

JFQ

Joint Force Quarterly

Issue 82, 3rd Quarter 2016

Focus on Third Offset Strategy

China's Goldwater-Nichols?

Interagency Decisionmaking
During the *Mayaguez* Incident

Joint Force Quarterly

Founded in 1993 • Vol. 82, 3rd Quarter 2016
<http://ndupress.ndu.edu>

Gen Joseph F. Dunford, Jr., USMC, Publisher
MajGen Frederick M. Padilla, USMC, President, NDU

Editor in Chief

Col William T. Eliason, USAF (Ret.), Ph.D.

Executive Editor

Jeffrey D. Smotherman, Ph.D.

Production Editor

John J. Church, D.M.A.

Internet Publications Editor

Joanna E. Seich

Copyeditor

Erin L. Sindle

Book Review Editor

Dr. Frank G. Hoffman

Art Director

Marco Marchegiani, U.S. Government Printing Office

Advisory Committee

COL Michael S. Bell, USA (Ret.), Ph.D./College of International Security Affairs; LTG Robert B. Brown, USA/U.S. Army Command and General Staff College; Brig Gen Christopher A. Coffelt, USAF/Air War College; Col Keil Gentry, USMC/Marine Corps War College; BGen Thomas A. Gorry, USMC/Dwight D. Eisenhower School for National Security and Resource Strategy; Col Steven J. Grass, USMC/Marine Corps Command and Staff College; Brig Gen Darren E. Hartford, USAF/National War College; Col Brian E. Hastings, USAF/Air Command and Staff College; RADM P. Gardner Howe III/U.S. Naval War College; LTG William C. Mayville, Jr., USA/The Joint Staff; MG William E. Rapp, USA/U.S. Army War College; LtGen Thomas D. Waldhauser, USMC/The Joint Staff; RDML Brad Williamson/Joint Forces Staff College

Editorial Board

Richard K. Betts/Columbia University; Stephen D. Chiabotti/School of Advanced Air and Space Studies; Eliot A. Cohen/The Johns Hopkins University; COL Joseph J. Collins, USA (Ret.)/National War College; Mark J. Conversino/Air War College; Thomas P. Ehrhard/Office of the Secretary of Defense; Aaron L. Friedberg/Princeton University; Bryon Greenwald/Joint Forces Staff College; Col Thomas C. Greenwood, USMC (Ret.)/Office of the Secretary of Defense; Douglas N. Hime/Naval War College; Mark H. Jacobsen/Marine Corps Command and Staff College; Col Jerome M. Lynes, USMC (Ret.)/The Joint Staff; Kathleen Mahoney-Norris/Air Command and Staff College; Thomas L. McNaugher/Georgetown University; Col Mark Pizzo, USMC (Ret.)/National War College; James A. Schear/Office of the Secretary of Defense; LtGen Bernard E. Trainor, USMC (Ret.)

Printed in St. Louis, Missouri, by  UNIVERSAL
Printing Company

Cover 2 images (top to bottom): CH-47 Chinook assigned to 82nd Combat Aviation Brigade maneuvers over M119A3 light howitzer during Division Artillery Readiness Test, Fort Bragg, North Carolina, January 20, 2016 (U.S. Army/Christopher Freeman); Chief Aviation Ordnanceman is pinned by her wife during chief petty officer pinning ceremony in the hangar of Fleet Logistics Support Squadron (VRC) 30, Naval Air Station North Island, California, September 16, 2015 (U.S. Navy/Stephanie Smith); U.S. Marines with Battalion Landing Team, 3rd Battalion, 5th Marines, 31st Marine Expeditionary Unit, on demolitions range at Crow Valley, Philippines, during Amphibious Landing Exercise 15, October 8, 2015 (U.S. Marine Corps/Joseph DiGirolamo)



In this Issue

Dialogue

- 2 From the Chairman

Forum

- 4 Executive Summary
- 6 Securing the Third Offset Strategy: Priorities for the Next Secretary of Defense
By Timothy A. Walton
- 16 Twenty-First Century Information Warfare and the Third Offset Strategy
By James R. McGrath
- 24 Avoiding Becoming a Paper Tiger: Presence in a Warfighting Defense Strategy
By Elbridge Colby and Jonathan F. Solomon

JPME Today

- 33 Switching the Paradigm from Reactive to Proactive: Stopping Toxic Leadership
By Mike Rybacki and Chaveso Cook
- 40 Measuring Strategic Deterrence: A Wargaming Approach
By Douglas R. Ducharme

Commentary

- 47 A Way Ahead for DOD Disaster Preparedness
By Frank C. DiGiovanni
- 54 The U.S. Pacific Command Response to Super Typhoon Haiyan
By Thomas Parker, Sean P. Carroll, Gregg Sanders, Jason E. King, and Imes Chiu
- 62 #SocialMediaMatters: Lessons Learned from Exercise Trident Juncture
By Gregory M. Tomlin

Features

- 68 China's Goldwater-Nichols? Assessing PLA Organizational Reforms
By Phillip C. Saunders and Joel Wuthnow



About the Cover

Technical Sergeant Dean Criswell, 22nd Special Tactics Squadron NCOIC of rescue operations, signals to CH-47 Chinook from 1-214th Aviation Regiment, May 15, 2015, on Mount Rainier, Washington. Criswell, a pararescuer, was training Tactical Air Control Party Airmen on mountain rescue operations (U.S. Air Force/Tim Chacon)

- 76 What It Means to Be Expeditionary: A Look at the French Army in Africa
By Michael Shurkin
- 86 Sharpening Our Cultural Tools for Improved Global Health Engagement
By Suzanne Leclerc-Madlala and Maysaa Alobaidi
- 91 The Primacy of COG in Planning: Getting Back to Basics
By Steven D. Kornatz
- 118 The *Tao* of Doctrine: Contesting an Art of Operations
By G. Stephen Lauer
- 125 Joint Engineers Launch New Knowledge-Based Management Program
By Brian E. Griffin
- 128 JPME II Available at Satellite Sites
By Kenneth Pisel
- 132 Joint Doctrine Update

Recall

- 98 Abandon Ship: Interagency Decisionmaking During the *Mayaguez* Incident
By Richard B. Hughes

Book Reviews

- 106 *National Insecurity and What Good Is Grand Strategy?*
Reviewed by Brian C. Collins
- 108 *Blood Year*
Reviewed by Thomas C. Greenwood
- 110 *The U.S.-China Military Scorecard and China's Military Power*
Reviewed by Thomas McNaugher

Joint Doctrine

- 112 The Multinational Interoperability Council: Enhancing Coalition Operations
By Michelle L. Pryor, Thomas Labouche, Mario Wilke, and Charles C. Pattillo, Jr.

Joint Force Quarterly is published by the National Defense University Press for the Chairman of the Joint Chiefs of Staff. *JFQ* is the Chairman's flagship joint military and security studies journal designed to inform members of the U.S. Armed Forces, allies, and other partners on joint and integrated operations; national security policy and strategy; efforts to combat terrorism; homeland security; and developments in training and joint professional military education to transform America's military and security apparatus to meet tomorrow's challenges better while protecting freedom today. All published articles have been vetted through a peer-review process and cleared by the Defense Office of Prepublication and Security Review. NDU Press is the National Defense University's cross-component, professional military and academic publishing house.

The opinions, conclusions, and recommendations expressed or implied within are those of the contributors and do not necessarily reflect the views of the Department of Defense or any other agency of the Federal Government.

Submissions and Communications

JFQ welcomes submission of scholarly, independent research from members of the Armed Forces, security policymakers and shapers, defense analysts, academic specialists, and civilians from the United States and abroad. Submit articles for consideration to ScholarOne, available at <https://mc04.manuscriptcentral.com/ndupress>. Or write to:

Editor, *Joint Force Quarterly*

NDU Press
260 Fifth Avenue (Building 64, Room 2504)
Fort Lesley J. McNair
Washington, DC 20319

Telephone: (202) 685-4220/DSN 325
Email: JFQ1@ndu.edu

JFQ online: www.dtic.mil/doctrine/jfq/jfq.htm

3rd Quarter, July 2016
ISSN 1070-0692



Soldier with Joint Forces Command–United Assistance, assigned to Headquarters and Headquarters Battalion, 101st Airborne Division (Air Assault), holds up U.S. flag during promotion and reenlistment ceremony, January 1, 2015, at Barclay Training Center, Monrovia, Liberia (U.S. Army/Rashene Mincy)

Upholding Our Oath

As the Chairman of the Joint Chiefs of Staff, I am honored to represent the extraordinary Soldiers, Marines, Sailors, Airmen, and Coastguardsmen who make up the Joint Force. Throughout my travels and engagements, I continue to be inspired by your professionalism, your commitment to defending the Nation, and your adaptiveness in encountering the security challenges our country faces.

Meeting the challenges of today’s dynamic and demanding operating environment while preparing the Joint Force to win future fights remain a team effort. This must remain our number one priority, and I continue to devote my time, focus, and energy to this effort. At the same time, as our country again prepares

for a peaceful transfer of power to a new administration, I write to share my views regarding our mutual obligations as military professionals and rights as citizens during this election season.

Our Values

Every Servicemember swears “to support and defend the Constitution of the United States” and to “bear true faith and allegiance to the same.” This oath is embedded in our professional culture and underpins the values that shape and define our all-volunteer force. Beginning with General George Washington resigning his military commission, our deliberate and disciplined commitment to upholding the principle of civilian control of the military under-

pins not only our warrior ethos but also the expectations of how we conduct ourselves while in uniform.

Our Responsibilities and Conduct

As military professionals, our most important asset is the trust of and credibility with the American people. While we must always safeguard our professional integrity, extra vigilance is required during any political transition. Our individual and collective obligation during this election season is twofold. First, we must recognize that we have one Commander in Chief, and until authority is transferred on January 20, 2017, the Joint Force must remain clearly focused on and responsive to the



Soldier fills out absentee ballot form during voting assistance drive at Camp As Sayliyah, Qatar (U.S. Army/Dustin Senger)

existing National Command Authority. Second, the Joint Force must conduct itself in such a way that the new administration has confidence that it will be served by a professional, competent, and apolitical military. This is especially important in the context of delivering the best military advice.

Civic Participation

Every member of the Joint Force has the right to exercise his or her civic duty, including learning and discussing—even debating—the policy issues driving the election cycle and voting for his or her candidate of choice. Provided that we follow the guidance and regulations governing individual political participation, we should be proud of our civic engagement. What we must collectively guard against is allowing our institution to become politicized, or even perceived as being politicized, by how we conduct ourselves during

engagements with the media, the public, or in open or social forums.

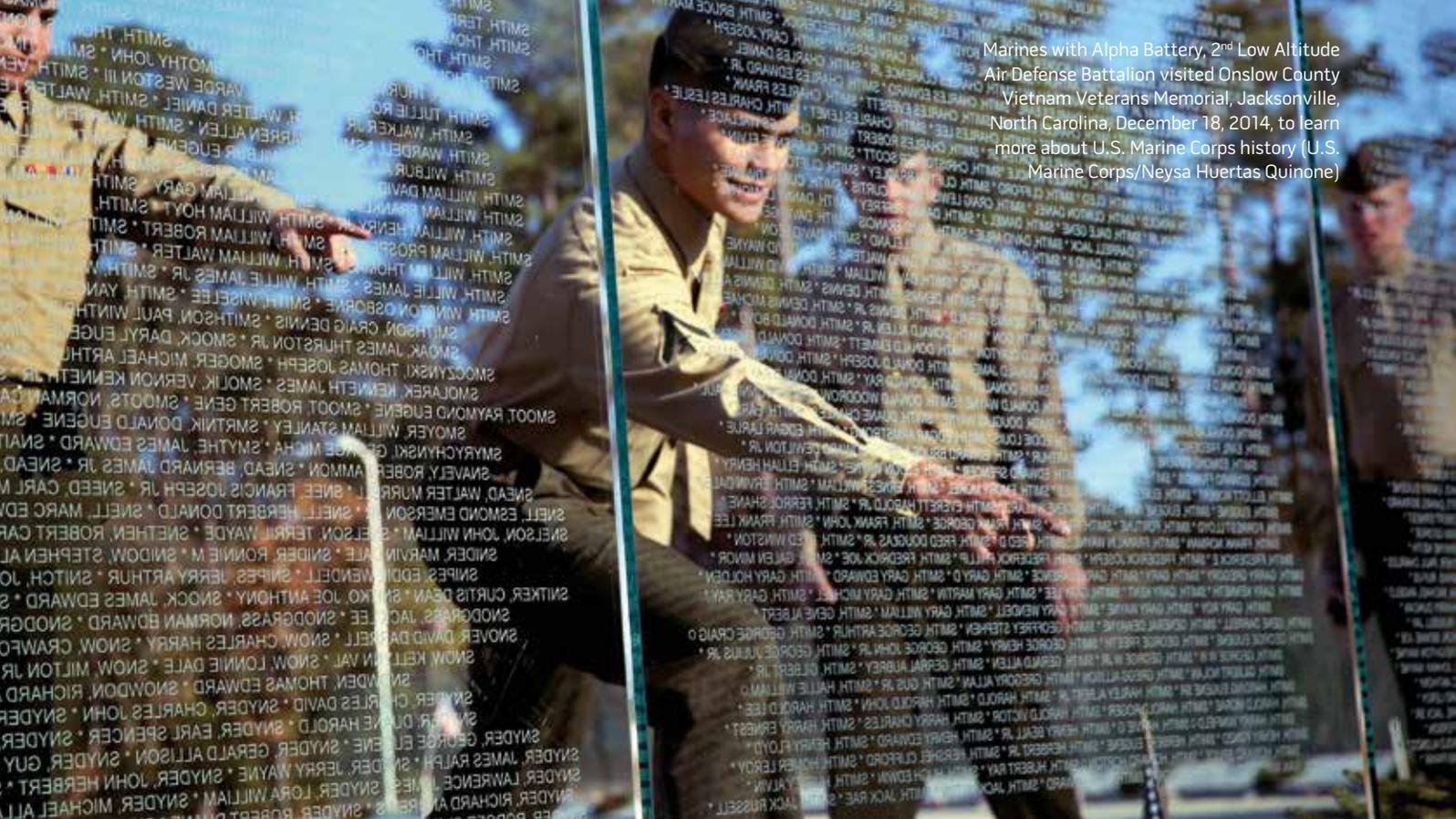
Closing

We are living in the most volatile and complex security environment since World War II. Whether confronting violent extremist organizations seeking to destroy our way of life or dealing with state actors threatening international order, threats to our national security require a Joint Force that is ready, capable, and trusted. To that end, I have a duty to protect the integrity and political neutrality of our military profession. But this obligation is not mine alone. It belongs to every Soldier, Marine, Sailor, Airman, and Coastguardsman. Thank you for joining me in honoring our history, our traditions, and the institutions of the U.S. Armed Forces by upholding the principle of political neutrality.

It is an honor to serve as your Chairman, and I look forward to hearing from you. JFQ

GENERAL JOSEPH F. DUNFORD, JR.
Chairman of the Joint Chiefs of Staff





Marines with Alpha Battery, 2nd Low Altitude Air Defense Battalion visited Onslow County Vietnam Veterans Memorial, Jacksonville, North Carolina, December 18, 2014, to learn more about U.S. Marine Corps history (U.S. Marine Corps/Neysa Huertas Quinone)

Executive Summary

History seems to have a greater attraction as we age. As the past stretches out, we often look to it in order to relate our experiences today to those we fondly (or not so fondly) remember. Recently, I was asked if *Joint Force Quarterly* could include more warfighting articles, particularly those that have a historical focus. I readily responded that we always are interested in such pieces, but we receive few submissions for our Recall section. A simple enough proposition, but in execution one that is fully dependent on inputs from our audience. I have frequently remarked that such articles have a much higher chance of acceptance for publication because we receive so few warfighting articles in comparison to what we publish.

I am not sure why our authors do not write about the past as much as the present and the future. History has a great deal to offer, especially to those who have yet to experience similar events. It can be

reexamined and even rewritten in light of new information found in archives or in the stories of those who experienced events and are willing to tell their stories. Consider the survivors of the atomic age from Hiroshima to the veterans of open-air testing. What do their experiences have to tell us about the cost of deterrence in the 21st century? Even our most recent wars have stories yet to be told but will be critical in evaluating what our future force should be and do. History is exactly where we should be drawing our understanding of how to deal with our increasingly complex world. Theories are useful only if they can be tested and validated. In many cases, we already know what the outcomes are because we have examples that can be reviewed for a wealth of understanding, often paid for in lives lost. We owe it to our future force to review the past carefully against our plans for the future because not everything changes just because we think it does. As one of my mentors once told me, history

does not repeat in detail, but it does rhyme. We welcome what you have to say on the value of history, especially regarding joint operations, as the U.S. military has a wealth of those to review. I know of no better way to gauge the progress we are making on the future force than to look at where we have been.

This issue's Forum focuses on the future of U.S. defense strategy with three articles that suggest how Department of Defense (DOD) leadership might guide efforts already under way. In discussing the defense budget for fiscal year 2017, Deputy Secretary of Defense Robert Work and Vice Chairman of the Joint Chiefs of Staff General Paul Selva, USAF, identified a number of security issues that the United States will face going forward. These issues include not only a likely return to great power competitions but also continuing security challenges from Russia, China, North Korea, Iran, and terror groups. One of the phrases that these three articles focus on is the DOD

effort to “offset [its] strengths using new technological, operational, and organizational constructs to achieve a lasting advantage and to strengthen deterrence.” As the Obama administration comes to a close, Timothy Walton offers the next Secretary of Defense a priority list aimed at achieving this Third Offset Strategy. One of the keys to figuring out this strategy, according to the Vice Chairman, is modeling and simulation, and James McGrath suggests a way to use these tools to enhance our information operations as a part of the overall strategy. Elbridge Colby and Jonathan Solomon next suggest that the mission of presence is essential to achieve any warfighting defense strategy that might emerge in the future.

Our JPME Today section offers two significant papers on different topics, which I believe should be widely read and used in the classroom across the JPME community and beyond. Mike Rybacki and Chaveso Cook offer a framework for addressing the persistent issue of toxic leadership in the military. The Naval War College’s Douglas Ducharme next describes how wargaming can offer a method for measuring strategic deterrence, a concept that everyone acknowledges as key to a defense strategy, but few have been able to fully analytically show its impact.

In Commentary, we have views from around the globe and the Pentagon on how to deal with disasters and integrate social media into military operations. As we often focus on combat overseas, being trained and ready for disasters at home and abroad is a primary mission for the joint force. As Director of Force Training in the Assistant Secretary of Defense for Readiness office, Frank DiGiovanni provides his unique perspective on how best to achieve this requirement. A little over 5 years ago, Japan was struck by Super Typhoon Haiyan, which resulted in a wide range of recovery requirements, many of which were more than Japan could deal with alone. The U.S. Pacific Command response was crucial in helping Japan cope with this massive disaster, as Thomas Parker, Sean Carroll, Gregg Sanders, Jason King, and Imes Chiu describe, with important takeaways for planners of future recovery operations

at home and abroad. For an increasing number of our military, the use of social media has outpaced our traditional communications channels in significant ways. Gregory Tomlin provides us a look into a recent North Atlantic Treaty Organization exercise Trident Juncture, which incorporated social media into operations with interesting and insightful results.

From China and Africa to continuing our discussions on global health engagement and planning, our Features section covers it all. First, Phillip Saunders and Joel Wuthnow, from the Center for the Study of Chinese Military Affairs at the National Defense University, an important source for insightful work on China’s rise, present an article on China’s ongoing efforts to reform the People’s Liberation Army. Michael Shurkin writes that recent events in Africa that require external security assistance have involved the deployment of the French army in ways that might prove educational to other forces. In a follow-up article to *JFQ* 80’s focus on global health engagement, Suzanne Leclerc-Madlala and Maysaa Alobaidi provide us with suggestions on how to improve cultural awareness, which is crucial to the success of these efforts. Always a favorite topic here at *JFQ* in the past, and among students and practitioners of the art of planning, Steven Kornatz writes about refocusing on the center of gravity through a back-to-basics approach.

In a brief but important moment in U.S. history in the immediate aftermath of the final withdrawal from Vietnam in 1975, President Gerald Ford was faced with a rapid onset crisis in that region. Richard Hughes takes us back to those events with a discussion on how the interplay of agencies and departments in the U.S. Government dealt with the seizure of Americans in South East Asia in the *Mayaguez* Incident. As an aside and to reiterate, when I am asked about the submission process at *JFQ*, I often remark that the easiest way to get published in the journal is to write a history piece because we receive so few submissions on history-related topics. Luckily, each of these pieces tends to be well written and researched, which is why the acceptance rate

among Recall articles is nearly 100 percent. I recently began a concerted effort to seek out submissions that incorporated themes of warfighting and history, which has been the focus of our Recall section in *JFQ* from the beginning. With your help, I anticipate a growing number of submissions that will help our readers get a better sense of history, warfighting, joint operations, and how these topics matter to successful future missions.

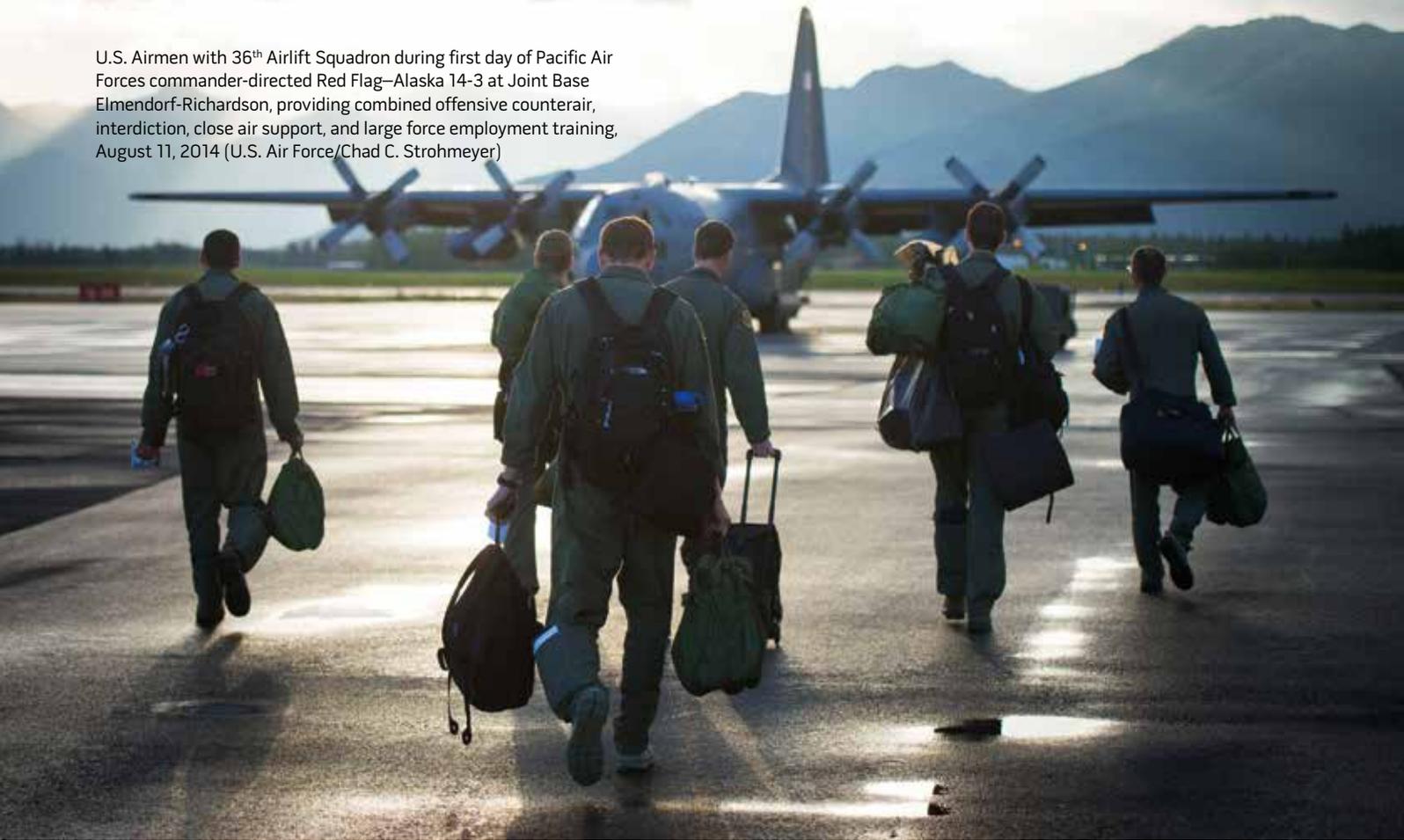
Our book review editor, Dr. Frank Hoffman, has once again lined up three great reviews by three longtime supporters of *JFQ* who will no doubt cause you to consider adding these titles to your reading list. As a disclaimer, Tom Greenwood and Tom McNaugher are members of our editorial board.

Our Doctrine section has three important pieces along with the Joint Doctrine update from the Joint Staff. Michelle Pryor, Thomas Labouche, Mario Wilke, and Charles Pattillo, Jr., suggest the best means for improving coalition operations lies in the effective organization of the Multinational Interoperability Council. On doctrine itself, Stephen Lauer guides us into the metaphysical side of operational planning as it relates to doctrine’s use. Brian Griffin gives us a brief explanation of a key new joint logistics capability that will greatly assist loggies, staffs, and commanders alike. Finally, Kenneth Pisel of the Joint Forces Staff College discusses recent developments in Joint Professional Military Education, Phase II.

We look forward to your thoughts on these articles. Whether you are commenting on the future force or retelling the story of past joint operations, *Joint Force Quarterly* is here for your use to stir creative thinking and debate, to further solidify the bond of jointness among the Services, and to strengthen the bonds of teamwork necessary with our friends and allies across the globe. Let us know what you find in our history that engages you so your ideas can be considered by the more than 120,000 quarterly online *JFQ* readers worldwide. *JFQ*

WILLIAM T. ELIASON
Editor in Chief

U.S. Airmen with 36th Airlift Squadron during first day of Pacific Air Forces commander-directed Red Flag–Alaska 14-3 at Joint Base Elmendorf-Richardson, providing combined offensive counterair, interdiction, close air support, and large force employment training, August 11, 2014 (U.S. Air Force/Chad C. Strohmeyer)



Securing the Third Offset Strategy

Priorities for the Next Secretary of Defense

By Timothy A. Walton

Following a process of examining strategy, scenarios, and assessments, this article identifies for the next Secretary of Defense eight capability statements that merit attention as the Department of Defense's (DOD's) top new investment priorities as part of the Third Offset Strategy in the fiscal year 2018 budget and beyond. Additionally, this article recommends that reforms to the analytical processes informing force

planning decisions in general and the Third Offset Strategy in particular be guided by increased selectivity, transparency, and commonality.

Setting the Course

In November 2014, then-Secretary of Defense Chuck Hagel announced a new Defense Innovation Initiative, which included the Third Offset Strategy. The initiative seeks to maintain U.S. military superiority over capable adversaries through the development of novel capabilities and concepts. Secretary Hagel modeled his approach on the

First Offset Strategy of the 1950s, in which President Dwight D. Eisenhower countered the Soviet Union's conventional numerical superiority through the buildup of America's nuclear deterrent, and on the Second Offset Strategy of the 1970s, in which Secretary of Defense Harold Brown shepherded the development of precision-guided munitions, stealth, and intelligence, surveillance, and reconnaissance (ISR) systems to counter the numerical superiority and improving technical capability of Warsaw Pact forces along the Central Front in Europe.

Timothy A. Walton is a Fellow in the Center for Strategic and Budgetary Assessments.

Secretary of Defense Ashton Carter has built on Hagel's vision of the Third Offset Strategy, and the proposed fiscal year 2017 budget is the first major public manifestation of the strategy: approximately \$3.6 billion in research and development funding dedicated to Third Offset Strategy pursuits.¹ As explained by Deputy Secretary of Defense Bob Work, the budget seeks to conduct numerous small bets on advanced capability research and demonstrations, and to work with Congress and the Services to craft new operational concepts so that the next administration can determine "what are the key bets we're going to make."²

The next Secretary of Defense will have the opportunity to make those big bets. However, what should he or she bet on? In response, this article answers two related questions. First, what sorts of military capabilities should receive top priority for *new* investments? Second, what changes should be made to the analytical processes supporting force planning decisions? In identifying capabilities that merit the greatest emphasis, this article examines relevant strategy, scenarios, and assessments to identify insights regarding current and future operational needs.³ While not comprehensive, this article aims to direct activity toward the highest priority areas and illuminate a way forward for the next Secretary of Defense.

U.S. Strategy

The Defense Strategic Guidance (DSG) articulated 10 missions the joint force must accomplish in the future.⁴ These missions include the ability to:

- deter and defeat aggression
- project power despite antiaccess/area-denial (A2/AD) challenges
- operate effectively in cyberspace and space.

The follow-on 2014 Quadrennial Defense Review confirmed the importance of these missions and called for the joint force to "project power and win decisively" in spite of "increasingly sophisticated adversaries who could employ advanced warfighting capabilities."⁵ However, capable adversaries are adopting potent A2/AD strategies that

are challenging U.S. ability to ensure operational access. Although a future Presidential administration probably will create its own defense strategy documents, these enduring requirements and challenges will likely continue.

The People's Republic of China (PRC) has developed powerful forces capable of challenging the U.S. ability to project power, deter and defeat aggression, and operate effectively in different domains, as called for by U.S. defense strategy documents. The scale and sophistication of the PRC threat, coupled with an overall Comprehensive National Power capable of rivaling that of the United States, result in a near-peer threat that is rapidly adopting peer characteristics. The ability of the United States to counter Chinese aggression and project power is essential to its ability to advance its interests and sustain its partnerships.

There are valid reasons for developing unique capabilities necessary to counter grave threats not related to China. Multiple states, including Russia and Iran, are fielding potent A2/AD capabilities, and it is likely that many A2/AD capabilities will proliferate globally. The threat posed by Russian aggression to North Atlantic Treaty Organization (NATO) Allies—especially in the Baltics—is particularly worrisome. A recent series of RAND wargames unambiguously concluded that "as presently postured, NATO cannot successfully defend the territory of its most exposed members."⁶ While addressing this threat will require improvements in the posture and capacity of the force, it will also require the development of new capabilities that may not overlap with the capabilities necessary to counter Chinese aggression in most China-focused scenarios. For example, ground maneuver forces likely require new capabilities to engage enemy forces at range and in mass with different types of fires. Furthermore, the continued growth of the Islamic State of Iraq and the Levant and other terrorist groups around the world threatens to endanger not only U.S. interests abroad but also U.S. citizens at home. This threat is magnified by the potential of terrorists to be armed

with weapons of mass destruction. Unique capabilities to counter these threats may need to be developed.

Ultimately, however, the ability of the United States to deter and defeat PRC aggression serves as a bellwether for U.S. capabilities worldwide. By developing the ability to deter and defeat the pacing threat of the PRC, the United States will ensure that it not only has the fundamental capabilities necessary to defend its allies and advance its interests in the Asia-Pacific but that it also has many of the capabilities necessary to counter most other types of aggression worldwide. Consequently, to innovate and develop new capabilities, DOD should aggressively focus the majority of its attention and resources on those capabilities necessary to excel in relevant scenarios involving China.

Selecting Scenarios

While multiple planning scenarios with land, maritime, and air components involving China merit examination and may reveal distinct operational needs, the defense of Taiwan should be the lead planning scenario for DOD to identify operational needs. Strategically, even if conflict in Taiwan never takes place, it is perceived as a potential major scenario involving the United States, and the perceived capability of the United States to deter and defeat aggression underpins U.S. alliance relationships. Overall, the United States strategically requires a demonstrated ability to defend its allies and partners to support its security guarantees and advance its interests. Additionally, in the defense of Taiwan, the United States has a crucial intersection of interests, objectives, and capabilities that result in a critical planning scenario.

Operationally, to a greater degree than other possible scenarios involving China, the People's Liberation Army (PLA) can leverage short-range and interior lines of communication to employ an enormous capacity of forces to attempt to compel capitulation or to invade and occupy Taiwan. Additionally, the United States may receive little indication and warning of an impending Chinese attack,



Defenders from 790th Missile Security Forces Squadron Tactical Response Force take up defensive positions, April 14, 2016, as they prepare to advance toward launch facility during exercise in F.E. Warren Air Force Base, Wyoming, Missile Complex (U.S. Air Force/Brandon Valle)

further complicating its ability to support the defense of Taiwan.

In light of this challenging situation, prudence demands the United States employ it as a planning scenario. This is not to say a potential conflict with China would likely remain localized to the Western Pacific. On the contrary, it would likely involve overt and covert conflict across the globe, as well as in space and cyberspace, and DOD must plan accordingly. However, if the United States can succeed in the defense of Taiwan scenario, it is likely to have many of the constituent elements and concepts necessary to win in other scenarios involving China—such as conflict in the South China Sea or East China Sea—or scenarios involving other countries.⁷

This analysis uses a notional 2020–2025 defense of Taiwan scenario, which seeks to capture, at a general level, expectations regarding how forces might be employed. An overall concept of operations (CONOPS) for the defense

of Taiwan might seek first to deter PRC aggression via deployment of forces in a resilient warfighting posture and the communication of the general costs of conflict. Specifically, disruption to peace and stability in the international order would lead to dislocation from it.

Then, if deterrence fails, U.S. forces would employ geographically distributed units to prevent a successful PRC invasion of Taiwan, counter compellent forces, support Taiwanese survival, and apply direct pressure via strikes against PRC power projection forces and indirect pressure via an extended blockade and other elements of a whole-of-government response. Specifically, operational lines of effort may include disrupting, deceiving, and destroying PRC over-the-horizon (OTH) ISR capabilities; defeating a PRC amphibious invasion; constraining and eventually defeating a PRC naval fleet; defending allies and partners as possible, with a focus on protecting power projection nodes; dislocating the PRC from

the international economy by interdicting trade and reorganizing trading structures; and resupplying Taiwan as possible.

At the same time, Taiwan would defend itself by preventing the landing of enough PLA combat power to sustain an invasion and by countering those troops that do arrive. To that end, Taiwan would be well served to pursue a strategy that increases the difficulty of conducting an invasion. One approach, described in a recent report from the Center for Strategic and Budgetary Assessments, would develop resilient sea and air denial capabilities, layered ground defenses, and counter–command, control, communications, computer, intelligence, surveillance, and reconnaissance (C4ISR) systems to prevent the landing of enough PLA combat power and reduce its effectiveness once on the ground.⁸

Overall, the scenario would likely feature a U.S. commitment to swiftly counter PRC aggression, backed by the commitment to conduct a prolonged,

global compelling campaign as necessary.⁹ It is possible that in the defense of Taiwan scenario, U.S. forces could rely more heavily on indirect approaches, such as an extended blockade. However, more directly responsive operational alternatives must be examined. Their inclusion in a suite of response options for national leadership represents the minimum acceptable level of military planning, especially as they may be required to counter immediate, existential threats to allies or partners, such as that posed by an invasion.

Assessment of the Force

Assessments of the performance of the programmed joint force against advanced adversaries such as China or Russia reveal significant challenges as a confluence of three factors that would exacerbate existing deficiencies. First, sophisticated A2/AD systems will likely proliferate to a larger number of countries than currently field them. Second, A2/AD battle networks (sensors; command, control, and communications; and weapons) will mature and improve in sophistication and regional and global coverage. Third, China will likely continue to develop capabilities, posture, and forces more suited to global power projection, moving beyond most current estimates of regional hegemony. China's 2015 defense strategy confirmed this shift to a force capable of enhanced power projection.¹⁰ This destabilizing "Anti-Access Enabled Power Projection Force" has the potential of posing major challenges for the United States in not only East Asia but also other regions of the world through the extended range of mainland China-based weapons and sensors, the global mobility of other antiaccess systems, and the development of global power projection and sea control forces, such as surface action groups, amphibious and carrier battlegroups, nuclear-powered attack and guided-missile submarines, and long-range aerial refueling and strike aircraft.¹¹

The defense of Taiwan scenario is highly challenging for U.S. forces and entails the assumption of high levels of

risk. Both traditional and alternative CONOPS that could be employed are relatively brittle and vulnerable to enemy disruption and deception. Additionally, U.S. forces face at least four major operational problems:

- ports and airfields are at risk of air and missile strikes
- networked integrated air defense systems (IADS) restrict the area of operation for supporting and strike aircraft
- carrier strike groups can be tracked and engaged at significant ranges that limit the offensive power generated by the carrier air wing
- both the space and the cyber domains are contested.

Additionally, perceived U.S. advantages in military competitions, such as undersea warfare, air superiority, and secure C4ISR, are eroding due to symmetric and asymmetric counters adopted by the PLA. Moreover, the geographical and environmental conditions of the Western Pacific, and the Taiwan Strait in particular, facilitate PLA defensive concepts and likely complicate the ability of the United States to employ certain assets, such as attack submarines, in particular concepts of employment. In other areas, such as surface warfare, ground-based offensive fires, electronic warfare, and integrated air and missile defense, the United States faces marked deficiencies vis-à-vis PRC threats.¹²

A 2015 RAND report assessed the Sino-American balance of power in the context of two scenarios: a Taiwan invasion and a Spratly Islands campaign. It observed that "the advantages conferred by proximity severely complicate U.S. military tasks while providing major advantages to the PLA."¹³ While the report emphasized that there are many actions that the United States could take to reinforce deterrence and provide stability in the region, its sobering conclusion stressed that "over the next five to 15 years, if U.S. and PLA forces remain on roughly current trajectories, Asia will witness a progressively receding frontier of U.S. dominance."¹⁴

Top Priorities for New Investments

The above process of examining strategy, scenarios, and assessments illustrates the enormous challenges facing DOD plans for the defense of Taiwan. The exercise, however, has also provided focused insights on operational needs in terms of military capabilities and novel concepts of operation.

The following section identifies military capabilities that should receive top priority for new investment as the core capabilities the Third Offset Strategy. The section aims for a finite set of concise statements of need for new capabilities to accomplish operational tasks. If employed with new concepts of operation, they have the potential to offset adversary advantages and increase the likelihood of U.S. success in the defense of Taiwan and other possible contingencies.

In Chinese culture, the number eight is most auspicious. Accordingly, this article has selected eight statements that reflect the most urgent needs of future commanders. Some of the capability statements will subsequently present associated inputs, that is, types of systems. The following descriptions do not preclude a formal examination of options or analysis of alternatives for each capability statement, but rather reflect a preliminary assessment of promising alternatives, which may be useful as the Office of the Secretary of Defense (OSD) guides accelerated initiatives to address these urgent operational needs.

Strike Fixed and Mobile Targets Defended by Robust IADS from Long Range. In the defense of Taiwan scenario, U.S. power projection requires the ability to destroy key targets inside and outside of China. Among others, OTH ISR and space-situational awareness sensors enable China's A2/AD capabilities and severely constrain U.S. joint operational access. Given the importance of these and other targets, they are likely defended by advanced, robust IADS, which challenge U.S. ability to penetrate defenses, launch weapons, and have weapons successfully strike their targets. This difficulty in striking targets on land increasingly applies to mobile targets at



Members of 576th Flight Test Squadron monitor operational test launch of unarmed Minuteman III missile, March 27, 2015, at Vandenberg Air Force Base, California (DOD/Michael Peterson)

sea, as a combination of ship-borne and land-based defenses poses the same problem for naval strike missions.

In response, DOD should consider developing two new unit classes. First, DOD should develop conventionally armed intermediate nuclear forces—compliant and noncompliant intermediate-range missiles (maneuvering re-entry vehicle ballistic missiles and boost-glide vehicles, respectively) capable of penetrating the most advanced and robust IADS to strike their targets or the IADS themselves. Missiles could be fired from different platforms: ground-based U.S. Army units in the First and Second Island Chain, naval surface platforms (including commercial-standard Handysize freighters), or submarines.¹⁵ If fielded in sufficient numbers, these theater weapons could credibly penetrate defenses and provide a resilient offensive fire capability.

Second, DOD should develop sufficient numbers of an all-aspect, low-signature long-range bomber (that

is, the B-21) capable of cooperating with other systems to penetrate defenses and fire sufficient numbers of new short-range, stand-off weapons to overwhelm advanced point defenses. The combination of new long-range missiles and bombers (with supporting systems) would improve U.S. ability to degrade enemy defenses and exploit them with volume precision fires.

Provide Robust and Resilient Terminal Defense Against Structured Attacks of Theater Air and Missile Threats. In this scenario, the United States requires the ability to defeat structured attacks of PLA air and missile threats. While the capacity of the PLA's structured attack threatens to overwhelm defenses at locations near Chinese launch points (throughout many areas of the First Island Chain), the ability of U.S. and friendly forces to sustain a degree of protection (thus denying enemy air superiority, even in the First Island Chain) could complicate

the PLA's attack calculus and compel a reliance on a smaller inventory of longer range standoff precision-guided munitions. Even more importantly, in the Second and Third Island Chains, the ability of defenses to counter the more limited numbers of PRC weapons able to reach these areas is essential to preserving the ability of the joint force to operate from this area.

While wide-area defenses against cruise and ballistic missiles are beneficial for the defense of military forces and partner and ally populaces, preliminary assessments suggest they face significant challenges, including difficulty establishing complex kill chains to intercept missiles at long range during combat conditions, the large size of long-range interceptors, and relatively higher costs compared to current and projected terminal defenses. Therefore, relative increases in investment should be largely devoted to short-range or terminal defenses instead of wide-area defenses.

In response, DOD should consider developing improved defense capabilities for naval combatants and ground forces. These include more plentiful missile and gun-based defensive systems, high-powered microwave weapons, lasers, jammers, and electronic decoys. Additionally, DOD should improve passive or lower probability of intercept/lower probability of detection surveillance and targeting capabilities for these weapons and improve joint force track integration and battle management capabilities. To be successful, these active defenses must be complemented by a dedicated commitment to passive defenses: dispersal and displacement of forces, hardening of key infrastructure, camouflage, concealment, deception, and rapid reconstitution capabilities.

