

SEAPOWER AND THE LEVELS OF WAR

By ROBERT C. RUBEL

Significantly, this strategy requires new ways of thinking—about both empowering individual commanders and understanding the net effects of dispersed operations.

—A Cooperative Strategy for 21st-century Seapower[1]

USS *Harry S. Truman* Strike Group 10 en route to U.S. Central Command area of responsibility performing multiship maneuvering exercise in Atlantic Ocean

U.S. Navy (Luke Perry)

Admiral Patrick Walsh discusses regional issues during Combined Force Maritime Component Commander course at U.S. Pacific Fleet headquarters

For most of history, generals and admirals have talked about the process of war in terms of strategy and tactics. However, in its 1982 Field Manual 100–5, *Operations*, the U.S. Army inserted an intermediate level between strategy and tactics that it called the "operational level." Subsequently, military officers and scholars have devoted considerable effort to defining and developing the different levels of war, especially the operational level. Although first institutionalized by the Army, the levels of war were eventually embedded in joint doctrine. However, the notion of an operational level of war and its attendant set of terms, principles, and concepts has not gained purchase within the U.S. Navy until recently, despite being taught and touted by its own war college. Even now, most naval officers, including many admirals, are either unfamiliar or uncomfortable with the idea, despite giving it considerable lip service. Although this could be dismissed as parochialism, there are deeper and more pragmatic reasons for the Navy's institutional discomfort with the operational level of war that will be addressed in this article. Understanding these reasons will lead to the articulation of a new way to look at the relationship between levels of war—a different way to slice the onion.

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The Problem of Command

Napoleon, it is said, was unbeatable when he could see the whole battlefield and personally direct the action. However, he did not do so well when he had to rely on his subordinate generals to exercise independent command.[2] Either they were incompetent, or Napoleon lacked understanding of what we now call the operational art. The growth in size of armies in the 19th century and the industrialization of warfare, including railroads, meant that no general could exercise personal command of a whole army. This was clearly illustrated in the U.S. Civil War when General Ulysses S. Grant coordinated the movements of several widely separated armies toward a common goal. By World War II, millions of men comprised the Red Army that drove back the vaunted German *Wehrmacht* in 1944 and 1945. The Soviets, in order to keep coherence across this massive force, developed the notion of operational art, which referred to the principles and concepts needed to link a set of tactical actions to a goal that was itself part of a larger scheme. Armed with this doctrine, subordinate commanders and their staffs could plan and execute even large and progressive operations in a way that was congruent with overall strategy. The commander in chief did not have to be there in person.

Until World War II, navies did not have the problem of trying to closely coordinate the actions of widely separated fleets. It was not that there were no scattered fleets; it was just that the nature of the problem at sea was different than on land. If one navy concentrated its power into a main fleet, the contending navy had to follow suit or risk defeat in detail. The mobility of ships made this a central issue. Therefore, large naval battles, when they occurred, were concentrated in space and time such that the admiral in charge was there in person. The key command problem was tactical: how to find the enemy and then how to coordinate the movements of individual ships or squadrons such that maximum firepower could be brought to bear. The big battles were over in a few hours, and they generally had significant strategic effects. Thus, naval officers thought in terms of strategy and tactics.

World War II forced a change in practice, if not in terminology. The adoption of a

progressive island-hopping strategy through the Mandated Islands with concurrent support to General Douglas MacArthur's converging drive along the north coast of New Guinea meant that the actions of separate, powerful fleets had to be coordinated. Upon arrival in Pearl Harbor in December 1941, Admiral Chester Nimitz, Commander in Chief, Pacific Ocean Areas, elected to command from ashore in Hawaii, allowing subordinate admirals such as Raymond Spruance and William Halsey to plan and execute the individual operations that constituted the Central Pacific campaign, each of which might involve multiple tactical engagements or battles. Although not articulated as such, the Navy had to develop its own version of the Soviet operational art. However, after the war—and notwithstanding several dramatic operational-level actions in the Korean War such as the Inchon invasion and the rescue of Army and Marine forces in North Korea—with no enemy fleet in sight but pressured by the advent of nuclear weapons, the Navy promptly reverted to the traditional strategy and tactics framework. Individual battlegroups each centered on an aircraft carrier became the strategic chess pieces that the fleet commanders moved around.