Conduct Persistent ISR in A2/AD Environments. U.S. forces require the ability to credibly detect PRC power projection and strike forces and weapons, thus discriminating true targets from feints and decoys and cueing other forces to surveil or strike. Persistent ISR in A2/AD environments is challenging due to the range and sophistication of multidomain A2/AD threats—including China’s ability to jam or destroy radars and communications—and to the decreased force gradient caused by operating platforms—in particular aircraft—from a distance.

In response, DOD should consider developing and deploying new capabilities leveraging multiple sensor phenomenology. Options include ground-based high-frequency OTH and S- or L-band multistatic radars, low-signature high-altitude long endurance (HALE) unmanned aircraft systems (UAS), and fixed and distributed undersea sensors and unmanned underwater vehicles (UUV).

Provide Secure Long-Distance Communications and Positioning, Navigation, and Timing (PNT). Long-distance communications and PNT capabilities are essential for commanding units, integrating forces, navigating, and executing certain kill chains during operations in the region. The U.S. defense communications architecture is



Unarmed Minuteman III ICBM accelerates toward test range near Guam after launching from Vandenberg Air Force Base, March 27, 2015 (DOD)

vulnerable to PRC disruption, deception, or destruction; in particular, orbital satellites and sea cables are vulnerable to enemy attack, with major deleterious effects on U.S. forces.

In response, DOD should consider developing new, more survivable communications and PNT capabilities. Promising alternatives include ground-based global positioning system pseudolites, HALE UAS, and improved inertial and celestial navigation capabilities.

Contain and Destroy Naval Forces. The United States must be able to not only interdict a PRC amphibious invasion force but also restrict the movement of PLA Navy (PLAN) forces within the

First Island Chain—and beyond—and destroy them as necessary. As with other capability statements, this requirement extends to other scenarios involving the PRC. Currently, U.S. advantages in undersea warfare are being addressed by PLAN anti-submarine warfare efforts, which could potentially limit the freedom of action of U.S. submarines during hostilities. Additionally, the ability of U.S. surface combatants to conduct offensive sea control has degraded relative to the ability of PLAN combatants, and U.S. surface-based warfare is concentrated in high-value surface combatants that may face difficulty operating within the A2/AD envelope.



U.S. Air Force F-22 Raptor flies over Arabian Sea in support of Operation *Inherent Resolve*, January 27, 2016 (U.S. Air Force/Corey Hook)

In response, DOD should consider focusing on three lines of effort. Regarding surface combatants, promising options include deploying new long-range combination land-attack/anti-ship missiles to a range of surface combatants, submarines, and aircraft (such as the B-2 and B-21), adding the ability to conduct vertical launch system reload under way or in forward anchorages (so as to improve the overall combat potential of the fleet and enable distributed and forward logistics), and disaggregating some combat power into new classes of small surface combatants (ranging from the Navy's proposed frigate to fast attack craft).

Regarding undersea naval forces, DOD should focus on developing numerous ISR and lethal autonomous UUVs, advanced sensors, and mines. DOD should also increase funding for attack submarine production.

Regarding land forces, DOD should focus on the role Army sensors and strike weapons could play in targeting naval combatants. Key forces include ground-launched coastal defense cruise or ballistic

missiles (both modifications of short-range missiles such as the Army Tactical Missile System and development of new intermediate-range missiles) and anti-submarine rocket torpedoes.

Provide Long-Range, Long-Endurance Carrier-Based Naval Air Forces. Naval air forces play a crucial role in the defense of Taiwan scenario by providing air support to other naval forces, strike against enemy surface combatants inside and outside the First Island Chain, broad-area surveillance of the maritime space, offensive counter-air escort and airborne electronic attack for bomber missions, and supplemental defensive counter-air for Second Island Chain bases. The need for sea-based airpower would especially grow if airbases on land are under attack. However, limitations in aircraft range and type among the current and projected carrier air wing restricts the utility of the carrier as a system, especially in missions in which large, long-range sorties are required and Air Force tanking is unavailable.

In response, DOD should develop capabilities for maximizing the utility of

the carrier as a system, with calculated improvements to the carrier ship, the carrier air wing, and other supporting ships. Regarding the carrier air wing—the most critical area for improvement—investments should be focused on those capabilities that increase striking range, provide new sea control capabilities (for maritime strike and surveillance), and integrate new munitions and sensors.¹⁶ This includes a stealthy, long-range, and unmanned surveillance-strike aircraft.

Operate Air and Naval Forces from an Increased Number of Resilient and Dispersed Air and Sea Locations in the Asia-Pacific Region. In the defense of Taiwan scenario, U.S. ability to operate from a range of locations in the First, Second, and Third Island Chains complicates the PRC's attack calculus and enables U.S. power projection. Currently, U.S. forces are concentrated in a limited number of largely unhardened bases, which facilitates PLA structured attack.

In response, DOD should develop and exercise the ability to operate air and naval forces from dispersed clusters of air and naval locations in the First,

Second, and Third Island Chains. A more distributed posture in the First Island Chain would complicate enemy targeting. Also, a more distributed and hardened posture in the Second Island Chain would complicate targeting and provide credible force-generation nodes. Lastly, select operating locations in the Third Island Chain (such as Australia, the Aleutians, and Central Pacific islands west of Hawaii) would reduce trans-Pacific sustainment requirements and provide for rapid contingency tanking and attrition reserve reinforcements to the Second Island Chain.

These recommendations apply to both air forces and naval forces, which also face logistical constraints operating from a distance. The proposed distributed posture would utilize active and passive defenses and measures as appropriate. Necessary capabilities include improvements in combat logistics force capabilities, offshore and inland petroleum distribution systems, vertical launching system reload, runway rapid preparation and repair, and intratheater lift. Although this capability statement might normally be considered a posture statement, the numerous subordinate capability requirements associated with this overall capability and the major importance of this effort elevate it to one of these top priorities.

Precisely Disrupt, Deceive, and Destroy C4ISR Systems and Defend Against Similar Capabilities. The ability to precisely disrupt, deceive, and destroy Chinese C4ISR systems would have tactical, operational, and strategic relevance. Open sources indicate that Chinese forces are assiduously preparing to wield similar capabilities and fight in “complex electromagnetic conditions.” Major U.S. secure command and control (C2) and sensing capabilities are vulnerable to these forms of attack and deception while at the same time being essential to the highly networked American way of war. The ability to detect, defend, and counter these attacks and deceptions, while conducting our attacks and deceptions, is critical. To do so, DOD should shift from today’s high-power active sensing and communication capabilities to

more passive and active low probability of intercept or detection sensors and communications.¹⁷ Additionally, DOD should develop new secure C2 systems. At the same time, DOD should systematically develop the capabilities to attack and deceive Chinese C4ISR systems.

Summary of Top Priorities

Based on a process of examining envisioned strategy, scenarios, and assessments, the aforementioned capability statements should receive attention as DOD top development priorities. Informed by other, classified sources of information, there may be additional capability statements that merit close examination. Concomitantly, other key Third Offset Strategy efforts will likely be in classified research and development projects that may take years to bear fruit.

By focusing on the requirements of specific scenarios, instead of pursuing assorted technologies for their seemingly “revolutionary” nature, this process ensures that Third Offset technological development is closely linked to operational challenges—much like the Second Offset Strategy was informed by the operational demands of combat with the Warsaw Pact in Central Europe. The process will inject a sense of urgency and focus into DOD efforts—and ultimately the linkage will result in the development of truly transformative capabilities that establish areas of enduring U.S. advantage.

There are other capabilities important to the defense of Taiwan scenario (and other challenging scenarios involving China) that require attention and additional investment, such as the ability to interdict military and commercial lines of communication—especially seaborne lines of communication. However, those capabilities likely do not require the same level of additional investment as the enumerated top priorities to be realized.

Lastly, there are other important capabilities to accomplish operational tasks unrelated to China scenarios. As mentioned, this includes certain new capabilities necessary to counter Russian aggression. The eight listed priorities are not comprehensive but rather seek to

concentrate effort and investment into the most important capabilities needed to deter and defeat aggression and project power despite A2/AD challenges, not only vis-à-vis China but also beyond.

Changes to the Analytical Processes Supporting Force Planning

To support the pursuit of the objectives as part of the Third Offset Strategy, the next Secretary of Defense should reform analytical processes informing force planning decisions along the lines of three guidelines: increased selectivity, transparency, and commonality.

The force planning process should carefully adhere to a strategy-based process that encompasses an examination of strategy, scenarios, and assessments. Building off of strategic guidance, force planners should exercise selectivity in choosing the most important scenarios to inform assessments. As mentioned, the defense of Taiwan scenario should receive top priority. In examining this and other scenarios, realistic and prudent assumptions regarding enemy capabilities and practices should be included. Efforts to shape assumptions in unrealistic or imprudent ways that favor outcomes for particular Services should be repudiated. Additionally, while eschewing a capabilities-based approach for force planning, planners should be mindful of the possibility of lagging intelligence assessments of future adversary projected or validated threats. Consequently, force planners should improve sensitivity analysis (examining a range of values for key variables) and prudently assume the presence of adversary capabilities when appropriate—even if the threat is not formally validated.

In terms of assessments, the Secretary of Defense should direct the Director of Cost Assessment and Program Evaluation to reinstate the ability to conduct OSD campaign-level modeling, which was eliminated in 2011. Campaign-level modeling consists of the use of large-scale computer simulations to examine the performance of a full fielded military in planning scenarios. It takes the results of focused DOD wargaming activities,



USS *John C. Stennis* steams at dusk in South China Sea, supporting security and stability in Indo-Asia Pacific, April 25, 2016 (U.S. Navy/Emiline L.M. Senn)

as well as inputs from more detailed tactical modeling, to better represent the effects of large-scale forces on a battlefield. Campaign-level modeling is essential in developing insights on the performance of the entire joint force and in revealing key dynamic relationships and interdependencies. These insights are instrumental in properly analyzing complex factors necessary to judge the adequacy of the joint force to meet capacity requirements, such as the two-war construct, and to make sensible, informed trades between solutions. Campaign-level modeling is essential to the force planning process, and although the Services have their own campaign-level modeling capabilities, OSD should once more be able to conduct its own analysis to provide objective, transparent assessments to senior decisionmakers.

In addition to campaign-level modeling, assessments should use simpler, more transparent analytic tools and wargames with capable Red Teams to examine discrete issues. These processes reveal key insights and assist in evaluating new CONOPS for emerging challenges. Additionally, their increased level of transparency assists in explaining combat and

in turn force-planning dynamics to senior decisionmakers.

Furthermore, the assessment process requires improvement in its characterization of risk. Increased commonality within and among Services in how risk is measured would assist in better understanding the effect of programs on desired outcomes.¹⁸ Moreover, changes are necessary in how assessments of risk are aggregated. Current practices frequently “average” levels of risk across a portfolio; consequently, even though a single point of failure in an effects chain may produce extreme levels of risk, the overall assessment may conclude that risk is being mitigated due to actions in other, less stressing areas. Similarly, assessments of risk frequently assume projected capabilities in the program of record will address current capability gaps, seldom anticipating the future adversary capabilities that will exacerbate those same gaps or produce new ones.

As assessments of risk are vertically aggregated throughout Services and combatant commands, these problems mount enormously. Increased transparency regarding the effects of high levels of risk on subsequent or encompassing

concepts of operation may allow senior leaders to more effectively gauge the situation and respond accordingly.

Finally, DOD should exercise increased transparency in how it communicates assessments to senior leaders inside and outside DOD, including senior political leadership in Congress and the White House. An increased level of transparency could more effectively communicate the effects of different budgetary decisions on scenario outcomes, as well as arming civilian leadership with a better understanding of key defense issues.

Overcoming Obstacles

Pursuit of both the top priorities for new investment, as well as improving force planning analytical processes, will be challenging. The proposed fiscal year 2017 DOD budget takes some positive steps to focus resources on the priorities, but much more is necessary in the subsequent budgets to set DOD on the right path.

The next Secretary of Defense will likely face passive and active opposition from portions of the Services, Congress, and industry. Among the Services, there

will be resistance to reallocating funding from the Army to the departments most relevant in a conflict with China: the Navy and Air Force. Within all the Services, funding must be reallocated to those capabilities that are relevant in the most operationally stressing scenarios. In many cases, there will be opposition from Service branches that might have program budgets reduced to fund the newly proposed capabilities. Given the limited terms of Cabinet secretaries, some may attempt to stall to wait him or her out.

In Congress, the next Secretary of Defense will face the dual challenge of increasing funding for DOD amid Budget Control Act limits and collaborating with the House and Senate Armed Services Committees to ensure a unified approach on these top investment priorities. In particular, Congress will need to address the requirements for nuclear modernization investment by increasing topline funding in a manner that does not throttle conventional modernization investments, at precisely the time the Third Offset Strategy gathers steam. Lastly, it is likely that contractors with reduced or cancelled programs will solicit congressional support to block necessary changes.

To accomplish these goals and other necessary changes in DOD outside of the purview of force planning, creative methods to incentivize stakeholders will be necessary. These include positive and negative budgetary inducements, such as competitions among the Services for pots of funding to address statements of need. Additionally, OSD will need to secure the political support of Congress and the President to enact some of these disruptive changes—especially if a larger portion of the budget shifts to classified investments. The process of strategy, scenario, and assessments may serve to clearly convey the grave stakes involved in these decisions to those leaders and encourage them to positively participate in this crucial process.

Lastly, the next Secretary of Defense will face numerous other, important defense challenges that will threaten to engross his or her attention, ranging from leading U.S. forces in Afghanistan, to countering Chinese, Russian, and

Islamic State aggression, to reforming Goldwater-Nichols, military compensation, and base structure.

Given limits of time and resources, the next Secretary of Defense will find it challenging to reform the entire DOD enterprise at once. He or she can, however, initially concentrate on those areas in which the greatest impact can be achieved. The top eight investment priorities and changes to the force planning process are prime places to start.

Armed with a new mandate, the new Secretary of Defense will be able to collaborate with Congress to realize these changes. However, time is short. Each day that passes, U.S. military gaps grow, and adversaries (especially China) feel increasingly emboldened to use military force to threaten U.S. and allied interests. If he or she is up for it, the next Secretary of Defense should answer a nation that pines for a new defense strategy, secure a legacy as a transformative leader, and successfully define and implement a successful Third Offset Strategy. JFQ

Notes

¹ Aaron Mehta, “Defense Department Budget: \$18B Over FYDP for Third Offset,” *Defense News*, February 9, 2016.

² Sydney J. Freedberg, Jr., “DepSecDef Work Details 2017 Budget,” *Breaking Defense*, February 9, 2016, available at <<http://breakingdefense.com/2016/02/high-tech-seed-corn-for-next-president-bob-work-on-2017-budget/>>.

³ This force planning process of strategy, scenario, and assessment was developed by David Ochmanek of RAND. Some of the language in the strategy, scenario, and assessment sections of this article was first published in Timothy A. Walton, Seth Cropsey, and Bryan G. McGrath, *Sharpening the Spear: The Carrier, the Joint Force, and High-End Conflict* (Washington, DC: Hudson Institute, October 2015).

⁴ *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* (Washington, DC: Department of Defense, 2012).

⁵ *Quadrennial Defense Review 2014* (Washington, DC: Department of Defense, 2014), 14, 19.

⁶ David A. Shlapak and Michael Johnson, *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics* (Santa Monica, CA: RAND, 2016), available at <www.rand.org/pubs/research_reports/RR1253.html>.

⁷ By focusing on necessary capabilities, this article does not examine the force-sizing considerations involved in being able to address the threat posed by China and other actors simultaneously. It also does not address critical questions of readiness, such as the sufficiency of current or future munitions inventories.

⁸ Jim Thomas, John Stillion, and Iskander Rehman, *Hard ROC 2.0: Taiwan and Deterrence Through Protraction* (Washington, DC: Center for Strategic and Budgetary Assessments, December 2014).

⁹ *Compellence* is “inducing [an enemy’s] withdrawal, or his acquiescence, or his collaboration by an action that threatens to hurt, often one that could not forcibly accomplish its aim but that, nevertheless, can hurt enough to induce compliance.” See Thomas C. Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966), 2–3.

¹⁰ *China's Military Strategy* (Beijing: The State Council Information Office of the People's Republic of China, May 2015), available at <<http://news.usni.org/2015/05/26/document-chinas-military-strategy>>.

¹¹ This phrase was developed by Jim Thomas of the Center for Strategic and Budgetary Assessments.

¹² James R. Holmes, “The U.S. Navy’s Cruise Missile Nightmare,” *Real Clear Defense*, February 20, 2015, available at <www.realcleardefense.com/articles/2015/02/20/the_us_navys_cruise_missile_nightmare__107640.html>.

¹³ Eric Heginbotham et al., *The U.S.-China Military Scorecard Forces, Geography, and the Evolving Balance of Power, 1996–2017* (Santa Monica, CA: RAND, 2015), xxx.

¹⁴ *Ibid.*, xxxi.

¹⁵ The First Island Chain refers to the first chain of major archipelagos out from the East Asian continental mainland coast. The Second Island Chain is the next chain of archipelagos out from the East Asian continental mainland, principally composed of the Bonin Islands, Marianas Islands, and Caroline Islands.

¹⁶ For more information on the potential role of the aircraft carrier in a conflict against China and necessary carrier strike group improvements, see Walton, Cropsey, and McGrath.

¹⁷ Bryan Clark and Mark Gunzinger, *Winning the Airwaves: Regaining America's Dominance in the Electromagnetic Spectrum* (Washington, DC: Center for Strategic and Budgetary Assessments, December 2015).

¹⁸ Mike Leonard, James Thomason, and James Bexfield, “QDR: The Role of Analytics in Addressing the New Budget Environment,” *Phalanx: Bulletin of Military Operations Research and Related Sciences*, June 2013.



U.S. Navy E-2C Hawkeye 2000 aircraft assigned to "Wallbangers" of Carrier Airborne Early Warning Squadron 117 approaches flight deck of USS *John C. Stennis* while ship is underway in Pacific Ocean, July 13, 2006 (DOD/John Hyde)

Twenty-First Century Information Warfare and the Third Offset Strategy

By James R. McGrath

While the United States and our closest allies fought two lengthy wars over the past 13 years—the rest of the world and our potential adversaries were seeing how we operated. They looked at our advantages. They studied them. They analyzed them. They looked for weaknesses.

And then they set about devising ways to counter our technological over-match.

—DEPUTY SECRETARY OF DEFENSE ROBERT WORK

It is well established that both state and nonstate adversaries are gaining parity with current U.S. military-technological capabilities, and as a result adversaries are eroding the tremendous asymmetrical conventional warfare advantages once exclusively enjoyed by U.S. forces.¹ This leveling of the playing field has been enabled through decreased costs of modern information technology and low barriers of entry to attaining precision weapons; stealth capabilities; sophisticated commercial and military command and control (C2) capabilities; advanced intelligence, surveillance, and reconnaissance (ISR); and relatively cheap access to commercial and government-sponsored space and cyber capabilities.² As a result, in November 2014, then-Secretary of Defense Chuck Hagel announced the Defense Innovation Initiative to counter adversary technical and tactical progress that, if left unchecked, will ultimately hinder U.S. ability to project power across the globe and permanently challenge its aims of retaining its coveted status as a global hegemon.³ While there are many aspects to this initiative, the Third Offset Strategy, as outlined in policy, does not adequately address the need for advanced information operations (IO), particularly IO wargaming, modeling and simulation (M&S), and training systems. The purpose of this article is to make the case that increasing the investment in joint live, virtual, and constructive (LVC) IO wargaming and simulations will generate lasting asymmetrical advantages for joint force commanders and will significantly contribute to the achievement of the Third Offset Strategy.

Military Problem

The Defense Innovation Initiative is aimed at solving the problem of ensuring that lasting power projection capabilities are available to the U.S.

military in pursuit of the Nation's core and enduring national interests, most notably safeguarding national security, promoting democratic values, maintaining long-term economic prosperity, and preserving the current international order.⁴ The solution to this problem—one that has yet to be fully articulated and bounded in scope, much less solved—has been named the Third Offset Strategy, meaning that there are a series of strategic capabilities that must be developed to give U.S. forces a decisive military-technological offset that generates lasting asymmetrical advantages over any potential adversary for the next 25 to 50 years. The strategy is so named because there already were two successful offset strategies in the 20th century.⁵ The first was President Dwight D. Eisenhower's New Look Strategy during the 1950s, which sought to develop advanced nuclear weapons capabilities to offset the Soviet Union's overwhelmingly superior conventional forces and nascent nuclear capabilities. The second strategy was Secretary of Defense Harold Brown's Offset Strategy during the 1970s, which was aimed at countering recent Soviet advances in both numerical and technical parity regarding its nuclear arsenal, coupled with sustained numerically superior conventional forces deployed in Eastern Europe and elsewhere around the globe. Essentially, the U.S. Offset Strategy invested in stealth technologies, precision weapons, sophisticated C2 capabilities, and advanced airborne and space-based ISR that were ultimately revealed to the world during the first Gulf War.

As outlined by Secretary Hagel and currently being championed by Deputy Secretary of Defense Robert Work, the Defense Innovation Initiative emphasizes three key areas for sources of innovation: long-range research and development, new operating concepts, and reenergizing wargaming efforts and techniques.⁶ Currently, most of the discussion regarding this initiative is overly focused on purely technical, materiel solutions, such as unmanned autonomous systems and sources of new global strike and ISR

capabilities. Regrettably, the appeal for the development of new operating concepts and wargaming techniques seems to be overlooked in the media and most defense policy think tanks.

What many analysts fail to realize is that the operating environment, specifically the information environment (IE),⁷ has changed, and our adversaries are undermining our asymmetrical advantages through innovative use of the information space, particularly by operating in the informational and cognitive dimensions on a global scale.⁸ What should be obvious—but unfortunately is not to many military and defense planners—is that IO is precisely the tool set that joint force commanders already have to attack our adversaries' newly found advancements in C2 warfare, ISR, and precision weapons. Unfortunately, for example, the Russians,⁹ Chinese,¹⁰ and the Islamic State of Iraq and the Levant,¹¹ to name a few, are now also demonstrating advanced forms of information warfare that continually undermine U.S. tactical prowess and enable successful antiaccess/area-denial (A2/AD) strategies that are the root cause of the problem.¹² For U.S. forces to achieve the Third Offset Strategy, the joint force must be able to achieve information superiority at the time and place of its choosing. To do that, the joint force must develop innovative operating concepts for IO, wargame them using a variety of computer-based methods, and then train to the newly discovered tactics, techniques, and procedures that are absolutely essential for 21st-century warfare—a type of warfare aimed at breaking the will of the adversary through control of the IE.

Currently, IO is often treated as an ad hoc, additive activity during most joint LVC training events; therefore, IO is routinely ignored or underutilized despite being a major component of every real-world joint operation since Operations *Desert Shield* and *Desert Storm*¹³ and arguably in other forms, such as psychological warfare and deception, throughout all of human history.¹⁴ Much of the reason for this routine omission and lack of prominence in major joint LVC exercises is that military information

Lieutenant Colonel James R. McGrath, USMC, is the Information Warfare Department Head for Expeditionary Warfare Training Group Atlantic.

support operations (MISO, formerly known as psychological operations), public affairs, electronic warfare (EW), cyber warfare, military deception (MILDEC), special technical operations, and other information-related capabilities (IRC)¹⁵ are difficult to simulate over a relevant exercise time horizon. Even more challenging is the ability to realistically but sufficiently model the physical, technical, and cognitive complexities of the IE as a coherent whole whose sum is greater than its individual parts. If this can be achieved, U.S. joint forces would be able to train in synthetic environments that would ultimately enable them to effectively maneuver within the IE, counter recent adversary military-technological gains and newfound information warfare prowess, and provide the baseline for a newly defined technical, military, and psychological offset.

IO as the Solution

By acknowledging the fact that adversaries are reducing our operational advantages and conventional overmatch through innovative use of the IE, it becomes increasingly imperative that U.S. IO training, wargaming, and operating concepts be improved. It is also important to emphasize that this improvement should not only mirror-image the activities of our adversaries, but also provide joint force commanders with a comprehensive set of tools and concepts that allows them to outmaneuver adversaries within the cognitive, informational, and physical dimensions of the IE. As a starting point, a brief analysis of modern IO reveals at least six interrelated IO lines of effort (LOE), which if truly integrated with each other could facilitate the Third Strategic Offset. These primary LOEs or mission areas are psychological warfare, C2 warfare, denial and deception, cyber warfare, engagement, and IE situational awareness.¹⁶

While on the surface some of these IO LOEs appear well-established IRCs, that is not the intent or the case. These highly complementary and interdependent mission areas are IRC agnostic—meaning that no one particular

IRC is necessarily required for a particular mission.¹⁷ In fact, multiple IRCs applied in a combined arms fashion are a prerequisite to achieving success in any one of these critical mission areas. This idea is consistent with the accepted Department of Defense (DOD) IO definition and is precisely why they are considered germane to any serious discussion of future IO.¹⁸ The following discussion briefly highlights the need for further development and implementation of these six mission areas, as well as their relevance to the future joint force.

Generally speaking, *psychological warfare* is defined as actions against the political will of an adversary, his commanders, and his troops, and includes inform and influence operations directed at any third party capable of providing sympathy or support to both the adversary or friendly forces.¹⁹ This mission area directly targets the cognitive dimension of our adversaries' operations in the IE and ultimately attacks their will to resist. It should be the primary focus of the joint force in order to ensure lasting tactical, operational, and strategic success, especially while state and nonstate actors are simultaneously competing for dominance in this highly contested space. After all, by definition, war as a contest of political wills by other means is the primary basis of most warfighting philosophies.²⁰ Therefore, increasing the effectiveness of joint operations in this mission area would certainly require improved MISO, EW, cyber, and MILDEC capabilities and authorities at all levels of war.

C2 warfare is about controlling the physical and informational dimensions of the IE by cutting off an enemy force from its commander, key decisionmakers, or automated control systems through attacking vulnerable control mechanisms or by simply attacking the commander and removing him or her from the C2 equation, ultimately resulting in the collapse of his or her subordinate forces.²¹ Applying IRCs for C2 warfare purposes is one of the few ways to overcome the joint operational access and A2/AD problems. Using a combination of physical destruction, EW, cyber, MISO, and MILDEC capabilities would be

indispensable to the process of systematically unravelling an adversary's integrated air and coastal defenses; undermining his ballistic and cruise missile standoff weapons; and blinding his advanced land, sea, air, cyber, and space-based ISR platforms. Furthermore, there is a defensive aspect of C2 warfare that requires advanced electromagnetic spectrum operations, information assurance, and defensive cyberspace operations to ensure assured C2 over friendly forces on a global scale. Without a modern, robust defensive C2 warfare capability, U.S. global power projection is nearly impossible.

Denial and deception operations are a combination of operations security and MILDEC activities, supported by a wide-range of IRCs, to protect critical information, facilitate surprise, and deliberately mislead an adversary to achieve a tactical, operational, or strategic advantage. Denial and deception operations provide force-multiplying advantages by enabling operational access and joint forcible entry operations under A2/AD conditions and contributing to the cognitive demise of an adversary as part of the psychological warfare effort. In addition, counter-denial and deception operations are critical to future conflicts, as demonstrated by our adversaries' skilled use of deception in Syria, Iraq,²² and the Crimean Peninsula.²³

Cyber warfare in the IO context is about controlling the content and flow of information within the information dimension of the IE. It includes the convergence of the cyber and EW IRCs, where cyber is enabled at the tactical level through radio frequency spectrum operations; cyber warfare in support of the other five IO mission areas; and offensive cyberspace operations in support of traditional kinetic operations. For instance, a prime example of this IO mission area in action is the Russia-Georgia war of 2008, during which the Russians executed the world's first synchronized cyber attack in concert with major combat operations, likely using both state cyber capabilities and nonstate hackers to attack key Georgian communications, finance, and government nodes prior to and during combat operations to control



Then—Secretary of Defense Chuck Hagel announces Defense Innovation Initiative and Third Offset Strategy during Reagan National Defense Forum at The Ronald Reagan Presidential Library in Simi Valley, California, November 15, 2014 (DOD/Sean Hurt)

the narrative and pace of the psychological war as well as demonstrate Russian resolve and future deterrence capabilities.²⁴ Furthermore, there is tremendous opportunity for future cyber warfare operations to: 1) support C2 warfare in A2/AD conditions by creating gaps and seams in an adversary's defensive system of systems from standoff ranges, especially during the early shaping phases of an operation; 2) enable the psychological warfare effort through focused and broad social media messaging; and 3) support both the engagement and IE situational awareness efforts as message delivery and ISR platforms.

The U.S. Army has recently established *engagement* as a concept for a seventh warfighting function and defines it as influencing people, security forces, and governments across the range of military operations to prevent, shape, and win in the future strategic environment.²⁵ While there are close similarities, in this

context, engagement is an IO mission—not a warfighting function focused on the intersection between partnership activities and special warfare activities.²⁶ In this context, engagement is about operating in the cognitive dimension of the IE through informing and influencing partner and adversary nations using a wide range of IRCs, including but not limited to media operations using public affairs and MISO. Engagement as an IO mission also includes public affairs operations to harden the friendly force against adversary psychological warfare. Moreover, for the foreseeable future, engagement will remain a combatant commander's primary tool for Phase 0, steady-state, and theater security cooperation (TSC) operations, used to send signals to our adversaries and allies that we are committed to the current international order and a stable security environment. For instance, engagement could and should be used to amplify our TSC actions

in the U.S. Pacific Command area of responsibility to ensure that Chinese psychological, media, and legal warfare²⁷ are countered with the overarching goal of ensuring that our regional allies are able to observe our actions and interpret them as U.S. commitment to defend our common interests.

Lastly, *IE situational awareness* is defined as understanding past events within all three dimensions of the IE, tracking ongoing events, and being able to adequately model and reliably predict (or at the very least wargame) a wide variety of possible outcomes in support of the other five IO mission areas. These activities include not only all traditional intelligence disciplines but also the use of a broad range of IRCs operating on the battlefield as sensors, processors, and actors. In addition, IE situational awareness requires advanced M&S to aid IO planners and commanders in the extremely difficult task of understanding

the dynamic, nonlinear, and ever-changing IE. Furthermore, IE situational awareness requires a detailed understanding of individuals, social groups, behavior dynamics, communication architectures, exploitation of narratives, and target audience vulnerabilities, as well as the newly emerging techniques of real-time, live big data analytics, social media scraping, and memetic warfare.²⁸

IO M&S Requirements

As discussed, there is a known gap for joint force commanders to exercise their IO cell within the six mission areas outlined above. There is also a gap for exercising both supporting organic and non-organic IRCs and then integrating them with traditional kinetic fires. Closing this gap with computer-based M&S would ensure that joint forces are well trained in a repeatable and expandable synthetic environment prior to employment across the full range of military operations. This is particularly important because IO mission areas and their supporting IRCs are highly sensitive in nature, and live IO training events are nearly impossible to conduct. For instance, certain EW, cyber, and special technical operations capabilities must be well protected to achieve any form of technical surprise, and MISO, EW, cyber, MILDEC, and special technical operations also have uniquely strict political and legal sensitivities.

Achieving repeatable, scalable, and fully integrated simulation of the IE is not an easy task. However, if the Third Offset Strategy is to be realized, the Services and DOD must invest in materiel solutions to enable the joint force to train its IO forces in a synthetic environment. There are several key additional requirements for any useful automated M&S of the IE and IO for advanced wargaming purposes:

- Must encompass a system-of-systems approach that includes training for individual IO and IRC mission essential tasks through the highest levels of a joint force's collective-level training events. Examples include a range of immersive virtual envi-

ronments for individual and small-unit IRC tactical trainers through high-level constructive simulations supporting strategic- and combatant command-level wargaming, capable of seamlessly integrating with each other as well as other kinetic and legacy M&S systems.

- Must incorporate the full array of possible effects that can be generated by organic and non-organic IRCs from the strategic to the tactical level of warfare.
- Must be interoperable with other joint and Service-level LVC M&S networks and systems.
- Must be compatible with all major constructive M&S programs of record in order for IO M&S to be fully integrated into a single common tactical and operating picture.
- Must be interoperable with current command and control systems and classified intelligence systems up to Top Secret/Sensitive Compartmented Information and other high-level operational security control measures to be integrated into a single common tactical and operating picture.
- Must incorporate open source media and the replication or emulation of social and traditional media for analysis, using advanced forms of data analytic techniques to simulate actions in the IE.
- Must incorporate advanced decision support M&S techniques, including but not limited to artificial intelligence-enabled augmented reality, chatbots, and other expert systems to facilitate understanding of actions in the IE.
- Must leverage state-of-the-art artificial intelligence algorithms, machine-learning software, and advanced M&S paradigms, such as agent-based modeling, systems dynamics, and game-theoretic modeling in a federated architecture, to accurately model complex, adaptive systems with the goal of replicating the behaviors and communications conduits of a vast array of thinking target audiences and their highly automated information systems.

Ultimately, the desired endstate for developing an advanced IO M&S capability is to ensure that there are highly trained forces ready to design, plan, rehearse, execute, and assess operations within the IE, particularly when confronted with a sophisticated, technologically enabled 21st-century adversary. This can and should be implemented via a family of tactical- through strategic-level M&S systems that adequately model and simulate friendly, neutral, and adversary decisionmaking capabilities, behaviors, and information systems as well as the complex feedback loops that comprise all relevant aspects of the physical, informational, and cognitive dimensions of the IE.

IO Considerations

There are five prominent counterarguments that immediately come to mind for not developing advanced IO M&S capabilities. These arguments range from the cost of IO M&S materiel solutions, the presence of other existing solutions, widespread doubts regarding the efficiency and efficacy of IO across the full range and spectrum of military operations, and the complex framework of legal and policy restrictions governing most joint force IRC employment.

The first counterargument is that developing IO M&S systems would be expensive and that the technology for simulating the IE is not mature. However, this is exactly the type of investment that the Defense Innovation Initiative is calling for: an investment that leverages advanced technologies such as artificial intelligence, machine learning, agent-based modeling, and big data analytics that our adversaries would not likely have ready access to exploit. This investment in IO M&S would also lead to new operating concepts that would be tested during high-level joint wargames using the very same systems, which is precisely the intent behind the second and third key areas for innovation outlined by the Defense Innovation Initiative.

The second counterargument is that the Joint Staff and the Office of the Secretary of Defense are already investing in IO M&S through the use of the Joint IO Range and other cyber and EW



Soldiers from Britain's Royal Artillery train in virtual world during Exercise Steel Sabre 2015 (MOD/Si Longworth)

initiatives. While that is a first step, the Joint IO Range is only a stovepipe capability for cyber warfare effects rather than a capability that truly exercises all relevant IRCs in support of joint operations—that is, something more than cyber and EW operations are required to realize the true potential for full-spectrum IO, specifically how to assemble a relevant array of IRCs aimed at placing an adversary on the horns of a dilemma and then inducing a complete collapse of their will to resist our aims and objectives. Without being able to model and integrate the cognitive, informational, and physical aspects of the IE in a coherent simulation, influencing adversary decisionmakers and their supporting systems would not be achievable to the level of what is required for the Third Strategic Offset.

The third counterargument is that IO is not suited for major combat operations, and thus many military planners perceive it as a tool only for counterinsurgency or irregular warfare, whereby keeping the

violence threshold low or controlling the attitudes and the behavior of the local populace is paramount. This is not the case, however, since IO and IRCs have routinely been employed by U.S. forces throughout all phases of operations and all types of conflict, from World War II through Operations *Enduring Freedom* and *Iraqi Freedom*. Additionally, there is considerable evidence that increasing the lethality of operations using information warfare is central to the strategy of our 21st-century adversaries, most notably and recently demonstrated by the Russians operating in Ukraine and Syria.²⁹

The fourth counterargument is that IO is not well suited for the strategic shaping and deterrence missions required by the Third Offset Strategy, or at least not as effectively as the physical advantages that the Second Offset capabilities have provided. However, in some sense, the luxuries that were afforded by the unprecedented freedom of movement, maneuver, and firepower that successfully

held our adversaries in check for the past 25 years are also the root cause of our current military problem—namely that U.S. joint forces routinely win tactically and sometimes operationally, but continuously have their victories ultimately overturned at the operational and strategic levels, such as in Iraq and Afghanistan. Ironically, it has been the overdependence on our physical, conventional superiority that has led the U.S. military to neglect the mental and moral aspects of warfighting, a deficiency that IO, by definition and if sufficiently raised to the appropriate level of prominence within U.S. warfighting doctrine, can immediately address.³⁰ In addition, to further discredit the notion that IO is an ineffective strategic shaping and deterrence tool, it is a well-accepted fact that due to international legal, diplomatic, and political constraints, IO and a handful of select influence-oriented IRCs are our military's only available tools to successfully prevent, deter, initiate, or close a conflict.



Soldiers from U.S. Army's 350th Tactical Psychological Operations, 10th Mountain Division, drop leaflets over village near Hawijah, Iraq, on March 6, 2008, promoting idea of self-government (U.S. Air Force/Samuel Bendet)

The fifth and final counterargument is that there are insurmountable legal and policy restrictions for the joint force to conduct full-spectrum IO. This is simply not the case. However, the two primary supporting counterarguments either revolve around U.S. Code Title 10, *Armed Forces*, versus Title 50, *War and National Defense*, arguments, or claim that the current review and approval processes for IRCs are too complicated to achieve timely and relevant effects in the IE. The first supporting argument is false because Title 10 and Title 50 issues have already been solved and are deconflicted on a daily basis using a highly complex but extremely effective ISR and strike network. This network is enabled by intelligence professionals and operators working side by side, both physically and virtually, and allows the lowest tactical formations to receive the benefits of strategic assets and vice versa. There is some truth to the second supporting counterargument that the review and approval processes are overly complex. Many IRCs do, in fact, require DOD- and national-level approvals. This is not true for all IRCs, however, and there are numerous IRC-unique programs already in place for military planners to immediately implement. In addition, all IRCs can be and already are implemented with great effect for

those commanders with well-trained IO staffs. Hence, developing an IO M&S and training capability is actually part of the solution to the military problem and not an impediment. Lastly, as joint forces continue to demonstrate their increased proficiency for fighting and winning in the IE—and as our adversaries do the same—it is inevitable that over time, many of the authorities for certain sensitive IRC activities, currently held at the strategic level, will naturally be delegated to operational and tactical commanders.

Future Innovation

In the long run, creating the necessary technical innovation in the field of advanced IO M&S and training would no doubt lead to the maturation of capabilities and tactics needed to achieve the goals of the Third Strategic Offset. Furthermore, the gaps that IO M&S could immediately close are also the first steps in the necessary research, design, and development of an integrated global effects network that could and should act as the primary intellectual engine for an advanced, semi-autonomous global strike and ISR network—a network that has been considered the “holy grail” by those who already offer solutions to the Third Strategic Offset problem and that is a

solution that is eerily similar to nefarious systems of science fiction literature and movies, such as *The Terminator*'s self-aware “SkyNet” and “Genisys” programs.³¹ The flaw in this popularized global strike and ISR network solution—other than the obvious science fiction connotations—is that it is shortsighted and deals only with the current problem within the physical dimension of the operating and information environments. The real solution is something far more complicated and worthy of the forward thinking required by the Third Strategic Offset problem set.

A better solution is an advanced, semi-autonomous hybrid kinetic and nonkinetic weapons system fully enabling the warfighter to, at a moment's notice, conduct highly integrated, cognitively focused operations that are also simultaneously synchronized with other ongoing joint actions across the globe, as well as concurrently facilitating long- and short-term influence campaigns. Continuously and consistently striking at the will of our adversaries through the use of carefully selected physical, information, and cognitive-related capabilities should be the ultimate goal of this advanced weapons system concept. This system would facilitate maneuver warfare and mission command by integrating, synchronizing, and coordinating many different capabilities by different commanders at all levels directly against an adversary's physical, moral, and mental critical capabilities. Again, this is something that clearly cannot be accomplished without advanced IO M&S accurately and continuously modeling the complex, nonlinear, and ever-changing IE. While the fusing of kinetic and nonkinetic modeling into a semi-autonomous global effects network might seem like material for science fiction, in the current era of machine-based learning and artificial intelligence-enabled autonomous vehicles, these capabilities are not too far over the horizon and are worthy goals for the ambitions of the Third Offset Strategy.

The military-technological gains of our adversaries over the past several decades are apparent and alarming. To counter this

threat and meet the intended objectives of the Defense Innovation Initiative, a robust set of research and development programs, concept development activities, and wargaming efforts has begun to uncover a series of technologies required to achieve the Third Strategic Offset. While an advanced family of IO LVC M&S systems is not the only capability required to achieve this ambitious offset strategy, failing to recognize the prominence of IO in this new era would be a serious mistake. In addition, these IO M&S capabilities should be the foundation and focus of any future advanced, semi-autonomous global effects system. Therefore, advanced IO M&S is an absolutely indispensable capability that will fully enable the joint force to achieve lasting asymmetrical advantages over our newly emerging, emboldened, and technologically savvy 21st-century adversaries. JFQ

Notes

¹ James R. Clapper, Opening Statement to the Worldwide Threat Assessment Hearing, Senate Armed Services Committee, February 9, 2016, available at <www.dni.gov/index.php/newsroom/testimonies/217-congressional-testimonies-2016/1314-dni-clapper-opening-statement-on-the-worldwide-threat-assessment-before-the-senate-armed-services-committee-2016>.

² Robert Martinage, *Toward A New Offset Strategy: Exploiting U.S. Long-Term Advantages to Restore U.S. Global Power Projection* (Washington, DC: Center for Strategic and Budgetary Assessment, October 2014).

³ Chuck Hagel, "Secretary of Defense Memo: Defense Innovation Initiative," November 2014.

⁴ *National Security Strategy* (Washington, DC: The White House, February 2015), available at www.whitehouse.gov/sites/default/files/docs/2015_national_security_strategy.pdf.

⁵ Martinage.

⁶ Hagel.

⁷ The *information environment* is an environment that is an aggregate of individuals, organizations, and systems that collect, process, disseminate, or act on information as defined by Department of Defense (DOD) Directive 3600.01, *Information Operations* (Washington, DC: DOD, May 2013), available at <www.dtic.mil/whs/directives/cores/pdf/360001p.pdf>.

⁸ The *information environment* is comprised of three interrelated dimensions: cognitive,

information, and physical. See Joint Publication 3-13, *Information Operations* (Washington, DC: The Joint Staff, November 20, 2014), x.

⁹ Jolanta Darczewska, *The Anatomy of Russian Information Warfare* (Warsaw: Centre for Eastern Studies, May 2014), available at <www.osw.waw.pl/en/publikacje/point-view/2014-05-22/anatomy-russian-information-warfare-crimean-operation-a-case-study>.

¹⁰ Larry M. Wortzel, *The Chinese People's Liberation Army and Information Warfare* (Carlisle, PA: Strategic Studies Institute, March 2014), available at <www.strategicstudies-institute.army.mil/pubs/display.cfm?pubID=11901>.

¹¹ U.S. Army Training and Doctrine Command (TRADOC) G-2 Intelligence Support Activity, Complex Operational Environment and Threat Integration Directorate, *Threat Tactics Report: Islamic State of Iraq and the Levant* (Fort Leavenworth, KS: TRADOC, November 2014), 1, 13–15, available at <https://drakulablogdotcom3.files.wordpress.com/2015/04/trisa_threat_tactics_rpt_isil_141101-cdr-137271.pdf>.

¹² *Joint Operational Access Concept, Version 1.0* (Washington, DC: DOD, January 17, 2012), available at <www.defense.gov/Portals/1/Documents/pubs/JOAC_Jan%202012_Signed.pdf>; and *Joint Concept for Entry Operations* (Washington, DC: The Joint Staff, April 2014), available at <www.dtic.mil/doctrine/concepts/joint_concepts/jceo.pdf>.

¹³ John Broder, "Schwarzkopf's War Plan Based on Deception," *Los Angeles Times*, February 28, 1991, available at <http://articles.latimes.com/1991-02-28/news/mn-2834_1_war-plan>.

¹⁴ Jon Latimer, *Deception in War* (New York: Overlook Press, 2001), 6.

¹⁵ *Information-related capabilities* are tools, techniques, or activities employed within the dimensions of the information environment and can be used to achieve specific ends as defined by DOD Directive 3600.01.

¹⁶ Martin C. Libiki, *What Is Information Warfare?* (Washington, DC: NDU Press, 1995); Darczewska; Wortzel; TRADOC.

¹⁷ Agnostic in this sense is based on the information technology context, where software and other processes are independent of hardware or various platforms. In this case, for example, psychological warfare objectives could be achieved outside the traditional doctrinal military information support operations construct with kinetic effects, maneuver, and other information-related capabilities (IRCs). Similarly, cyber objectives and denial and deception objectives could be achieved or supported outside the current cyber and joint military deception doctrinal framework using a variety of IRC effects—not to circumvent current DOD policy and authority framework but to simply acknowledge that there are other, perhaps more innovative means and ways to achieve the same ends.

¹⁸ *Information operations* are generally defined as the integration, coordination, and synchronization of IRCs to deny, degrade, disrupt, or usurp an adversary's decisionmaking capabilities, people, and systems in support of a commander's objectives as defined by DOD Directive 3600.01.

¹⁹ Libicki, 34.

²⁰ Carl Von Clausewitz, *On War*, trans. J.J. Graham (London, 1909), chapter 1, available at <www.gutenberg.org>.

²¹ Libicki, 9–15.

²² TRADOC, 12.

²³ Lucy Ash, "How Russia Outfoxes Its Enemies," *BBC.com*, January 29, 2015, available at <www.bbc.com/news/magazine-31020283>.

²⁴ David Hollis, "Cyberwar Case Study: Georgia 2008," *Small Wars Journal*, January 2011, available at <www.smallwarsjournal.com>.

²⁵ TRADOC Pamphlet 525-8-5, *Functional Concept for Engagement* (Fort Eustis, VA: TRADOC, February 28, 2014), available at <www.tradoc.army.mil/tpubs/pams/tp525-8-5.pdf>.

²⁶ Ibid.

²⁷ Wortzel.

²⁸ Memetics and memetic warfare are used in the context of discrete ideas or units of culture being rapidly transferred to wide audiences, particularly over social media—that is, things "going viral" and their influence on cognition and behavior. See Jeff Giesa, "It's Time to Embrace Memetic Warfare," *Defense Strategic Communication* 1, no. 1 (Winter 2015), available at <www.stratcomcoe.org/download/file/fid/3956>.

²⁹ David Stupples, "How Syria Is Becoming a Test Zone for Electronic Warfare," *CNN.com*, October 9, 2015, available at <www.cnn.com/2015/10/09/opinions/syria-electronic-warfare-russia-nato/index.html>.

³⁰ Marine Corps Doctrinal Publication 1, *Warfighting* (Washington, DC: Headquarters Department of the Navy, June 7, 1997). Mental, moral, and physical aspects of maneuver warfare and the Marine Corps' warfighting philosophy are discussed throughout the text.

³¹ Martinage.



C-130 Hercules pilot with 36th Airlift Squadron performs visual confirmation with night vision goggles during training mission over Kanto Plain, Japan, October 14, 2015 (U.S. Air Force/Osakabe Yasuo)

Avoiding Becoming a Paper Tiger

Presence in a Warfighting Defense Strategy

By Elbridge Colby and Jonathan F. Solomon

The American military is reentering a period of competition. For the 20 years following the collapse of the Soviet Union, the U.S. military reigned supreme, nearly unchallengeable in any state-on-state contingency that Washington might seriously care to take on. This meant that a whole generation of U.S. policymakers and military professionals became accustomed to U.S.

military dominance, a dominance that enabled, and in some cases even propelled, a more ambitious and assertive foreign policy.

Yet as the Pentagon has been making increasingly clear in recent years, this long-accepted ascendancy is now in question. The conventional military buildup of China's People's Liberation Army (PLA), Russia's sophisticated

modernization of its nuclear and nonnuclear forces, the proliferation of nuclear arms to North Korea, and the general diffusion of advanced technologies associated with the Revolution in Military Affairs all mean that U.S. military primacy is under increasingly severe stress.

The Pentagon has already begun to take steps to try to respond to these troubling developments, including through its commendable new Third Offset Strategy and related initiatives. These are designed to leverage U.S. advantages in the development and exploitation of

Elbridge Colby is a Robert M. Gates Senior Fellow at the Center for a New American Security. Jonathan F. Solomon is a Senior Systems and Technology Analyst at Systems Planning and Analysis, Inc.

technology, in bureaucratic flexibility, and in military doctrine and training to extend U.S. conventional military superiority into the future. Hopefully this endeavor will pay off.

But the reality is that even if they are successful, these efforts will not spare the U.S. military the need to alter the way it is postured, operates, and plans for conflict. Indeed, the Offset Strategy's very success likely *depends* upon such changes. And some of these modifications are likely to be significant—not only in strictly military terms but also in the political and strategic consequences they entail.

The Importance of “Presence”

One of the most fundamental of these changes will be the way the U.S. military postures itself and operates, particularly in peacetime. Since the end of World War II, the United States has pursued a national strategy of forward engagement, allying or partnering with a host of countries in Europe, the Middle East, and Asia, and, as it viewed necessary, fighting adversaries in these key regions. As a corollary of this strategy, U.S. military forces have been forward-based in or otherwise rotationally deployed to these areas. The *presence* of U.S. forces has thus been a regular feature of the strategic landscape of these regions, playing a significant role in shaping perceptions and calculations among allies and foes of Washington.

Indeed, this presence has become such a regular feature of political-military life in these areas that many consider it a significant factor in the deterrence of adversaries and the reassurance of allies. In fact, to some, the visible, tangible presence of U.S. forces has been as much—if not more—of a factor in deterrence and assurance as the actual warfighting ability of those forces. To this way of thinking, one that has become particularly ascendant since the end of the Cold War, the fact that U.S. forces were present to demonstrate American will and resolve was more important than their combat capabilities.

Such a view represents a distinct change from how U.S. strategy conceived

of the purpose of forward presence prior to the collapse of the Soviet Union. During the Cold War, U.S. forces abroad evidenced American resolve, but they were also expected to perform important specific military objectives in the event of war. U.S. conventional military posture, force design, and operations, especially after the Soviet Union attained the ability to launch nuclear strikes at the American homeland, were typically determined—or at least heavily influenced—by the particular military concerns of how to stave off and, ideally, defeat Soviet Bloc aggression or coercion and, if this failed, to make the threat of U.S. nuclear usage more credible. The U.S. military of the latter part of the Cold War consequently developed conventional forces, based and operated them, and planned for their employment primarily with these warfighting concerns in mind.

In the wake of the dissolution of the Soviet threat, however, this demanding requirement evaporated. U.S. forces no longer faced a peer or near-peer challenger that could seriously contest them in plausible contingencies. Yet at the same time, Washington—sensibly—elected to maintain its national strategy of forward strategic engagement and the military primacy that underwrote it. Even as the United States reduced its force structure from its 1980s peak, though, it retained many of the forward-presence requirements (albeit with some reductions and tailoring) that it had established during the Cold War. U.S. forces still actively patrolled the waters of the Western Pacific and the skies over the Middle East and were stationed in Germany, Japan, and South Korea.

This led to a situation in which, as the memory of the Soviet threat faded, the presence of U.S. forces seemed to become as much the point of their existence as their warfighting capabilities. The value of presence independent of warfighting capability had some strategic logic; visible forces continued to demonstrate the U.S. commitment to stay engaged, both to friend and foe. But they also allowed the military Services and sympathetic defense decisionmakers and strategists to argue for sustained, if not larger,

budgets. Allies abroad, meanwhile, rarely objected to U.S. forces deployed nearby. As long as U.S. forces were sized above certain thresholds and challenges to the supremacy of the U.S. military remained relatively modest, Washington faced no serious tradeoffs between combat readiness and day-to-day “showing of the flag.” As a consequence of all these factors, the importance of presence as a goal in and of itself was trumpeted in documents such as Quadrennial Defense Reviews and Service strategic documents.¹

Yet this is no longer the world the U.S. military faces. Rather, the United States is confronted with intensifying challenges to its military primacy, especially from China and Russia. At the same time, the United States has been chipping away at its own military preeminence through sequestration and a straitjacket approach to budget efficiency that prevents the Defense Department from downsizing in a strategic fashion.

In this world, presence is no longer a relatively costless good; peacetime forward presence in this more challenging, emerging military-technological environment will involve tradeoffs, including some drastic ones, with war-waging ability. U.S. forces that operate forward within the expanding and darkening threat envelopes generated by the increasing military power of potential U.S. opponents will be placing themselves at greater and greater risk. For instance, U.S. warships such as aircraft carriers that are lauded for showing the flag in the Western Pacific are increasingly vulnerable to potential Chinese attack capabilities, such as the DF-21D anti-ship ballistic missile and the PLA's large arsenal of anti-ship cruise missiles.²

At the same time, impressive new U.S. shorter range aircraft such as the F-35 need to operate from airfields, such as on Okinawa, well within the reach of Chinese precision-guided land-attack munitions. The bases that house U.S. ground forces on Okinawa and elsewhere in the Western Pacific that show the U.S. commitment to staying put in the region, meanwhile, are also increasingly vulnerable—as are the aircraft and ships designed



Chief Warrant Officer 3 signals to E/A-18G Growler on flight deck of aircraft carrier USS *Dwight D. Eisenhower*, April 11, 2016 (U.S. Navy/J. Alexander Delgado)

to supply and move these forces around. The essential point is that the U.S. forces that are postured and employed primarily for visible frontline presence as an independent mission are increasingly sacrificing their combat survivability, with corresponding degradation of their war-waging utility.

Presence and Warfighting Ability

This is a problem, in fact a very serious one, because, despite some of the rhetoric of the post-Cold War era, deterrence derives not from the symbolism of being present but above all from a potential attacker's perceptions of the defender's realistically employable military power and capability—in other words, from warfighting ability. Presence can contribute to this calculus by reinforcing the perception of the defender's will or by latently complicating an aggressor's path toward conquest, but it does not itself constitute effective deterrence. Rather, at its root, deterrence stems

from the perceived ability to harm an opponent or to defeat or blunt his actions to such a degree that he will act with restraint or back down.

In the realm of nuclear weapons, the ability to harm tends to predominate as a driver of decision. In calculations of conventional conflict, however, deterrence by denial tends to be more salient than deterrence by cost-imposition (though the latter can play a significant role). That is, conventional deterrence relies primarily on a potential aggressor's judgment of one's ability to prevent him from forcibly attaining his political objectives, if not defeat him outright. Thus the conventional forces that deter most effectively are those that can contribute to the frustration or decisive defeat of the adversary's pursuit of his aims.³

Because of the different mechanism of effect, what defines effective conventional deterrence is different from what typifies its nuclear variant. In nuclear deterrence, after a certain threshold, resolve tends to be central. In conventional dynamics,

however, the ability to bog down and frustrate if not prevail over an opponent's military forces is usually central because the ability to harm is so circumscribed, especially against near-peer adversaries. Thus what is particularly important for conventional deterrence is maintaining an advantage in conventional military power, particularly with respect to a given potentially contested area.⁴ In particular, scholarship indicates that conventional deterrence has been most effective when adversaries judged that a potential defender's conventional forces could resist their attacks, particularly in a relatively short timeframe. To put it another way, the combined effects of the defender's in-theater and otherwise quickly surgeable forces' capabilities, quantities, postures, and positioning had outsized effects upon the decisions made by the potential aggressor state leaders. When defenders induced those leaders to believe that any notional conventional offensive would likely be arrested and that, at minimum, would result in a protracted

conflict fraught with high cost, risk, and uncertainty, successful deterrence was almost always the historical result.⁵

This not only shows the value of forward-deployed and decisive surge forces, but it also demonstrates that the former must, at least in aggregate, be both militarily effective and practically usable, especially within a campaign context. In an increasingly competitive military-technological environment, therefore, the United States can no longer afford to deploy substantial forces in ways that would not contribute to—or could even detract from—prevailing in the event of conflict. Rather, the U.S. defense posture writ large, including its forward-deployed forces, must make clear to more capable and ambitious potential adversaries that U.S. forces can *effectively* resist and respond to any aggression.

Yet at the same time, the United States has an interest in maintaining the benefits afforded by presence. Figuring out how to maximize forward-deployed forces' warfighting capabilities and survivability, while also enabling at least some portion of the force to perform traditional "show the flag" missions, therefore represents one of the era's most significant and pressing strategic planning challenges. This is beginning, albeit haltingly and partially, to receive the recognition it merits at the highest levels of defense policy. Deputy Secretary of Defense Robert Work, in unjustifiably little-noticed speeches in 2014 and 2015, described in clear and unmistakable terms the increasingly high costs presence demands that stress the U.S. military's supply of deployable forces; these costs can and will exact from combat effectiveness—and thus deterrence.⁶ As Work described, the "surge forces" of the United States (those designed to decisively prevail in a conflict) are becoming decreasingly competitive in a much more challenging military-technological and geopolitical environment. This, according to Work, is leading the Defense Department to look for innovative and flexible ways to conduct presence missions while focusing on the main challenge: augmenting the warfighting capabilities of the joint force.

While technology offers some options for addressing these challenges, the fact remains that it generally requires a minimum of 10 years under current laws and Defense Department policies to develop and then initially field new systems and platforms. And that assumes applied research has already reduced a technology's developmental risks to fairly low levels. Deputy Secretary Work highlighted exactly these points in his aforementioned speeches when he observed that many of the Offset Strategy initiative's technological research investments will not bear fruit until the 2020s or early 2030s. Some especially mature technologies may be fielded over the next 5 years, but by and large they will do so via capability upgrades to existing systems and platforms. Solutions to the presence-versus-surge-readiness dilemma over the next 15 years, then, must lean heavily on creative new ways for positioning, posturing, and employing our existing forces.

The starting point for confronting this problem, however, must begin with the recognition that warfighting considerations must predominate, at least with respect to any decision affecting substantial or material portions of the joint force. Thus any significant forward deployment or basing should be integrated into a credible strategy for fighting and prevailing against a major power adversary such as China or Russia. Building a force commensurate with this logic will involve change because over the past 30 years the U.S. military has grown accustomed to surging forces unopposed into a combat theater, initiating conventional operations at a time of its choosing, and then decisively defeating adversary countries over the span of a few weeks to months.

Yet as American military advantages narrow and potential adversaries expand their abilities to strike at U.S. forces forward while also hindering American reinforcement surges into theaters, such an approach will no longer suffice. Indeed, if the United States prematurely deploys or dispatches campaign-critical forces substantially into a theater's contested zones, it risks their destruction or disablement in the event of conflict. For instance, U.S. warships that were once

secure in their Japanese ports when China could not strike accurately against these facilities are now imperiled there in the event of war.

Framework for Optimal Deployment

Accordingly, the United States needs a framework for determining how to optimally deploy its conventional forces to deter most effectively in light of more capable potential opponents. Such an approach should build on the following model informed by conventional deterrence thinking.

The first layer of forces are those that must be deployed in close proximity to a potential contested zone to allow them to immediately arrest and inflict costs upon an opponent's offensive. These forces should be capable of absorbing an aggressor's withering conventional first strike with adequate allotments for losses, then rallying to arrest the aggressor's offensive progress and contribute to preventing a fait accompli U.S. defeat. Submarines, tactical aircraft suited for dispersed operations from austere airbases, and dispersible ground forces that can immediately arrest an aggressor's land offensive or threaten an aggressor's use of the sea or air within the contested zone exemplify the kinds of forces that should be allocated to this layer.

Many of these forces would need to be permanently stationed near frontline areas in peacetime so that they would not have to be deployed in the midst of tensions, a posture that could well undermine crisis stability and unfavorably compel the United States to appear to be the party responsible for escalation. Land-based frontline presence forces would need large, hardened, and dispersed stockpiles of munitions as well as other stores to account for an aggressor's likely ability to pressure U.S. and allied supply lines early in a conflict. Some light "tripwire" forces might also be added to this echelon's land and sea contingents during peacetime to promote deterrence, but they would not be expected to play major combat roles if a war broke out. Such tripwire forces might be particularly suitable for more symbolic showing the flag operations.



U.S. Air Force joint terminal attack controller uses laser rangefinder designator for close air support training mission at Grayling Air Gunnery Range, Grayling, Michigan, July 29, 2015 (U.S. Air National Guard/Scott Thompson)

Presence forces that would be critical to preventing an aggressor's quick victory should be allocated to a second and much heavier layer and would be positioned at the contested zone's periphery during a crisis. Nothing would prevent these forces from conducting peacetime training or engagement operations in forward areas that might be contested in a conflict. The key would be to base these forces outside likely contested zones and to be able to quickly sortie or disperse them in a crisis to reduce an aggressor's opportunities for preemptive attacks. Ground forces sized to quickly reinforce the frontlines from rearward garrisons in-theater, aircraft carriers, ships capable of supporting amphibious operations, large naval surface combatants, and theater-range land-based air forces exemplify the kinds of forces that should be allocated to this echelon. The air and naval forces in this contingent would be used to provide frontline forces with combined arms support, with the caveat that they would typically do so by conducting brief forays into the contested zone during the early phases of a war, as dictated by calculated risk and operational conditions.

It is of vital importance to appreciate that the use of light forces as a tripwire at the frontline would not be credible without the second layer's latent backing from "over the horizon" locations. Furthermore, the second echelon would be responsible for ensuring the protection of the sea, air, and overland transportation routes necessary for allies' basic economic sustenance, frontline forces' logistical sustainment, and the flow of U.S. reinforcements and materiel into the theater during a war's first days and weeks.⁷

While forward-deployed forces would focus on stemming and bloodying an adversary's advance, actual war-winning forces would have to be surged from the continental United States. These forces would fall into four categories:

- forces that conduct combat operations directly from their bases (for example, intercontinental-range bombers)
- forces able to quickly arrive in the theater (surge-ready theater-range aircraft, airmobile Army units, and

Army and Marine units designed to marry up with equipment prepositioned in theater)

- forces ready for deployment on short notice but that could take a week or more to arrive in the theater (surge-ready U.S. naval forces)
- forces that require lengthy preparation to be ready for overseas combat (the rest of the deployable joint force).

With the exception of the immediately employable long-range bombers, these surge forces would build up over days to weeks, accumulating the military capability to allow the joint force to eject or defeat enemy forces and/or impose such costs on the adversary as to compel him to terminate the conflict on acceptable terms.

Adapting U.S. military posture to this approach would require substantial changes. To start with, the Department of Defense should redesign its contingency plans for major conflicts to conform to this logic, such that they focus on making use of available

peacetime U.S. forces in theater, backed by long-range weaponry as well as aircraft to the maximum extent possible, to delay and bloody (if not deny) adversaries' efforts to score quick and cheap gains through aggression. In other words, rather than concentrate on achieving rapid and decisive victory, which would be exceedingly difficult against the likes of Russia or China, the United States should instead strive to ensure that any conflict these nations would initiate would result in a costly, risky, and uncertain contest in which they would clearly be the aggressor, and one in which the United States would be ready and capable of deploying its surge forces for decisive effect.

Fortunately, a contingency response along the above lines and the peacetime posture to enable it could be executable before 2020 using systems and platforms that exist today or are being delivered within that timeframe. Doing so, however, would need to proceed from near-term efforts by the Defense Department to develop doctrine and operating concepts, improve training, and field off-the-shelf technologies that extract greater combat readiness and capacity from available forces.

Measures to Strengthen Warfighting Capabilities

One approach is to develop new operating concepts that enable rapid reinforcement of the two peacetime forward layers. Forces and materiel would need to be surged forward from bases in a theater's rear areas and from the United States itself in the face of the adversary's probable efforts to retard or block those flows. Cold War-era surge concepts, such as the Return of Forces to Germany (Reforger), ought to be closely studied to harvest ideas that may be applicable to today's circumstances. More attention would need to be paid to how reinforcements would be protected as they enter an opposed theater and then proceed toward their destinations by air, sea, and land.

A second method is through operating concepts and doctrine to address the division of labor between long- and

short-range strike forces. History suggests that munitions expenditure rates in war will be well in excess of peacetime estimates, and complex long-range strike weapons are less likely to be quickly producible in wartime than guidance kits for short-range strike weapons.⁸ It would therefore be necessary to allocate the scarce inventories of the former toward punching holes in an adversary's defenses and suppressing an adversary's operations. This would allow the two forward echelons to obtain greater margins of temporary localized superiority for their operations within a contested zone early in a war. It would also pave the way for the entire joint force to use comparatively more plentiful and readily producible shorter range munitions over the course of a protracted conflict.

A third avenue is via doctrine and plans that embrace dispersed operations to reduce forward forces' susceptibility to attack within a contested zone. To do this, the Services as well as the combatant commanders would need to develop viable approaches for logistical support and supply line protection of dispersed forces. New tactics and procedures would also be needed to enable on-scene coordination/cooperation among the different Services' combat arms. Additionally, combatant commanders would need to work with their allied counterparts to develop suitable forward locations for ad hoc airbases, logistical distribution sites, mobile sensor and weapons launcher positions, relocatable headquarters sites, and the like.

A fourth method is through a more decentralized command and control doctrine that embraces delegation of tactical initiative to the lowest practicable level. Also known as "mission command," this is intended to account for the impossibility of exercising tightly centralized tactical control over dispersed forward forces in a supremely complex and dynamic battlespace. This also accounts for the certainty that adversaries would strive to disrupt and exploit U.S. command, control, and communications pathways through kinetic as well as nonkinetic means. Much experimentation, training, and "cultural adjustment" would be necessary for forces to become proficient in

this "trust-based" approach to command and control.

A fifth route is through a vastly greater attention to electronic warfare. Improved electronic warfare capabilities are critical to protecting forward forces from adversaries' wide-area surveillance, reconnaissance, and strike assets. While it would take the better part of the next decade to broadly introduce the next-generation electronic warfare systems currently in the development pipeline throughout the joint force, mature advanced electronic warfare technologies that already exist could nonetheless be rapidly packaged for use by forward forces as interim solutions until that time.⁹ It also follows that the Services would need to do much to condition their forward-deploying forces so that they could safely and effectively conduct complex operations under restrictive electromagnetic emissions control, not to mention under an adversary's electromagnetic opposition. The ability to smartly employ electromagnetic deception while countering the adversary's attempts to do the same would be particularly crucial.

Improved tactical training regimes constitute a potential sixth area of effort. Rigorous, routine, and realistic tactical training is essential to the combat readiness of forces preparing for peacetime forward presence missions. In this era of constrained training budgets, tactical-level commanders still have many training tools and opportunities at their disposal that do not require units to leave their garrisons, take to the air, or go to sea. The Services should accordingly expand use of off-the-shelf simulation technologies as much as possible to enable tactical training events that would otherwise be too difficult or expensive to conduct in actual environments.¹⁰

A final set of efforts could take into account that many of our forward allies would be core contributors to the frontline echelon as they would be inherent parties to conflicts waged in their defense. It stands to reason that these allies' forces could do much to multiply forward-deployed U.S. forces' combat potential. For example, many



Ships from USS *George H.W. Bush* Carrier Strike Group simulate strait transit during predeployment evaluation, December 10, 2013 (U.S. Navy/Justin Wolpert)

have proposed that multinational Brigade Combat Teams reporting to the Supreme Allied Commander Europe could be formed using ground unit contributions from the United States and its North Atlantic Treaty Organization (NATO) Allies to deter Russian aggression against the Baltics.¹¹ Similarly, a standing NATO maritime task force could be established for the Baltics that includes not only warships but also land-based aircraft, air and missile defenses, and anti-ship missile batteries. Combatant commanders' efforts to cultivate these kinds of combined forces, plus U.S. armaments sales or financial or technical assistance that helps allies procure off-the-shelf capabilities, could have disproportionately high returns on investment.

Taken together, the aforementioned measures offer great promise for strengthening the warfighting capabilities—and thus the conventional deterrence credibility—of U.S. forward forces in relatively short order. It is clear, though, that the trends driving the U.S. military's presence-versus-readiness challenges will not be diminishing anytime soon. Indeed, if anything, those trends will only worsen during the 2020s.

Unfortunately, the same may well be true of overall fiscal pressures on defense acquisition. As a result, technology research, development, and procurement priority decisions made today will have an outsized impact on forward forces' warfighting capabilities in the mid-2020s and beyond.

Five Critical Capabilities

Five capability areas in particular will be critical to developing a joint force that can prevail in regional wars while still performing peacetime presence missions at a reasonable level:

- Forward forces would need affordable and wartime mass-producible guided munitions that are “good enough” for waging protracted conflicts. This means that there would be tradeoffs between weapon capabilities and the numbers that could be quickly manufactured using available commercial electronics and other materials, tested, and then delivered during a conflict.
- As the effective strike ranges of potential adversaries continue to increase and contested zone sizes expand accordingly, many U.S. air-

bases used early in a war would need to be located at increasing distances from the frontline. This means U.S. aircraft performing missions in support of the frontline or second echelon would need greater range, on-station endurance, and payload capacity than the fighters we presently have or will soon field. This highlights key attributes for the Air Force's planned long-range strike platform as well as for the Navy's proposed F/A-XX fighter. The latter in particular would need to take on the long-range fleet air defense role last performed by the F-14.

- Since the strike capabilities of potential adversaries would hold forward port facilities at risk, and since every day of transit from forward areas to rearward ports represents time that warships are not fighting at the front, the Navy should equip its logistics ships with the capability to reload surface combatants' vertical launchers and submarine magazines at sea or in anchorage. Failure to do so would present a potentially campaign-breaking problem for forward naval surface and submarine forces.

- Unmanned systems will provide future forward forces with dramatically expanded capabilities. Particularly important will be the use of such systems as communications relays within a contested zone; the resultant highly directional line-of-sight pathways will be extraordinarily difficult for adversaries to detect, degrade, or exploit. Unmanned systems will also play central roles in electronic warfare, whether as direction-finding sensors, decoys, or electronic attack platforms. Unmanned systems will additionally be needed as scouts to support high-confidence classification of targets and avoid weapons or strike platform wastage, to serve as “wingmen” for manned platforms, and to serve as strike platforms themselves.
- Directed energy weapons may offer forward forces radically expanded capability enhancements. Electromagnetic railgun technologies offer ground and surface naval forces the tantalizing promise of being able to strike targets with inexpensive projectiles from increased standoff ranges. Similarly, high energy laser systems may be ideally suited as point defense weapons against an adversary’s use of inexpensive air or surface vehicle swarms. The electro-optical/infrared sensors used to aim lasers will additionally provide U.S. forces with an excellent situational awareness tool, most notably when radars are being jammed.

Investments in these five areas should be harmonized among the Services as well as among core allies. This would allow the creation of constructive capability redundancies while avoiding unnecessary duplications of effort. Cooperative research and development with allies may be especially beneficial in this regard, as not all good ideas or cutting-edge technologies are born, or best or most efficiently developed, in America. The more U.S. and allied forces coordinate or share responsibilities for holding the line forward in specific theaters, the more that armaments cooperation—and

foreign military sales as well as direct commercial sales—could strengthen those bulwarks.

A Present and Capable Force

The recommendations offered here are intended to be stimulative and suggestive rather than exhaustive or definitive. Hopefully, they will provide defense decisionmakers and those who influence them with a framework for ideas and ways of grappling with the need to augment the joint force’s warfighting capability while enabling presence missions. But perhaps the most significant result would be for the defense establishment simply to recognize the existence and severity of the problem, the reality of the tradeoffs involved, and the need for earnest and creative responses.

Recognition of the problem would be significant because the formidable military buildups of potential adversaries and the general diffusion of advanced military technology mean that the U.S. defense establishment needs to change. The United States can no longer afford the luxury it enjoyed during the years following the collapse of the Soviet Union, when the United States, bestriding the world like a military colossus, could easily—almost thoughtlessly—reconcile the demands of warfighting prowess with the advantages of forward presence. Instead, in a world in which American forces are increasingly vulnerable and in which the United States will have to prepare to struggle for mastery of every domain against increasingly capable opponents, the U.S. defense establishment needs to concentrate much more on the increasingly daunting task of ensuring that the joint force can effectively fight and prevail in a conflict with America’s plausible foes.

Effective conventional deterrence derives ultimately not from the mere sight or knowledge of the defender’s presence, but from respect for his evident ability and resolve to defend and overcome and, usually less reliably, to punish. A force that is present but not capable of inflicting damage or inducing frustration sufficient to dissuade a potential aggressor is not a force that will instill the fear needed to deter. Far better for

deterrence is a force that can adequately punish or defeat a prospective aggressor. Forward and visible presence will often be reconcilable with this need, especially in peacetime; but when it is not reconcilable, the U.S. defense establishment must give due priority to the warfighting ability of the joint force. For ultimately, it is in the ability of the U.S. Armed Forces to do grave damage to or defeat opponents that U.S. coercive strength lies. A military strategy that neglects this simple but unforgiving reality risks creating a hollow force and, ultimately, a paper tiger. JFQ

Notes

¹ See, for example, *Quadrennial Defense Review* (Washington, DC: Department of Defense, 1997), 39, available at <www.bits.de/NRANEU/others/strategy/qdr97.pdf>; *Quadrennial Defense Review* (Washington, DC: Department of Defense, 2001), 11, 25; and *The National Military Strategy of the United States of America 2015* (Washington, DC: The Joint Staff, June 2015), 9, 11.

² The Chinese People’s Liberation Army’s (PLA’s) ability to conduct long-range anti-ship attacks, though, is highly dependent on an integrated theater-wide ocean surveillance and reconnaissance sensor network. This “system of systems” contains many inherent vulnerabilities that suggest it would be most capable at the outbreak of a war, and thereafter would suffer increasing degradation due to U.S. use of deception, electronic and cyber attacks, and physical attacks to suppress, disrupt, confuse, or destroy the PLA’s ability to maintain a high-confidence “picture” of the battlespace. For more elaboration, see Jonathan F. Solomon, “Defending the Fleet from China’s Anti-Ship Ballistic Missile: Naval Deception’s Roles in Sea-Based Missile Defense” (Master’s thesis, Georgetown University, 2011); and Jonathan F. Solomon, “Maritime Deception and Concealment: Concepts for Defeating Wide-Area Oceanic Surveillance-Reconnaissance-Strike Networks,” *Naval War College Review* 66, no. 4 (Autumn 2013), 87–116.

³ See Michael S. Gerson, “Conventional Deterrence in the Second Nuclear Age,” *Parameters* 39, no. 3 (Autumn 2009), 32–48; Edward Rhodes, “Conventional Deterrence,” *Comparative Strategy* 19, no. 3 (Fall 2000), 221–253; and Jonathan F. Solomon, “Demystifying Conventional Deterrence: Great Power Conflict and East Asian Peace,” *Strategic Studies Quarterly* (Winter 2013), 117–157.

⁴ For an excellent exposition of this point, see Evan Braden Montgomery, “Contested Primacy in the Western Pacific: China’s Rise



Ships from U.S. and Indian navies and Japan Maritime Self-Defense Force participate in trilateral naval field training exercise Malabar 2014 to improve collective maritime relationship and increase understanding in multinational operations, July 30, 2014 (U.S. Navy/Chris Cavagnaro)

and the Future of U.S. Power Projection,” *International Security* 38, no. 4 (Spring 2014), 115–149.

⁵ Paul K. Huth, *Extended Deterrence and the Prevention of War* (New Haven: Yale University Press, 1988). See in particular pages 56–76. See also Solomon, “Demystifying Conventional Deterrence.”

⁶ See “A Conversation with Robert O. Work,” Council on Foreign Relations, September 30, 2014, available at <www.cfr.org/asia-and-pacific/deputy-secretary-defense-rob-ert-work-asia-pacific-rebalance/p35728>; and Speech as Delivered by Deputy Secretary of Defense Bob Work at McAleese/Credit Suisse Defense Programs Conference, Washington, DC, March 17, 2015, available at <www.defense.gov/News/Speeches/Speech-View/Article/606653/mcaleesecredit-suisse-de-fense-programs-conference>.

⁷ For the authors’ discussion of this kind of presence in Europe, see Elbridge Colby and Jonathan F. Solomon, “Conventional Defense and Deterrence in Europe,” *Survival-Global Politics and Strategy* 57, no. 6 (December 2015–January 2016), 21–50.

⁸ For elaboration on this point, see Jonathan F. Solomon, “Guided Munitions Inventory Management, Producibility, and

Their Effects on Strategy (Part 1 of 2),” *Information Dissemination Blog*, November 3, 2014, available at <www.informationdissemination.net/2014/11/guided-munitions-inventory-management.html>; and Jonathan F. Solomon, “Guided Munitions Inventory Management, Producibility, and their Effects on Strategy (Part 2 of 2),” *Information Dissemination Blog*, November 4, 2014, available at <www.informationdissemination.net/2014/11/guided-munitions-inventory-management_4.html>.

⁹ For example, see the discussion of interim off-the-shelf electronic warfare systems fielded by the U.S. Army for operations in Afghanistan, as well as discussion of the Army’s timeline for acquiring its next-generation electronic warfare systems in Joe Gould, “Electronic Warfare: What the U.S. Army Can Learn from Ukraine,” *Defense News*, August 4, 2015, available at <www.defensenews.com/story/defense/policy-budget/warfare/2015/08/02/us-army-ukraine-russia-electronic-warfare/30913397/>.

¹⁰ For an assessment of how this point is already being implemented by the U.S. Navy, see Jonathan F. Solomon, “The Use of Simulators and Synthetic Environments for Advanced Tactical Training,” *Information Dissemination*

Blog, September 3, 2015, available at <<http://www.informationdissemination.net/2015/09/the-use-of-simulators-and-synthetic.html>>.

¹¹ Terrence K. Kelly, “Stop Putin’s Next Invasion Before It Starts,” *U.S. News and World Report*, March 20, 2015, available at <www.usnews.com/opinion/blogs/world-report/2015/03/20/stop-putins-aggression-with-us-forces-in-eastern-europe>.



Air Force Reserve security forces members participate in 6-day combat leaders course while living in field conditions, placing practical application of combat maneuvers into complex mission environments (U.S. Air Force/Nicholas B. Ontiveros)

Switching the Paradigm from Reactive to Proactive

Stopping Toxic Leadership

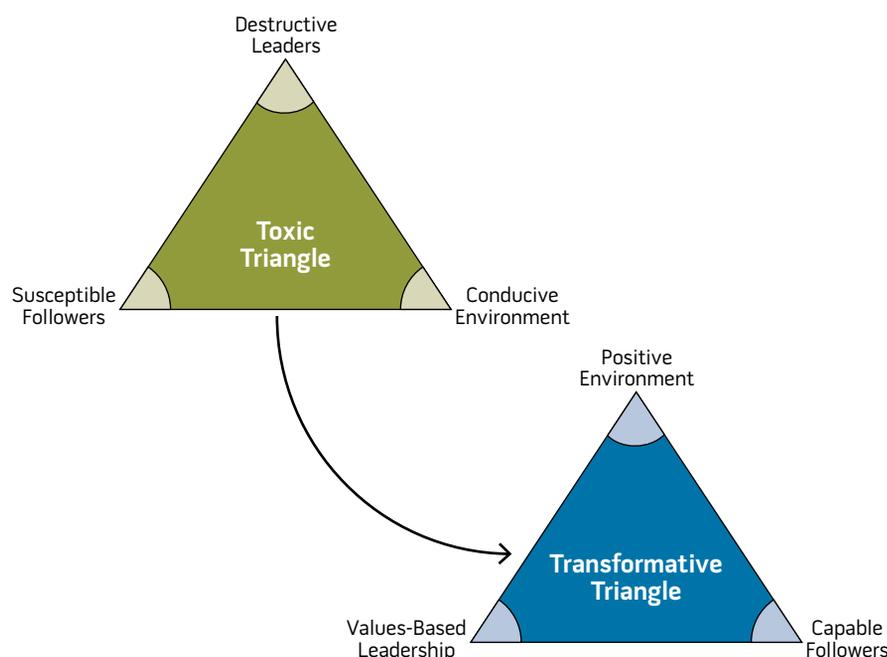
By Mike Rybacki and Chaveso Cook

Major Mike Rybacki, USA, is an Academic Instructor in the Department of Behavioral Sciences and Leadership at the United States Military Academy. Major Chaveso "Chevy" Cook, USA, is Commander of Delta Company, 3rd Military Information Support Battalion (A), Fort Bragg, North Carolina.

Ask any member of the U.S. Armed Forces if they have witnessed firsthand the effects of a toxic leadership environment, and they will almost certainly say "yes." They will usually further elaborate on the damning effects of the toxic environment by providing examples of everything from combat ineffectiveness to low rates of retention and morale.¹

Given this depth of information, we must ask, "Why is there not a proactive approach to preventing these leaders from advancing in leadership roles?" The purpose of this article is to provide an overview of the current thoughts on toxic leadership and provide an actionable approach for countering and preventing the development of toxic leader environments.

Figure 1. Toxic and Transformative Triangles



Toxic Leadership Defined

The definition we will use is presented by Art Padilla, Robert Hogan, and Robert B. Kaiser in their article titled “The Toxic Triangle: Destructive Leaders, Susceptible Followers, and Conducive Environments.”² The authors evaluate conflicting and competing language in the work of previous authors, psychologists, and social scientists. They first refute the idea that leadership by definition is only a “positive force,” where “positive” would mean using human energy and resources to influence others to create a desired result. Subscribers to this line of thinking would argue that toxic leaders are not leaders at all. Narrowing the definition of leaders to those individuals who have only a positive influence becomes problematic when evaluating their “influence” over time and across the many individuals/groups one leader could affect. Similarly, toxicity in an organization exists regardless of the broad ranges of leader competence and effectiveness. In broader terms, the leader in question may or may not be entirely successful in leading his or her organization.

Furthermore, these authors argue that definitions of toxic leadership as a process or as an outcome exclusively are incomplete. Viewing destructive leadership as the result of a leader’s behavior within a process “assumes that a leader’s bad intentions are an essential component of destructiveness” and that “certain behaviors are inherently destructive.”³ Some undesirable behaviors, such as egocentrism, will not always lead to a toxic situation. Viewing toxicity as entirely an outcome is limiting in that even “good” leaders may produce “bad” outcomes.⁴

After determining what toxic leadership is *not*, the central argument presented by Padilla, Hogan, and Kaiser is that previous definitions of toxic leadership that focus solely on the leader are too narrow and incomplete. Denise Williams identified 18 different attributes and “types” of leaders in her research.⁵ Prefaced by the reminder that even a destructive leader must be truly “leading” by influencing others to forego their interests and contribute to long-term goals, Padilla, Hogan, and Kaiser identify the attributes of a toxic leader as five “elements”: charisma, personalized power, narcissism, negative life theme, and ideology of hate.⁶ These attributes

are not sufficient, however, due to the contextual influence and role of followers in an organization.⁷

Followers in a toxic situation are defined as being either “conformers” or “colluders.” Conformers have unmet needs, low maturity, and/or low core self-evaluation. This explains why populations living in poverty can be susceptible to tyrannical leaders. Colluders, on the other hand, seek to benefit from a toxic situation alongside the leader. This group is defined as having ambition, a similar world view as the leader, and “bad” values. The environment must also be “conducive” for a toxic leader and susceptible followers to persist. Instability, perceived threat, cultural values, a lack of checks and balances, and ineffective institutions are the elements of an environment in which a toxic situation may arise.

The Transformative Triangle

In an effort to simplify a complicated issue, we propose our triangle of elements in figures 1 and 2. Each major component has subcomponents, which will be further discussed. Also shown in figure 1 is a juxtaposition of our transformative triangle versus Padilla, Hogan, and Kaiser’s toxic triangle. Both environments are “infectious.” Both seep deep into the culture and the individual members of the organization. For purposes of this discussion, we propose that in a toxic context, the destructive leader is the primary driver of toxicity, while in a constructive context, the positive environment is the primary driver of transformative outcomes. This is visually represented at the apex of each triangle.

Positive Environment

A positive atmosphere is one that is uplifting, supportive, and developmental in nature. Research has shown that when people “work with a positive mind-set, performance on nearly every level—productivity, creativity, engagement—improves.”⁸ We also know that effective leadership is context dependent.⁹ Understandably, it may be especially difficult to measure positivity. Here we use five measures as indicators

of a positive environment: empowerment, transformational and transactional balance, active listening, diplomacy, and a respectful and candid setting.