The strategy/tactics framework sufficed for the Navy until the 1991 Gulf War. In that conflict, the Service discovered that the lack of any theory or doctrine connected with a progressive and sustained air campaign, a form of operational art, put it in a subordinate position to the Air Force, which did have such doctrine. After the war, the Navy embarked upon an effort to achieve its own operational-level command and control capability by trying to mirror the Air Force's Joint Force Air Component Commander (JFACC) command structure—at sea. This effort ultimately failed in part because the Navy attempted to shoehorn a highly complex operations center into a space-limited ship and superimpose it on existing tactical staffs. However, a key reason it did not work out was that the Navy did not have any existing operational-level theory or doctrine that would have established the need for such a command element.

The command problem for the Navy in the 1990s became one of protecting its warfighting equities in an increasingly developed joint command environment that was based substantially on Army structure, process, and doctrine. In the wake of the Soviet Union's demise, the Navy again found itself without a seagoing rival. In order to establish its continuing relevance in new terms, it issued a white paper entitled . . . *From the Sea* in which it acknowledged the absence of a threat to its command of the seas and committed itself to supporting joint warfighting in the littorals. Over the next few years, several successor documents were issued to refine the Navy's utility argument, but each retained the fundamental argument that its mission was power projection.[3] This argument ended up presenting the Navy with a new command problem in the first decade of the 21st century. Prior to . . . *From the Sea*, the world ocean was divided into two massive areas of responsibility (AORs), U.S. Pacific Command and U.S. Atlantic Command. The two "fleet commanders in chief" owned virtually all naval forces, which moved fluidly (as it were) around the world operating "in support" of the land-oriented joint commanders (although substantial forces were transferred on a rotating basis to the Mediterranean under U.S. European Command). After the Navy issued . . . *From the Sea*, each successive Unified Command Plan (UCP), the document that spells out the joint command structure, expanded the AOR boundaries of the land commanders into the oceans. Now, U.S. Southern Command, a traditionally Army-centric command, owns the Caribbean and large swaths of the Atlantic and Pacific. U.S. Central Command owns the Indian Ocean north and west of Diego

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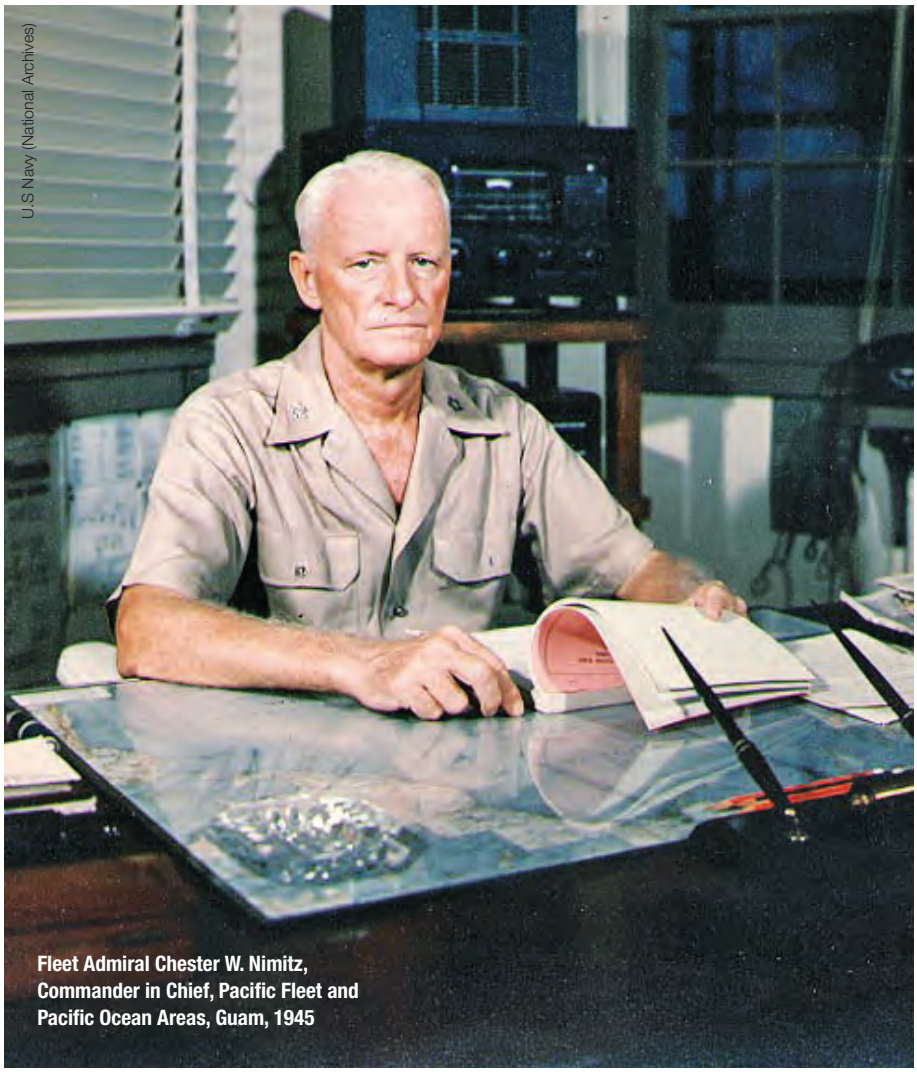
U.S Navy (National Archives)

Fleet Admiral Chester W. Nimitz, Commander in Chief, Pacific Fleet and Pacific Ocean Areas, Guam, 1945

Garcia, and U.S. Africa Command owns the seas around much of Africa.

In the new joint command arrangements, each unified commander has his own naval component, a numbered fleet that exercises command in the AOR in a way very similar to the ground and air components. In joint theory, these components represent the lower echelon of the operational level, with the joint task force commander being in the heart of it and the unified combatant commander (COCOM) being at the "theater-strategic level"—the levels-of-war onion being sliced rather thin by now.

For the world of the 1990s, this set of command arrangements worked adequately despite being occasionally awkward for mobile naval forces and despite various spats between the Air Force and Navy over where the maritime commander's airspace ended and that of the JFACC began. Naval forces were essentially a "sea base" that contributed air sorties, gunfire, and other support to forces ashore. Moreover, even in the peacetime naval diplomacy role, the pattern of naval operations was a function of the COCOM's security cooperation plan. The world as seen from the perspective of the UCP is simply a collection of individual and autonomous AORs.

In the wake of the 9/11 attacks, the whole architecture of the UCP started to become obsolete, especially for the Navy. The possibility of terrorists smuggling nuclear weapons or other dangerous things into the homeland by sea posed a new kind of security threat, one that neither the Navy nor the Coast Guard was prepared to deal with. As the nature of the problem and its potential solution began to emerge, it started to dawn on admirals that a new approach to command and control was necessary. Maritime security and its component function, maritime domain awareness (MDA), require the utmost in fleet dispersal in order to catalyze a global maritime security partnership. MDA—the collaborative sharing of information about who is doing what on the seas and where—requires centralized fusion of information to see tips and patterns from terrorist organizations that are not constrained by American AOR boundaries. The need is for information to flow freely among naval forces and headquarters around the world, unfettered or distorted by the existing structure of joint command authorities and UCP dividing lines. The Navy's answer to this problem has been the establishment of a network of interconnected maritime operations centers (MOCs), one in each of the numbered fleet headquarters. While not exactly violating the existing provisions of U.S. statute or the UCP, the networking of the MOCs to rapidly share information is the leading edge of an emerging process of globalizing naval command and control that eventually will yield a structure that does not conform to the Army-defined levels of war.

The MOCs are one response to the global terrorist problem, but they are not the only one. As mentioned previously, achieving global maritime security requires the utmost in dispersion of naval forces. However, the Navy is not structured to do this effectively. Its fleet of around 280 ships consists primarily of high-end combat units centered on nuclear aircraft carriers and large amphibious ships. It currently has few ships that are suitable for constabulary work or supporting engagement with the many small navies of African, Caribbean, Middle Eastern, and Southeast Asian countries. With such limited assets, the Navy cannot afford to respond fully to the demands levied by each regional numbered fleet or the COCOMs. The Navy

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U.S. Navy (Cayman Santoro)

USS *Mesa Verde* deploys to 6th Fleet area of responsibility

has decided it needs some way of figuring out, from a global perspective, where to place its limited resources for the most effect. It therefore created the Global Engagement Strategy Division within the Navy Headquarters staff in the Pentagon. Having no direct command authority, it is charged nonetheless with advising the Chief of Naval Operations (CNO) on how to make the case for depriving some AORs of forces and attention while loading up others—in other words, devising a strategy for placing the Navy's limited chips where they count the most from a global perspective. Here again, there are no violations of existing law or joint regulations, but the CNO is now getting more involved in how Navy forces are distributed.