Empowerment. To empower is to invest, equip, enable, or supply someone with power. All of this requires a certain amount of giving. Leaders have to pour themselves into others and their efforts. A leader must create action, devote time, make space, provide opportunity, mentor, coach, teach, and work on behalf of others to empower them. Constructive leaders are those who understand that they are obligated to endow followers with the ability to do what is needed. John Steele, author of a study released by the Center for Army Leadership in 2011, proposes that constructive leadership is the result of a leader whose focus is pro-organizational behaviors, pro-self-interests, and pro-subordinate behaviors.¹⁰ The one differentiation made between this and a toxic environment is the empowerment of subordinates—whether leaders look to accomplish organization objectives through subordinates or in spite of subordinates.

Transformational and Transactional Balance. Environments that focus on development work toward growing leaders rather than creating better followers. Transformational practices look to restructure and renew members of the organization. Transformational leadership “fosters capacity development and brings higher levels of personal commitment among followers to organizational objectives.”¹¹ Steele finds that “units that make leader development a higher priority also tend to report fewer toxic leaders, and consider toxic leadership less of a problem.”¹² Transactional practices are not on the other end of the spectrum, per se, as they are more akin to a different practice altogether. Transactional leadership focuses more on “exchanging tangible rewards for the work and loyalty of followers.”¹³ Transactional processes are needed to get the job done, and a can-do attitude facilitates results. It has been suggested that subordinates, however, generally want more developmental experiences. When this is not the case, many junior

Figure 2. Transformative Triangle



leaders and subordinates feel like they are less capable.¹⁴ Therefore, a balance must be sought to get tasks accomplished and facilitate growth.

Active Listening. Active listening is a combination of synthesizing another’s information in conversation while not simultaneously formulating our own subsequent retort. It requires that we not multitask while engaging in discussion, denouncing the widely held belief that pausing for silence after one is finished speaking is a sign of misunderstanding, weakness, or unpreparedness in an engagement. Leaders truly understand the importance of active listening if they can pay attention and actively pinpoint another’s perspective. Other tenets of active listening are:

- ask appropriate questions
- stop and pay attention
- use physical listening (that is, body language, eye contact)
- withhold judgment
- pick up on emotions/feelings
- pause to reflect
- synthesize the information
- restate, paraphrase, or summarize.

Carl Rogers’s person-centered approach to humanistic psychology and psychotherapy suggests that “humans will allow themselves to be influenced only after they decide they have been heard and understood.”¹⁵

Diplomacy. Author Paul Arden describes the importance of diplomacy, telling us that we must take into account what others desire, as it will soften our approach and prepare them to look at what we want to show them.¹⁶ He then

goes on to specifically state that doing so allows them to be magnanimous rather than shoving them in a corner.¹⁷ It is giving a little to get a little, but more often than not, it is giving a little to get so much more. Our decisions as leaders greatly affect our followership’s environment. They affect our leaders, too. Bringing them all into our decisionmaking process garners ownership of what results we may achieve together. Diplomacy breeds connectedness, which in many cases takes us from sympathy to empathy. Accurate empathetic understanding is paramount to deciphering the human experience, which gives leaders a better perspective. Being empathetic is not just some sort of banal platitude, as the emotional quotient has become as important to leadership and decisionmaking as the intelligence quotient. Taking this up a level from the individual to the group, through research on organizations, Rensis Likert found that the ideal executive approach from the perspective of the led clusters around participative management as opposed to autocratic management, benevolent autocracy, or even consultative management.¹⁸ Yan Ye confirms the findings of Likert, stating that “autocratic leadership is likely to produce passive followers.”¹⁹

Respectful and Candid Setting. Respect goes in all directions in an organization that has a positive environment. It is not only afforded to those in positions of authority. All members of the organization owe each other respect. True respect should extend to all exchanges, be it around the water cooler, in a presentation, during a working group,

or elsewhere. Followers owe leaders the ground truth, and Steele's study indicates that constructive leaders often take advantage of this by encouraging "frank and free-flowing idea discussion."²⁰ These leaders seek to foster an atmosphere that is conducive to connections, especially in this era filled with hyper-connectivity. Ye states that the advent of the information age has "highlighted the need for more flexible leader-follower relationships."²¹ Our ability to quickly reach out to each other has allowed us to know more than just what followers think. Likewise, Kent Bjugstad finds that effective leaders also need to create the environment that garners respect for followers "who will speak up and share their points of view rather than withhold information."²² This all suggests that mutual respect sets the foundation for quality relationships.

Values-Based Leadership

Noted leadership consultant John Maxwell writes in *The 360° Leader* that "decisions that are not consistent with our values are short lived."²³ With recent studies from the Army's Command and General Staff College finding lying commonplace in the U.S. Army's officer corps and numerous stories demonstrating moral failures in everything from politics to the business industry, value judgment has taken center stage. In a constructive environment, values can "influence both one's effectiveness and the climate in which [he] work[s]."²⁴ Values provide leaders, and followers to a certain extent, an anchor in unsettling situations. In today's unstable security environment, leaders are being put into dangerous situations more often. The three components of psychological readiness for leadership in difficult contexts are caring, competence, and values.²⁵ Teams will be more apt to have mutual trust and cohesion when the leaders derive their actions and decisions from values.

Character. Character is paired with commitment and competence in the profession of arms as defined in Army Doctrine Publication 6-22, *Army Leadership*.²⁶ Maxwell argues that our behavior determines the culture, our values

determine decisions, our attitude determines the atmosphere, and our character determines the trust in an organization.²⁷ Leaders who display upright character through both behavior and values will have a culture of trust in their organizations. Steele states that there is a strong relationship between constructive leadership and behaving ethically, wherein there lie inviolable moral principles.²⁸ Lacking principles may lead to a bending of rules that destroys the trust that connects a leader and followers. Steele further states that there is a strong relationship between constructive leadership and behaving ethically.²⁹ Mutual trust allows working toward goals on behalf of the whole, where followers trust that the leader is taking them in the right direction and that the leader trusts that the followers will do the right thing(s) to accomplish that goal. James O'Toole argues that without committed understanding couched within morals and values, trust will be broken and the leader will not be followed.³⁰

Reasonable and Restrained Standards-Based Approach. The military is a standards-based organization. Steele reminds us that even micromanagement can be effective "when a subordinate is incompetent or wants tight guidance."³¹ Different types of followers may require different leadership approaches to get the most out of them. Path-goal theory tells us that leader behavior is dictated by both the composition of their followership and the characteristics of the task at hand, spanning from a directive style to an achievement-oriented style.³² As mentioned earlier, leadership approaches can be democratic to a certain extent, as the interactions between leaders and followers can and will at times determine our outcomes. Before leader-member exchange theory, for example, most research focused solely on the approach that leadership was something leaders did *to* followers, as opposed to *with* followers.³³ We should hold followers accountable, but not to the point of neglecting simple courtesy. For example, if gloves are required for work or training, then that is the standard to be adhered to. But if it is raining so badly that gloves are soaked to the point of deteriorating

the wearers' hands, a leader should no longer require followers to wear gloves, to let their gloves and hands dry out.

Superordinate Thoughts and Actions. Many of our military standards derive from tradition. Traditions only stay alive because of leaders and followers. Institutions are built upon traditions, as well as standards, norms, ethics, credentials, and even schedules. But they do not honor themselves; members of the organization honor them. Institutions need people to make them what they are. Members of the organization tell others, by words and deeds, what institutions stand for. When leaders focus on upholding the institution, they focus less on the story they become. The institution is bigger. One should not read "bigger" strictly through the lens of size, though it is an important and unforgettable dimension with respect to this definition. It should be thought of from the broader sense of importance. This importance is heavily derivative from esteemed tradition(s) developed over time, long before the current member was part of the organization. A values-based leader carries on the institution because it is guaranteed to outlive all existing members of the organization.

Selfless Intent. Dysfunctional leadership behaviors, including self-centered attitudes and motivations, adversely affect subordinates, the organization, and mission performance.³⁴ In a *Military Review* article, Joseph Doty and Jeff Fenlason find that almost all toxic leaders are narcissistic.³⁵ If toxic leaders are "individuals whose behavior appears driven by self-centered careerism at the expense of their subordinates and unit," then values-based leaders should display selfless intent that accentuates their subordinates' and unit's accomplishments.³⁶ From recognition to mission completion, constructive leadership has to be about putting others first.

Close Match Between Espoused and Enacted Values. What leaders say and do matter. Leading by example requires both words and deeds. Organizations have missions that are girded by a vision that consists of ethics, standards, and goals for their members. An alignment of all these factors is needed to achieve a mission's desired endstate. If people are



Airman provides security during training event for U.S. Army Alaska's Warrior Leader Course on Joint Base Elmendorf-Richardson, May 16, 2014 (DOD/Justin Connaehr)

our greatest resource, then leaders have to be good stewards of relationships. Followers and leaders work together better when they “are comfortable with each other, and value congruence is one way to achieve common ground.”³⁷ Susan Fiske, John Cacioppo, and Reid Hastie remind us that “groups determine how behaviors associated with a task are to be accomplished in ways that conform to its core values.”³⁸ A close match between what we believe in and what we do is significant, as novel situations tend to place us into contexts that require quick decisionmaking. Psychologist Gary Klein would state that quick, on-the-spot decisions come from habit, and we want our personal and professional habits to match our values and norms at both the organizational and individual levels.³⁹

Capable Followers

In their literature review of the context of military environments, Fiske, Cacioppo, and Hastie posit that leadership is categorically not exclusively

about the leader.⁴⁰ Margaret Rioch states that almost all relationships “can be looked at as variations on the theme of leadership-followership.”⁴¹ If we believe that leadership is a process, we cannot extricate the fact that there is a transaction occurring between the leader and follower and both their respective perspectives and experiences. Because of this linkage, the leader is burdened with both creating and maintaining that relationship while also initiating and continuing communication and direction. However, it is of the utmost importance for a follower to be a good listener, be loyal, share the values of the leader and the group, and give honest feedback to better the experience. All of these qualities strengthen and enhance the leader-follower relationship while allowing for a bidirectional checks and balances system.

Upstanders. William O’Connell argues that it “takes true moral courage to risk a comfortable niche in the unit by advocating an unpopular idea.”⁴² One of

the problems associated with followership is its negative connotation as being a weak, passive, or conforming position.⁴³ Upstanders change that paradigm. Quite simply, upstanders are those who do not stand idly by in negative situations. In Padilla, Hogan, and Kaiser’s work, susceptible followers, in the form of colluders and conformers, are a part of a destructive environment. Robert Kelley defines four types of followers, noting that conformists are the “yes people” of organizations.⁴⁴ He also defines “exemplary followers” as independent, innovative, and willing to question leadership.⁴⁵ Upstanders take this one step further—they not only question leadership in their independence but also become a check to everyone in the organization, balance the system, and bring their own innovative solutions to the table when problems arise without prompt.

Lower Level Leadership. Leadership is not an amalgamation of characteristics that manifest within ourselves; it has to be externally confirmed by the experience



Ranger Assessment Course instructor (right), informs class leader that he needs to improve leadership skills, Nevada Test and Training Range, October 3, 2014 (U.S. Air Force/Thomas Spangler)

of others. Rioch states that “the word leader does not have any sense without a word like follower implied in it.”⁴⁶ But followers have a direct stake in the leading, as everyone is pushed in the direction of growth. Growth can be individual betterment or for the betterment of the group in the form of attaining the end-state. It should be understood that this does not mean that without lower level leadership, the leader-follower relationship fails. However, we propose that for the most optimal leadership exchange, followers must take a more responsible role in fostering a cohesive environment. Certain key roles are needed for good followership. “Second-in-command” is a followership role that allows the leader to be replaced if not around or when delegation is needed. A “sidekick” is an assistant who can relieve the burden of the leader while not filling an institutional position. “Partners” are an accompaniment to the leader and can allow a division of the

responsibilities to be accomplished. In all of these important followership roles, we should view the follower not explicitly in a subordinate status. The leader-follower relationship is a two-way street.

Penchant for Proper Dissent. At the very onset, it may seem as if dissent goes against good order and discipline. However, Brian Gibson notes that there is likely “no more difficult calling for a military professional than to dissent.”⁴⁷ In concert, O’Connell finds that junior leaders “can enhance mission effectiveness when they appropriately challenge the status quo.”⁴⁸ It should be understood that superiors are in the best positions to deal with toxicity because they have the positional authority to counter it or deal with it in other appropriate means. However, George Reed argues that leaders “might be the last to observe the behavior unless they are attuned to it.”⁴⁹ Though leaders should be wary, Reed’s thought places some of the burden back

on the follower. We believe that followers owe their leaders the truth. As a unit creates upstanders, one of their key components is questioning leadership. Having a prudent and proper way of addressing those questions is the key.

Unity of Effort. An important objective regarding constructive leadership would be to promote small unit cohesion and other forms of teamwork. Research demonstrates that high-quality leader-member exchanges lead to less turnover, more positive evaluations, greater organizational commitment, greater participation, better job attitudes, and more support given to the leader.⁵⁰ Interdependence leads to the achievement of a common goal. Group members who understand this interdependence gain greater insight into how they can facilitate trust and cooperation. Cohesion cannot be discounted, as it specifically speaks to willingness to remain a team and work within the team construct. Only by

collaborating effectively with all members working in the same direction, if not the same task, can team members “truly gain the benefit of task accomplishment.”⁵¹

Equal Loyalty to Mission, Leadership, and Organization. Effective unit performance is a function of “the combined effect of the behaviors of individual unit members, to include leaders and those they lead; these behaviors take place both before and during defined missions.”⁵² The most effective followers are committed to the organization and to a purpose beyond themselves.⁵³ Loyalty cannot just be to the leader, to those around us, or to the task at hand. Studies show that collective efficacy gained through loyalty “works harder on behalf of the group, sets more challenging goals, and persists in the face of difficulties and obstacles.”⁵⁴ Horizontal allegiances (to peers and others in our unit) must match vertical allegiances (to the organization or subordinate entities), or effectiveness, trust, and even rationality are undermined.⁵⁵

In their article Padilla, Hogan, and Kaiser state that “leadership can yield results ranging from constructive to destructive.”⁵⁶ Here we draw the same conclusion, adding that the definition of constructive leadership emphasizes positive outcomes that not only lead organizations and their members to success but also have the capacity to be transformative in nature, changing a negative (toxic) environment to a positive one. Lieutenant General Walter Ulmer, USA (Ret.), stated that although we have been “alerted for years to the issue [of toxic leadership]; as an institution we have been reluctant to confront it directly.”⁵⁷ Of note, constructive leadership is overly studied, but not in the context of being an active deterrent to toxicity; it should start to be studied more in terms of how relations among leaders, followers, and environments can combat seeds of negativity from growing. Our transformative triangle specifically addresses the elements of Padilla, Hogan, and Kaiser’s “toxic triangle” and suggests how an effective paradigm shift could foster the appropriate relationships for positive outcomes. JFQ

Notes

¹ Joseph Doty and Jeff Fenslon, “Narcissism and Toxic Leaders,” *Military Review* (January–February 2013), 55. This article cites a study reporting that 80 percent of the officers and noncommissioned officers polled had observed toxic leaders in action and that 20 percent had worked for a toxic leader.

² Art Padilla, Robert Hogan, and Robert B. Kaiser, “The Toxic Triangle: Destructive Leaders, Susceptible Followers, and Conducive Environments,” *The Leadership Quarterly* 18 (2007), 176–194. The authors use the terms *toxic* and *destructive* interchangeably.

³ Ibid.

⁴ Ibid.

⁵ Denise Williams, “Toxic Leadership in the U.S. Army,” U.S. Army War College Strategy Research Project, March 2005.

⁶ Padilla, Hogan, and Kaiser.

⁷ Ibid.

⁸ Shawn Anchor, “Positive Intelligence,” *Harvard Business Review*, January–February 2012, available at <<https://hbr.org/2012/01/positive-intelligence>>.

⁹ Susan Fiske, John Cacioppo, and Reid Hastie, *The Context of Military Environments: An Agenda for Basic Research on Social and Organizational Factors Relevant to Small Units* (Washington, DC: National Academies Press, 2014), 60.

¹⁰ John Steele, “Antecedents and Consequences of Toxic Leadership in the U.S. Army: A Two-Year Review and Recommended Solutions,” Center for Army Leadership, Technical Report 2011-3, 4.

¹¹ Iain Hay, “Transformational Leadership: Characteristics and Criticisms,” Flinders University, 2006, 1.

¹² Steele, 18.

¹³ Hay, 1.

¹⁴ Morton Ender and Remi Hajjar, “McDonaldization in the U.S. Army: A Threat to the Profession,” in *The Future of the Army Profession*, ed. Don M. Snider and Lloyd J. Matthews (New York: McGraw-Hill, 2005), 15.

¹⁵ Michael Passer and Ronald Smith, *Psychology: The Science of Mind and Behavior*, 5th ed. (New York: McGraw-Hill, 2013).

¹⁶ Paul Arden, *It’s Not How Good You Are, It’s How Good You Want to Be* (New York: Phaidon Press, 2003), 42.

¹⁷ Ibid.

¹⁸ James O’Toole, *Leading Change* (San Francisco: Jossey-Bass Publishers, 1995), 149.

¹⁹ Yan Ye, “Factors Relating to Teachers’ Followership in International Universities in Thailand,” Assumption University of Thailand, 2008, 1.

²⁰ Steele, 14.

²¹ Ye, 2.

²² Kent Bjugstad, “A Fresh Look at Followership: A Model for Matching Followership and Leadership Styles,” *Comcast Spotlight*, 2006, 308.

²³ John Maxwell, *The 360° Leader* (Nashville: Thomas Nelson, Inc., 2006), 244.

²⁴ Paul Hanges, Lynn Offerman, and David Day, “Leaders, Followers, and Values: Progress and Prospects for Theory and Research,” *The Leadership Quarterly* 12 (2001), 129–131.

²⁵ Patrick Sweeney, Mike Matthews, and Paul Lester, *Leadership in Dangerous Situations: A Handbook for the Armed Forces, Emergency Services, and First Responders* (Annapolis, MD: Naval Institute Press, 2011), 5–6.

²⁶ Army Doctrine Publication (ADP) 6-22, *Army Leadership* (Washington, DC: Headquarters Department of the Army, 2014), available at <http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/adp6_22_new.pdf>.

²⁷ Maxwell, 244–245.

²⁸ Steele, 14.

²⁹ Ibid.

³⁰ O’Toole, 36.

³¹ Steele, 25.

³² Peter Northouse, *Leadership: Theory and Practice* (Thousand Oaks, CA: Sage Publications, 2007), 129.

³³ Ibid., 127.

³⁴ ADP 6-22.

³⁵ Doty and Fenslon, 55.

³⁶ Walter Ulmer, “Toxic Leadership: What Are We Talking About,” *Army* (June 2012), 48.

³⁷ Bjugstad, 307.

³⁸ Fiske, Cacioppo, and Hastie, 34.

³⁹ G.A. Klein, *Sources of Power: How People Make Decisions* (Cambridge: MIT Press, 1998).

⁴⁰ Fiske, Cacioppo, and Hastie, 59.

⁴¹ Margaret Rioch, “All We Like Sheep,” *Psychiatry: Journal for the Study of Interpersonal Processes* 34, no. 3 (1971), 258–273.

⁴² William O’Connell, “Military Dissent and Junior Officers,” in *Concepts for Air Force Leadership*, ed. Richard I. Lester (Maxwell AFB, AL: Air University Press, 1988), 326.

⁴³ Bjugstad, 304.

⁴⁴ Robert Kelley, “In Praise of Followers,” *Harvard Business Review*, November 1988, 142–148.

⁴⁵ Ibid.

⁴⁶ Rioch, 262.

⁴⁷ Brian Gibson, “The Need for Proper Military Dissent,” U.S. Army War College Strategy Research Project, 2012, 7.

⁴⁸ O’Connell, 324.

⁴⁹ George Reed, “Toxic Leadership,” *Military Review* (July–August 2004), 71.

⁵⁰ Northouse, 155.

⁵¹ Sweeney, Matthews, and Lester, 187.

⁵² Fiske, Cacioppo, and Hastie, 65.

⁵³ Bjugstad, 308.

⁵⁴ Sweeney, Matthews, and Lester, 189.

⁵⁵ Ibid., 100.

⁵⁶ Padilla, Hogan, and Kaiser, 190.

⁵⁷ Ulmer, 50.



Two U.S. Navy Sailors and Peruvian sailor confirm position of simulated enemy destroyer in combat information center aboard guided-missile frigate USS *Rentz* during wargames as part of annual UNITAS multinational maritime exercise, off coast of Colombia, September 14, 2013 (U.S. Navy/Corey Barker)

Measuring Strategic Deterrence

A Wargaming Approach

By Douglas R. Ducharme

During the Cuban Missile Crisis of 1962, President John F. Kennedy weighed a number of factors to assess the potential effectiveness of U.S. actions to deter the Soviets from further deployment of medium-range nuclear missiles in Cuba. Kennedy realized that an existing missile gap gave the United States an assured second-strike capability, but Soviet missiles in Cuba would make the con-

sequences of a Soviet first strike much costlier. For example, U.S. extended-deterrence strategies would be at risk, which could suggest that the United States might not risk nuclear war if the Soviets subsequently assaulted Berlin. Although Kennedy's greatest fear was the potential for human error and accidental escalation during the standoff, he gained insight into Soviet Premier Nikita Khrushchev's risk tolerance after receiving a rambling four-part cable from the seemingly stressed Soviet leader.¹ In the end, it was the rational consideration of these factors from

both his and Khrushchev's perspectives that allowed Kennedy to assess relative resolve and select actions that would control escalation.

No rubric currently exists, however, for national leaders to make these time-constrained decisions in ambiguous strategic environments. Decisionmakers may lack the time to identify and weigh the relevant factors associated with a strategic crisis. This article describes how the U.S. Naval War College uses wargaming to help measure factors associated with strategic deterrence decisionmaking by emulating notional crises

Douglas R. Ducharme, Ed.D., is an Associate Professor at the U.S. Naval War College.

between nuclear-capable adversaries. As a result, wargaming not only provides decisionmaking experience for those who participate but also examines the suitability of various deterrence strategies through analysis of the decisions made and the perceptions that influence those decisions.

Maintaining a secure and effective nuclear deterrent remains the highest priority mission for U.S. military forces.² However, assessing the effectiveness of strategic deterrent options can prove challenging due to the difficulty of measuring deterrence as a strategy. Joint doctrine defines *deterrence* as the prevention of adversary action by the existence of a credible threat of unacceptable counteraction that results in a belief that the cost of action outweighs the perceived benefits.³ Deterrence can also be described as the manipulation of an adversary's estimation of the costs and benefits of taking action.⁴ Abstract concepts such as prevention and manipulation inhibit an objective examination using empirical methods.

Deterrence has a behavioral science dimension to it, as "deterrence, more than anything else, is psychological."⁵ Unfortunately, there are few historical examples, such as the Cuban Missile Crisis, of how leaders think during a strategic crisis between nuclear-capable adversaries. Therefore, wargaming provides a suitable means to research deterrence.

Gaming is a means to gain useful experience and information in advance of an actual commitment; of experimenting with forces and situations that are too remote, too costly, or too complicated to mobilize and manipulate; and of exploring and shaping the organizations and systems of the future. When, as in atomic warfare, there are no precedents, no historical examples to furnish guidelines, wargaming creates its own history of artificial wars.⁶

While wargaming provides a laboratory to experiment with deterrence strategy, the measurement device for deterrence remains elusive. Thus, instead of measuring deterrence directly, a better approach may be viewing deterrence as a key to managing an enemy's intentional escalation, such that an enemy is discouraged "from deliberately escalating a

conflict by convincing that enemy that the costs of such actions will outweigh the benefits that may be accrued through escalation."⁷ Through analysis of escalation dynamics using wargaming, the U.S. Naval War College has attempted to provide a framework for measuring strategic deterrence effectiveness.

Measuring Escalation and Resolve

At the U.S. Naval War College, the War Gaming Department has examined strategic deterrence through the lens of escalation and resolve. *Escalation* can be viewed as "an increase in the intensity or scope of conflict that crosses threshold(s) considered significant by one or more of the participants."⁸ From this perspective, escalation can be measured as an event. But defining escalation as a distinct event fails to consider either the intent of action or "any type of conflict, where adversaries typically strive to gain a comparative advantage."⁹ In any case, escalation as a concept tends to be easier to measure than deterrence, but still proves challenging.

Game theory can be used to examine deterrence with relative resolve as a key variable for measuring escalation. *Brinkmanship* is a contest of resolve and a competition in taking risks. *Resolve* is defined as a state's willingness to run the risk of disaster. But relative resolve must also consider the adversaries' resolve as well as one's own, where "a state's beliefs about the resolve of its adversaries are important, but so are its beliefs about its adversary's beliefs."¹⁰

To conduct this examination, resolve needed to be modeled and subsequently measured. As depicted in figure 1, we assessed resolve using a simple model comprised of three components: stakes, credible capabilities, and risk tolerance. The *stakes* represent the strategic objectives and national interests of an actor, either challenger or defender, in a crisis. *Credible capabilities* represent the relevant factors of time, space, and forces for either actor that enhance the perception that escalation is possible. *Risk tolerance* represents the inherent aggressiveness or boldness of either actor.

Figure 1. Total Resolve as the Sum of Three Components

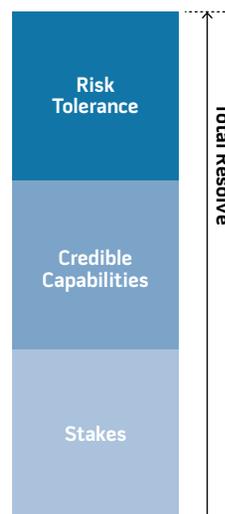
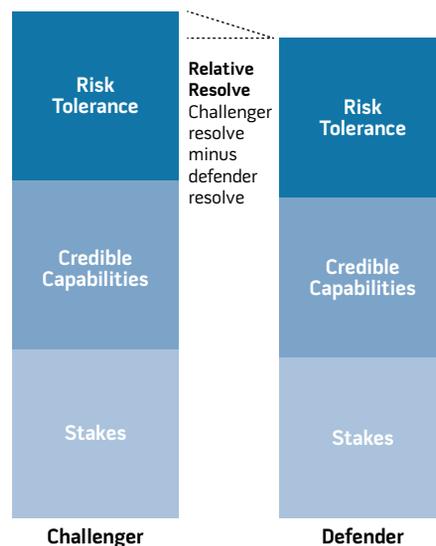
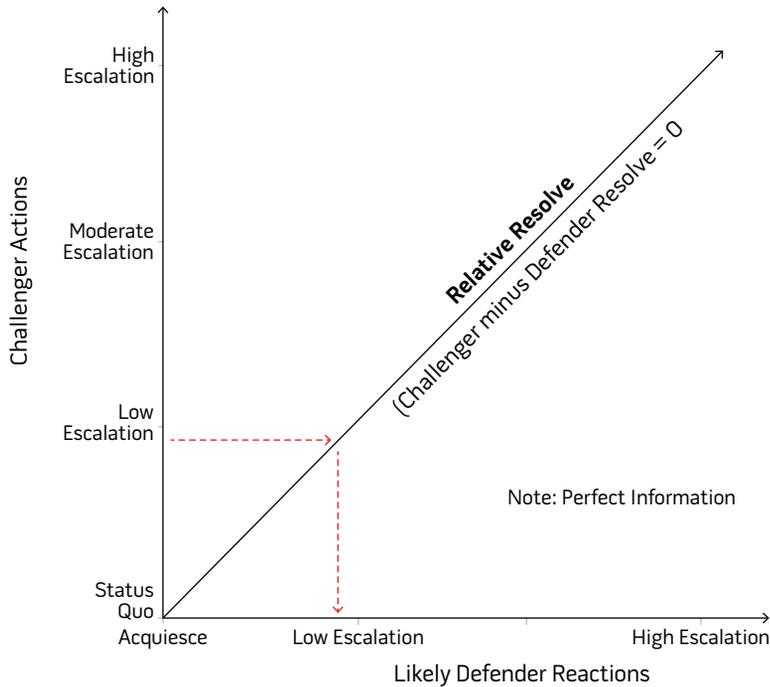


Figure 2. Relative Resolve as the Difference Between Challenger Resolve and Defender Resolve



Understanding one's own resolve is important, as is understanding that of the adversary. However, it is the comparison of the two resolves that matters. Relative resolve pertains to how an actor perceives the other actor's resolve relative to its own, and is calculated as the difference between the challenger resolve and the defender resolve. Because resolve is an additive function of the three components, a defender may perceive itself as having greater stakes and more credible

Figure 3. Likely Defender Reactions to Challenger Actions When Relative Resolve Equals Zero



capabilities, but less risk tolerance, than the challenger. In this case, as depicted in figure 2, the challenger has a greater resolve relative to the defender.

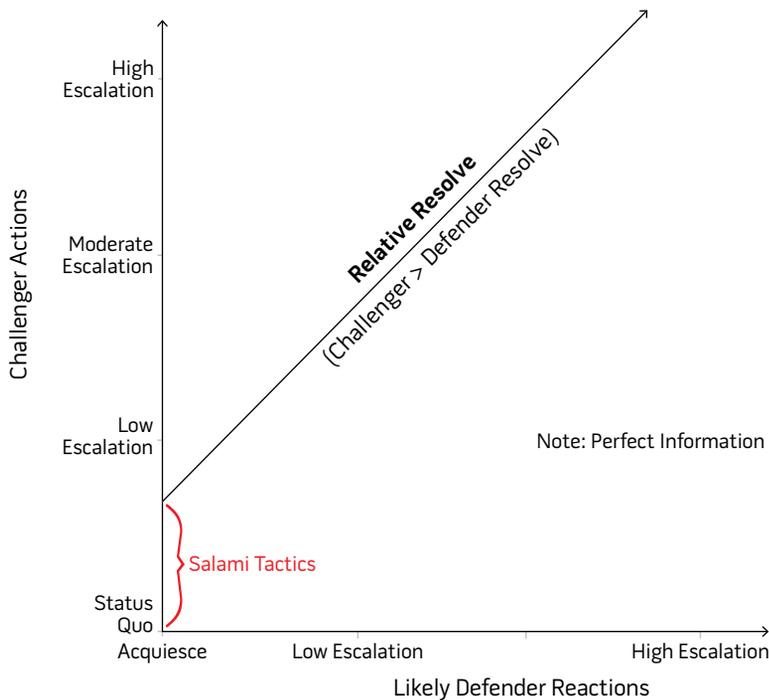
The relative resolve is calculated as the challenger resolve minus the defender resolve. Figure 3 illustrates the relationship between relative resolve and escalation. When relative resolve is equal to zero, any escalation by the challenger could result in a reciprocal escalation by the adversary, as perceived by the challenger. With perfect information, a game theory perspective would suggest that escalation would not occur because each escalation by a challenger would face a likely reciprocal escalation by the defender.¹¹

In a situation where the challenger resolve is perceived as greater than the defender resolve, the relative resolve is greater than zero. As depicted in figure 4, the slope of the line for relative resolve slides up on the graph, leaving a gap below the slope on the vertical access as a prime environment for “salami tactics.” This term refers to a strategy where a challenger can escalate gradually, slicing off small parts of its objectives one at a time, with little expectation of defender retaliation. Thomas Schelling described salami tactics in simple terms:

“Salami tactics,” we can be sure, were invented by a child. . . . Tell a child not to go in the water and he’ll sit on the bank and submerge his bare feet; he is not yet “in” the water. Acquiesce, and he’ll stand up; no more of him is in the water than before. Think it over, and he’ll start wading, not going any deeper; take a moment to decide whether this is different and he’ll go a little deeper, arguing that since he goes back and forth it all averages out. Pretty soon we are calling to him not to swim out of sight, wondering whatever happened to all our discipline.”¹²

When a challenger escalates a small amount, figure 4 suggests the defender will acquiesce and a new status quo emerges. However, if the defender perceived the relative resolve as equal, such as depicted in figure 3, then a corresponding escalation could be expected by the defender. Therefore, “only if both the

Figure 4. Likely Defender Reactions to Challenger Actions When Relative Resolve Is Greater Than Zero





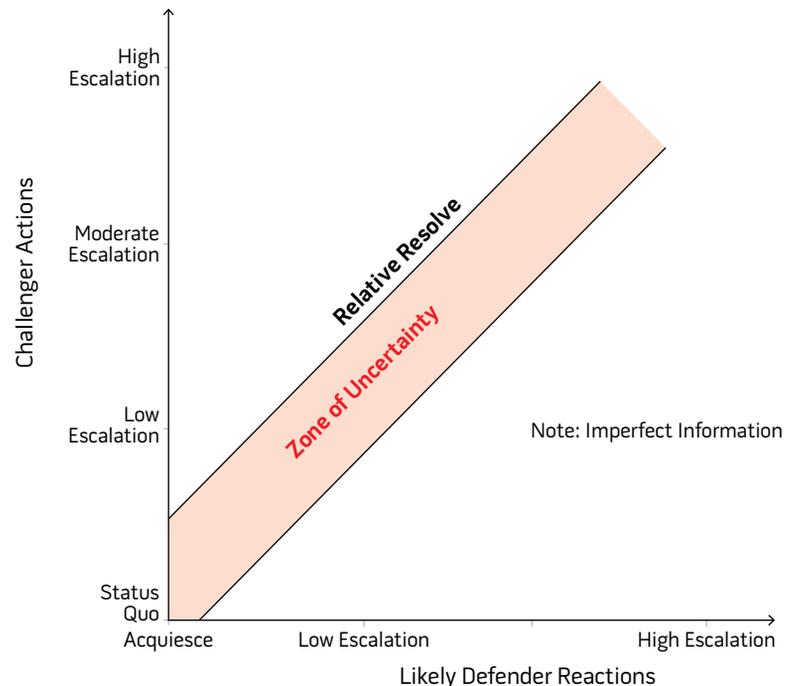
Austrian soldier plots points on map during exercise Combined Resolve II at Joint Multinational Readiness Center in Hohenfels, Germany, May 14, 2014 (DOD/Justin De Hoyos)

Figure 5. Likely Defender Reactions to Challenger Actions with Imperfect Information

challenger and defender are sufficiently confident that their adversaries are irresolute will there be a crisis.”¹³

The previous escalation situations are based on two conditions: deliberate escalation decisions for instrumental purposes, that is, to gain some advantage; and having perfect information. There are other types of escalation and information levels that must be considered. For example, the concept of autonomous risk that some other outcome will occur is a result of uncertainty and unpredictability because actors cannot guarantee that a particular outcome will be realized.¹⁴ There is always a chance of accidental escalation because actors make mistakes.¹⁵

In addition to autonomous risk and accidental escalation, there is the risk of inadvertent escalation when intentional acts are mistakenly perceived as escalatory, “usually because they cross a threshold of





Sailor monitors subsurface contacts in combat information center aboard guided-missile destroyer USS *Jason Dunham* in Atlantic Ocean, as part of simulated wargames, May 19, 2014 (U.S. Navy/Derek Paumen)

intensity or scope in the conflict or confrontation that matters to the adversary but appears insignificant or is invisible to the party taking the action.”¹⁶ Adversaries often misunderstand each other’s intentions, even when accompanied by clear messaging. Often messages that are either sent or received are misdirected, badly formulated, contradictory, or absent altogether.¹⁷ Sometimes an actor resorts to bluffing to be perceived as more resolute than he actually is. Likewise, an actor may demonstrate his resolve through deliberate escalation for suggestive or reputational purposes as a form of signaling.¹⁸ Due to imperfect information, the escalation calculus for decisionmakers includes a zone of uncertainty when considering an escalation decision, as depicted in figure 5. Therefore, the greater the imperfect information and misperception, the more crisis stability decreases:¹⁹ “Ambiguity does not deter universally.”²⁰

Survey questions are used in wargames to assess player perceptions at the end of

each game move. To measure resolve, players are asked to assess a statement concerning each actor’s *willingness to escalate*. The data collected are subjective and attempt to measure something psychological, where “deterrence is like all other psychological variables: it will vary by person and condition.”²¹ Therefore, the results are not examined by comparing how one actor assesses his own resolve with how another actor assesses his because each personal scale could differ. But it is useful to measure the perceived relative resolve, that is, each actor’s resolve compared to his perceived resolve for his adversary or allies. However, a tendency does exist to perceive an adversary as more resolute than oneself. This inclination is a result of the difficulties of emulation, incomplete information, emotion, the limits of human cognition, and a variety of possible biases affecting perceptions.²²

The use of two-sided wargames attempts to replicate environments of strategic crisis that allow players to make

decisions based on their assessments of relative resolve. In assessing wargames, measures of relative resolve can help analysts explain why players escalated or acquiesced. Trends in relative resolve across moves can indicate whether players were successful in their deterrence strategies. Reasons for shifts in perceptions of resolve usually involve one or a combination of the three components of resolve: stakes, credible capabilities, and risk tolerance. While stakes and credible capabilities, such as a nation’s objectives and forces employed, can be identified more readily, identifying risk tolerance is particularly challenging as it is more of an inherent trait that characterizes individuals.

Perceptions of Risk Tolerance

Risk assessment takes into account both the probability and the consequences associated with a course of action. While the consequences could be benefits or costs, the probability concerns the likelihood that a course of action will result

in those consequences. Risk management involves making decisions that balance risk costs with mission benefits.²³ Risk tolerance involves a predisposition for aggressiveness and boldness. It usually remains constant, but risk tolerance may shift due to a change in domestic politics that pushes for riskier policies. Consider, for example, U.S. strategic decisionmaking following an unprovoked attack: “Domestic politics could force large changes in policy in a very short period of time. The White House, the Congress, and the Pentagon may have to pivot in a hurry, and use much more aggressive, risky steps to manage the problem. . . . [R]estraint may disappear overnight.”²⁴

While it is common to ask players during wargames to assess risk, another approach attempts to assess risk tolerance through understanding the players’ comfort with uncertainty or imperfect information. An actor with a high risk tolerance may take more aggressive action with a large zone of uncertainty, as depicted in figure 5, despite imperfect information and a greater risk of inadvertent or accidental escalation. Additionally, an array of risk represents a range of options between doing too little (acquiescing) and doing too much.²⁵ The larger the array of risk, the riskier it is to escalate because one must take larger, more dangerous steps toward the brink. The smaller the array of risk, the less risky it is to escalate because the steps toward the brink are smaller. Therefore, risk tolerance can be measured during wargames as a function of players’ comfort with ambiguity and the availability of escalation options. As players appear more comfortable with ambiguity and have more escalation options available, their risk tolerance seems higher.

Coalition Effects on Resolve

Building coalitions and working with allies can be difficult tasks. However, as Sir Winston Churchill famously stated, “There is at least one thing worse than fighting with allies, and that is to fight without them.” Fighting with a coalition has numerous benefits in the context of deterrence. It allows for risk-sharing,

increases capabilities, and demonstrates higher stakes in the crisis. The concept of extended deterrence has been part of U.S. strategy since 1957, when Henry Kissinger realized the necessity of having allies surrounding an adversary and of minimizing the cost of their security by lessening dependence on local defenses.²⁶ Extended deterrence, however, also has its disadvantages. For example, it may create a credibility problem, suggesting whether a state would risk annihilation for the sake of allies. This dilemma might explain why Japan would likely contemplate developing its own nuclear capability if it believed the United States would not consider a nuclear option in its defense.²⁷

In addition to risk-sharing, some allies have higher risk tolerance, thereby increasing the overall risk to all partners in the alliance. Overall, building and maintaining a coalition requires a major effort and faces numerous challenges. While joint doctrine describes an alliance as having broad, long-term objectives and common interests,²⁸ the diversity of stakes and interests among allies can be extensive. The defining feature of multiplayer games is coalitions, in which different countries align with one another. But coalitions are not static; they tend to be dynamic, changing over time.²⁹ Learning about regional allies may be more important for deterrence strategies than any analysis of game theory or abstracted gaming practices.³⁰

During a recent strategic deterrence wargame at the U.S. Naval War College, a moderate correlation occurred between the measures of U.S. resolve and the U.S. demonstration of commitment to its allies, as perceived by the adversary. When it appeared that U.S. forces were successful in assuring allies, the adversary perceptions of U.S. resolve increased. This correlation suggests a relationship may exist between the effectiveness of coalition-building and that of demonstrating resolve, potentially mitigating the risk of escalation. This finding reinforces the lessons of the Cold War, where the “politics of alliance were as important to deterrence as any other element.”³¹

Correlation, however, does not necessarily mean causation. There are

numerous possible reasons for perceptions of both ally assurance and demonstrations of resolve. The likely cause may lie in one or a combination of the three components of resolve. For example, maintaining the integrity of the alliance, in itself, may add to the overall stakes in a conflict. Likewise, the combined capabilities of the alliance may add not only to the quantity of credible employment options available in a conflict but to the diversity as well. Finally, risk tolerance for an alliance, standing together rather than alone, would likely be formidable in a conflict. For this reason, game findings have helped inform planners on the critical role that maintaining alliance cohesion has in contingencies involving strategic deterrence of nuclear-capable adversaries.

Applying Wargaming Lessons

The use of wargaming at the U.S. Naval War College has provided a laboratory in which to examine strategic deterrence approaches. Because wargaming alone does not provide answers, the key to assessing deterrence lies with the ability to measure escalation and resolve as the espoused effects and inherent drivers of deterrence decisions. Breaking down resolve into the components of stakes, credible capabilities, and risk tolerance helps explain the motivations behind the escalation decisions made in a strategic deterrence wargaming environment. This, in turn, allows researchers to apply lessons to better understand the dynamics of real-world strategic challenges. These lessons inform operational plans and potentially influence policy decisions, such as those concerning forward-deployed forces, alliance agreements, and nuclear force posture.

While wargames provide general insights on strategic deterrence at the conceptual level, specific insights about adversaries and notional scenarios can be derived at the empirical, albeit classified, level. For example, in his recent article “Future Scenarios of Limited Nuclear Conflict,” Thomas Mahnken outlines five nuclear conflict scenarios with which to address an array of national security dilemmas:



Soldiers from 1st Battalion, 38th Infantry Regiment, 1st Stryker Brigade Combat Team, 4th Infantry Division exchange stories about overnight battle upon completion of training exercise at Piñon Canyon Maneuver Site, June 8, 2015 (U.S. Army/William Howard)

- How would U.S. forces respond to a selective nuclear attack by North Korea?
- What North Atlantic Treaty Organization force posture would deter Russia from conducting (while not provoking it to conduct) a preemptive, incapacitating nuclear attack during a crisis over the Baltics?
- What credible nonforce options, if any, exist to retaliate against a demonstration nuclear attack by Iran?
- What counterforce options are needed to deny China the ability to use nuclear force to prevent a battlefield defeat in the South China Sea?
- What role do military forces play in a whole-of-government approach to dealing with the collapse of a nuclear state such as North Korea or Pakistan?

While analyzing these problems may inform forward-based presence and force posture, they likewise help evaluate the effectiveness of extended nuclear deterrence that “may be more open to question in the context of today’s nuclear powers. It is worthwhile, then, to explore new approaches to enhance U.S. extended nuclear deterrence guarantees to allies.”³² Wargaming provides a method to explore these new approaches, exposes

leaders to decisionmaking experience, and potentially helps them develop a rubric for strategic deterrence options. JFQ

Notes

- ¹ Richard E. Neustadt and Ernest R. May, *Thinking in Time: The Use of History for Decision Makers* (New York: The Free Press, 1986), 10–14.
- ² *National Military Strategy 2015* (Washington, DC: The Joint Staff, June 2015), 10.
- ³ Joint Publication (JP) 3-0, *Joint Operations* (Washington, DC: The Joint Staff, August 11, 2011), GL-9.
- ⁴ Austin G. Long, *Deterrence: From Cold War to Long War* (Santa Monica, CA: RAND Project Air Force, 2008), 7.
- ⁵ Paul Bracken, *The Second Nuclear Age: Strategy, Danger, and the New Power Politics* (New York: St. Martin’s Press, 2013), 43.
- ⁶ Francis J. McHugh, *Fundamentals of War Gaming* (Newport, RI: U.S. Naval War College, 1966), 19.
- ⁷ Forrest E. Morgan et al., *Dangerous Thresholds: Managing Escalation in the 21st Century* (Santa Monica, CA: RAND Project Air Force, 2008), xiii.
- ⁸ *Ibid.*, 8.
- ⁹ Thérèse Delpech, *Nuclear Deterrence in the 21st Century: Lessons from the Cold War for a New Era of Strategic Piracy* (Santa Monica, CA: RAND, 2012), 56.
- ¹⁰ Robert Powell, *Nuclear Deterrence Theory: The Search for Credibility* (Cambridge:

Cambridge University Press, 1990), 53.

¹¹ *Ibid.*, 156–157.

¹² Thomas C. Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966), 66–67.

¹³ Powell, 91.

¹⁴ Glenn H. Snyder and Paul Diesing, *Conflict among Nations: Bargaining, Decision Making, and System Structure in International Crises* (Princeton: Princeton University Press, 1977), 210; quoted in Powell, 18.

¹⁵ Morgan et al., 26.

¹⁶ *Ibid.*, 23.

¹⁷ Delpech, 18.

¹⁸ Morgan et al., 31–33.

¹⁹ Powell, 161.

²⁰ Delpech, 48.

²¹ Bracken, 70.

²² Long, 56.

²³ JP 3-0, III-14.

²⁴ Bracken, 223.

²⁵ Powell, 99.

²⁶ Henry A. Kissinger, *Nuclear Weapons and Foreign Policy* (New York: Harper, 1957), 239; Delpech, 29.

²⁷ Bracken, 240.

²⁸ JP 1-02, *Department of Defense Dictionary of Military and Associated Terms* (Washington, DC: The Joint Staff, November 8, 2010, as amended through June 15, 2015), 11.

²⁹ Bracken, 241–242.

³⁰ Delpech, 49.

³¹ Long, 14.

³² Thomas G. Mahnken, “Future Scenarios of Limited Nuclear Conflict,” in *On Limited Nuclear War in the 21st Century*, ed. Jeffrey A. Larsen and Kerry M. Kartchner (Stanford: Stanford University Press, 2014), 143.

Sailors assigned to Coastal Riverine Squadron 3 train with Philippine marines aboard patrol boat during exercise Balikatan 2015, April 27, 2015 (U.S. Navy/Joshua Scott)



A Way Ahead for DOD Disaster Preparedness

By Frank C. DiGiovanni

On October 8, 2005, I was just 6 weeks into my assignment coordinating with the Pakistani military to keep the air logistics routes open through Pakistan into Afghanistan in support of Operation *Enduring*

Freedom and to coordinate coalition, Afghan, and Pakistani border operations. It was a pretty average deployment. That changed at 0850 local time. First, I heard a sound like a freight train and then the building began to rock like a cork bobbing, and the ground beneath us was acting more like liquid than solid, with visible ripples moving toward us. The ground continued to move for what seemed like forever, and one of my

Pakistani friends asked me, “Is this the end of the world?” I answered, “No,” but his question did give me pause. Finally, after almost 6 minutes, the noise subsided and the ground stopped moving. I did not know it at the time, but I had just experienced one of the largest earthquakes ever recorded in Pakistan. According to one source, the “shallow earthquake registered a 7.6 magnitude on the Richter scale.”¹ The earthquake “epicenter was located approximately 19 km north-northeast of the city of Muzaffarabad, the capital of the Pakistani-administered part of Kashmir,”² and “100 km north-northeast of Islamabad.”³

When all was said and done, in the 30,000-square-kilometer affected area, over 1,000 aftershocks were recorded.⁴ Some 87,000 people lost their lives.⁵ Approximately 56 percent of all housing was destroyed, leaving an estimated 3.3 million homeless.⁶ Nearly 65 percent of all medical facilities were ruined, and 50

Frank C. DiGiovanni serves as the Director of Force Training in the Office of the Assistant Secretary of Defense for Readiness.



USNS *Mercy* in port at Naval Base Guam supporting Pacific Partnership 2015, largest annual multilateral humanitarian assistance and disaster relief preparedness mission conducted in Indo-Asia-Pacific region, September 4, 2015 (U.S. Air Force/Peter Reft)

percent of all schools were destroyed.⁷ Additionally, vital roads and highways were rendered impassable by landslides and bridge failures,⁸ making it nearly impossible to reach the hardest hit communities.

After the initial shock waves settled, my immediate thought was, “What can I do to help?” As the senior U.S. Air Force officer on the ground, I was ready to take immediate action, but was told to stand down because Pakistan, as a sovereign nation, must first request foreign assistance. The next day, when the request came, Ambassador Ryan Crocker’s orders were clear: “Get all the blankets, tarps, and water jugs you can get here . . . now.” I sprang into action, leveraging the central logistics hub for U.S. Central Command (USCENTCOM) for supplies, getting intra-theater air authorized, and within 12 hours the requested supplies were on the ramp in Islamabad.

This was not accomplished without a herculean effort, including a personal call to USCENTCOM Commander General John Abizaid, USA.

Although the mission was accomplished, even at the time I knew my responses were not always the most effective or efficient. Snap decisions were required to answer questions such as “Was pulling from wartime stocks the right thing to do?” “Why was it necessary to call the USCENTCOM commander personally to energize the relief effort?” “Were there other organizations that were better suited to support this effort?” “What was the right sequence of aerial port equipment and supplies to support the relief effort?” “What was the maximum on ground aircraft capacity of the primary airfield?” “Who was coordinating host-nation overflight clearances, airfield slot times, logistics inventory, storage, and dispersion of relief supplies to the affected

area?” “Where were our relief forces going to bed down?” “How were they going to be supported?” These are but a few of the questions that had to be answered in a very short amount of time. Although these questions seem comprehensive, they represent only about 20 percent of the decisions that had to be made within 2 hours of the Ambassador’s order to support the relief effort. To make matters worse, there was no continuity book or pre-deployment training to assist my decisionmaking process. After all, my mission was to support Operation *Enduring Freedom*, not conduct disaster relief.

Fast Forward 10 Years

As the Director of Force Training in the Office of the Assistant Secretary of Defense for Readiness, I am constantly scanning the horizon to understand, assess, and ensure our military forces are prepared to conduct the operations

they may be assigned to perform. This includes their ability to engage in foreign disaster relief missions. On this last mission in particular, I have a few battle scars. Although my training prepared me to adapt and seize the initiative in my efforts to support Pakistan after the earthquake, there were a lot of things I could have done better. They included such things as pre-planned procedures for transferring supplies and equipment to affected populations, standardized communications regimens across the wide range of relief participants and the host nation, dealing with myriad first responders who descended on the airfield within hours of the official request for help, the need for heavy-lift helicopters and a seaport to bring in heavy construction equipment, building relationships on the ground in a hurry and then acknowledging they lacked the trust engendered by long-term interaction, and recognizing my own absence of knowledge and training at that time.

Based on my experiences above, it appears that a “preparedness-focused” approach instead of “response-focused” approach may serve our men and women in the Armed Forces more efficaciously when planning and training for a disaster situation. Furthermore, the requirement shows no signs of letting up as there continues to be a constant demand signal for our nation to support those in need. Since the Pakistan earthquake, the Department of Defense (DOD) has supported over 50 foreign disaster relief operations including Operation *Unified Response* in Haiti in 2010, the Pakistan floods in 2010, Operation *Tomodachi* in Japan in 2011, Operation *Damayyan* in response to Super Typhoon Haiyan (Typhoon Yolanda) in the Republic of the Philippines in 2013, and more recently Operation *United Assistance* in support of the Ebola response in West Africa and Operation *Sahayogi Haat* in support of the 2015 Nepal earthquake response.

DOD and Disaster Response

The Defense Department is a learning organization, and thus much has changed in the 10 years since the Pakistan earthquake concerning how it

responds in support of foreign disasters. Changes include updated policy, operational guidance, and more efficient processes and procedures. DOD has clarified and updated policy and operational guidance on the conduct of steady-state humanitarian assistance programs and foreign disaster relief operations (for example, DOD Directive 5100.46, “Foreign Disaster Relief”). DOD has also worked with other U.S. departments and agencies to enhance cooperation before and during disasters, most notably in partnership with the U.S. Agency for International Development’s Office of Foreign Disaster Assistance. Finally, there has been progress made to provide training opportunities for U.S. forces on humanitarian assistance/disaster relief (HA/DR) topics. However, this training is neither institutionalized nor standardized across DOD and more needs to be done.

Every new response yields multiple lessons from which there have been clear successes as well as opportunities for improvement. DOD has improved systems for information-sharing with other responders. Focusing on preparation, planning, and the building of relationships with host nations has slowly begun to bear fruit as evidenced in the most recent Nepal earthquake where regional actors stepped in more readily and quickly than in the past.⁹ There is greater understanding by DOD leadership on the role relationships play in successful responses. Yet there are still issues that have consistently been identified, including:

- more in-depth DOD planning and communications with host nations
- improving U.S. forces’ knowledge of the operating space, particularly just-in-time knowledge
- integrating DOD into a U.S. whole-of-society approach to disaster relief
- working effectively with the United Nations (UN), international organizations, and nongovernmental organizations (NGOs) during response operations
- coordinating with the affected nation’s civilian and military authorities.¹⁰

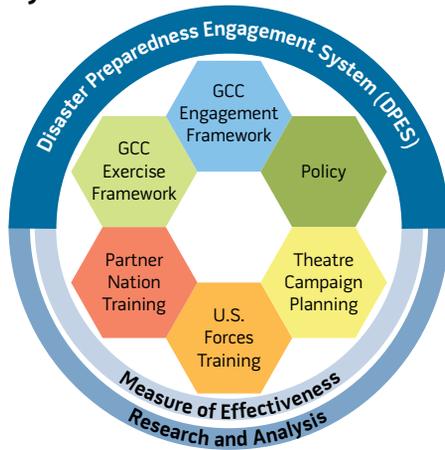
My recommendation is to integrate and systematize disaster preparedness activities across DOD while addressing the persistent issues through training, exercises, and policy. Furthermore, I posit that these activities should be promulgated as an effective engagement mechanism with other nations and their militaries.

Why DOD and disaster preparedness, one might ask? The Department of Defense is often called upon to respond to large disaster relief operations in support of U.S. strategy and goals, primarily to alleviate human suffering. These operations show no sign of decreasing in number in the near term. From a strategic perspective, the consequences of disaster or crisis, whether to economies, infrastructure, social order, or the environment, could have long-term impacts on regional stability. Even a nation as large as the United States received aid from other nations in our response to Hurricane Katrina.

Disaster relief efforts also have been shown to increase positive opinion of the United States. During the 2005 Pakistan relief effort, the ability of the United States to respond, with DOD as a key partner, proved effective in improving the people of Pakistan’s perception of the United States. Prior to the earthquake there was a generally poor opinion of the United States, largely due to ongoing military operations in Iraq and Afghanistan. By November 2005, Neilson Company polling demonstrated “the number of Pakistanis who had ‘a favorable opinion of the United States’ had grown from 23 percent to 46 percent. By the spring, a Department of State poll conducted from late January to early February showed that number rising to 55 percent.”¹¹ Strong response capability supported by enhanced disaster preparedness is *critical* to the success of U.S. relief efforts and in increasing the positive opinions and understanding international partners have of the U.S. Government and the Defense Department.

Disaster preparedness activities can also directly benefit DOD in numerous ways:

Figure. The Disaster Preparedness Engagement System



- Use smaller footprints, which are generally repeatable and low cost, and can be innovative ways to engage partners.
- Assist other nations in building capabilities and bridging gaps between their militaries and civil sectors.
- Engender trust and foster enduring relationships with other nations.
- Support combatant command access in areas where traditional military-to-military activities may be limited.
- Aid in obtaining knowledge of the laws, institutions, systems, and capacities of partner nations, which assists combatant commands in planning and preparing for support operations.
- Ensure U.S. forces are adequately trained and ready.
- Enhance the timely response and effectiveness of U.S. forces during crises.

A Call for Preparedness and Systemization

After a disaster, minutes and hours count. The timeliness and harmonization of our effort will save lives. So how does DOD become more proactive within given authorities in support of the U.S. effort? National security priorities and budgetary constraints argue for a more systematized, consolidated approach to preparedness activities with

a focus on Phase 0 disaster preparedness. Focusing on being prepared and practicing for response with other nations, the UN, international organizations, and NGOs can assist in a better, more coordinated response when disaster strikes and action is required. To this end, I propose that DOD consider a framework for a systematic approach to disaster preparedness (see figure).

The proposed model, the Disaster Preparedness Engagement System (DPES), is a low-cost, high-impact, targeted, and integrated approach to enhancing DOD preparedness engagement using all-hazards disaster preparedness training and exercises as a platform. In response to a disaster, the first hours and days are critical. Responders must arrive and be operational as quickly as possible. The ability to do this is greatly enhanced when time and effort are put into preparedness activities prior to an event. DPES would systematize this activity at the combatant command level to derive the benefits previously mentioned for DOD, the combatant commands, U.S. forces, and other nations. An outcome would be ensuring that DOD response is timely and effective and that U.S. forces consistently know and understand their roles within disaster relief. It would enhance the integration of ongoing disaster preparedness activities into broader U.S. Government and DOD efforts, increase the cost effectiveness of these activities, support combatant command Phase 0 disaster preparedness activities, and enable evaluation and measures of effectiveness of disaster preparedness activities across the department.

Suggested Components

Initiating an all-hazards DPES requires a development process that supports collaboration, facilitates a deeper understanding of future challenges and opportunities, and produces desired effects. The system should contain several components to enhance DOD activities worldwide.

U.S. Forces Training. Despite enhanced and expanded knowledge and skills building in after action reports, current U.S. forces' training for Phase 0

activities and disaster relief remains limited and fragmentary. This must change. We need to assess the competencies that our military must possess to perform these missions and then develop learning outcomes and training courses to build these competencies. Certain courses may be brand new. Others may be adaptations of existing training. We must partner with the other U.S. agencies, for instance, to look for opportunities for senior leaders across the spectrum to participate in each other's training and exercises and to conduct technical and leadership interchange forums with the UN and NGOs. The development of a Just-In-Time Massive Open Online Course for military disaster response pre-deployment training in support of joint task forces should be considered.¹² As part of this U.S. forces training, we must ensure our personnel are familiar with the 2011 *Department of Defense Support to Foreign Disaster Relief (Handbook for JTF Commanders and Below)*.¹³ Cultural awareness and interpersonal relationship skills can be trained through cultural awareness and risk communication training. Consideration should be given to development of a qualification or skills identifier for forces with this training. Additionally, we should seek to develop a HA/DR qualification or skills identifier for forces with training and experience in disaster relief.

Combined U.S.–Host-Nation Disaster Preparedness Training. While primarily a method for engaging other nations, combined disaster preparedness training deserves its own analysis and activity. This is an opportunity to explore host-nation organic capabilities and where U.S. capabilities can complement or fill gaps, the development of disaster response game plans, and the practice of such skills as humility, empathy, and respect in addition to the more traditional skills of planning and logistics.

Across the globe, DOD conducts disaster training with others either bilaterally or through regional mechanisms. The normal method of engagement is the conduct of episodic tabletop or full-up exercises. Although episodic engagement is fairly pro forma, under DPES, a series of skills-based disaster preparedness table



Marine Medium Tiltrotor Squadron 265, attached to 31st Marine Expeditionary Unit, departs JS *Hyuga* in support of Japan's relief efforts following earthquakes near Kumamoto, April 19, 2016 (U.S. Navy/Gabriel B. Kotico)

exercises with train-the-trainer modules could be developed for DOD-wide use to support disaster preparedness game planning and bilateral operational harmonization. Courses must be skills-based and easily modified to reflect regional/local culture and language requirements. This would be a cost-effective way for DOD to support other nations engagement with an operational focus across the globe and enhance command disaster preparedness activities. Enabling local and regional actors to support long-term capability growth enhances sustainability of combatant command theater campaign plans. It would also boost regional cooperation and interoperability if personnel in different nations were to train and exercise to the same standards. Training together, using programs such as the National Guard's State Partnership Program, allows common knowledge of terminology, capabilities, practices, and procedures.

Geographic Combatant Command Disaster Preparedness Exercise Framework. The ability to integrate, coordinate, plan, and communicate with other Federal agencies, potentially

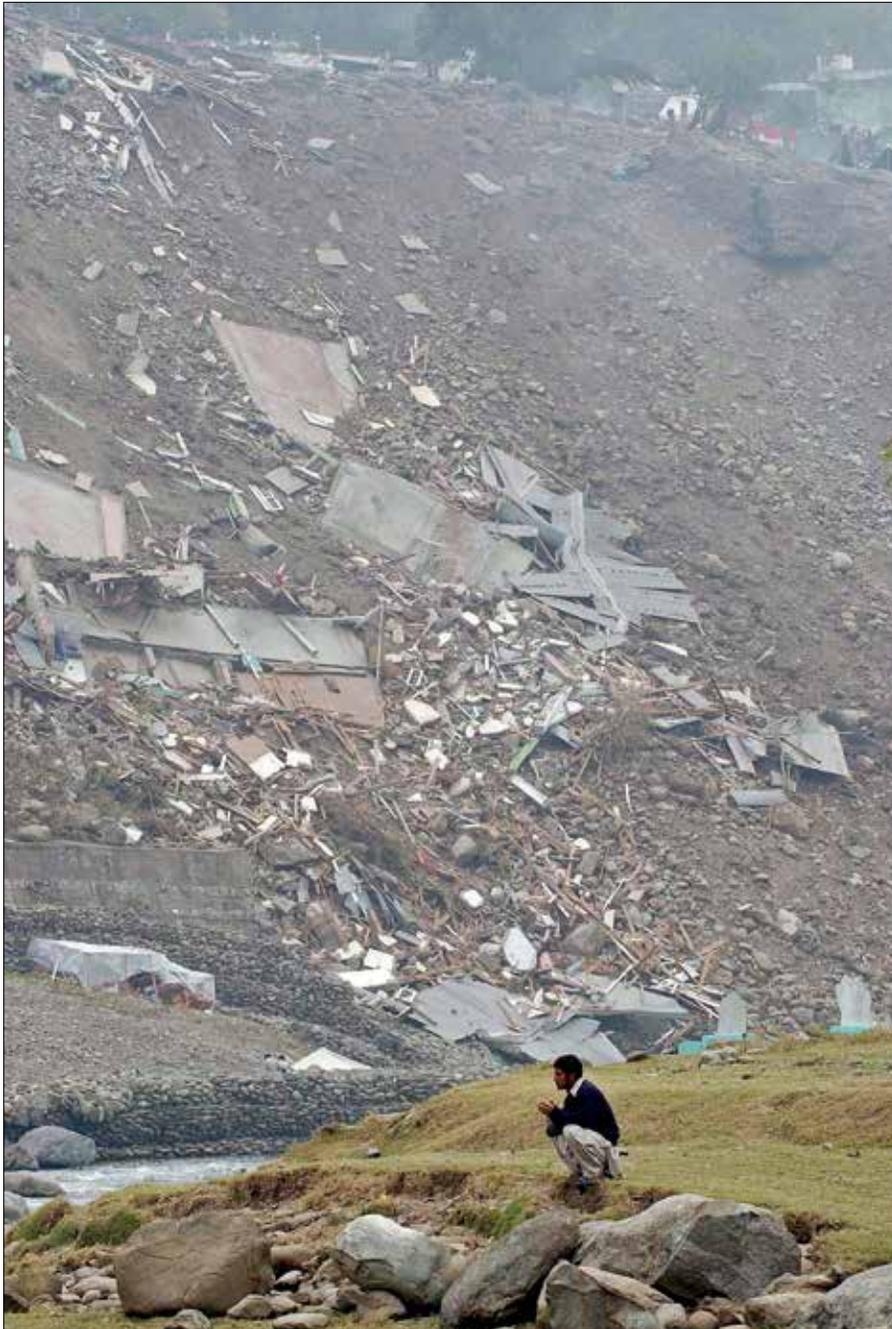
affected nations, the UN, international organizations, NGOs, and others has been the topic of numerous disaster response after action reports. The recommendations addressing these areas of concern focus on planning *before* disasters occur. To that end, a DOD-wide framework with templates developed for use by commands to support integration of disaster-related activities into current exercise structures would support command efforts if and when they are called upon to respond. Exercising disaster response would deepen relationships with key agencies, organizations, and nations. Additionally, it would help determine the best methods for communications and integrated planning and analysis prior to a response. Exercising together, whether through combatant commands or the State Partnership Program, allows for a common knowledge of terminology, capabilities, practices, and procedures.

Geographic Combatant Command Disaster Preparedness Engagement Framework. Disaster preparedness engagements can sometimes appear ad hoc, with commands struggling to

determine or realize the return on their investment of resources. Disaster preparedness activities with partner nations require a commitment of resources over time to fully realize benefit. This could be problematic in a DOD system where personnel move every 2 to 3 years and in a field where a wide variety of U.S. departments, UN agencies, international organizations, and NGOs are active.

The importance of personal connections in the implementation of a successful response has been highlighted in a number of studies and after action reports. Well-developed, integrated security cooperation activities related to disaster preparedness could support developing relationships with key actors in partner nations. They could also support building knowledge of institutions, bureaucracies, and the individuals in charge to support pre-disaster and operational planning.

A DOD-wide framework based on the best practices and successful initiatives from DOD and other U.S. agencies would support the development and implementation of truly integrated all-hazards disaster preparedness



Aerial view of Balakot, Jammu, and Kashmir, Pakistan, showing widespread devastation caused by earthquake on October 8, 2005 (UN/Evan Schneider)

engagements. Its structure should include a method of needs analysis, strategic planning, and development of partnerships as well as the development of capability-building plans with outcome goals, funding streams, implementers, and measures of effectiveness.

Geographic Combatant Command Theater Campaign Plan Sample Language. Many geographic combatant commands and their components already

conduct disaster preparedness engagements. These activities are prioritized within respective theater campaign plans to varying degrees. Numerous lessons-learned studies recommend enhancing Phase 0 activities and aligning security cooperation programming to build internal disaster management capabilities in partner nations. Studying commands where disaster preparedness activities are successful and fully integrated into

strategy would assist in drafting sample language and methodologies for use by all commands, and for implementation in theater campaign plan, regional plan, and country plan development.

Policy in Support of DOD Foreign Disaster Preparedness Engagement.

As previously stated, there is much in the way of policy to support foreign disaster relief—but limited policy for preparedness-specific activities. The 2012 Department of Defense cable “Policy Guidance for DOD Humanitarian Assistance Funded by the Overseas Humanitarian, Disaster and Civic Aid Appropriation” details the approved use of the appropriation for disaster preparedness activities under humanitarian assistance programming.¹⁴ Further elaboration of clear sample policy language for use of DOD assets and varied funding authorities in support of partner nation all-hazards disaster preparedness engagement and U.S. forces training would support the long-term efforts of commands in this arena.

A Means to Collect, Analyze, and Report Measures of Effectiveness. Finally, DPES must include the development of measures of effectiveness for both the Office of the Secretary of Defense, related to accomplishment of DOD-wide goals for disaster preparedness initiatives, and for the combatant commands, which require well-defined, user-friendly evaluation and measurement tools to assess their partner-nation disaster preparedness engagements, U.S. forces training, and exercises. Development-based methodologies for measurement may be considered as the system matures, as it would assist with DOD integration into U.S. interagency efforts. Identification of funding mechanisms to conduct rigorous assessments would also be required.

Conclusion

The implementation of DOD-wide systematization of disaster preparedness would help address some of the issues I experienced responding to the 2005 Pakistan earthquake in future disaster response efforts. Pre-disaster work with civilian and military actors would proactively create a game plan for disaster

response and develop the relationships needed to support rapid integration of effort, as well as improve the understanding of the participating nations' capabilities. Disaster preparedness engagement, training, and exercises, as well as an accurate awareness of the capabilities of the international disaster response community, would enable the joint task force to more quickly deploy and stand up in country with the right resources—equipment, personnel, and capabilities.

According to one report, the “recorded incidence of natural disasters and, more critically, large-scale disasters (10,000–99,999 people killed or affected) around the world has risen in the past 20 years.”¹⁵ Thus, DOD will continue to be called upon in support of large disaster relief efforts as a part of an integrated U.S. Government response. We must keep moving forward in the effort to shift disaster relief lessons from *identified* into lessons *anticipated and implemented*. We must better prepare U.S. forces at all levels throughout their careers to plan proactively to improve our response when disaster strikes. Furthermore, we must embed individual and unit preparation within a larger approach to all-hazards disaster preparedness activities as an engagement tool. Programs and activities that are successfully supporting long-term disaster preparedness goals must be highlighted and broadened across DOD. Practical models, tools, and templates are needed. Enhanced pilot projects and programs are required to demonstrate ideas and test the effectiveness and value of disaster preparedness activities across DOD and the combatant commands. Now is the time to bring together a coalition of stakeholders and willing partners and develop and fund systemic disaster preparedness activities. The Disaster Preparedness Engagement System detailed in this article is a good place to start. JFQ

Notes

¹ Sharon Wiharta et al., *The Effectiveness of Foreign Military Assets in Natural Disaster Response* (Solna: Stockholm International Peace

Research Institute, 2008), 107, available at <http://reliefweb.int/sites/reliefweb.int/files/resources/236476AD3257088DC125741000474F20-sipri_mar2008.pdf>.

² Earthquake Engineering Research Institute (EERI), *The Kashmir Earthquake of October 8, 2005: Impacts in Pakistan* (Oakland, CA: EERI, February 28, 2006), 1, available at <www.eeri.org/1fe/pdf/kashmir_eeri_2nd_report.pdf>.

³ Paul W. Phister, Jr., et al., *Pakistan Earthquake Case Study* (2009), 1, available at <www.dodccrp.org/files/case_studies/Pakistan_EQ_case_study.pdf>.

⁴ Ibid.

⁵ EERI, 1.

⁶ Ibid.

⁷ Phister et al., 1.

⁸ EERI, 1.

⁹ House of Representatives, *Everest Trembled: Lessons Learned from the Nepal Earthquake Response*, Hearing before the Subcommittee on Asia and the Pacific of the Committee on Foreign Affairs, 114th Cong., 1st sess., May 20, 2015, 8, available at <<http://docs.house.gov/meetings/FA/FA05/20150520/103500/HHRG-114-FA05-Transcript-20150520.pdf>>.

¹⁰ Jennifer D.P. Moroney et al., *Lessons from Department of Defense Disaster Relief Efforts in the Asia-Pacific Region* (Santa Monica, CA: RAND National Security Research Division, International Security and Defense Policy Center, 2013), available at <www.rand.org/pubs/research_reports/RR146.html>; Gary Cecchine et al., *The U.S. Military Response to the 2010 Haiti Earthquake: Considerations for Army Leaders* (Santa Monica, CA: RAND Arroyo Center, Strategy, Doctrine, and Resources Program, 2013), available at <www.rand.org/pubs/research_reports/RR304.html>; Rockie K. Wilson, *Operation Tomodachi: A Model for American Disaster Response Efforts and the Collective Use of Military Forces Abroad* (Cambridge: Harvard University, January 2012), available at <www.dtic.mil/dtic/tr/fulltext/u2/a567991.pdf>; Department of Defense (DOD) Office of Inspector General, *Most Geographic Combatant Commands Effectively Planned and Executed Disaster Relief Operations, but Improvements Could be Made*, Report No. DoDIG-2012-119 (Alexandria, VA: DOD Inspector General, August 14, 2012), available at <www.DoDig.mil/audit/reports/fy12/DoDig-2012-119.pdf>; Center for Excellence in Disaster Management and Humanitarian Assistance, *Lessons from Civil-Military Disaster Management and Humanitarian Response to Typhoon Haiyan (Yolanda)* (Joint Base Pearl Harbor–Hickam, HI: Center for Excellence in Disaster Management and Humanitarian Assistance, January 24, 2014), available at <http://star-tides.net/sites/default/files/documents/files/CFE_Lessons from Typhoon Haiyan.pdf>; P.K. (Ken) Keen et al., “Foreign Disaster Response: Joint Task Force-Haiti Observations,” *Military Review* (November–December 2010), available at <http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview_20101231_art015.pdf>.

¹¹ Kenneth J. Braithwaite, “U.S. Humanitarian Assistance/Disaster Relief: Keys to Success in Pakistan,” *Joint Force Quarterly* 44 (1st Quarter 2007), 22.

¹² The main and sub-learning blocks for the Just-in-Time Massive Open Online Course (MOOC) are as follows:

1. Situation Report
 - a. Consolidated open-source news (RSS feeds); b. U.S. Embassy assessment; c. Security posture and status (crime, insurgency, etc.); d. Relief effort demographics and what their capabilities are (other U.S. agencies, host-nation military, other countries, nongovernmental organizations, academia, industry, the United Nations, others); e. Surviving services and host-nation capabilities (military, power, water, food, medical, police and fire, infrastructure (airports, seaports, structures, roads, sanitation, telephone, Internet); f. Contracting of services (food, sanitation, supplies); g. U.S. point of contact in country.
2. Host-Nation Background
 - a. Government and political dynamics; b. History and culture; c. Religious dynamics; d. Host-nation population and military sentiments toward the United States; e. Border nation dynamics; f. Health and disease issues; g. Legal status.
3. Managing Relief Effort Partnerships
 - a. Showing “humility, empathy, and respect”; b. Cross-cultural relations [“showcase session”]—this activity will use the Virtual Cultural Awareness Training (VCAT) if the affected nation is in the database (there are presently 49 countries in the database). VCAT deploys game-based learning; storytelling; simulation; intelligent tutoring; first-person host-nation and U.S. personnel interviews to provide self-paced learning, feedback, and remediation; c. “Business” etiquette; d. You are in a sovereign country on a humanitarian mission; e. Setting up a coalition command and control logistics center; f. Working with the host nation and other first responders—building trust and interpersonal relationships; g. Interfacing with the affected population and local government; h. Utilizing host-nation security and the use of force for self-defense.
4. Staying connected and updating the MOOC.

¹³ Department of Defense Support to Foreign Disaster Relief (*Handbook for JTF Commanders and Below*), GTA 90-01-030 (Washington, DC: DOD, July 13, 2011), available at <fas.org/irp/doddir/dod/disaster.pdf>.

¹⁴ *Policy Guidance for DOD Humanitarian Assistance Funded by the Overseas Humanitarian, Disaster, and Civic Aid Appropriation* (Washington, DC: DOD, May 7, 2012), available at <<https://scms.usaid.gov/sites/default/files/documents/1866/FY12%20HA%20Policy%20Guidance%20>>.

¹⁵ Wiharta et al., ix.



Sailors load supplies into MV-22 Osprey from Marine Medium Tiltrotter Squadron 262 on flight deck of USS *George Washington* in support of Operation *Damayan*, November 18, 2013 (U.S. Navy/Liam Kennedy)

The U.S. Pacific Command Response to Super Typhoon Haiyan

By Thomas Parker, Sean P. Carroll, Gregg Sanders, Jason E. King, and Imes Chiu

Lieutenant Colonel Thomas Parker, USMC, is the J35 Crisis Response Branch Chief in the Directorate of Operations at U.S. Pacific Command (USPACOM). Lieutenant Colonel Sean P. Carroll, USMC, served as a Ground/Special Operations Forces Planner in the Operations Directorate (J3) at Headquarters (HQ) USPACOM and was part of the USPACOM Deployable Joint Force Augmentation Cell. Colonel Gregg Sanders, USAF (Ret.), serves as a Joint Training Specialist in the Operations Directorate at HQ USPACOM. Lieutenant Colonel Jason E. King, Canadian Army, is the Canadian Liaison Officer to USPACOM and is the International Coordination Team Lead in the J35 Crisis Response Branch. Dr. Imes Chiu is an Associate Professor at the Daniel K. Inouye Asia-Pacific Center for Security Studies.

On November 6, 2013, Haiyan (known locally as Yolanda) became what many described as the strongest storm on record to make landfall.¹ According to the U.S. National Oceanic and Atmospheric Administration, Haiyan had winds of up to 200 miles per hour, with gusts of up to 225 miles per hour. Haiyan affected 9 out of the 17 regions in the Philippines. With over \$86 million in total U.S. assistance, the U.S. military response efforts comprised more than 13,400 military personnel, 66 aircraft, and 12 naval vessels, which delivered over 2,495 tons of relief supplies and evacuated more than 21,000 people. More than 1,300 flights were completed in support of the relief effort, delivering goods and services to approximately 450 sites.² As of July 2014, the U.S. Agency for International Development (USAID) estimated that a total of 16 million people were affected by Haiyan.³

Many humanitarian aid experts and military leaders noted that civil-military coordination was some of the best they had seen during the response to Super Typhoon Haiyan in the Philippines from November to December 2013. In total, the United States participated in relief efforts together with 57 other nations and 29 foreign militaries. Specifically, the USAID Office of Foreign Disaster Assistance (OFDA), U.S. Pacific Command (USPACOM), and the U.S. Embassy in Manila demonstrated clear understanding of their roles and responsibilities as evidenced by their effective coordination. Moreover, U.S. Government entities provided assistance that reflected their unique capabilities appropriately scaled throughout the response phase.

The USAID/OFDA Disaster Assessment Response Team coordinated with the humanitarian community and validated and transmitted requests for military assistance to Department of Defense (DOD) responders on the ground. With the exception of a few days of water production in Tacloban, DOD focused mostly on large-scale operations, using its unique capabilities to deliver “wholesale” transportation and logistics support. USAID/OFDA was one of the first donors to the World Food Program, enabling its role as the lead coordinator of the United Nations (UN) logistics and emergency telecommunications clusters and as the co-lead of the food security cluster with the UN Food and Agriculture Organization.

Key lessons learned from previous disasters improved the speed and quality of overall U.S. interagency coordination. Most notably, personnel with previous disaster response experience who had personal connections with other major players in the relief efforts considerably expedited interagency and transnational relief efforts. The informal professional networks among relief workers that were built during common training and exercises greatly facilitated the trust needed for effective and efficient cooperation, particularly in the early response phase. Several communication avenues for the responders and for those affected by the

typhoon were used, providing alternate means to coordinate operations while the major communication infrastructures were down. Mainstream media, social media, and citizen journalism played a significant role as well in informing responders of the appropriate courses of action for the employment of U.S. resources.

Many noted the impressive demonstration of Haiyan lessons learned put into action in the more recent response to Typhoon Hagupit, which began as a Category 5 storm before weakening to Category 3 when it hit the Philippines in December 2014. The resiliency of the Filipino spirit continues to impress domestic and foreign media. The commitment of foreign humanitarian assistance actors who came to the aid of the Philippines after Haiyan clearly demonstrates the increasingly globalized nature of disaster response. In the coming years, the challenge to find more innovative ways to increase investment in disaster preparedness and to better integrate and leverage local capabilities and capacities with international response will remain.

Super Typhoon Haiyan (Yolanda)

Haiyan entered the West Philippine Sea at 4:40 A.M. on November 8, maintaining its strength throughout the day as it moved across the central part of the country, weakening only late in the afternoon the following day.⁴ The storm tracked from the east directly across the eastern, central, and western Visayas regions, destroying large swathes of territory spread across a number of different islands. Leyte and Samar were hardest hit, with 90 percent of the infrastructure destroyed in Tacloban City, Leyte’s largest urban center. The typhoon overwhelmed regional capacity at a time when the national government had just faced two major calamities that had drained its resources and significantly stressed the in-country supply chain: the civil conflict in Zamboanga and Basilan on the southern island of Mindanao in September 2013, and the magnitude 7.2 earthquake in Bohol in the central Visayas region, which lay along the path of Haiyan, in October.

When Haiyan slammed into the Philippines, many prepositioned stocks were simply depleted.

As of April 3, 2014, authorities from the Philippine National Disaster Risk Reduction and Management Council (NDRRMC)—a working group of various governmental agencies, nongovernmental organizations, and civil and private-sector groups that use the UN Cluster Approach in disaster management administered by the Office of Civil Defense under the Department of National Defense—estimated the typhoon had left 6,293 people dead and 28,689 injured, with more than 4 million individuals displaced. The number of houses damaged by Haiyan totaled 1,140,332, of which more than half (550,928) were completely destroyed.⁵

Relief Efforts

The Philippines is a collection of more than 7,000 islands separated into 81 provinces in three main geographical divisions: Luzon (north), Visayas (mid), and Mindanao (south). Haiyan traversed the Visayas region, where most of the affected areas were located, for nearly a full day. Tacloban, located on the island of Leyte, Cebu City on Cebu Island, and Roxas City on Panay Island were the three other major areas affected by the typhoon that served as principal centers of regional relief efforts. Cebu, located in the central Visayas, was the primary logistics hub for the Philippines and other international relief efforts. International donations were processed in the one-stop shop inside Cebu’s Mactan-Benito Ebuen Air Base and then distributed to affected areas. Manila, located in Luzon, was the focal point for central coordination among the major responding organizations, with cluster coordination meetings taking place in each of the major cities in areas affected by Haiyan. The United States established its command operations center (COG) at Manila’s Villamor Air Base, home of the Philippine air force. This air base shares runways with the Ninoy Aquino International Airport.



Sailor carries relief supplies to guided-missile cruiser USS *Cowpens* (CG 63) during Operation *Damayan*, November 16, 2013 (U.S. Navy/Ricardo R. Guzman)

Within the U.S. Strategic Response Framework, USAID/OFDA was assigned as lead Federal agency (LFA) for providing foreign humanitarian assistance (FHA) and coordinating U.S. responses internationally. USAID/OFDA has numerous response options outside of DOD to provide immediate support, including money, resources, commodities, and deployment-ready humanitarian experts and advisors across the U.S. Government. The catastrophic impact of Haiyan, however, required far greater capacity and capability than these response options could provide. Unique DOD airlift capabilities in particular became a key enabler for the entire response operation.

Camp General Emilio Aguinaldo (popularly known as Camp Aguinaldo), the military headquarters of the Armed Forces of the Philippines (AFP) located in Quezon City, Manila, also hosts the NDRRMC and the Multinational Coordination Center (MNCC) led by

the AFP. The MNCC provided common situational awareness between the AFP and assisting foreign militaries, facilitated information sharing, and ensured the efficient use of military support locations, capabilities, and coordination.⁶

Lesson 1: Immediate Request for Assistance and Forward Deployed Assets Saved Lives

Haiyan destroyed critical infrastructure that was essential to support relief operations, including airports, seaports, roads, communications systems, power distribution networks (electrical and fuel), and other key resources. Though difficult to calculate with precision, it is likely that the immediate steps taken by the Philippine government and corresponding USAID-USPACOM decisive actions in the early hours of the response kept morbidity and mortality relatively low, despite the catastrophic impact of the storm and the millions of people displaced.

The Philippine government issued a request for humanitarian assistance to the U.S. Government on November 9 (Washington, DC, time). USPACOM directed Marine Corps Forces Pacific to lead military relief operations in the Philippines, with 3rd Marine Expeditionary Brigade (3rd MEB) serving as the tactical mission commander on the ground, and ordered deployment of the USS *George Washington* and elements of Carrier Strike Group 5 (CSG 5) to the Philippines.

On November 10, within 6 hours of authorization from USPACOM, 3rd MEB “suitcase staff,” consisting of the commanding general, G3, sergeant major, public affairs officer, and two communications Marines, deployed to the Philippines. Upon arrival, the MEB established the COC at Villamor Air Base and began coordination with the AFP, Joint U.S. Military Assistance Group–Philippines, and USAID/OFDA personnel who had arrived several days

before Haiyan hit. The immediate deployment of the 3rd MEB and the rapid civil-military coordination that followed meant humanitarian aid missions could begin promptly upon the declaration of a national calamity by Philippine President Benigno Aquino the next day.

The USPACOM Deployable Joint Task Force Augmentation Cell (DJTFAC) deployed and played a critical role in setting up an operational joint headquarters, aligning operational design and assessment plans, establishing an operational rhythm with the AFP, OFDA, and UN, and implementing the USPACOM FHA concept of operations (CONOPS). DJTFAC provided joint expertise, regional and local expertise, and detailed knowledge of USPACOM organization and processes. It provided rapid stand-up and execution to establish Joint Task Force (JTF) 505. Although some geographic combatant commands do not have a DJTFAC, it proved an indispensable capability for the USPACOM response to Haiyan.