A third Navy command and control response to the changed strategic environment is the standup of U.S. Tenth Fleet, the Navy component of U.S. Cyber Command (which itself is a subunified command of U.S. Strategic Command). U.S. Strategic Command has global functional responsibilities, so Tenth Fleet is global within the context of the existing UCP. However, much remains to be worked out as to how Tenth Fleet relates to the rest of the numbered fleets and their MOCs. Tenth Fleet has recently assumed authority over the Navy Information Operations Command, allowing it to coordinate information operations that will be needed to cover the movement of forces during crisis or war. In an age of satellites, the Internet, cell phones, and significant ocean instrumentation, naval operational deception will no longer be a local tactical matter. It will require a globe-girdling effort of exquisite timing and comprehensiveness to allow ships and fleets to show up somewhere by surprise. This can only be achieved through a tightly coordinated effort among all the MOCs and the Navy Staff in the Pentagon. Tenth Fleet's MOC will be the logical coordination point.

Perspective

The Navy's responses to the command and control problems it faces point toward a different way of looking at the relationships among forces and commanders. In each case, the Navy is attempting to match planning and execution authority with the perspective needed to ensure those plans and orders are coherent at the proper level; and in each case, the Navy has found that the existing joint command structure is either inappropriate or incomplete. That command structure, and the attendant levels-of-war framework upon which it is based, is inherently regional and land-oriented. What is missing is an effective global and maritime perspective.

For the Navy, and perhaps also for the Air Force, a framework that makes more sense in terms of matching command arrangements with environment and mission can be described simply as global, regional, and local. Unlike the existing levels of war (tactical, operational, and strategic), in this framework the military skill sets of strategy and tactics—and, yes, the operational art—could inhabit each level of command, depending on the nature of the specific missions and functions that are needed. By divorcing the separate intellectual skill sets of tactics, operational art, and strategy from command level, we would empower Sailors, to use a trite phrase, to think globally and act locally. Moreover, if the military skill sets were refined within this framework, there would be less likelihood of destructive micromanagement from above, of the operational tail wagging the strategic dog, and of "loose cannon" activities at the tactical level.

The proposed framework is anchored at the global level. The Navy has good reasons for needing a global perspective embedded in its planning and decision-making process, operational as well as administrative. The first and perhaps most fundamental reason is that seapower can be neither understood properly nor applied properly except from a global perspective. Most naval theorists have missed this point. A true maritime strategy is based on the ocean and is oriented on movement. Leveraging the geographic fact that the seas are all connected, it seeks to gain and maintain the global exterior position in order to provide sanctuary for the Nation's trading economy, maintain credible contact with allies and create strategic options, and hem in opponents. The pursuance of such a strategy might result in regional or local operations (such as invasions) but must be coordinated from a global perspective. One reason for having a maritime headquarters with a global perspective is that because the global system is so tightly coupled, perturbations propagate rapidly and globally and can emanate from disruptions that are of natural or human origin. Planning for and reacting to such disruptions must be based on a global perspective and can best be coordinated from Washington, where, not coincidentally, most of the personnel from other executive branch departments, headquarters of nongovernmental organizations, and embassies of other countries are located.

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In 2003, the Navy and U.S. Joint Forces Command ran a wargame entitled Unified Course 04 in which conflicts erupted in several different regions of the world nearly simultaneously. Each region's game cell was led by an admiral. By the end of the game, a strong consensus emerged that since events in widely separated theaters seemed to be coupled in various ways, some sort of "global operational art" was needed for a number of reasons, including making sure the logistics of one theater did not disrupt the logistics in another. Moreover, in the Internet age, ad hoc allies scattered around the globe can form up and coordinate their efforts if their common foe is the United States. Without commensurate operational coordination among theaters, the U.S. military risks being outmaneuvered. In lieu of the Joint Staff acting as a general staff, such a military skill is orphaned, with no staff having the perspective or incentive to develop it. In World War II, Admiral Ernest King and his staff, with King functioning as Commander in Chief, U.S. Fleet, as well as CNO, provided the Navy with the global operational perspective needed to rationalize Atlantic, Pacific, Mediterranean, and Indian Ocean projects. Currently, the UCP offers no such mechanism. The issue here is that the global level is not necessarily strategic; an operational art perspective is needed at times, mostly for naval, air, cyber, and space operations.