On the same day, November 10, the Joint Special Operations Task Force–Philippines (JSOTF-P),⁷ located in Mindanao, about 600 miles south of the affected region, began conducting aerial surveillance to assess airfields, ports, routes, and distress signals, and obtaining information critical for search and rescue operations in the affected areas of Leyte, Samar, and the Western Visayas.⁸ JSOTF-P, which performs an advise-and-assist role to Philippine security forces throughout the southern part of the country, sent the first U.S. military personnel to respond. It also provided critical needs and damage assessment to the operational plans of the responders.

According to witnesses on the ground, the AFP and the interagency task force, despite having lost family members, extricated themselves from the rubble to clear the initial runway, providing the “initial main door” that allowed the entry of the first group of U.S. forces into Tacloban airport. According to Colonel Restituto Padilla, Jr., the AFP liaison officer to USPACOM, the AFP Vice Chief of Staff, Lieutenant General Allan Luga, recounted how the AFP and the

interagency task force, while comprised of less than 100 individuals, “clawed their way back to the airport inch by inch” to assess the conditions for the entry of the responders and relief supplies in Tacloban. Colonel Padilla recounted:

Upon reaching the airport hours after being drenched, tired, hungry and with [a] minimum of equipment salvaged from the devastation, the AFP and interagency [task force] mustered the remaining personnel in the airport and linked up with the surviving Philippine Air Force Tactical Operations Group (PAF TOG) contingent (whose camp at the airport grounds was totally destroyed) and began to painstakingly clear the runway.

This effort paved the way for the first PAF C-130 flights that brought the initial interagency and NDRRMC assessment team, medical teams from the AFP and limited medical supplies to the city of Tacloban. Their efforts too became the enablers that allowed for the first group of U.S. forces to arrive there the following day. If not for these men and women whose sacrifices got lost when more prominent responders arrived, none of the follow-on and similarly critical activities could have happened.⁹

The combined Philippine-U.S. efforts resulted in a capability that allowed tactical military forces to provide immediate relief, while the government and humanitarian aid community organized and prepared capabilities to deploy. On November 11, President Aquino issued Presidential Proclamation No. 682 declaring a state of national calamity—the same day USAID humanitarian relief supplies started arriving into Tacloban, 535 miles south of the COC at Villamor Air Base.

In the initial hours of Typhoon Haiyan, the U.S. military, working alongside AFP counterparts, was able to respond quickly due to the many prepositioned U.S. assets throughout the region. Military assets based in locations near the Philippines enabled responders to provide rapid provision of lifesaving assistance in the immediate aftermath of the storm, made particularly critical

when host-nation prepositioned goods were exhausted by recent disasters. These forward-deployed assets and capabilities allowed for the immediate civil-military coordination needed to establish and execute a rapid response plan with the Philippine government.

Lesson 2: Centralized Planning and Decentralized Execution Facilitated Coordination

A hub-and-spoke concept of operations was stood up 18 hours after approval from USPACOM to deliver USAID humanitarian supplies from the primary hub at Villamor Air Base to Tacloban, Guiuan, Borongan, and Ormoc in Leyte and Samar. U.S. military aircraft enabled USAID/OFDA to conduct the needs and damage assessments required for relief planning and coordination without delay. DOD civil-military coordination focused primarily on airlifting supplies to affected areas for onward distribution.

The first shipment of USAID/OFDA relief commodities arrived in the Philippines on November 12, and U.S. military forces began regular distribution of these commodities on November 13, 5 days after the storm made landfall. Assets from the aircraft carrier USS *George Washington* and CSG 5 commenced relief operations on November 14.

Determining the allocation of resources and the use of DOD assets was critical to the relief efforts. Satisfying requests for assistance was based primarily on field assessments. Manila served as the main aerial port of debarkation for U.S. efforts due to its focus on wholesale support of operations, while the government and humanitarian actors focused on performing humanitarian assessments, administering medical care, and engaging in direct distribution of relief commodities.

The decision to use Manila as a hub avoided burdening the affected areas in the Visayas with internal logistics needs and freed up space for humanitarian actors to operate in the affected areas. Personnel in Manila, comprised of U.S., Filipino, and international humanitarian personnel, made frequent visits to

affected areas. Responding organizations and coordination mechanisms in the affected areas were somewhat slow in setting up due to the magnitude of the devastation, necessitating coordination in Manila.

Missions were cleared in Manila by the OFDA mission tasking matrix (MITAM). Forces and assets returned to base in Luzon at the end of each day to receive orders for the following day. President Aquino assumed direct control of the relief operations (at one point based directly out of Tacloban for several days), but they largely operated out of Manila for the duration of the response efforts.

Lesson 3: Direct Planning to Ensure Command and Control Are Part of Course of Action Analysis

USPACOM ordered the activation of JTF 505 on November 16 to lead the tactical mission, replacing the 3rd MEB. Lieutenant General John E. Wissler, commander of III Marine Expeditionary Force (III MEF), assumed command of JTF 505, which established operations in the Philippines on November 18 and reached full operational capability on November 20. (III MEF is the parent command of 3rd MEB.) JTF 505 led U.S. military relief operations until it was disestablished on December 1, 2013.

After 6 days of full operational capability, JTF 505 presented a transition confirmation briefing to the USPACOM commander on November 26. It stated that “unique DOD capabilities [were] no longer required” and recommended mission transition through first observing relief operations with U.S. Navy and Marine Corps amphibious forces in an “operational reserve” role, able to react to any sudden emergent requirements, and, second, by disestablishing the JTF and releasing all major U.S. forces for redeployment by December 1.

According to OCHA Situation Report No. 13, relief operations scaled up substantially, especially in Tacloban City, with access and logistics dramatically improving by November 19.¹⁰ All

Tacloban residents had access to clean drinking water by this time, and hygiene kits began reaching various municipalities. In Cebu, less cargo was arriving daily and fewer people were requesting transport. After MITAM requirements were satisfied, the U.S. military response to this disaster was nearly complete.

JTF and USAID/OFDA leaders recognized that the emergency phase of relief operations terminated on or about November 26. While there was a significant multinational military effort, U.S. forces limited their efforts to the emergency phase, with U.S. command and control (C2) conducted largely out of Manila. Other foreign militaries arrived later and focused a large amount of effort on what could be considered the recovery and rehabilitation stages of the operation, with a major focus on all activities in the mission area.

By the time JTF 505 fully activated for this crisis, almost all USAID/OFDA-requested U.S. military assistance had been delivered. The JTF supported requirements established in one final OFDA MITAM to deliver relief commodities. Key considerations in the JTF 505 after action report included suggestions on ways to improve agility and effectiveness in manning, equipping, training, and readiness.

Through the employment of the most appropriate C2 option for the commander and staff, in conjunction with component input, unnecessary transition delay during execution was minimized. USPACOM opted initially to command its relief operations through its Marine Service component (U.S. Marine Pacific) instead of directly activating a JTF. Once the establishment of a JTF had been decided, it took several days before adequate command, control, and communications were set up between the JTF and HQ USPACOM.

While the various C2 arrangements and the shift between them did not negatively affect operations, it did not enable a more rapid response. In mega-disaster scenarios in which it is not always clear how long the response phase will last, a key consideration from the Haiyan experience is not whether a JTF should have

been established sooner, but rather that the right course of action was planned for and decided upon at the outset to ensure that the appropriate C2 is employed.

Lesson 4: International Coordination Team Synchronized Effective International Support

The International Coordination Team (ICT) serves as an enabling mechanism for the effective and speedy provision of military capabilities and resources to support international efforts in the USPACOM area of operation. Operating from the headquarters at Camp Smith, Hawaii, the ICT meets regularly (Phase 0: bi-annually) and on an ongoing basis during a crisis situation (Phase 1–5: minimum daily) for the purpose of joint planning, sharing information, and creating a synchronized holistic awareness of the theater among USPACOM international military liaison officers (LNOs).

While the ICT meetings are open to all staff and strive to be as inclusive as possible, the core structure during Operation *Damaycan* included the USPACOM DJ3 (Chair); a Canadian LNO (Deputy-Chair); a Japanese LNO; the Philippine LNO and Deputy LNO; an Australian LNO; a British LNO; representatives from USPACOM directorates, including training, plans, logistics, information technology, finance, and operations; the OFDA representative; the Foreign Policy Advisor; and an All Partners Access Network (APAN) representative.

Originally stood up in November 2013 in support of Operation *Damaycan*, the ICT serves as a one-stop shop for international LNOs to clarify their roles, help posture international military support appropriately before the urgent formal host-nation request for assistance, and avoid potential confusion with the MNCC team during crisis situations. Intended to provide a proactive, strategic, and high-level operational perspective, the ICT paves the way for the smooth establishment of the MNCC by alleviating the initial burden of the affected nation to collect, organize, and identify overlaps,



Marines carry injured Filipino woman on stretcher for medical attention at Villamor Air Base, Philippines, November 11, 2013 (DOD/Caleb Hoover)

gaps, and potential opportunities across the full spectrum of response operations during the critical lifesaving rapid response phase.

To be effective, the ICT core members collect and monitor five main aspects of international military-related contributions during a crisis:

- initial government and military intents vis-à-vis projected support
- current capabilities in the region, their locations, and their projected duration(s) of stay
- determining where, when, and for how long capabilities will be deployed
- information requirements to better enable deployments and support
- any support required to facilitate movement into theater.

In addition, the ICT provides a platform for sharing lessons learned and best

practices across all partner nations to promote alignment with USPACOM allies and partner militaries, particularly before a crisis makes landfall. The ICT also assists in the creation, review, and revision of military response plans, CONOPs, the dissemination of relevant operational information, and the coordination of sourcing additional military support of strategic theater military requirements.

Lesson 5: Preplanned Scalable Force Packages Optimize Humanitarian Assistance/ Disaster Relief Support

Based on lessons learned from Operation *Damayán*, the newly revised and comprehensive USPACOM FHA CONOPS discusses in detail the strategic framework, strategy and policy considerations, mission statement, commander's intent, lines of effort (LOE), various frameworks for each LOE,

staff processes, event flow and decision point descriptions, operational planning team processes, transition assessment templates, and other supporting documents.¹¹

The USPACOM FHA CONOPS is the authoritative reference for USPACOM FHA operations, actions, and activities. This document builds the strategic and operational construct for planning, preparing, executing, and assessing FHA operations, and will be applied in situations when U.S. agencies request DOD assistance (for example, foreign disaster relief, pandemic and emerging infectious diseases, and chemical, biological, radiological, and nuclear accidents). This CONOPS provides:

- prescriptive USPACOM guidance to military commanders performing FHA operations

- a framework to inform partner nations on USPACOM support during FHA operations
- a baseline for the development and conduct of training to prepare USPACOM commanders and forces to execute FHA operations.

Lesson 6: Other Tactical Considerations

Operational insights captured in the after action reports include lessons learned and best practices in major disaster response operations. Responders across different service components reported the following lessons that could be adapted to other geographic combatant command operational environment and disaster scenarios:

- Coordination and correspondence during an FHA response should be unclassified as much as possible to maximize information-sharing. If we cannot communicate, we cannot coordinate. Operating in the Secret Internet Protocol Router Network resulted in wasted time and effort, delaying shared situational awareness with partners.
- Ensure communications are in place *prior* to major transition. Prioritize the deployment of equipment as necessary to ensure sufficient communication capability is available to support the anticipated growth of C2 requirements.
- Ensure that the J5 rapidly establishes joint planning groups at the onset of operations to provide timely return to Phase 0.
- An assessment framework needs to be extant at the onset of operations. The incorporation of an assessment framework into the FHA CONOPS will help to ensure assessments are possible at the onset of an event.
- Ensure proper procedures to determine the supported valid requirements by USAID/OFDA. Confirmation of OFDA requests down to the Service components was initially difficult to obtain. There is a need for a real-time formalized reporting process of all OFDA

requests, especially during the initial state of operations, to better identify which Service components will fulfill which requirements. Ensure that the MITAM is accessible and can handle the high volume of use from all constituents.

- USPACOM had the appropriate interagency advisors collocated with the HQ USPACOM staff, and this greatly enhanced the command's unified action during Operation *Damayan*. Combatant commands should ensure their own personnel are appropriately staffed with interagency advisors pertinent to their area of operations. They should also initiate the situational awareness group at the earliest point after the identification of a major storm system and establish the operational planning team at least 24 hours prior to landfall for greater mission analysis and course of action selection.
- Units and organizations must identify stakeholders and LNO locations at the onset of a crisis. LNOs should be emplaced immediately to ensure situational awareness, coordinate operations, and ensure mutual support.
- Develop a simple checklist to determine the capabilities of airfields in the affected area(s). This checklist could be used to calibrate the required U.S. footprint.

Conclusion

Within 2 weeks, the emergency response phase of the humanitarian crisis was essentially over. While the U.S. military ceased major operations on November 26, some contributing-country military assets continued to stay on the ground in the affected areas supporting Philippine government efforts. The commitment of assisting actors who came to the aid of the Philippines clearly demonstrated the increasingly globalized nature of mega-disaster response.

Despite the magnitude of the damage and its wide reach across multiple islands, recovery began 2 weeks after Haiyan's

first landfall. This allowed JTF 505 to begin disestablishment. Remaining true to the United Nations Office for the Coordination of Humanitarian Affairs Guidelines on the Use of Military and Civil Defense Assets in Disaster Relief (Oslo Guidelines), DOD assets provided unique capability in the Haiyan response efforts when it was clear that no comparable civilian alternative existed.

When this unique capability was no longer required, DOD began to phase out its operations in coordination with the affected nation. The timeliness of the DOD response as the last-in and first-out resort speaks to the importance of mutual training and readiness, such as the annual bilateral Philippine-U.S. Balikatan military exercise, to allow for combined planning, interoperability, and a speedy and smooth transition of operations.

More than a year had passed since Haiyan made first landfall on November 8, 2013, in Eastern Samar, when Typhoon Hagupit (known locally as Ruby), the second most intense tropical storm in 2014, threatened the same area. Hagupit intensified to Category 5 on December 4, 2014, before weakening to Category 3 when it made landfall in Eastern Samar. This time, the Philippines applied lessons learned from Haiyan.

While a total of 4,149,484 persons were affected, only 18 deaths were reported.¹² More than 1 million people evacuated to 3,640 shelters in advance of the storm's landfall, an impressive feat in any country. The preparation activities of the local and national governments, including the prepositioning of road clearance teams, were applauded by numerous international governmental and nongovernmental experts and officials.

In suggesting best practices in the Haiyan response, this article aims to provide insights into the effectiveness of the U.S. response to a mega-disaster such as Haiyan. It hopes to inspire other geographic combatant commands to adapt some of the organizational models and tactical approaches suggested herein for their particular environments. It also aims to start a dialogue on ways to achieve unity of effort in a complex catastrophic scenario. As a testament to U.S. partners



Marines with Marine Aerial Refueler Transport Squadron 352 offload KC-130J Super Hercules at Clark Air Force Base, Philippines, during Operation *Damayan*, November 22, 2013 (U.S. Marine Corps/Caleb Hoover)

and allies, the commitment of the United States to assist, advise, and stand ready to help its partners is best captured in the words of President Barack Obama: “One of our core principles is when friends are in trouble, America helps.”¹³ JFQ

Notes

¹ “Update #2—NASA’s TRMM Satellite Sees Super-typhoon Haiyan Strike Philippines,” *NASA.gov*, November 8, 2013, available at <www.nasa.gov/content/goddard/haiyan-northwestern-pacific-ocean/>.

² “Super Typhoon Haiyan,” *State.gov*, available at <www.state.gov/p/eap/ci/rp/typhoon/index.htm>.

³ “Typhoon Haiyan (Yolanda),” *USAID.gov*, available at <www.usaid.gov/haiyan>.

⁴ National Disaster Risk Reduction and Management Council (NDRRMC), “NDRRMC Update: SitRep No. 108 Effects of Typhoon ‘Yolanda’ (Haiyan),” April 3, 2014, available at <www.ndrrmc.gov.ph/

attachments/article/1329/Effects_of_Typhoon_YOLANDA_(HAIYAN)_SitRep_No_108_03APR2014.pdf>.

⁵ *Ibid.*

⁶ Headquarters, U.S. Pacific Command, “U.S. Pacific Command Foreign Humanitarian Assistance (FHA) Concept of Operations (CONOPS),” November 19, 2014, available at <<https://community.apan.org/hadr/pacom-hadr/w/wiki/17102.uspacom-fha-conops-2014/>>.

⁷ At the request of the Philippine government, the Joint Special Operations Task Force-Philippines (JSOTF-P) assists and advises the Armed Forces of the Philippines (AFP) and Philippine civilian authorities in coordinating and sustaining counterterrorism operations in Mindanao as part of Operation *Enduring Freedom*.

⁸ U.S. Joint Special Operations Task Force, “JSOTF-P’s Support to the Government of the Philippines Typhoon Haiyan Relief Effort, 08–22 November 2013,” presentation, Camp Smith, Hawaii, December 9, 2014.

⁹ Brigadier General Restituto Padilla, Jr., AFP, interview, January 8, 2013.

¹⁰ European Commission, *Philippines—Ty-*

phoon Haiyan (Yolanda), Echo Crisis Flash No. 8, November 20, 2013, available at <http://vosocc.unocha.org/Documents/29895_ECHOFlash8.pdf>.

¹¹ Headquarters, U.S. Pacific Command.

¹² NDRRMC, “NDRRMC Update: SitRep No. 27 re Effects of Typhoon ‘Ruby’ (Hagupit),” December 19, 2014, available at <www.ndrrmc.gov.ph/attachments/article/1356/Sitrep_No_27_re_Effects_of_Typhoon_Ruby_as_of_19DEC2014_0600H.pdf>.

¹³ “President Obama Speaks on Typhoon Haiyan,” *USAID.gov*, November 14, 2013, available at <www.usaid.gov/news-information/videos/president-obama-speaks-typhoon-haiyan>.

Baltic battalion soldiers during city battle training day in San Gregorio, Spain, October 24, 2015, during Trident Juncture 2015 (NATO/Siim Teder)



#SocialMediaMatters

Lessons Learned from Exercise Trident Juncture

By Gregory M. Tomlin

With the ubiquity of inexpensive smart phones and Internet access, increasing numbers of people around the globe—especially youth—glean as much of their news as their entertainment from social media platforms. For information operations (IO) professionals long accustomed to incorporating messages

into host-nation newspapers and radio broadcasts, it is now imperative that they consider online methods to reach the widest audience targeted by their contemporary information campaign. Recognizing this paradigm shift, headquarters from the brigade to combatant command levels must understand how to establish credibility and gain

popularity through social media if they are to effectively shape the information environment during modern military operations.

In September and October 2015, multinational participants in North Atlantic Treaty Organization (NATO) exercise Trident Juncture learned firsthand the importance of social media as a component of the engagement warfighting function on today's battlefield. Led by Allied Joint Force Command in Brunssum, the Netherlands, Trident Juncture involved command posts in Canada, Norway, Portugal, and Spain participating in a complex scenario ostensibly set in north-east Africa. According to the road to war, the fictitious country of Kamon invaded the neighboring country of Tytan to build a "protection zone" for ethnic Klorids, a minority in Tytan but the ethnic majority in Kamon. Kamon's President Wekawu also blamed the Tytan government for constructing dams that limited the flow of the Nile River into Kamon, a pretext for

Major Gregory M. Tomlin, USA, is a Brigade Fire Support Officer in the 1st Armored Division, 1st Stryker Brigade Combat Team. He holds a Ph.D. from The George Washington University.

war in Wekawu's view. Under the authority of a United Nations (UN) Security Council resolution, NATO deployed an Allied Joint Force Command to restore the Tytan border and improve stability throughout the region.

NATO simulation designers uploaded two social media applications onto the exercise's Intranet, and controllers encouraged friendly players at all echelons to create profiles. Opposing force and neutral players also established their own accounts. Most participants immediately recognized the format of the two applications. "Chatter," akin to Twitter, limited users to 120-character posts. "Facepage," akin to Facebook, did not bound a user's post to a specific word count, and it included options to paste photos and links to other Web sites. The dynamism that these applications brought to Trident Juncture necessitates the utilization of both platforms in future command post exercises. IO specialists, nonlethal targeting officers, and, perhaps most importantly, commanders became aware of the consequential impacts—both good and bad—of social media within the modern information dimension of warfare.

Foremost, Trident Juncture demonstrated that the dissemination of canned talking points through social media is no more persuasive than when parroted by a patrol leader to the resident of a host-nation village. Simplistic messages such as "NATO is here under authorization of a UN Security Council resolution" failed to gain the joint task force headquarters' profile a significant following on Chatter or Facepage. Without "friends" following a command on social media, NATO messages did not enter many personal online streams and quickly disappeared beneath the din on the application's main page.

Like the incorporation of talking points in face-to-face engagements, IO officers must be prepared to weave their messages into interesting social media postings. For example, an official Chatter post by the U.S. brigade mentioning that the commander met with a town mayor to discuss security concerns invited a comment from one host-nation user who asked the brigade to detail specific

security concerns. This comment enabled the brigade spokesman to engage in a virtual conversation through a series of comment posts. More importantly for the information campaign, it allowed the spokesman to insert focused talking points about respect for the rule of law and ethnic tolerance that would have sounded like platitudes if written as independent posts.

Trending

Like the popular Twitter application, Chatter enabled users to transform a topic into a trend through the use of the # hashtag. Leveraging this feature generated interest in a topic that, as part of an information campaign, influenced the local population to support a specific initiative. Optimally, the friendly forces headquarters would exploit this, but during Trident Juncture the best validation of the hashtag's effectiveness as an information multiplier stemmed from its use by a neutral player.

Chatter handle @ChazfromTigray used the hashtag "#TransportationMatters" to influence a multinational division to fund a road project in the fictitious Tytan province of Tigray. When the exercise began, Chaz's initial postings complained about the excessive time that it took for him to drive to work due to poor roads in his province. As the division uncoiled from its port of entry, Chaz complained about NATO forces causing greater congestion and increased destruction to the roads, thereby extending his commute even further. The division headquarters responsible for Tigray province did not comment on Chaz's posts, but other Chatter users did comment on his blurbs, mostly to jeer him for harping on the monotonous topic of #TransportationMatters. However, each time that someone commented on Chaz's account or brought his name into their own posts, they inadvertently increased Chaz's popularity. By the end of the first week of the exercise, @ChazfromTigray became the second most popular profile (according to Chatter's own metric) out of 600 active accounts.

An IO analyst on the division staff noticed Chaz's popularity on Chatter

and prioritized a road-paving project for Tigray during the division Information Activities Working Group. Two days later, military engineers arrived to widen shoulders and fill potholes. The division public affairs officer (PAO) issued a press release about the project and quoted the brigade commander: "We are pleased to help improve the local infrastructure because we know that transportation matters to the people of Tigray." Chaz's messaging proved so effective that it not only shaped the division's civil-military affairs priorities, but the brigade commander used Chaz's own hashtag in his public statement as well. This presents a worthy challenge to IO planners: How does one become @ChazfromTigray oneself and generate effective hashtags that will co-opt neutral or enemy application users to support the command's lines of effort?

Showcasing the engineers' efforts to improve the roads of Tigray through social media should not be confused with the information endstate. Broader objectives to increase local support for NATO forces operating in Tytan, respect for the rule of law, and trust in the indigenous government underlay this civil-military investment in local infrastructure. Immediate methods for measuring the influence of the project on local behavior and attitudes toward NATO and the Tytan government included monitoring social media sites for trending hashtags related to the allied military presence, ethnic tolerance, and pro-Tytan institutions and leaders. The sharing or reposting of a headquarters' original post about Tigray infrastructure could also indicate whether Tytans noticed the road project or considered it to be an authentic gesture of NATO's commitment to improving their country.

Competing with White Noise

Exercise controllers did not anticipate the popularity of Chatter swelling to more than 600 active accounts during Trident Juncture. This challenged the joint task force headquarters to maintain popularity and develop a following of "friends." Most Chatter accounts discussed wildly irrelevant topics in lieu of



Marines with Special-Purpose Marine Air-Ground Task Force Crisis Response—Africa and Royal Marines with 45 Commando conduct patrol during Trident Juncture 15, October 23, 2015 (U.S. Marine Corps/Kaitlyn V. Klein)

the conflict between Kamon and Tytan. Some Chatter users—most notably @RegisKT, the handle used by the anchor of *Kamon Today's* nightly news broadcast—clearly opposed NATO's interference in regional affairs. Simulation designers produced a daily *Kamon Today* newsreel to propagandize against NATO and the Tytan government, and Regis immediately followed up with Chatter posts that included bellicose quotations from President Wekawu and misinformation about allied military efforts. By the eighth day of the exercise, Regis had become the third most popular Chatter account, while official NATO accounts trailed in comparison. Applying the joint task force headquarters' own metric, the enemy was winning the information campaign. As a response, exercise controllers closed about a third of the Chatter accounts and prevented Intranet users from creating new profiles.

The controllers' reaction proved unfortunate. If they believed that by limiting the “white noise,” including several vocal opponents to NATO, they could enable PAOs and IO officers to more effectively shape the information environment, then they removed reality from the simulation. Although robust for a NATO exercise, 600 profiles is a paltry sum compared to the millions of Twitter and Facebook users who will generate white noise in a real-world theater of operations. PAOs and IO officers must begin to consider seriously the challenges of navigating around the white noise and how to respond to the most blatant information attacks against NATO in social media.

Pith versus Rant

During Trident Juncture, Facepage did not generate the same level of popularity as Chatter among exercise participants, and controllers did not delete the most vitriolic Facepage accounts, even after

they removed a third of the Chatter profiles. One theory for the lack of Facepage's popularity could be that Chatter constrained users to write terse, 120-character posts, while Facepage permitted its members to enter long messages or paste entire media stories determined by social media users as droll. In several instances on Facepage, lengthy messages from a unit headquarters about NATO efforts to improve the security situation in Tytan elicited the same comment from followers: “Too long to read.” Similarly, the appearance of daily Facepage rants by Kamon Vice President Izkaok received wide criticism: “Blah, blah, blah, this is propaganda.” A typical Izkaok posting follows:

WE ARE WINNING THE KLORID WAR ON IMPERIALISM! Yesterday's success by the Kamon People's Army to secure an airfield in Tytan has enabled our benevolent President Wekawu to send



Landing craft air cushions transport U.S. Marines and Portuguese marines from the USS *Arlington* Kearsarge Amphibious Ready Group toward Pinheiro Da Cruz beach to participate in combined amphibious assault exercised as part of Trident Juncture 15, October 20, 2015 (U.S. Marine Corps/Jeraco Jenkins)

essential humanitarian aid to our Klorid brothers who have starved under the Tytan regime. Kamon has created a safety zone for all people oppressed by NATO in Tytan. Our field commanders report that, in every Tytan village they liberate, citizens have joined their brothers in the fight for Klorid justice. Mark my words: We will run the NATO occupation forces back into the Red Sea. The imperialists will return to their decadent homes in Europe and North America lamenting their grievous mistake of giving into their carnal desires to become colonial masters again. The NATO Generalissimo will never take our Nile life waters! NATO will never destroy the Greater Klorid Nation! Let us be eternally grateful that Providence has bestowed upon us our president at this moment in Klorid history. Fear not! President Wekawu will protect us all!

The Facepage application's format made the vice president's diatribes

immediately recognizable as propaganda. Neither NATO nor the enemy spokesman effectively messaged through this medium, and neither gained a significant following of friends. Exercise controllers did not remove the vice president's profile, despite the highly critical nature of his posts, because they did not deem this account as threatening—hence effective—as compared to other anti-NATO profiles on Chatter, such as @RegisKT. The juxtaposition of the enemy's Facepage and Chatter messages indicates how powerful a pithy message in social media can be at confounding PAOs, IO officers, intelligence collection managers, and even operation officers. While readers could shrug off Izkaok's rants as delusional or desperate, on three occasions during the exercise, the *Kamon Today* newsman's Chatter posts enabled the enemy to gain an information advantage, forcing NATO to respond to its adversary's highly successful spin.

In one instance, a group of Tytan men determined to exacerbate ethnic tensions, impersonated police officers and massacred dozens of ethnic Klorids in a Tytan village. The allied division responsible for that province in Tytan considered the incident a matter for local authorities to handle and chose not to make any public statements, for fear of drawing attention to the atrocity in their area of operations. Within hours of the massacre, @RegisKT exploited the division's silence when he posted on Chatter: "KT News Alert—President Wekawu: 'I weep for the loss of 75 defenseless Klorids murdered in cold blood today by Tytan police.'"

Regis did not post his message about the massacre of ethnic Klorids until after two other host-nation Chatter users mentioned rumors of the atrocity. The declarative nature of his "News Alert" led the division intelligence collection manager to include Regis's Chatter post in his open-source intelligence report. The post



Two pilots assigned to 71st Rescue Squadron at Moody Air Force Base, Georgia, fly C-130J Hercules during rescue and refueling training near Beja Air Base, Portugal, October 23, 2015, in support of Trident Juncture 2015 (U.S. Air Force/Luke Kitterman)

also generated numerous responses about what occurred in the village and speculation that NATO's silence surrounding the incident equated to the West's callous indifference toward ethnic violence. Although the division commander chose a passive approach to handling the massacre with the media, the sheer volume of Chatter posts led one international journalist to contact the division PAO directly. In a major Canadian newspaper the following day, the reporter criticized NATO severely for moving too slowly to respond to the incident and questioned the multinational division's ability to stabilize Tytan.

The atrocity should have taught division collection managers to monitor local chatter on social media more carefully, since the expansiveness of the area of operations prevented allied forces from patrolling its entirety. However, a few days later, the headquarters missed a second opportunity to proactively shape the

information environment when @RegisKT posted more breaking news: "KT News Alert—President Wekawu orders Kamon People's Army to initiate artillery barrage of NATO battle positions in western Tytan."

Regis used a Tytan Radio transcript released 30 minutes earlier on the exercise's Intranet "Newsweb" as his source. The transcript cited several villagers in western Tytan who called in to the radio station to report the impact of Kamon artillery shells near their community. However, no one on the division staff had monitored Newsweb closely enough to recognize that Regis had taken a real media scoop out of context, by insinuating that Kamon's preemptive attack would destroy battle positions occupied by NATO forces poised to invade Kamon. Regis made the Kamon military operation sound defensive in nature. As a consequence, the allied headquarters' delayed response to enemy indirect fire

occurred only after learning from Chatter about the attack, rather than utilizing its own collection assets to be the first to inform the Tytan people about the commencement of a Kamon offensive across the international border.

A final example of @RegisKT forcing the multinational headquarters onto the information defensive occurred when he posted on Chatter the nationality of the first NATO pilot shot down during the exercise: "Tonight on KT News at 2200: Exclusive video of the first POW in Klorid War on Imperialism; American pilot shot down over Kamon." Regis based his post about the captured pilot on a Newsweb video that reported the downing of a NATO fighter over Kamon. NATO headquarters would not confirm the nationality of the pilot, so Regis claimed to have an American (eventually we learned that the pilot served in the Canadian Air Force). Exercise controllers deleted Regis's account immediately after

this posting, in lieu of allowing a senior PAO to respond. Even if the headquarters chose to remain silent, the failure of *Kamon News* to produce the video of an American pilot that night on its nightly newscast would have destroyed Regis's credibility. Indeed, the newsman's following on Chatter would have evaporated on its own without the need for a controller's heavy hand.

Worthy Training Tools

In future exercises, simulation controllers and commanders must allow social media to play out naturally. Controllers would never delete "Red Air" from a simulation if the air component command failed to gain air superiority prior to the ground forces crossing the line of departure. Rather, the ground commander would have to face the dangers of enemy aircraft targeting his troops and vehicles as he maneuvered toward an objective. Likewise, commanders cannot pretend that trends on social media are merely white noise during an operation, for they could directly affect the alliance's lines of effort. The information dimension of warfare must be mastered by developing a following of inquisitive international observers and host-nation friends on social media platforms who seek on their own to navigate around the white noise.

It would be optimal to contract with a marketing or public relations firm to play the opposing force and host-nation population on social media. A tech-savvy business would present PAOs and IO officers with the most sophisticated information environment based on current online trends. During the exercise's train-up and after action review process, the civilian experts could also coach PAOs and IO officers responsible for developing a headquarters' official social media messages. Although a costly investment, this approach would prevent participants from leaving an exercise with a false sense of bravado about their ability to shape an information environment of only several hundred profiles.

While the experience during exercise Trident Juncture made Facepage seem irrelevant for advancing NATO's

information campaign, real-world applications such as Facebook should not be discounted summarily by IO planners in future command post exercises or deployment operations. Internet surfers in some cultures continue to appreciate reading detailed articles, and scholars and policy-makers in most societies expect access to open forums where thoughtful discourse is not restricted to a 120-character post. During the Cold War, for example, Voice of America found that its audience in the Soviet Union overwhelmingly favored lengthy monologues on U.S. foreign policy read by American broadcasters. In Latin America, on the other hand, regular listeners to the Voice preferred short news updates that they could listen to at a café during a midday coffee break.

A final consideration for IO planners will be to ensure that they understand the time required for higher headquarters to approve Military Information Support Operations messages for dissemination, as well as themes to avoid in such messages. During a unilateral mission, U.S. planners serve under a single chain of command that may make it easier to gain approval for new message nominations in a matter of hours. But multinational operations may require the approval of messages through separate national command authorities that could easily delay the approval of new messages for days. Not only might messages in support of NATO operations require the approval of the North Atlantic Council, but also individual nations might reserve the right to review them independently. Factoring a realistic review process into an IO planning timeline could encourage officers to nominate messages and themes early in the operations cycle and to formulate memoranda of understanding to expedite the approval process for new messages during current operations. Such advanced considerations could empower PAOs and IO officers whose responsibilities remain essential to proactively shaping the information environment before another @RegisKT befuddles a friendly headquarters through his social media popularity and mistruths. JFQ

New from NDU Press

for the Center for the Study of Chinese Military Affairs

Strategic Forum 290

Posing Problems Without an Alliance: China-Iran Relations after the Nuclear Deal

by Joel Wuthnow



China is poised to increase economic and diplomatic cooperation with Iran as a result of sanctions relief under

the recent Iran nuclear deal, though a close geopolitical alignment between the two states is unlikely. Sino-Iranian relations will remain limited by several enduring constraints, including China's desire for positive ties with other states, its pursuit of energy diversification, and its need for regional stability. Renewed Chinese arms sales to Iran could constitute an emerging challenge for the United States. This could increase Iran's antiaccess/area-denial threat to U.S. military forces and create proliferation risks. U.S. officials should press Chinese interlocutors to avoid exporting advanced weapons, which could embolden Iran to conduct a more brazen foreign policy that would threaten China's fundamental need for regional stability.



Visit the NDU Press Web site for more information on publications at ndupress.ndu.edu



Soldiers of Chinese People's Liberation Army
1st Amphibious Mechanized Infantry Division,
July 12, 2011 (DOD/Chad J. McNeeley)

China's Goldwater-Nichols?

Assessing PLA Organizational Reforms

by Phillip C. Saunders and Joel Wuthnow

In the past few months, China has announced a series of major reforms to the organizational structure of the People's Liberation Army (PLA): the Central Military Commission (CMC) has been revamped, the four general departments dissolved, new service headquarters created, and five new theater commands established in place of the seven military regions (MRs). These changes are part of a sweeping

transformation of PLA institutions, force structure, and policy that will be ongoing through 2020. In pursuing these reforms, China's leaders hope both to tighten central political control over a force that was seen as increasingly corrupt and to build the PLA into a credible joint warfighting entity. Yet important obstacles remain, and it may be years before the implications of these reforms come into full view.

Major Organizational Reforms

Prior to the reforms, the PLA's organization was based on a model imported from the Soviet Union in the early 1950s.¹ Its three main pillars included the following: (1) three services (army, navy, and air force) and the Second Artillery Force (SAF), an independent branch responsible for China's conventional and nuclear missiles; (2) four general departments—General Staff Department (GSD), General Political Department (GPD), General Logistics Department (GLD), and General Armaments Department (GAD); and (3)

Dr. Phillip C. Saunders is Director of the Center for the Study of Chinese Military Affairs (CSCMA), Institute for National Strategic Studies, at the National Defense University. Dr. Joel Wuthnow is a Research Fellow in CSCMA.

seven geographic MRs, listed in protocol order: Shenyang, Beijing, Jinan, Nanjing, Guangzhou, Chengdu, and Lanzhou, with subsidiary units drawn from the services. The CMC stood atop these pillars and exercised the highest command authority in the PLA.² This structure is depicted in figure 1.

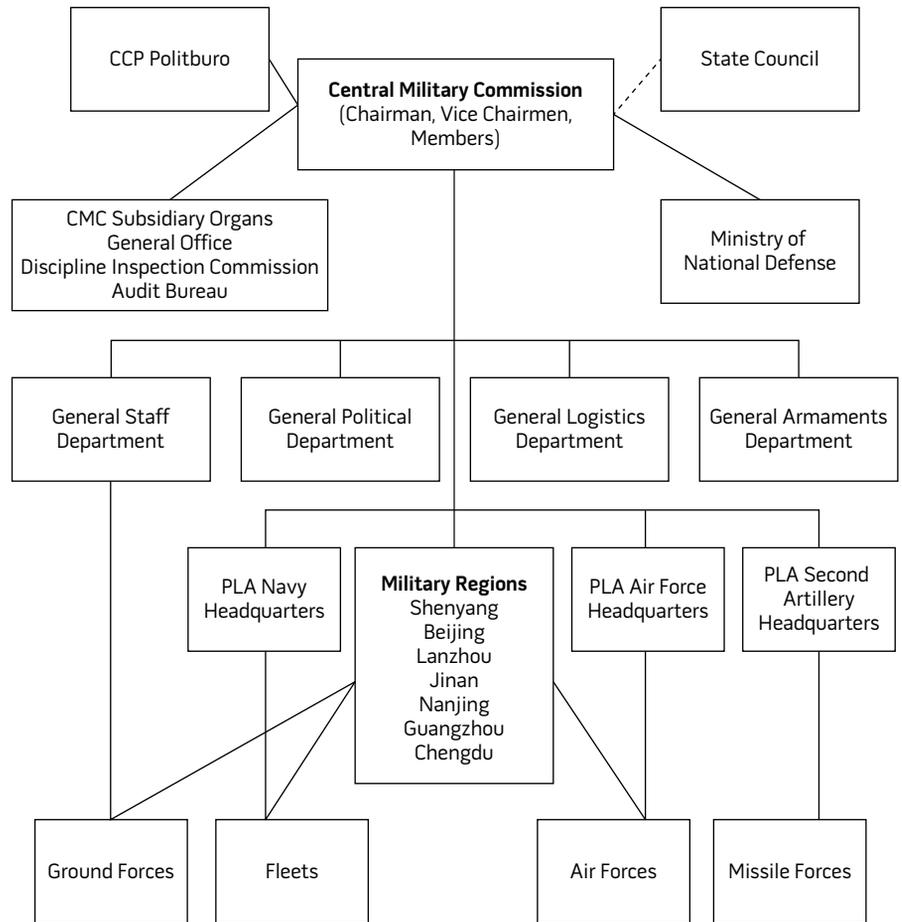
Over the years, the PLA made only incremental changes to this system. Past reforms revised the MR system (most recently in 1985), created new general departments (the GAD in 1998), and added an independent branch (the SAF in 1966).³ Yet due in part to bureaucratic resistance to more comprehensive changes, the PLA remained a fundamentally ground force–centric organization that lent itself to single-service operations. A key weakness was an outdated command and control (C2) structure in which the services, rather than theater commanders, possessed operational authority during peacetime. This hindered the development of a force capable of conducting modern joint operations.