There are clearly times and places where the local perspective is the key to effective military decisionmaking. The sea Services have a long tradition of decentralized command and control, and this corporate culture will continue to serve them well. However, naval weapons, both offensive and defensive, and sensors have attained such range and capability that in many cases,

local perspective is no longer competent to control them. It has been a long time since a naval officer in tactical command has had targeting authority over his land attack missiles or aircraft, and as the Standard Missile achieves over-the-horizon aircraft intercept capability, it is likely that the JFACC will have the call on some defensive shots. Because our arsenal of missiles is limited, including those for ballistic missile defense, a headquarters with regional perspective will have to make decisions on the positioning of forces and establishing doctrine for making actual use of these weapons. The necessity for regional perspective is a way of establishing who should have what authorities over what weapons and sensors. Given the culture of delegation in the Navy, allowing the matter to be defined as centralization versus decentralization will unnecessarily abet conservatism and generate tensions. As the Navy establishes the MOC as its key regional command center, using the needed geographic perspective as the litmus test for whether it should have certain command authorities will help ensure its ultimate success.

New Principles

As with the introduction of the operational level of war in 1982, adoption of this framework will necessarily be attended by a gestation period in which the war and staff colleges and perhaps academia in general digest the concept, test it in games, and generate doctrine. However, it seems possible at this point to identify some principles a priori that fall out logically from the inherent nature of the new framework.

The first principle is the most basic: define the security problem from all perspectives. Defining the problem is a preliminary step in the military decisionmaking process that has found currency in the U.S. Army in the past few years.[4] Performed prior to the mission analysis step, it makes the whole process more intellectual and less mechanical. In terms of the new framework proposed here, defining a problem separately from the global, regional, and local perspectives helps to illuminate what measures of coordination will be necessary and where various command authorities ought to reside.

A second principle is that strategy is not a level of war or even a command echelon, but a thought process that links specific actions, military or otherwise, to political and economic goals. This makes strategy an intellectual skill set that, combined with defined command authorities, might be applied at each of the levels of command. For years, the military literature has been full of assertions that the levels of war have been fusing into each other and of observations about "strategic corporals."[5] However, the traditional levels-of-war framework does not accommodate such an evolution comfortably. Establishing a framework based on command perspective, and regarding strategy, operations, and tactics as skill sets to be applied as needed at each level, would accommodate these phenomena quite naturally.

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Regarding strategy as a skill set versus command echelon or level of war might also improve the oversight of military operations. Two Army authors argue that the elaboration of the original Soviet concept of operational art into a level of war and echelon of command has driven a wedge between civilian political authorities and commanders in the field. Politicians, they say, have become detached strategic sponsors rather than effective strategic overseers of operations.[6] If perspective rather than levels of war became our organizing principle, and there existed a military staff in Washington with operational authority, the coordination of politics and operations would be much more effective. Moreover, since strategy would be a skill set that inhabited each level, based on perspective, the appropriate influence of political and economic guidance from the capital would be clearer, with issues of micromanagement or neglect becoming moot.[7]

The issue of strategy as a skill set leads to a third principle. Command authority should not be a comprehensive or blanket tool; it is multifaceted and should be delegated in specific segments to the command with the appropriate perspective for exercising it. This kind of thing has already happened. Navy battlegroup commanders no longer have targeting authority over the land attack missiles their ships carry; that resides with higher authority—commanders with the requisite perspective on the effects those weapons are to produce or on the coordination of their employment with other means from other Services. Instead of echeloning command as is currently done, it would be distributed. Moreover, specific command authorities would not be static; they would migrate among the command levels as the situation unfolds. Whereas the local commander might initially have the authority to strike certain types of targets, emerging intelligence may indicate that such authority should be moved to either the regional or global level, at least for a time. Authorities could as easily migrate downward. For those used to the rigid command structure that has been in place since Napoleon's day, this may seem a recipe for chaos. However, what we have observed at the tactical level in wars from Vietnam through Afghanistan is that an echeloned command structure is not capable of rapidly integrating strategy and operations, thus allowing events to spin out of control. At the end of the "100-hour war" in 1991, the George H.W. Bush administration failed to exert sufficient oversight of General Norman Schwarzkopf (who, despite having four stars, was a local commander in that fight), and the Iraqis were allowed to fly their helicopters, thus keeping Saddam Hussein in power. In 2003, Army ground commanders removed key command elements from Baghdad at precisely the moment their presence could have been most helpful in averting an insurgency. While echeloning of command is necessary for the effective functioning of ground forces at the corps level and below, the presence of a global/regional/local framework might have distributed command authorities in these cases such that the strategic errors could have been avoided.