In late 2015 and early 2016, CMC chairman and Chinese Communist Party (CCP) General Secretary Xi Jinping announced the most wide-ranging restructuring of the PLA since 1949. The reforms included the following changes to the PLA’s three main organizational pillars (see figure 2).⁴

Service Reforms. On December 31, 2015, Xi announced three changes to the services: (1) establishment of national- and theater-level headquarters for the ground forces, which previously had been collectively led and administered by the general departments; (2) elevation of the SAF to the status of a full-fledged service renamed the PLA Rocket Force; and (3) establishment of a new Strategic Support Force (SSF), whose missions likely include operations in the “information domain,” including space, cyber, and electronic warfare activities.⁵ The SSF is not a service per se, but rather an independent force along the same lines as the former SAF.⁶

CMC Reforms. On January 11, 2016, Xi revealed that the general departments had been replaced by a new CMC structure comprised of 15 departments, offices, and commissions. The GSD’s

Figure 1. PLA Structure Prior to Reform



extensive portfolio was dispersed among several new CMC departments. Its core C2 function was transferred to a new Joint Staff Department (JSD), while its sub-departments responsible for training, mobilization, and strategic planning each became first-level departments directly under the CMC. The GPD, GLD, and GAD became the CMC Political Work, Logistics Support, and Equipment Development departments, respectively. The GPD’s law enforcement functions were transferred to a new CMC Political and Legal Affairs Commission, while its oversight of party discipline in the PLA moved to a strengthened CMC Discipline Inspection Commission. The GAD’s Science and Technology Commission, responsible for defense innovation, was placed under direct CMC oversight.⁷

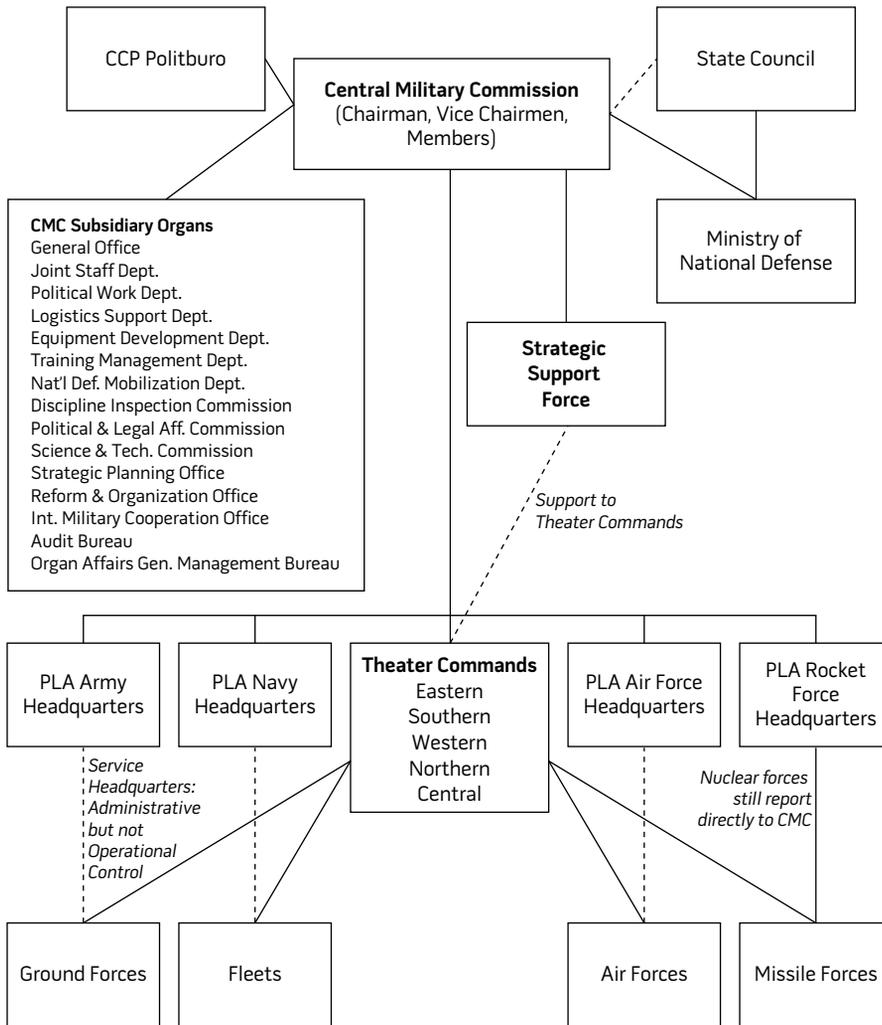
Theater Reforms. On February 1, 2016, Xi announced that the MRs had been replaced by five new theater

commands (战区),⁸ listed in protocol order: the Eastern, Southern, Western, Northern, and Central theaters.⁹ These commands are headquartered in Nanjing, Guangzhou, Chengdu, Shenyang, and Beijing, respectively.¹⁰ The theaters are aligned against land and, where applicable, maritime security challenges in their respective geographic areas; for instance, the Eastern Theater Command covers the Taiwan Strait and East China Sea, while the Southern Theater Command covers the South China Sea.¹¹ As with the MRs, theaters have subordinate units drawn from the individual services.

China’s Goldwater-Nichols?

The reforms affected not only individual organizations but also the lines of authority connecting the PLA’s major components. Chinese sources describe the revised division of labor with the following formula: the CMC and its

Figure 2. PLA Structure after Reform



subsidiary departments will provide overall management, the theaters will focus on operations, and the services will manage force building (军委管总、战区主战、军种主建).¹² In effect, the PLA will have two distinct chains of command: an operational chain passing from the CMC to the theaters to the troops, and an administrative chain flowing from the CMC to the service headquarters to the troops.¹³

The nature of the reforms suggests that the PLA is moving toward a more modular, U.S.-style C2 arrangement in which operational commanders develop force packages from units that are trained and equipped by the services. In particular, the PLA restructuring has drawn comparisons to the U.S. military following the Goldwater-Nichols Department of

Defense Reorganization Act of 1986.¹⁴ This act resulted in a C2 structure for the U.S. military in which authority flows from the President and Secretary of Defense to the commanders of the regional unified combatant commands, who lead joint forces within their respective theaters.¹⁵ Service chiefs were given an advisory role, with responsibilities to “organize, train, and equip” troops. This bifurcation of authority appears similar to the evolving PLA distinction between operational and administrative chains of command.¹⁶

Nevertheless, the new PLA C2 system has some key differences with the U.S. system. First, unlike the U.S. combatant commands, which span the globe, the theaters cover territory only within China. Operations far beyond China’s borders (such as those in the Middle East

or the Indian Ocean) will apparently be centrally directed by the JSD in Beijing.¹⁷ Second, the PLA retains the CMC as its highest decisionmaking body and does not have a U.S.-style commander in chief equivalent. Nevertheless, as discussed below, the reforms have strengthened Xi Jinping’s role within the CMC (under what is being labeled a “CMC chairman responsibility system”). Third, the PLA remains a Leninist military whose primary responsibility is defending CCP rule. Unlike the U.S. military, where unit commanders exercise sole authority, the PLA retains political commissars and party committees that are supposed to play a role in all key decisions. Given these differences, the new PLA C2 structure might best be described as Goldwater-Nichols with Chinese characteristics.

The Broader Military Reform Agenda

The PLA’s organizational restructuring is only one piece of a broader transformation of the PLA being pursued under Xi Jinping. The current round of PLA reforms was launched at the Third Plenum of the 18th Party Congress in November 2013, in which the party elite adopted a sweeping program of national reform.¹⁸ Military reforms were discussed as an integral part of the overall reform program, with advocates arguing that China could not achieve prosperity without a strong military. However, building a strong military would require several fundamental changes, including to the PLA’s size, structure, human resource policies, professional military education (PME) system, budgeting processes, and defense industrial base. In short, the party decided that the PLA’s “software” needed to be updated.

After the Third Plenum, the PLA set about crafting a specific reform plan. This process was led by a CMC military reform leading small group chaired by Xi Jinping. Intellectually, PLA analysts from organizations such as the Academy of Military Sciences and National Defense University studied lessons from Chinese history and assessed how foreign militaries, especially the U.S. and Russian armed forces, are organized for modern warfare.¹⁹ Politically,



Chinese troops during military parade marking 70th anniversary of victory of “Chinese People’s Resistance against Japanese Aggression and World Anti-Fascist War” at Tiananmen Square, Beijing, September 3, 2015 (EPA/Wu Hong)

the PLA carried out a major propaganda offensive to cultivate a reform mindset among rank-and-file PLA personnel.²⁰ An anti-corruption campaign was also under way within the PLA, targeting both senior and more junior officers (known colloquially as “tigers” and “flies”). This latter effort served to put the PLA on notice that resistance to reform would not be tolerated.

A reform plan was ultimately agreed on at a CMC reform work meeting in November 2015 and codified in a CMC document published on January 1, 2016, titled “CMC Opinions on Deepening National Defense and Military Reforms.”²¹ The document makes clear that the PLA’s organizational changes are only the first steps in a 5-year reform agenda. The next step is a downsizing (announced in September 2015) that will reduce the force from 2.3 million to 2 million members. This will likely disproportionately affect the ground forces and noncombat personnel.²²

Changes will also be made to the active duty, reserve, militia, and People’s Armed Police force structure. Other changes will involve PME reforms, new personnel policies, and new military laws, rules, and regulations.²³ The reforms are slated for completion in 2020. The table reproduces the PLA’s reform agenda.

Reasons for Reform

The PLA restructuring can be understood as the product of two basic considerations: the need to tighten political control over the PLA, and the imperative to enhance the military’s ability to carry out modern joint operations.

Tightening Political Control. The main political drivers of the reforms are the desire to tighten civilian political control over the PLA and the need to deal with rampant corruption inside the military, including in the promotion system. These reflect Xi’s general tendency toward centralizing authority and his use of the anti-corruption campaign as both

a means of rebuilding the party’s image and a weapon against opponents. Since Xi assumed office, there has been a drum-beat of stories stressing the need for the party to exercise “absolute leadership” over the military; this was a major theme at the October 2014 PLA Political Work Conference at Gutian.²⁴ Reiteration of this principle suggests continued leadership concerns about control over the military. The anti-corruption campaign within the PLA has implicated a number of senior officers, including former CMC vice chairmen Xu Caihou and Guo Boxiong, both of whom were expelled from the party. Stories have circulated from Chinese military sources indicating that Hu Jintao was a “figurehead” who never succeeded in establishing full authority over the military, and that Xu and Guo had used their positions to isolate Hu from decisions and to accept massive bribes in exchange for promotions.²⁵

The need to strengthen party control and tackle corruption in the PLA is

Table. PLA Reform Agenda, 2015–2020

Reform Area (English)	Reform Area (Chinese)	Topics	Target Date
Leadership Management System	领导管理体制	Reform Central Military Committee departments, military services, logistics system, equipment development system	2015 [†]
Joint Command and Control System	联合作战指挥体制	Establish two-level joint command system, reform joint training, establish theater commands	2015 [†]
Military Scale Structure	军队规模结构	Reduce force size by 300,000, reducing noncombat personnel, reduce officer billets, phase out old equipment	2016 [‡]
Force Composition	部队编成	Adjust force structure, optimize reserve force, reduce militias	2016
Cultivating New-Type Military Talent	新型军事人才培养	Enhance professional military education	2016
People's Armed Police command and control system and force composition	武装警察部队指挥管理体制和力量结构	Adjust People's Armed Police command and control and force structure	2016
Policy System	政策制度	Reform personnel system, budget management and procurement system, salary and welfare system	2017–2020
Developing Civil-Military Integration	军民融合发展	Enhance management of civilian-military integration	2017–2020
Military Legal System	军事法治体系	Reform military regulations and military justice system	No Date Provided

*Although the "Opinions" states that changes to the leadership management system were completed in 2015, the Central Military Commission (CMC) reforms were not announced until the second week in January 2016. See "CMC Opinions on Deepening National Defense and Military Reforms," Xinhua, January 1, 2016.

†Reforms to the two-tiered joint command system, composed of the CMC and theater commands, were not announced until January and February 2016, respectively.

‡Although the CMC reform outline lists 2016 as the completion date for the downsizing, a PLA spokesman has stated that it would be complete by the end of 2017. See "China to Cut 300,000 Troops by 2017," Xinhua, September 4, 2015.

clear, but the means of rectifying these problems depend on the diagnosis of their root causes. One problem was inadequate supervision of the PLA by top party leaders, with Jiang Zemin to blame for elevating corrupt officers such as Xu and Guo to their positions as CMC vice chairmen and Hu at fault for his inability to exercise control over them as CMC chairman.²⁶ A second concern is that PLA political work has been inadequate and party organs within the PLA were ineffective in exercising party control. A third problem is that senior PLA officers at the CMC, the general departments, and the military regions had too much power and were not always responsive to orders from the center. Fourth, the institutional mechanisms of supervising the PLA were either corrupted (in the case of the promotion

system and auditors) or ineffective (party committees and military courts).

This diagnosis of root causes explains a number of political aspects of the reforms. Xi has a more assertive leadership style than Hu and appears to be much more successful in exercising authority over the PLA.²⁷ But as in other aspects of governance, he has emphasized the need for centralizing authority. The first "basic principle" in the "CMC Opinions on Deepening National Defense and Military Reforms" is:

to consolidate and perfect the basic principles and system of the Party's absolute leadership over the military, . . . comprehensively implement the Central Military Commission chairmanship responsibility system, and ensure that the supreme leadership right and

*command right of the military are concentrated in the [Communist Party of China] Central Committee and in the Central Military Commission.*²⁸

The "CMC chairmanship responsibility system" is distinguished from the so-called CMC vice chairman responsibility system allegedly practiced under Jiang and Hu, where many routine duties were handled by the CMC vice chairmen.²⁹ In contrast, "all significant issues in national defense and army building [are] planned and decided by the CMC chairman," and "once the decision has been made, the chairman conducts 'concentrated unified leadership' and 'efficient command' of the entire military."³⁰

A second element in the reforms is to eliminate the general departments and move most of their functions to the CMC. This change is intended to reduce the autonomy of the heads of the departments and make them directly accountable to the CMC chairman.

A third element in the reforms is to move a number of supervision mechanisms such as auditing and discipline inspection to the CMC level, where they can be more independent of potential "command influence" and thus more effective. Until November 2014, the Audit Bureau was under the GLD, which was responsible for most PLA expenditure (and was one of the most corrupt parts of the system).³¹ The CMC Discipline Inspection Commission will enforce party discipline by sending investigation teams to party units throughout the PLA. The commission should have greater independence and authority since it will now be a CMC commission rather than part of the GPD. In a speech introducing the reforms, Xi stressed the importance of regulating power within the military, stating that "decision-making, enforcement, and supervision powers should be separate and distributed in a manner that ensures they serve as checks and balances on each other but also run in parallel."³² A PLA expert argued that the new arrangement would "better safeguard the authority of discipline inspection and auditing departments and ensure that they can independently and fairly exercise their supervision duties."³³

Another element of the reforms is to increase the reliance on formal laws and regulations that specify how military leaders should carry out their work. This is described as a shift toward more standardized and systematic work methods that reduce a commander's autonomy (and the resulting potential for arbitrary or corrupt decisions) and produce "administration according to the law." This effort will be supported by the establishment of a Political and Legal Affairs Commission at the CMC level, which will promulgate regulations and oversee the military court system.³⁴

Enhancing Joint Operations. A second consideration driving the reforms is the desire to increase the PLA's ability to carry out joint operations on a modern, high-tech battlefield. This has long been a goal for Chinese military planners, who were inspired initially by the U.S. military's successful joint operations during the first Gulf War.³⁵ The PLA subsequently developed joint campaign doctrine, created a joint logistics system, and conducted an increasing number of cross-service exercises.³⁶ However, PLA analysts contend that the absence of a permanent joint C2 mechanism, combined with the continuing dominance of the ground forces, has stunted progress toward achieving a true joint warfighting capability.³⁷ Xi Jinping himself noted, in 2013, that establishing a joint C2 system should be given "primary importance," explaining that "we have given much consideration to joint C2, but fundamental problems remain . . . establishing a CMC and theater command joint C2 system requires urgency and should not be delayed."³⁸

Changes in the PLA's assessment of the operational and strategic environment strengthened the case for greater jointness. China's 2015 defense white paper, titled *China's Military Strategy*, noted that the PLA needs to be able to fight and win "informationized local wars" (信息化局部战争), referring to the evolving nature of modern warfare featuring, among other things, a greater emphasis on cyber and space operations, and on long-range precision-strike systems. The white paper also described growing external security challenges

from the United States and regional antagonists, such as Japan, Vietnam, and the Philippines, especially along China's maritime periphery. These developments meant that China would need to improve its ability to conduct high-end joint operations in multiple domains, including by establishing a permanent joint C2 mechanism.³⁹

The organizational reforms promote joint warfighting in several ways. First, by establishing a "two-level joint operational command system" with decisionmaking nodes at the CMC and theater levels.⁴⁰ This C2 system will operate in both peacetime and wartime, giving China an ability to quickly transition to a "war footing" when needed.⁴¹ One innovation is the creation of joint operations command centers both in Beijing (managed by the JSD) and within each of the five theaters. These centers have several roles, including developing operational plans, carrying out 24/7 watch functions, maintaining situational awareness, managing joint exercises, and providing a communications hub linking theater commanders with service component commanders and combat units.⁴²

Second, the reforms enhance joint operations by creating separate national- and theater-level ground force headquarters. This means that CMC departments and theaters—divested of responsibility for army affairs—are fully "joint" organizations, staffed by what in the U.S. system would be considered as "purple-hatted" officers. Chinese media sources note, for instance, that the PLA's new joint operations command centers are staffed by personnel drawn from all the services.⁴³ Nevertheless, in the near term, the dominance of the ground forces is likely to remain as senior CMC and theater command positions remain filled by army officers.⁴⁴ A test of China's ability to move toward a more effective joint system will be its ability to rotate navy, air force, and rocket force officers into joint command positions.

Third, the reforms facilitate joint warfighting by placing forces from all the services at the disposal of theater commanders. Previously, service headquarters exercised peacetime operational control

over naval fleets and MR air forces (which, in theory, would have been transferred to joint commanders during wartime). This authority now rests with the theaters. In addition, conventional missile forces under the Rocket Force—which were previously centrally controlled by the CMC—are now under the authority of the theaters.⁴⁵ This allows theater commanders to integrate conventional precision-strike missiles into joint operations, such as island-landing campaigns or counter-intervention operations. Commanders will also likely be able to draw on SSF units responsible for space, cyber, and electronic warfare operations.

Implications and Obstacles

In the near term, the reforms are bound to create some degree of organizational disruption, as new operational and administrative relationships are established, new commanders assume responsibility, and PLA personnel seek to understand where they fit in the new structure and what their duties will be. A further complication will be implementation of the force reduction, which will require the Chinese government to find new employment for more than 10 percent of current service members.⁴⁶ Although the PLA will have to continue to respond to perceived security threats, it may spend the next few years focused inward, putting the reforms into practice. If this is the case, we might expect to see less appetite within the PLA for outward-focused, risk-acceptant behavior.

Over the longer term, however, the PLA reforms could result in a leaner, more effective warfighting organization. The creation of a permanent joint C2 structure, in addition to other changes—such as more realistic, combat-oriented training, tighter control of PLA finances, stronger PME, a dedicated SSF responsible for electronic warfare and operations in the space and cyber domains, a force structure that places more emphasis on naval and aerospace forces, and anticipated advances in long-range precision strike and other capabilities—could all give the PLA more confidence and capacity to execute joint operations in multiple domains.

This could create new and more complex challenges for U.S. and allied forces operating in the Asia-Pacific region.

However, there are also several reasons to question the positive impact of the reforms on PLA operational effectiveness, especially in terms of promoting joint war-fighting. Potential obstacles could include the following:

- Ground force dominance. As noted above, nominally joint billets (and the CMC) will be initially filled predominantly by ground force officers. This introduces the problem that army perspectives, interests, and biases may continue to frustrate efforts to build a genuinely joint force. Much will depend on the PLA's ability to foster jointness in the force through means such as joint PME, joint billets, and rotational assignments between the services.
- Interservice rivalry. As with any modern joint force, competition for resources and influence might constrain effective cooperation between the different services.⁴⁷ This is especially likely as China's economic growth continues to slow, placing a premium on access to scarce budgetary resources.
- Lack of combat experience. China has taken several necessary steps toward a credible joint warfighting capability, including developing joint doctrine, conducting joint exercises, and establishing a joint C2 structure. However, lack of experience in undertaking real-world joint combat operations could hamper the PLA's ability to field a strong joint force.⁴⁸
- Leninist features. The PLA retains features designed to maintain party control over the military such as the CMC (which is technically an organ of the CCP Central Committee), political commissars, and Party committees. Indeed, the reforms have emphasized the need to strengthen the "absolute leadership" of the party. The need for Party consultation and unity could reduce the flexibility and autonomy of commanders, especially at the operational level.

Given the potential obstacles, as well as significant lingering uncertainties about the reforms, it is far too soon to make any conclusive judgment about the likely impact of the reorganization on PLA operational effectiveness. Moreover, as David Finkelstein argues, the ultimate effects of the reforms may not be known until far beyond the formal completion date of 2020.⁴⁹ This should not be surprising, as the U.S. military has been continually improving its ability to conduct joint operations in the three decades following Goldwater-Nichols. Current PLA reforms are likewise part of a long-term generational process that has no real end point. JFQ

Notes

¹ For a discussion, see David Shambaugh, *Modernizing China's Military: Progress, Problems, and Prospects* (Berkeley: University of California Press, 2002), chapter 4.

² For an overview, see Kenneth W. Allen, "Introduction to the PLA's Organizational Reforms: 2000–2012," in *The PLA as Organization v2.0*, ed. Kevin Pollpeter and Kenneth W. Allen (Vienna, VA: Defense Group, Inc., 2015), 12–78.

³ For a discussion, see Kenneth W. Allen, "Introduction to the PLA's Administrative and Operational Structure," in *The PLA as Organization, Reference Volume v1.0*, ed. James C. Mulvenon and Andrew N.D. Yang (Santa Monica, CA: RAND, 2002), 1–44.

⁴ For excellent initial analysis of the reforms, see David M. Finkelstein, *Initial Thoughts on the Reorganization and Reform of the PLA* (Arlington, VA: Center for Naval Analyses, 2015), available at <www.cna.org/cna_files/pdf/DOP-2016-U-012560-Final.pdf>; and Kenneth W. Allen, Dennis J. Blasko, and John F. Corbett, Jr., "The PLA's New Organizational Structure: What Is Known, Unknown, and Speculation (Part 1)," *China Brief* 16, no. 3 (February 4, 2016), available at <www.jamestown.org/programs/chinabrief/single/?tx_ttnews%5Btt_news%5D=45069&tx_ttnews%5BbackPid%5D=25&cHash=99759e945776c89e45d3416a25ad4e39#.VrnIPpN_RY>.

⁵ "Expert: PLA Strategic Support Force a Key to Win Wars," *PLA Daily*, January 6, 2016, available at <http://english.chinamil.com.cn/news-channels/pla-daily-commentary/2016-01/06/content_6846500.htm>.

⁶ Allen, Blasko, and Corbett, Jr.

⁷ "China Reshuffles Military Headquarters," *Xinhua*, January 11, 2016, available at <http://news.xinhuanet.com/english/2016-01/11/c_134998692.htm>.

⁸ The Chinese term *zhanqu* (战区) has several possible English-language translations,

including *battle zones*, *war zones*, and *strategic regions*. This paper adopts the term *theater commands* to follow the terminology used in authoritative People's Republic of China English-language media.

⁹ "China's Military Regrouped into Five PLA Theater Commands," *Xinhua*, February 1, 2016, available at <http://news.xinhuanet.com/english/2016-02/01/c_135065429.htm>.

¹⁰ "Army Adjustment and Establishment Completed in Five Theater Commands," *PLA Daily*, February 4, 2016, available at <http://english.chinamil.com.cn/news-channels/china-military-news/2016-02/04/content_6890499.htm>.

¹¹ "Experts: The Five PLA Theater Commands Have Clear Goals, With the Southeast Coastal Front Being the Key Link of Future Military Operations" [专家: 五大战区目标清晰 东南沿海是作战重点], *Global Times* [环球时报], February 2, 2016, available at <<http://mil.huanqiu.com/observation/2016-02/8489177.html>>.

¹² "CMC Opinions on Deepening National Defense and Military Reforms" [中央军委关于深化国防和军队改革的意见], *Xinhua*, January 1, 2016, available at <http://news.xinhuanet.com/mil/2016-01/01/c_1117646695.htm>.

¹³ "Army Adjustment and Establishment Completed in Five Theater Commands," *PLA Daily*, February 4, 2016, available at <http://english.chinamil.com.cn/news-channels/china-military-news/2016-02/04/content_6890499.htm>.

¹⁴ Finkelstein, 18. For a discussion of the contents and impact of the Goldwater-Nichols Act on the U.S. military, see James R. Locher III, "Taking Stock of Goldwater-Nichols," *Joint Force Quarterly* 13 (Fall 1996), 10–16; and James R. Locher III, *Victory on the Potomac: The Goldwater-Nichols Act Unifies the Pentagon* (College Station: Texas A&M University, 2002).

¹⁵ For the formal delineation of responsibilities, see Joint Publication 1, *Doctrine for the Armed Forces of the United States* (Washington, DC: The Joint Staff, March 25, 2013), available at <www.dtic.mil/doctrine/new_pubs/jp1.pdf>. See especially II-9, which defines the operational and administrative command relationships in the U.S. military.

¹⁶ Indeed, PLA researchers explicitly cite both the U.S. and Russian joint command systems in discussing needed changes to China's C2 structure. See, for example, Xu Sanfei, "Seizing Opportunities to Speed the Pace of Reforms Affects the Development and Future of Army Building" [抓住时机加快改革步伐关系军队发展和未来], *PLA Daily* [解放军报], May 28, 2014, available at <<http://cpc.people.com.cn/n/2014/0528/c83083-25075239.html>>. This article consists of an interview with PLA Academy of Military Sciences president General Liu Chengjun. See also Wang Xiaohui, "What Strategic Preparations Must the PLA Take in a Period of Transition" [转型期中国军队要做哪些战略准备], *National Defense Reference* [国防

参考], October 27, 2015, available at <www.81.cn/jmywyl/2015-10/27/content_6741609.htm>. Senior Colonel Wang is deputy director of the PLA National Defense University's Strategic Research Department.

¹⁷ "PLA Sets Up Overseas Operations Office to Strengthen Overseas Rapid Reaction," *PLA Daily*, March 25, 2015, available at <http://english.chinamil.com.cn/news-channels/pla-daily-commentary/2016-03/25/content_6977517.htm>.

¹⁸ For an overview of the Third Plenum decision, see "Xi Explains China's Reform Plan," *Xinhua*, November 15, 2013, available at <http://news.xinhuanet.com/english/china/2013-11/15/c_132891949.htm>.

¹⁹ For details, see David Liebenberg and Joel Wuthnow, "Navigating the Dangerous Shoals: An Overview of the new Period of China's Military Reform," paper presented at the 2014 CAPS-RAND-NDU PLA conference, Arlington, VA, November 22, 2014.

²⁰ For instance, in August 2014, the PLA released a circular to all personnel encouraging support for reforms. See "Resolutely Support Reform, Proactively Reinforce Reform, and Consciously Dedicate Oneself to Reform" [坚决拥护改革积极支持改革自觉投身改革], *PLA Daily* [解放军报], August 11, 2014, available at <www.81.cn/jjbmmap/content/2015-11/29/content_130601.htm>.

²¹ "CMC Opinions on Deepening National Defense and Military Reforms."

²² For a discussion of previous force reductions in the PLA, see Allen, "Introduction to the PLA's Organizational Reforms," 34.

²³ In PLA jargon, this is known as a process of "regularization" (正规化). For an overview, see Thomas A. Bickford, "Regularization and the Chinese People's Liberation Army," *Asian Survey* 40, no. 3 (May–June 2000), 456–474.

²⁴ "Xi Stresses CPC's Absolute Leadership Over Army," *Xinhua*, November 1, 2014, available at <http://news.xinhuanet.com/english/china/2014-11/01/c_133759418.htm>. Also see James Mulvenon, "Hotel Gutian: We Haven't Had That Spirit Here Since 1929," *China Leadership Monitor*, no. 46 (Winter 2015), available at <www.hoover.org/sites/default/files/research/docs/clm46jm.pdf>.

²⁵ Cheng Li, "Promoting 'Young Guards': The Recent High Turnover in the PLA Leadership," *China Leadership Monitor*, no. 48 (Fall 2015), available at <www.hoover.org/sites/default/files/research/docs/clm48cl.pdf>; Minnie Chan, "Hu Jintao's Weak Grip on China's Army Inspired President Xi Jinping's Military Shake-Up," *South China Morning Post*, March 11, 2015, available at <www.scmp.com/news/china/article/1734663/hu-jintaos-weak-grip-chinas-army-inspired-president-xi-jinpings-military>; "Major General Broke the News: Xu Caihou Went Over the Head of Hu Jintao to Sell a Military Region Command for Twenty Million" [少将爆料: 架空胡锦涛 徐才厚标价

賣官 大軍區司令兩千萬], *Singtao Ribao* [星島日報], March 10, 2015, available at <http://news.singtao.ca/toronto/2015-03-10/world1425970399d5474726.html>.

²⁶ In addition to the stories cited above, Chinese press reports claimed that Hu Jintao rarely visited his CMC office, in contrast to Xi Jinping, who reportedly spends a half-day working on military issues every week.

²⁷ Nan Li, "The Top Leaders and the PLA: The Different Styles of Jiang, Hu, and Xi," in *PLA Influence on China's National Security Policymaking*, ed. Phillip C. Saunders and Andrew Scobell (Stanford: Stanford University Press, 2015), 120–140.

²⁸ "CMC Opinions on Deepening National Defense and Military Reforms."

²⁹ Sun Chiaye [孫嘉業], "Who Is Responsible on the Central Military Commission?" [中央軍委誰負責?], *Ming Pao* [明報], January 29, 2015, cited in James Mulvenon, "The Yuan Stops Here: Xi Jinping and the 'CMC Chairman Responsibility System,'" *China Leadership Monitor*, no. 47 (Summer 2015), available at <www.hoover.org/sites/default/files/research/docs/clm47jm.pdf>.

³⁰ Mulvenon, "The Yuan Stops Here."

³¹ Minnie Chan, "Xi Jinping Shifts Control of PLA Audit Office to Military's Top Decision-making Body," *South China Morning Post*, November 7, 2014, available at <www.scmp.com/news/china/article/1633802/xi-jinping-shifts-control-pla-audit-office-militarys-top-decision-making>.

³² "Xi Urges Breakthrough in Military Structural Reform," *Xinhua*, November 26, 2015, available at <http://news.xinhuanet.com/english/2015-11/26/c_134859089.htm>.

³³ "Military Experts Interpret National Defense and Military Reforms" [军事专家解读国防和军队改革], *Xinhua*, November 27, 2015, available at <http://news.xinhuanet.com/mil/2015-11/27/c_1117287443.htm>.

³⁴ "CMC Opinions on Deepening National Defense and Military Reforms."

³⁵ Dean Cheng, "Chinese Lessons from the Gulf Wars," in *Chinese Lessons from Other Peoples' Wars*, ed. Andrew Scobell, David Lai, and Roy Kamphausen (Carlisle Barracks, PA: Strategic Studies Institute, 2011), 153–200.

³⁶ See, for example, Kenneth W. Allen et al., *Institutional Changes of the Chinese People's Liberation Army: Overview and Challenges* (Alexandria, VA: Center for Naval Analyses, 2002); Dean Cheng, "Zhanyixue and Joint Campaigns," in *China's Revolution in Doctrinal Affairs*, ed. James Mulvenon and David M. Finkelstein (Alexandria, VA: Center for Naval Analyses, 2005); and Mark Cozad, "PLA Joint Training and Implications for Future Expeditionary Capabilities," testimony before the U.S.–China Economic and Security Review Commission, January 21, 2016, available at <www.rand.org/content/dam/rand/pubs/testimonies/CT400/CT451/RAND_CT451.pdf>.

³⁷ The 2013 edition of the Academy of Military Science's doctrinal teaching volume *Science*

of Military Strategy states that collective administration of the ground forces by the four general departments was increasingly "unconducive" to establishing a joint C2 structure. See *Science of Military Strategy* [战略学] (Beijing: Academy of Military Science, 2013), 201.

³⁸ "Xi Jinping: Build a Modern Military Power System with Chinese Characteristics" [习近平: 构建中国特色现代军事力量体系], *People's Daily* [人民日报], August 31, 2014, available at <http://news.xinhuanet.com/politics/2014-08/31/c_1112295195_2.htm>. The article provides quotes from Xi's remarks on military reform, made on December 27, 2013.

³⁹ *China's Military Strategy* [中国军事战略], PRC State Council Information Office, May 2015, available at <www.mod.gov.cn/af-fair/2015-05/26/content_4588132.htm>.

⁴⁰ Ibid.

⁴¹ "Zhang Junshe: Creating New Theaters Better Protects National Sovereignty" [张军社: 重新划设战区可更好维护国家主权], *China National Radio*, February 4, 2016, available at <http://military.cnr.cn/gz/20160201/t20160201_521303310.html>. Senior Captain Zhang is vice president of the PLA Naval Research Institute.

⁴² "Starting with a New Style Under Fluttering Red Combat Banners—Observing the New Theater Commands" [开局新风起 猎猎战旗红—东南西北中五战区成立伊始见闻新华网], *Xinhua*, February 2, 2016, available at <http://news.xinhuanet.com/politics/2016-02/02/c_11117973365.htm>.

⁴³ Ibid.

⁴⁴ "China's Military Regrouped Into Five PLA Theater Commands," *Xinhua*, February 1, 2016, available at <http://news.xinhuanet.com/english/2016-02/01/c_135065429.htm>.

⁴⁵ Nuclear forces appear to remain under direct CMC supervision.

⁴⁶ To be sure, the Chinese government has sought to minimize the turmoil associated with the downsizing by requiring state-owned enterprises to provide employment for ex-PLA personnel. "State-Owned Enterprises Not Allowed to Refuse Veterans," *PLA Daily*, December 29, 2015, available at <http://english.chinamil.com.cn/news-channels/china-military-news/2015-12/29/content_6835935.htm>. However, this requirement will conflict with efforts to run most state-owned enterprises on a commercial basis, and is likely to be resisted.

⁴⁷ For a seminal treatment, see Samuel P. Huntington, "Interservice Competition and the Political Roles of the Armed Services," *American Political Science Review* 55, no. 1 (March 1961), 40–52.

⁴⁸ See Phillip C. Saunders, "The PLA and Contingency Planning in China," in *The People's Liberation Army and Contingency Planning in China*, ed. Andrew Scobell et al. (Washington, DC: NDU Press, 2015), 1–4.

⁴⁹ Finkelstein, 18.

French soldiers with French Foreign Legion's 6th Light Armored Brigade assault objective during bilateral seize-and-capture training exercise with U.S. Marines on Quartier Colonel de Chabrieres, France, May 29, 2015 (U.S. Marine Corps/Christopher Mendoza)



What It Means to Be Expeditionary

A Look at the French Army in Africa

By Michael Shurkin

Former U.S. Army Chief of Staff General Raymond Odierno elaborated a vision for the Service's future that left many questions unanswered. Specifically, he called for the Army to be more expeditionary as

Michael Shurkin is a Senior Political Scientist at the RAND Corporation.

well as more scalable, tailorable, and regionally aligned. General Odierno's successor and the current Army Chief of Staff, General Mark Milley, similarly has spoken of the need for the Army to be "agile," "adaptive," and "expeditionary," and to have an "expeditionary mindset."¹ Lieutenant General Gustave Perna, writing in the March–April 2016 issue of *Army Sustainment*, has

also evoked the imperative of having an "expeditionary Army."² What, however, do these terms mean? What would it take for the Army to realize the generals' vision, and what, if any, are the associated risks?

A recently published RAND study of French army operations in Mali in 2013 noted that in many ways, France's army epitomizes the characteristics

General Odierno and General Milley have highlighted. It is a living example of a technologically sophisticated force that checks all of the generals' boxes; it does well precisely the things the generals call on the U.S. Army to do. Studying how the French army has organized itself and operates provides insight into what their ideals might mean in concrete terms for the U.S. Army and the associated benefits—but also the implied compromises and risks U.S. planners need to consider.

When comparing the strengths of the French and U.S. armies, it must be acknowledged that there is little the French can do that the ever-adaptable U.S. Army cannot. However, the Army's general-purpose forces arguably are not designed and organized to deploy and fight on a small scale (at the brigade level or below), and the Army normally does not create company- and battalion-size units from multiple parent organizations, something the French do routinely. There is usually a cost incurred when organizations do things they are not designed to do.³ American planners, moreover, appear to have different understandings of what constitutes "enough" in terms of force protection, vehicle protection, capabilities, and so forth.⁴ The French, in contrast, operate on a small scale by design and doctrine and appear to have an altogether different understanding of sufficiency.

Envisioning Expeditionary

In February 2013, General Odierno presented his vision of the future in an article in *Foreign Affairs*, along with issuing the more official 2013 Army Strategic Planning Guidance.⁵ The Army, he noted, changed as a result of a decade of operations in Afghanistan and Iraq. It needed, in effect, to be recentered. The top priority was restoring the Army's conventional capabilities and retaining its value as a deterrent associated with its ability to deploy and sustain indefinitely large formations capable of defeating any adversary. However, for a variety of reasons, the force could not simply revert to what it had been in the 1990s. On the contrary, it had to be something altogether new.

Among other capabilities, Odierno called on the Army to be the following:

- capable of task organizing at increasingly lower levels to execute "small footprint" operations
- capable of rapidly deploying scalable force packages, with the smaller packages capable of rapidly reassembling into larger formations as required
- oriented to stress small-unit leadership that thrives in an environment of dispersed, decentralized operations
- aligned regionally so that operating units are familiar with local cultures, personalities, and conditions.

Odierno's priorities later found expression in the "Army 2025" concept. According to a white paper published in January 2014, the Army has to "operate differently." It has to operate "decentralized, distributed, and integrated." It also must be "mission tailored," with units organized with the "capabilities needed for a specific mission and environment." Units also must be "engaged regionally." At the top of the agenda, however, is a revised force design featuring "optimized combat units (BCT [Brigade Combat Team] 2025)" intended to meet several objectives, among them being "more effectively mission tailored" and "regionally aligned." The Army should have "increased expeditionary capability" and be a "more expeditionary force" that nonetheless "has retained capability."⁶

What the text does not provide is insight into *how* the force must change to be "more" of in so many ways. The most prominent question, however, remains the meaning of the word *expeditionary*. The fullest definition dating to just prior to the Future Force 2025 project can be found in the 2012 Army Doctrine Reference Publication 3-0, *Unified Land Operations*:

Expeditionary capability is the ability to promptly deploy combined arms forces worldwide into any area of operations and conduct operations upon arrival. Expeditionary operations require the ability to deploy quickly with little notice,

rapidly shape conditions in the operational area, and operate immediately on arrival exploiting success and consolidating tactical and operational gains. Expeditionary capabilities are more than physical attributes; they begin with a mindset that pervades the force.⁷

The U.S. Army Training and Doctrine Command's 2015 pamphlet *The U.S. Army Operating Concept: Win in a Complex World*, which bears Odierno's signature and reflects the Future Force 2025 project, builds on the above by adding scalability, tailorability, and the ability to manage in austere environments. It defines *expeditionary* as "the ability to deploy *task-organized* forces on short notice to *austere* locations, capable of conducting operations immediately upon arrival."⁸ The pamphlet also adds a new term, *expeditionary maneuver*, defined as "the rapid deployment of *task organized* combined arms forces able to transition quickly and conduct operations of *sufficient* scale and ample duration to achieve strategic objectives, aims to turn the enemy out of prepared positions or envelop forces from unexpected directions."⁹

Turning now to the French army, we find that it embodies many of the desired attributes mentioned above. Of particular interest, however, is not the degree to which the French army is expeditionary, but rather what the French example implies for U.S. Army assumptions, as well as the risks involved if it were to become more like the French.

Operation Serval

The French Operation *Serval* began on January 11, 2013, the day after Islamist militants who had already seized control over northern Mali began an offensive that threatened the nation's capital, Bamako. France first responded by committing to the fight special forces (SF) assets that were already in the region. While the SF focused on stopping the offensive and rallying Malian army defenders, France rushed general-purpose troops into theater. The first to arrive—also on January 11—were units flown in from Chad, where they had

been engaged in a long-running operation. Other units drove in from Côte d'Ivoire, while still more units began arriving from France.

By January 15, the French had stopped the militants' offensive and begun advancing north to seize control over the broad strip of land on either side of the Niger River, commonly referred to as the Niger Bend because of the river's curving path. The Bend includes northern Mali's most populous towns, Gao and Timbuktu. The French employed fast-moving armored columns combined with airborne and air-land operations, coordinated with SF and with air support from the French air force. The French took Gao on January 25 and Timbuktu 4 days later. They kept moving quickly, securing distant Kidal—the epicenter of Tuareg militancy—by January 31, and Tessalit on February 8. The campaign climaxed in February and March as French and Chadian forces converged on the Adrar des Ifoghas mountains, where remaining militants made a last stand. By late spring, the “major combat operations” phase of *Serval* was complete. *Serval* continued on a smaller scale until it officially came to an end on July 15, 2014, when it was subsumed into a new regional counterterrorism operation, *Barkhane*. Nine French soldiers lost their lives fighting in Mali between January 11, 2013, and July 15, 2014.

The French in Mali demonstrated a number of features of interest to this article. These include the French army's approach to task organization, which is related to how the French organize their force; France's prioritization of mobility over protection; the army's regional alignment; and finally its expeditionary culture, which relates to all of the above.

Task Organizing

The French in Mali demonstrated an ability to tailor their forces, deploying relatively small task-oriented formations. Although it is difficult to compare the French and American armies, in our assessment of the French forces deployed to Mali compared to U.S. norms, we believe that the Americans would have sent a larger force with a

proportionately larger support element. What the French do—and what they have designed their army to do—is measure out their forces in small increments and aim for “just enough.” That involves, among other things, the ability to disaggregate and re-aggregate formations on the fly as well as the will to accept a good deal of risk.

The Numbers

Setting aside the unknown number of SF troops who were present in Mali before *Serval* began, the French contingent in Mali—whose northern half alone is roughly the size of France—started at zero. Moreover, rather than first gathering strength and then committing to the field à la Operation *Desert Shield*, the French fielded their units as they arrived in theater, often company by company, platoon by platoon. For example, the first non-SF group to arrive in Mali was a 200-man *sous-groupe tactique interarmes* (SGTIA), a company-scale combined arms task force that was detached from a battalion-size *groupe tactique interarmes* (GTIA), or combined arms task force, operating in Chad. Two days later, another SGTIA arrived from Côte d'Ivoire by road. The largest single formation to arrive in Mali as a group was a full GTIA of mechanized infantry that reached Dakar, Senegal, by ship, and then drove the rest of the way.

The total force reached roughly 3,400 by the end of January and 5,300 by the end of February. Of those, according to the French military, 1,500 were support personnel, or 28 percent of the overall force.¹⁰ Several experts on U.S. Army operations consulted for this study indicated that a comparable American force (that is, with comparable capabilities) would have required a larger logistical tail of approximately 40 percent, suggesting that the United States would have had to field a larger force overall.

GTIAs and SGTIAs

The French deploy in small numbers in part because they would struggle to do otherwise. Their forces are few and are overcommitted to overseas deploy-

ments, and they have no strategic lift of their own. However, the French—perhaps in light of their weak logistical capabilities—arguably have made a virtue of necessity by designing their forces to deploy and operate on a small scale and tailor their forces to meet specific needs.

The French pushed modularity to well below the brigade level. They did this in the 1990s as part of a number of sweeping reforms intended to transform the army from a large conscription-based continental force designed to fight the Soviet Union into a smaller, more expeditionary force. (By law, the French military could not deploy conscripts overseas, thereby forcing the army to rely on an “army within the army” consisting of fully volunteer formations that historically had a colonial vocation. Chief among them are the Foreign Legion and the “Troupes de Marine,” or Marines, who in the 19th century were part of the French Navy.) The French understood that in order to pack as much capability as possible into a smaller force, that force would have to be modular and flexible.¹¹ The army dissolved its divisions in favor of brigades, which became force providers, and placed regiments at the center of gravity. The French in 2015 revived its divisions, but operationally speaking, there is little change, and what really matters now as in 2013 are the French army's task-organized and scalable battalion- and company-level task forces, GTIAs and SGTIAs.