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A fourth principle prescribes that speed of coordination trumps speed of command. Since Air Force Colonel John Boyd articulated his theory of the "observe-orient-decide-act loop,"[8] military

Marine Corps and Air Force personnel aboard amphibious command ship USS *Mount Whitney* look on as Military Sealift Command fleet oiler USNS *Laramie* conducts underway replenishment

U.S. Navy (Eddie Harrison)

theorists have almost universally extolled the virtues of what some call "speed of command," that is, the ability of a commander and staff to make and implement decisions faster than the enemy. This is clearly a benefit when the issue is solely kinetic combat, but in an age in which fewer military actions are purely or even mostly kinetic and the need for interagency and international coordination is also universally cited, it is more likely that kinetic speed of command will produce harmful strategic side effects that outweigh the tactical or operational benefits. If coordination is indeed key, then the faster it can be done, the less it will adversely affect speed of command. A command framework that has at its core a global operations center that is collocated with the headquarters of the other government agencies as well as foreign embassies, and has as its intellectual fabric the integration of strategy, operations, and tactics at each command level, is far better positioned to achieve speed of coordination.

A final preliminary principle is that the U.S. Government should act in a unified manner. Given the size of the executive branch and its multiplicity of organizations that could have both a stake in and influence on any modern military operation, the government as a whole must be convinced to lend support and to coordinate with the military. This idea was manifested in a speech by Admiral Mike Mullen, then Chairman of the Joint Chiefs of Staff, when he said that no military operation ought to be undertaken unless and until the whole government is ready.[9] The framework advocated in this article would make it easier and faster for a proposed operation to be articulated in a way that would be more intelligible and persuasive to organizations not imbued with a military culture or educated in military matters. The need for military action must be sold, but under the current levels-of-war structure, the military is isolated and its imperatives and reasoning are opaque to other organizations. Defining problems from the different command perspectives and integrating strategy at each level could greatly enhance communication and thus aid the vetting process.

There are undoubtedly more principles that can be defined, but these five serve to provide a better view of what the proposed framework really is and how it would work. However, these principles, if pragmatic, are still abstract. If the framework is to be adopted in practice, a specific new command structure would have to be created.

Fixing the Problem

There are several ways the problem might be solved or ameliorated. The most radical solution is to do away with the geographic combatant commanders (GCCs). Over the past few years, a number of people, including

Admiral Mullen, have expressed concern that American diplomacy has become too militarized.[10] One way of counteracting this perception, if not fact, is to disestablish the GCC position. Much of the staff structure would remain in place, but instead of a four-star military officer, the person heading the staff would be a senior State Department officer. There would be a number of three-star officers on the staff who would maintain the necessary regional military infrastructure. The mission of this newly reorganized "regional engagement staff" would focus on diplomacy. There would not be AOR boundaries in the current sense, but rather perhaps delineations that correspond to current State Department assignments. There would also be a standing joint task force headquarters in each region to handle any contingencies that might arise. These joint task force headquarters, as well as the regional Service component headquarters, would report to a central military coordinating staff in Washington, thus establishing a joint staff with a global perspective and global authority, located in a place where close coordination with the National Security Council as well as a host of other agencies is most feasible. If current operational-level doctrine has produced a disconnect between strategy and operations, then such an arrangement would facilitate appropriate strategic oversight of military operations.

On the other hand, major surgery on the UCP may be politically infeasible. How could all of this be squared with the existing joint command and control system? One way would be to focus on the status of naval forces. Resurrecting the doctrine of operating "in support" and having the Pacific Fleet and Fleet Forces staffs function as the principal maritime operations centers for each hemisphere would be one way to reestablish fleet mobility in peacetime execution of the *Cooperative Strategy for 21st-century Seapower*. If a fight did break out in Korea or the Persian Gulf, a joint task force could be established and, per existing joint doctrine, the local numbered fleet would take over Joint Force Maritime Component Commander duties for the joint operations area.

Although the Navy, in its attempt to generate a global command perspective, is applying the various band-aid fixes that have been described in this article, a more comprehensive solution is needed in order to ensure a global command perspective is available when needed. Assuming that the reestablishment of Admiral Ernest King–like authorities for the CNO is no more politically feasible than eradicating current AOR boundaries, a new approach is called for. One possibility is to create a naval deputy to the Secretary of Defense who has defined authorities to direct intertheater movements and certain operations of naval forces. The advantage of such an arrangement is that this officer would be located in Washington, close to the other cabinet departments and the Pentagon's communications capabilities. An alternate solution might be to invest such authorities in the existing Navy component to U.S. Strategic Command, although the range of responsibilities and authorities would not be exactly compatible with those of the unified commander. Moreover, it adds a layer of command between the global naval commander and the national command authorities. In any case, the emerging global strategic environment cries out for an updated U.S. military command structure that can provide a global perspective to local operations and can conceive of and execute strategic maritime maneuver.

For armies, the three levels of war are not abstract constructions, but a command echeloning framework that emerged quite naturally as a function of the scale of operations enabled by industrialized warfare. However, this framework does not apply equally naturally to naval operations. In an era when naval operations were almost entirely auxiliary to land operations, the inconveniences were tolerable. In an era of global transnational threats, the Internet, and an emerging global competitor, the inconveniences are turning into operational and strategic vulnerabilities. The world has entered an era in which the seas are more than just extended communications zones between a land operation in Eurasia and the continental United States; they have attained strategic significance in and of themselves. Among other things, they are now a vast strategic and operational maneuver space, not only for us, but also increasingly for nations and groups hostile to the United States and to the global system of commerce and security that perpetuates our economic well-being and political values. If we are to avoid being outmaneuvered, we must overcome the maritime seams our former strategic success has created. Slicing the onion differently in terms of maritime command arrangements will help. **JFQ**

NOTES

[1] U.S. Navy, *A Cooperative Strategy for 21st-century Seapower*, October 2007, available at <www.navy.mil/maritime/Maritimestrategy.pdf>.

[2] John Prados, "Napoleon Bonaparte," in *The Reader's Companion to Military History*, ed. Robert Cowley and Geoffrey Parker (New York: Houghton Mifflin & Co., 1996), 322.

[3] There are three principal documents that were progressively issued during the 1990s: . . . *From the Sea* (September 1992), available at <http://www.globalsecurity.org/military/library/policy/navy/fts.htm>; *Forward . . . From the Sea* (1994), available at <www.dtic.mil/jv2010/navy/b014.pdf>; and *Forward . . . From the Sea, the Navy Operational Concept*, March 1997, available at <www.navy.mil/navydata/policy/fromsea/ffseanoc.html>.

[4] U.S. Army, TRADOC Pamphlet 525–5–500, "Commander's Appreciation and Campaign Design," January 28, 2008, page 5, paragraph e, concisely states the logic of the issue. Section 1–3 goes into detail on defining problems.

[5] See for example, Douglas Macgregor, "Future Battle: Merging the Levels of War," *Parameters* (Winter 1992/1993), 33–47; Elaine M. Grossman, "Developing Adaptive Army Leaders: 10 Questions for Don Vandergriff," *Inside the Pentagon*, March 15, 2007; Charles C. Krulak, "The Strategic Corporal: Leadership in the Three Block War," *Marines Magazine* (January 1999).

[6] Justin Kelly and Mike Brennan, *Alien: How the Operational Art Devoured Strategy* (Carlisle, PA: Strategic Studies Institute, 2010), 93.

[7] Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976), 177. Clausewitz has some pithy remarks concerning the coordination of strategy and operations that are apropos of the difficulties cited by Kelly and Brennan.

[8] Boyd never wrote a book on his theories. For a detailed analysis of his ideas, see Frans Osinga, *Science, Strategy and War: The Strategic Theory of John Boyd* (London: Routledge, Taylor and Francis Group, 2007).

[9] "In fact, I would argue that in the future struggles of the asymmetric counterinsurgent variety, we ought to make it a precondition of committing our troops, that we will do so only if and when the other instruments of national power are ready to engage as well." Admiral Michael G. Mullen, speech at Kansas State University, March 3, 2011, available at <www.cfr.org/defense-strategy/admiral-mullens-speech-military-strategy-kansas-state-university-march-2010/p21590>.

[10] Max Hastings, "Heroism Is No Substitute for an Afghan Strategy," *Financial Times*, December 20, 2010.