Published French army doctrine defines GTIAs and SGTIAs as task-organized combined arms forces designed to operate autonomously and independently according to their commanders' intent; the objective is decentralized and distributed operations in keeping with maneuverist doctrine and mission command.¹²

SGTIAs and GTIAs have the same structure but are different in terms of scale. SGTIAs are composed of a core of four platoons—three infantry and one armored, or vice versa—together with a command element and those support elements deemed necessary, often including some indirect fire capability as well as joint fires coordinators of various possible



French soldier sits aboard U.S. Air Force C-17 Globemaster III en route to Mali, where French forces were fighting extremists who took control of much of north of country, January 20, 2013 (U.S. Air Force/Nathanael Callon)

types. A captain commands the force. GTIAs are larger, composed of four companies—three infantry and one armored, or vice versa—with a command element and those support elements deemed necessary. A colonel commands. Additional platoons or companies can be tacked on as needed up until the task force reaches a limit of eight. In Mali, several GTIAs operated simultaneously, each with distinct areas of operation or missions and all under the command of a brigade-level headquarters established in theater, led by a brigade commander. Thus, the French created a provisional *Serval* brigade. Only some of the forces participating in the operations, it should be noted, are from the brigade commander's home brigade.

The exact composition of GTIAs and SGTIAs varies according to mission requirements and the resources at hand. SGTIAs in Afghanistan reportedly were large and diverse owing to the numerous requirements associated with operating

there, which included everything from indirect fire to human terrain teams. The GTIAs and SGTIAs in Mali were smaller and in fact did not comply with the doctrinally mandated 3/1 structure, reflecting some combination of commanders' estimation of the force size required and unit availability. For example, GTIA 3, which participated in the Adrar des Ifoghas offensive in northern Mali in February 2013, consisted of three companies (one mechanized infantry, one armor, and one engineering). It also had an artillery component consisting of two Caesar self-propelled howitzers and four 120mm mortars, communications and electronic warfare elements, and tactical drones.

The GTIAs and SGTIAs in Mali often have drawn from a diverse array of regiments. They routinely bring soldiers from regular line regiments together with marines and legionnaires, infantrymen with cavalry troops, sappers, artilleryists, and so forth, structuring them into

different formations with different command structures on the fly, as the mission evolved.¹³

In the case of planned deployments, such as those that were slated for Afghanistan, GTIAs and SGTIAs are more homogenous with respect to home regiments and brigades. They also train and deploy together as SGTIAs, cycling through France's national training centers as such. In addition, French officers are trained to function in and command GTIAs and SGTIAs. Commanding SGTIAs, for example, is part of the formal training for French army captains, which includes working with officers of other branches to ensure that they know enough about how the others do their jobs to understand how to work effectively with them. Presumably, collective and individual training of this sort reduces the turbulence that might be associated with cobbling units together on the fly in response to emergencies.



Mobility vs. Protection

The French army operates a vehicle fleet that is well suited for precisely the kinds of operations it conducted in Mali. To be more specific, France has mechanized nearly all of its units, using relatively light, wheeled armored vehicles that can be transported in C-130s and C-160s as well as driven long distances over poor quality roads and cross country. While lacking the level of protection of main battle tanks and heavy infantry fighting vehicles such as the American Bradley, the wheeled armor units of the French army provide considerable firepower for their weight class, especially when compared with the U.S. Stryker. French light tanks, armored personnel carriers, and infantry fighting vehicles (*véhicule blindé de combat d'infanterie*, or VBCI) are equipped with 105mm guns (AMX-10RC), 90mm guns (ERC 90), and 25mm automatic cannons. The armored reconnaissance and combat vehicle (*engin blindé de reconnaissance et de combat*, or EBRC), slated to replace the AMX-10RC within the decade, has

been tested with a 120mm gun, according to one report.¹⁴

The French assess that mobility is more important than protection, and they gamble that being able to move quickly provides more protection than heavier armor. French doctrine emphasizes rapid coordinated movements calculated to maintain the operational initiative—precisely the kind of campaign the French conducted in Mali. This approach worked there, although it is not clear how well French armored units would hold up against a more sophisticated enemy equipped with antitank guided missiles (ATGMs) or other standoff precision weapons. We also must wonder if the French would make the same tradeoff if they had more robust logistical capabilities, including a fleet of C-17s.

The French nonetheless have doubled down on their commitment to light armor as they modernize. The VBCI, which entered service recently and has been deployed to Afghanistan, the Central African Republic, and Mali, and the multirole armored vehicle (*véhicule*

blindé multi-rôles, or VBMR) and the EBRC, which are due to enter service by 2020, are heavier than the vehicles they are intended to replace and offer greater protection, including add-on armor kits. However, they remain roughly in the Stryker weight class (the VBCI weighs in at 25.6 tons, and the VBMR and EBRC are expected to be lighter or roughly the same). French developers have focused on maintaining their predecessors' mobility while enhancing their capabilities, primarily by means of technology-enabling networked warfare. The VBCI, VBMR, and EBRC ostensibly will exercise high degrees of situational awareness and fight in close coordination with networked dismounted infantry, other vehicles, artillery, and air support.¹⁵

Interestingly, there appears to be a current within the French army that favors lower technology vehicles such as the venerable VAB, AMX-10RC, and ERC-90. For example, Colonel Michel Goya, a leading French military analyst, has argued in the past that perhaps cheaper, simpler weapons would be preferable because their lower cost would enable the army to invest more in quantity and training.¹⁶ With regard to Mali, the French claim to have found that the low-tech nature of the vehicles used there was a virtue. Most of the French vehicles in Mali—with the notable exception of the VBCI and arguably the Caesar and VBL—are old and slated for replacement or at least modernization. The French now state that their outdated equipment proved less delicate and easier to fix in the field than newer equipment.¹⁷

But not everyone was pleased by the performance of the aging vehicles. The GTIA 3 commander, for example, commented that the roughly 30-year old VABs and AMX-10RCs were “breathing their last” and that their “performance reached a level that was at times preoccupying and makes their replacement indispensable for continuing to conduct engagements at this level of difficulty.”¹⁸ The problem, however, appears to have been the vehicles' age, not their level of sophistication, as has been confirmed by recent reports.¹⁹

Particularly important to the French are the relatively light logistical



U.S. Airmen and French soldiers load equipment inside U.S. Air Force C-17 Globemaster III in Istres, France, January 21, 2013 (U.S. Air Force/Nathanael Callon)

requirements associated with light wheeled armor. Indeed, given the generally poor infrastructure in countries such as Mali and France's weak logistical capabilities, anything that reduces the logistics burden is an advantage.

French logistical capabilities, it should be made clear, were stretched to their extreme limits in *Serval*, even with airlift borrowed from allies. The troops that France rushed to Mali initially had with them only the essentials (in many cases, 3 days' worth of food and 9 liters of water), and the subsequent focus of logistical efforts remained on providing the bare essentials (food, water, fuel) as troops raced north and east.²⁰ France also assumed responsibility for sustaining the Chadian force; it may well have done the same for some of the other African contingents in theater.

In late March 2013, a leading defense blogger reported, based on his contacts in the French army, that ground troops were just barely keeping their vehicles in working order.²¹ A news report of the

fighting in the Adrar des Ifoghas mountains described the operations in terms of "roughing it." It commented that the army had been in the field for a month and noted that the logistical support was providing water, food, and fuel, but otherwise the troops were left to get by as best they could. It was "the price to pay for taking so many people so far in so little time."²² Colonel Bertrand Darras, who at the time was with the French Ground Forces Command, commented that the troops in Mali after a few weeks in the field resembled "Napoleon's army before the Italian campaign" more than they did a fully equipped modern force because of the condition of their equipment, uniforms, boots, and so on. They had no air conditioning, showers, or toilets, Darras stated, and had trouble sleeping because of the heat: "We disregarded all standards to keep the high momentum required to destroy as much of the enemy as we could."²³

The statements about *Serval* contain a great deal of bravado, but they make clear

that the French had little in the way of excess sustainment capacity. Any savings such as that which might have come from using wheeled versus tracked vehicles probably helped a great deal.

France's choice of vehicles also gives its army a degree of flexibility regarding how it gets its units to the theater of operations and moves them around once there. Most vehicles arrived in theater by air, but a significant portion drove to Mali from points elsewhere in West Africa. As mentioned, some reached Mali by driving from Senegal or Côte d'Ivoire.

Once in theater, the French units had to cover a lot of ground. For example, the commander of GTIA 3 in Mali boasted that his battalion, during 6 weeks of operations, remained almost entirely "in the zone of operations, near or in contact with the enemy, without returning to base, without technical pauses, and without conducting repairs." He continued, "Each vehicle traveled 2,500 to 5,000 km" off-road and on difficult terrain.²⁴



French soldier discusses objectives with U.S. Soldier during field training exercise in Arta, Djibouti, March 16, 2016 (U.S. Air Force/Kate Thornton)

Regional Expertise

The French army is, for all intents and purposes, a regionally aligned force. Setting aside their long colonial experience on the continent, the French know Africa well. All French army units rotate through Africa on 4-month “short-duration missions.” France’s explicitly expeditionary brigades—that is, the historically “colonial” units that conduct the lion’s share of the country’s overseas operations—also conduct 2- or 3-year “long-term missions” in Africa.

The payoff was evident in Mali, where the French were able to make up for their own small numbers in part by calling upon regional and local allies, with whom they know how to work effectively. The most obvious example was the 2,250-man Chadian contingent, which played an important role in some of the most intense fighting in the campaign. Also of note is the French army’s work with the Tuareg contingent in the Malian army

loyal to General Haji ag Gamou, whose men provided the French with invaluable help, primarily by scouting and translating. Working with ag Gamou’s men did not come without risk, however, given that he represents a particular faction within Tuareg society and has a long history of conflict with other Tuareg notables, particularly ones hailing from Kidal and the elite clans of the restive Kel Adagh confederation. What must be stressed, though, is that the French almost certainly knew what they were doing and understood all the pertinent ramifications and risks. The French, in other words, arrived in Mali already knowing the human terrain and did not have to race to get up to speed.

Another way in which regional expertise paid off was France’s ability to rely on regional bottled-water suppliers (pre-certified by the French health service) and fuel providers. The French operate with the rule that whatever can be sourced

locally, should be sourced locally. In the case of water and fuel, the French literally knew whom to call and had pre-existing contracts with regional suppliers.²⁵

Expeditionary Culture

A less tangible yet significant factor in French operations in Mali is the expeditionary culture that serves the French army well when operating at a small scale with limited resources. This might be particularly true of France’s specifically expeditionary units, most if not all of which historically have had an explicitly colonial vocation, most obviously the marines and the Foreign Legion. These, it should be stressed, are not SF (although there are French marine SF regiments as well as commando-qualified legionnaires) but rather general-purpose forces with a long-standing expeditionary mission and outlook. Since the reforms of the 1990s, however, this expeditionary

culture is also apparently true of the historically continentally focused regiments that now share responsibility for overseas deployments and rotate through Africa alongside the former colonials and distinguished themselves in Operation *Serval*.

Among the aspects of colonial operations that arguably have some relevance for today is the small size of French deployments, the degree of autonomy that unit commanders exercised, the high degree of risk they accepted, and their interest in leveraging local knowledge. French colonial forces were invariably small and relatively ill resourced, reflecting France's priorities (protecting the homeland) and its determination to colonize cheaply or not at all. Badly outnumbered and for the most part operating autonomously and without the possibility of timely reinforcements or relief, colonial commanders—often just captains and below—learned to leverage local knowledge. Indeed, France owes its success in northern Mali during the colonial period in part to the commanders' practice of attending to local politics and the human terrain so as to better deploy divide-and-conquer tactics, forge military alliances, and so on. Commanders knew whom to trust, whom to promote, and whom to push aside.

The French analyst Goya, a former marine, argues that much of the outlook and practices of France's colonial units have survived and serve them well today. He describes today's marine regiments' approach explicitly as "colonial" and defines it in terms of a "global approach" that involves not just tactics, but also mixing in with the population and understanding the entire context in which one is operating.²⁶ When asked about institutional continuity from the colonial era, another *marouin* (the French equivalent of leatherneck) questions cultural continuity yet notes that French marine regiments today operate in the same conditions as in the past, suggesting that, in effect, they operate in the same way.²⁷

French officers interviewed by the author also draw a distinction between how they are taught to operate and the "American way," with which they

have become familiar in Afghanistan. According to a French marine who had been involved in *Serval*, for example, the U.S. Army can fight "properly" in the sense that it can think in terms of going about an operation the best way. In contrast, he stated, the French army sees itself as having to make the best of whatever resources may be available. Thus, he explained, planning for *Serval* was an exercise in thinking through what was and was not available and coming to terms with the associated risk.

Goya carried the argument further and defined the American approach to warfare in terms of detecting the enemy, locating it, and then using firepower to destroy it—"fire maneuver," he termed it. This compares with destroying the enemy through combat, or "combat maneuver," which is riskier. The French see fire maneuver as a luxury, something one can do when one has the means. According to Goya, France's Ground Forces Command has gone so far as to express the desire that the French army post-Afghanistan "de-Americanizes" so as not to retain the "bad habits" picked up fighting alongside the U.S. military. "We learned a lot of methods from the Americans," he stated. Another officer, a legionnaire who had participated in multiple African and Afghan deployments, similarly expressed concern that the French army had learned some bad lessons in Afghanistan with regard to fighting "American-style warfare," in the sense that infantrymen worked in close conjunction with drones, satellites, and aircraft providing close air support. France cannot afford to fight like that, he stated, and besides, it was contrary to the experience of most French officers most of the time, who have to operate in the field with few resources.²⁸

Accepting Risk

Waging war on the cheap necessarily translates into risk, especially if one favors close combat, as the French officers above claim. In contrast to the U.S. Army, which can be described as a "belt and suspenders" institution, which often uses backup or redundant systems, the French army considers such ameni-

ties a luxury. Thus, it operated in Mali at or beyond the limits of its sustainment capabilities with a force structure, vehicles, and other elements carefully and optimistically calculated to be little more than sufficient: just enough troops, just enough force protection, just enough helicopters, just enough vehicles with just enough capabilities, and so forth.

According to the French senate, for example, the VABs and VBCIs used in Mali were not equipped to counter improvised explosive devices (IEDs) for the simple reason that those that were so equipped were all in Afghanistan.²⁹ Moreover, although VBCIs offer better protection and other capabilities than any of the other vehicles used in Mali, only 36 VBCIs were used there, compared with 177 venerable VABs. There were so many VABs and other out-of-date light-armor vehicles in Mali partly because the French had been gambling that they were good enough. If they thought otherwise, they presumably would make replacing them a higher priority.³⁰ As it happened, the enemy did not make effective use of its antitank weapons or IEDs and did not possess ATGMs. But the French could not have been certain that would be the case.

Similarly, the airborne operation in Timbuktu featured a night-time combat drop of 250 lightly armed legionnaires, a risky enterprise in the best of circumstances. The French seem not to have had good intelligence regarding the threat on the ground, for they conducted the drop to block retreating fighters but encountered none. The French could just as easily have underestimated the threat as they overestimated it.³¹

Finally, the French cut things close with respect to three key requirements: fuel, water, and medical support. French doctrine regarding fuel is that one should never go below a 10-day reserve. Ten days is the French army's red line. In the first month of *Serval*, however, the French, who often raced well ahead of their logistical elements, operated with 24 hours of reserve. Any "rupture," moreover, would have taken 12 hours to address.³² The French also struggled to



U.S. Airman communicates with French air force pilots during tactical exercise in Djibouti, February 24, 2016 (U.S. Air Force/Kate Thornton)

keep the most forward-deployed troops in northern Mali supplied with water and at times fell below the required 10 liters per man, per day. The extreme heat reduced significantly the lift of aircraft, obliging the French to rely on convoys of trucks.³³ There, the problem was that the bottled water reached Gao in containers, but the trucks that took the water north of Gao could not handle containers, and there was a limit to how many crates of bottled water could be loaded on their beds before they fell off while driving over the rough terrain (there are no paved roads north of Gao). The French would not have managed had they not jury-rigged walls for the truck beds using wooden pallets.³⁴

Similarly, the French have a rule regarding the amount of medical support that must be on hand for a given number of soldiers. In Mali at a certain point, according to the French G-4, doctrine dictated that they needed to have the ability to perform 12 major surgeries at

the same time when in fact they could only support 2.³⁵ French officers also disclosed that they were not capable of providing the “golden hour” standard of medical support called for by French doctrine for all of the operations going on at the same time. In at least one instance, they had to choose not to provide golden hour coverage to one operation to provide it to another.³⁶

The French army is a living example of precisely the kind of force General Odierno and General Milley have envisioned for the future of the U.S. Army. The French force has demonstrated that it is adept at deploying small, scalable, task-organized forces that can disaggregate and re-aggregate on the fly; it has a force structure well suited for expeditionary operations; and it leverages deep regional expertise. It also has an expeditionary culture. Associated with these characteristics are elements that distinguish the French army from the American:

- sub-brigade modularity
- relatively light armored vehicles that emphasize mobility over firepower
- an institutional and command culture accustomed and suited to austerity
- greater acceptance of risk.

If we break apart the first point, modularity, we find important differences with respect to training and the authorities and responsibilities bestowed upon company commanders, which facilitate the kind of decentralized and distributed operations associated with mission command. Indeed, French officers interviewed for a separate study on interoperability claim to be on the extreme end of the mission command scale relative to their North Atlantic Treaty Organization Allies with respect to the degree of autonomy and responsibility they invest in lower echelons and their commanders.

Whereas the French appear confident that their success on the battlefield

and low casualty rates demonstrate the proficiency of their military, we are reminded of Napoleon's alleged remark that the quality he looked for the most in his generals was that they be lucky. Moreover, *Serval* does not shed light on France's capacity to handle more intense conventional conflicts or to provide the conventional deterrent power that U.S. commanders and French defense policy alike call for.

Given the French example, it appears that moving the U.S. Army toward being more expeditionary would require revisiting decisions regarding force structure, the kinds of armored vehicles the Army uses, and how it task-organizes. Does the BCT structure make the most sense? We must also question the premise that one can be more expeditionary while retaining all other capabilities. Given limited resources, we would have to give up something. In this case, it might mean losing some ability to conduct large-scale conventional warfare or quite simply demoting protection as a priority for vehicle design. Becoming more like the French would also mean having a culture premised on austerity and learning to be comfortable bringing much less to the fight than what one considers ideal. In the end, having a "small footprint" in the French way would mean assuming greater risk. JFQ

Notes

¹ "Advance Policy Questions for General Mark A. Milley, USA, Nominee for Chief of Staff of the Army," July 21, 2015, available at <www.armed-services.senate.gov/imo/media/doc/Milley_07-21-15.pdf>.

² Gustave Perna, "Projecting an Expeditionary Army," *Army Sustainment*, March–April 2016, 2–3.

³ For a discussion of some of the turbulence associated with task-organizing to reflect assigned missions that differ from designed missions, see Christopher G. Pernin et al., *Readiness Reporting for an Adaptive Army* (Santa Monica, CA: RAND, 2013). This work details ways in which units have had to scramble to redesign themselves to meet changing operational requirements and the associated turbulence.

⁴ Task Force Hawk is a classic example of the Army's institutional resistance to "going small" and to deploying only a portion of an

Apache unit without the full panoply of support elements and a large contingent intended to provide force protection. See Bruce Nardulli et al., *Disjointed War: Military Operations in Kosovo, 1999* (Santa Monica, CA: RAND, 2002).

⁵ Raymond T. Odierno, "The Force of Tomorrow," *Foreign Policy*, February 4, 2013, available at <www.foreignpolicy.com/articles/2013/02/04/the_force_of_tomorrow>.

⁶ "Army Vision—Force 2025 White Paper," U.S. Army Capabilities Integration Center, January 23, 2014, 2.

⁷ Army Doctrine Reference Publication 3-0, *Unified Land Operations* (Washington, DC: Headquarters Department of the Army, 2012), 1–7.

⁸ *The U.S. Army Operating Concept: Win in a Complex World*, TRADOC Pamphlet 525-3-1, U.S. Army Training and Doctrine Command, 2014, 44.

⁹ *Ibid.*, 15.

¹⁰ French army G4, email to author, May 5, 2015.

¹¹ For more on French army reforms and the embrace of modularity in the 1990s, see Paul Brutin, "L'Armée de terre, les réformes, l'armée de demain," *La Jaune et la Rouge: Revue mensuelle de l'association des anciens élèves et diplômés de l'école*, November 1997, available at <www.lajauneetlarouge.com/article/larmee-de-terre-les-reformes-larmee-de-demain#.VB1kZeevD4>; François Lecoindre, "De la fin de la guerre à la fin de l'armée," *Institut Jacques Cartier*, September 5, 2012, available at <www.institut-jacquescartier.fr/tags/modularite/>; Michel Klein, "Armée de Terre: armée d'emploi," *Fondation pour la Recherche Stratégique*, February 14, 2007.

¹² FT-02, *Tactique Générale* (Paris: Centre de doctrine et d'emploi de forces, 2008), 41–43. See also FT-04, *Les fondamentaux de la manœuvre interarmes* (Paris: Centre de doctrine et d'emploi de forces, 2011).

¹³ "Par les airs et par la piste: L'ouverture du théâtre Serval," *Béret Rouge*, May 2013.

¹⁴ "Scorpion Excites French Combat Vehicle Industries," *Defense Update*, n.d.

¹⁵ Ministère de la Défense, "Le programme SCORPION," *Armée de Terre*, March 16, 2015.

¹⁶ Michel Goya, "Dix millions de dollars le milicien: La crise du modèle occidental de guerre limitée de haute technologie," *Politique Étrangère*, no. 1 (2007), 201.

¹⁷ "L'engagement des forces prépositionnées en Afrique," *Béret Rouge*, May, 2014, 6.

¹⁸ François Marie Gougeon, "Témoignage d'un chef de corps engagé dans l'opération Serval," *Opération Serval: Le retour de la manœuvre aéroterrestre dans la profondeur* (Paris: Centre de Doctrine d'Emploi des Forces, 2014), 50.

¹⁹ *Le maintien en condition opérationnelle des matériels militaires: des efforts à poursuivre* (Paris: Cour des comptes, 2014); Ministère de la Défense, "Question No. 47347 de M. Fran-

çois Cornut-Gentille," Assemblée Nationale, July 8, 2014.

²⁰ Céline Brunetaud, "La chaîne soutien en opérations: À coups d'expédition," *Terre Info Magazine*, May 2013, 10.

²¹ Philippe Chapleau, "Rusticité et ingéniosité: Malgré tout, les véhicules tirent la langue au Mali," *Lignes de Défense*, March 30, 2013. The same blogger put the number of vehicles operated by the *Serval* brigade at 730, including 150 VABs, 100 VBLs, 36 VBCIs, and 20 AMX-10RCs.

²² Etienne Monin, "Les derniers jours de la guerre dans l'Adrar au Mali—France Info," *France Info*, March 25, 2013.

²³ Bertrand Darras, email to author, April 28, 2013.

²⁴ Gougeon, 48.

²⁵ Interviews with French logistics officers, March 2015.

²⁶ A 2010 issue of the French military publication *Doctrine Tactique* refers to this as "global maneuver" and associates it with counterinsurgency. See "La Manœuvre globale: Cadre général de la contre rébellion," *Doctrine Tactique*, no. 19.

²⁷ Interview with Frédéric Garnier, October 2, 2013.

²⁸ Personal communication with a legionnaire, Carlisle, PA, November 7, 2012.

²⁹ Jean-Pierre Chevènement and Gérard Larcher, *Rapport d'information fait au nom de la commission des affaires étrangères, de la défense et des forces armées par le groupe de travail "Sahel," en vue du débat et du vote sur l'autorisation de prolongation de l'intervention des forces armées au Mali (article 35 de la Constitution)*, French Senate, April 16, 2013, 20.

³⁰ The planned replacement for the VAB is the VBMR, which has not yet entered production.

³¹ The last time that particular unit, the 2nd REP, did a combat jump was at Kolwezi, Zaire, in 1978, when 450 legionnaires jumped in daylight into a city held by hostile forces and took fire as they jumped. The legionnaires were outnumbered and outgunned and spent the day in firefights. Five were killed.

³² Interview with French G4, Paris, February 5, 2015.

³³ Interview with French logistics officer, Lille, France, February 3, 2015.

³⁴ Interview with French logistics officer, Lille, France, February 2, 2015.

³⁵ Interview with French G4, Paris, February 5, 2015.

³⁶ *Doctrine d'emploi des forces terrestres en zones désertiques et semi-désertiques (édition provisoire)* (Paris: Centre de Doctrine d'Emploi des Forces, 2013), 43; Philippe Roux, "RAND Corporation Conference: French Army Update Sahel Operation 'Serval' Lessons Identified," PowerPoint presentation, RAND, Arlington, VA, October 23, 2013.



Sailor assigned to guided-missile cruiser USS *Normandy* carries Haitian child during site assessment as part of Operation *Unified Response* following 7.0 magnitude earthquake in Haiti, January 12, 2010 (DOD)

Sharpening Our Cultural Tools for Improved Global Health Engagement

By Suzanne Leclerc-Madlala and Maysaa Alobaidi

Dr. Suzanne Leclerc-Madlala is a Technical Advisor to the U.S. Agency for International Development. Dr. Maysaa H. Alobaidi is a Research Scientist at the Henry M. Jackson Foundation for the Advancement of Military Medicine/Center for Disaster and Humanitarian Assistance Medicine.

The central theoretical concept in all life sciences is adaptation, the idea that things change over time. Unlike other species, we humans have the full benefit of a dual system of inheritance; that is, we use (or are shaped by) both biological and cultural systems of adaptation. Both systems work in a similar way. Through the process of sexual reproduction, we inherit genetic traits from our parents, and through the process of learning, we inherit culture from our social group. Culture is a central concept in the study of human beings, and its existence has played a major role in the success of our species, including our success with combating, controlling, and containing disease.

Today, all societies, from the most technologically simple to the most advanced, have medical systems comprised

of three basic interrelated parts.¹ These include a theory of the etiology (causation) of sickness; a method of diagnosis based on the etiology theory; and the prescription of appropriate therapies, both curative and palliative, based on the diagnosis. As aspects of culture, these parts are subject to change over time as they are continuously influenced by other cultural systems, and they continuously appropriate elements from other medical traditions. For example, it is not unusual today to find Zulu traditional healers in South Africa who don white lab coats and practice out of city offices with comfortable waiting rooms and pantries full of herbs labeled and bottled in a modern format. The services of these healers continue to be in high demand, and their practices continue to adapt. Despite centuries-old efforts by missionaries, governments, and others to discourage belief in and support of indigenous medical systems, these systems persist.

The medical landscape in most countries is characterized by *medical pluralism*, a situation whereby several distinct medical systems coexist from which people can choose to seek health assistance.² While people may prefer one type of medical system to another and interact exclusively with that system when they are ill, a more common pattern, particularly in non-Western societies, is to move between medical systems in an effort to take full advantage of any and all therapies that might help. *Medical syncretism* is the term used by anthropologists to describe how people mix and match visits to local clinics and use of modern medicines with visits to local healers and use of potions blessed by ancestors or deities. Ultimately, human beings are pragmatic creatures, and their pragmatism applies as much to their health-seeking behavior as it does to other aspects of life.

Challenges and Opportunities

While medical pluralism continues to grow in step with modernization and increased globalization, cultural considerations often weigh on people when illness or misfortune strikes. In contrast to our Western biomedical system, many non-Western societies subscribe

to what could be called a *bio-moral system*—that is, where illness and misfortune are understood as resulting from a moral infraction of some sort. Such is the case throughout sub-Saharan Africa where the failure to honor one's dead relatives, to supply sufficient wedding gifts, or to conduct a ritual according to tribal prescription is a serious moral infraction widely believed to be at the root of many illnesses. This bio-moral way of thinking helps to explain how it is possible for people to accept modern scientific medicine while at the same time continuing to seek diagnoses and prescriptions from the traditional system.

Modern biomedicine focuses more on immediate causation—for example, which pathogen is causing which symptoms—while traditional bio-moral systems focus more on ultimate causation—who or what is responsible for this negative state of being. The different medical systems attempt to address the problem at different levels. Traditional healers are sought to help answer questions of ultimate causation, and dire cultural consequences can be expected should the patient ignore the healer's advice. As a result, people often see no real conflict between taking the medicines prescribed by modern doctors while at the same time following through with rituals and medicine prescribed by traditional healers.

All of this presents special challenges to governments of developing countries trying to build a modern medical sector and a modern economy. Health care is a key area of service delivery upon which people judge their governments.³ Building relationships with partner nations that help to strengthen and improve modern health services may not only contribute to the stability of nations but also help to build faith in modern systems more generally. Positive experiences with the modern medical system could have an important spill-over effect that acts as a catalyst for the modernization project. These experiences would likely make people more open to other modern systems, including education, commerce, and culture. Equipping global health practitioners with the skills or tools needed

to successfully navigate complex cultural environments will increase the potential for these positive, longer term impacts. There is room for improvement in most, if not all, U.S. Government agencies for this level of work. One extensive review of 2,000 short-term medical missions revealed that better planning and preparation in the areas of cross-cultural communication and the contextual realities of mission sites were among the top needs identified for ensuring an optimal outcome.⁴ As we move into a future of growing global demand for medical services brought on by, among other things, new and re-emerging diseases, high-quality cultural training needs to become a more central component to preparations for medical diplomacy and engagement.

How to Sharpen Our Cultural Tools

For global health engagements, the ultimate goal is to build bridges and establish ongoing relations to influence change through meaningful dialogue and opportunities to develop a shared vision and a roadmap toward development.⁵ Achieving this goal is contingent upon adequate preparation for engagement in cross-cultural environments. Part of current preparation involves the imparting of knowledge of existing beliefs and behaviors related to health and illness within a particular cultural context. This part, however, is only the tip of the iceberg. If cultural preparation for global health engagements is left at that, one risks amplifying rather than diminishing barriers to cross-cultural competence by perpetuating stereotypes of other cultures and encouraging attitudes of cultural superiority. Knowledge alone is not enough.

Underlying this sense of cultural superiority is a lack of understanding of how these beliefs and practices were produced within their particular cultural context and the function they perform for those who practice them.⁶ The view that traditional health beliefs and practices are something inferior from the past and are a complicating factor in direct conflict with the Western approach to health care is prevalent among many health



As part of Operation *Tomodachi*, U.S. Navy physician with III Marine Expeditionary Force (Forward) examines Japanese woman in school being used as internally displaced persons camp for residents affected by earthquake and tsunami that struck mainland Japan, March 11, 2011 (DOD)

professionals.⁷ This sense of cultural superiority is also driven by an incorrect assumption that health professionals are objective and value-free individuals who are immune to cultural differences. In reality, everyone, health professionals included, is culturally bound to some extent.⁸ By focusing predominantly on knowledge of other cultures while ignoring that this knowledge, no matter how extensive, is shaped by the bias of their own culture, health professionals face an increased risk of cultural misunderstanding and miscommunication, which ultimately may result in damaged relations and failed engagements.

Nonetheless, health professionals have a responsibility not to remain passive about harmful traditional practices in the name of a utopian vision of multiculturalism. Some practices clearly violate rights to health, life, dignity, and personal integrity, while others are patently harmful to health. Our health engagements

need to align with policies such as the 1994 United Nations Plan of Action for the Elimination of Harmful Traditional Practices Affecting the Health of Women and Children—bearing in mind that blind adherence to some practices has made possible large-scale violence against women and girls over the course of many centuries. While careful efforts are required to alter or eliminate harmful practices, Western pressure for change is sometimes heavy handed and insensitive and often perceived as imperialistic. More strategic approaches are needed that help people to understand that it is possible to give up harmful practices without giving up meaningful aspects of their culture. These efforts are usually most effective when they originate, or at least are perceived to originate, from within the culture that practices them.⁹

For many in the health professions, knowledge-based cultural learning is appealing given that their education

predominantly focuses on knowledge acquisition. While beneficial, this type of training neglects other key aspects of learning, mainly, attitudes and the soft skills deemed critical for engaging in a cross-cultural context. Theoretically, cultural learning should enable global health practitioners to adapt and function effectively within any cultural context, no matter how different it is. Beyond cultural knowledge, cross-cultural adaptability and effectiveness require certain personal attributes and enabling skills. Accordingly, the design and development of cultural learning resources should target three primary domains.

Cultural Self-Awareness. Cultural learning is aimed at helping practitioners explore their own cultural identity and recognize their unconscious assumptions, biases, and prejudices toward people with different cultural backgrounds.¹⁰ Every society is made up of different social groups with which people identify and

from which they derive their norms and values. Identification with various social groups provides the basis for defining one's cultural identity.¹¹ It is only by understanding and articulating their *own* cultural identity that health professionals are able to understand the diverse cultural identities within a particular population and determine their relevance to health.¹² This kind of understanding prepares practitioners to be able to determine which of these identities is more salient in influencing health beliefs and behavior. Practitioners who lack cultural self-awareness are less likely to accept that all cultures are equally valid and that no one culture is inherently better or worse than another. Lacking the cultural finesse acquired through cultural learning, they are more likely to impose their values and beliefs on others out of an uncritical sense of cultural superiority, leading to ways of interacting that foster disrespect and distrust and undermine good relations. This can be a challenging aspect of the cultural learning process, as practitioners do not always see the immediate relevance of cultural self-awareness to their practice. Most practitioners approach cultural learning with the expectation to learn about *other* cultures and do not appreciate the value of critical reflection on their own cultural background. While motivating practitioners to embark on this aspect of cultural knowledge remains a challenge, it is fundamental to the learning needs for maximally effective engagements in global health.

Cultural Knowledge. Only after establishing conscious awareness of themselves as cultural beings are practitioners able to obtain and effectively integrate information about the culture of certain population groups, including information about their health-related beliefs and values. As previously discussed, all cultures have a set of beliefs to explain what causes illness, how it can be cured or treated, and who should be involved in the healing process. More important than the knowledge of what these beliefs and practices are is the understanding of how they were produced, what sustains them, and if they are in some ways harmful. While the tendency to generalize exists due to



Afghan boy brings younger sister to receive toiletries given out by Afghan, Coalition, and U.S. Servicemembers assigned to Special Operations Task Force–West, near Mirmandab, Afghanistan, April 7, 2011 (DOD/Marcus Quarterman)

the dearth of readily available information about culture-specific health beliefs and practices, it is important to emphasize that there is more variation within cultural groups than across groups.¹³ An expected outcome of cultural knowledge acquisition is being able to discern that variation and to determine the key variables that impact on health.

Cultural Skills. Learning how to gather cultural information that is relevant to health without applying it stereotypically to all members of a particular culture is another critical skill that is emphasized throughout the learning process. Other skills emphasized include interpersonal skills such as flexibility, openness, and the ability to look at the

world through a different lens, as well as communication skills including language skills and the ability to interpret various forms of verbal and non-verbal communication unique to different cultures.¹⁴ Learning to apply methodologies from the field of anthropology would be especially relevant and a useful skill for cultural learning. For example, practitioners can be taught the skills for asking questions in ways that reveal important cultural logics. They can be trained to make observations and recognize behaviors that are an indication of deeply held cultural values. Techniques for prompting conversations that elicit what anthropologists call the “unspoken rules” that inform and guide behavior, including but not exclusively those related to health, can be taught. Developing cultural skills is a lifelong process that requires continuous exposure to other cultures with simultaneous self-reflection and reconstruction of cultural boundaries. Comprehensive training that makes better use of anthropological expertise would allow practitioners to fully exploit the potential of this process.

Opportunities and Challenges

The extended military engagements in Iraq and Afghanistan brought increased attention to the lack of cultural capabilities within the joint medical force. This heightened attention resulted in dedicating resources to determine the required competencies for culture and communication within the joint medical forces and creating training programs to develop these competencies.¹⁵ System-wide discussions are currently under way to develop core competencies and evidence-based standards and best practices in health culture and communication for global health and to expand the availability of training to all military health personnel.

In spite of this positive momentum, important challenges remain. Key among these is the significant diversity within the joint medical forces in terms of professional background, specialties, and missions, resulting in different training requirements for different groups within the system. Other challenges include

difficulties in incorporating cultural learning in the pre-deployment training cycle due to busy schedules, in sustaining gains in capabilities achieved through training, and in bringing about policy changes to institutionalize and secure ongoing system-wide support for cultural training.

Nonetheless, in a globalized world where the health of nations is increasingly interdependent, sharpening our cultural tools for improved global health engagement remains a necessity. The U.S. Government remains the largest funder and implementer of global health programs worldwide, with support for global health involving many different departments and agencies.¹⁶ Equipping all our practitioners with a sound understanding of the interplay between culture and health, knowledge of local disease etiology, and the skills to succeed in increasingly complex contexts of medical pluralism will bolster our efforts to build bridges and create shared visions for the future with partner nations. Cultural learning needs to be accelerated and embedded in training programs if we are to have the kind of forward medical diplomacy and engagements that maximize our effectiveness and contribute to enhancing our national reputation abroad. JFQ

Notes

¹ Peter J. Brown, *Understanding and Applying Medical Anthropology* (Mountain View, CA: Mayfield Publishing, 1998).

² Ibid.

³ World Health Organization (WHO), *Technical Discussions—The Role of Government in Health Development*, EM/RC53/Tech. Disc. 1 (Geneva: WHO, July 2006), available at <http://applications.emro.who.int/docs/em_rc53_tech.disc.1_en.pdf>.

⁴ Alexandra L.C. Martiniuk et al., “Brain Gains: A Literature Review of Medical Missions to Low and Middle-Income Countries,” *BMC Health Services Research* 12, no. 134 (2012), available at <www.biomedcentral.com/1472-6963/12/134>.

⁵ *The U.S. Government Engagement in Global Health: A Primer* (Menlo Park, CA: Kaiser Family Foundation, January 2012), available at <kaiserfamilyfoundation.files.wordpress.com/2013/02/8408.pdf>.

⁶ Ali Hyder and Richard Morrow, “Culture, Behavior, and Health,” in *International Public*

Health: Diseases, Programs, Systems, and Policies, ed. Michael Merson, Robert Black, and Ann Mills (Sudbury, MA: Jones and Bartlett, 2006).

⁷ Kevin G. Neill, “In the Shadow of the Temple: Cross-cultural Sensitivity in International Health Program Development,” *Ethnicity and Health* 5, no. 2 (2000), 161–171.

⁸ Peter Adler, “Beyond Cultural Identity: Reflections on Multiculturalism,” in *Culture Learning*, ed. Richard Brislin (New York: East-West Center Press, 1997).

⁹ Lauren Hersh, “Giving Up Harmful Practices, Not Culture,” *Advocates for Youth* (February 1998), available at <advocatesforyouth.org/.../521-giving-up-har.pdf>.

¹⁰ Ibid.

¹¹ Fred Jandt, “Defining Culture and Identities,” in *An Introduction to Intercultural Communication*, 7th ed., ed. Fred Jandt (Thousand Oaks, CA: SAGE Publications, 2013).

¹² Collins O. Airhihenbuwa, *Health and Culture: Beyond the Western Paradigm* (Thousand Oaks, CA: Sage Publications, 1995).

¹³ Josepha Campinha-Bacote, “Many Faces: Addressing Diversity in Health Care,” *Online Journal of Issues in Nursing* 81 (2003).

¹⁴ Rohini Anand and Indra Lahiri, “Intercultural Competence in Health Care: Developing Skills for Intercultural Competent Care,” in *The SAGE Handbook of Intercultural Competence*, ed. Darla K. Deardorff (Thousand Oaks, CA: SAGE Publications, 2009).

¹⁵ Center for Disaster and Humanitarian Assistance Medicine (CDHAM), “Culture and Communication in Global Health,” CDHAM Symposium, Bethesda, MD, 2014.

¹⁶ Aizen J. Marrogi and Saadoun al-Dulaimi, “Medical Diplomacy in Achieving U.S. Global Strategic Objectives,” *Joint Force Quarterly* 74 (3rd Quarter 2014), 124–130.



Servicemembers provide cover after tactical air insertion with Army UH-60 Black Hawk helicopter at Fort Dix, New Jersey, April 10, 2014 (U.S. Air National Guard/Matt Hecht)

The Primacy of COG in Planning

Getting Back to Basics

By Steven D. Kornatz

Center of gravity (COG) continues to be a popular topic in military journals, blogs, and lectures. Many recent discussions have tended to be ambivalent at best toward the value of the concept of COG. Several of these dialogues present detailed contrarian views to the validity of Carl von Clausewitz's much analyzed theory of COG (or *Schwerpunkt*, as presented in *On*

War). They discuss how this theory is too complex to be used by U.S. military planners. However, the painstaking discussion of Clausewitz is done at the expense of missing the fact that the refined, modern-day view of COG is a critical concept for planners to understand and apply. When done correctly, COG planning methodology is the primary practical way to link an objec-

tive to a course of action (COA). This is not to assert that proper employment of COG methodology is always easy. Application in certain scenarios may be complex, but the important aspect of COG methodology is that when properly employed, it is the foundation of and gives direction to COA development.

Root of the Problem

Some planners and many senior staff officers lack detailed knowledge of and confidence in the value and practical use

Captain Steven D. Kornatz, USN (Ret.), is a Professor in the College of Operational and Strategic Leadership at the U.S. Naval War College.



U.S. Soldiers with 2nd Cavalry Regiment study map in preparation for convoy through area near Amberg, Germany, en route to U.S. Army Europe Joint Multinational Readiness Center's Hohenfels Training Area in Germany, October 16, 2012, during Saber Junction 2012 (DOD/Markus Rauchenberger)

of COG methodology. This comes primarily from three factors: overreliance on Clausewitz's COG theory, differing doctrinal definitions of COG-related terms, and varying joint and Service doctrinal COG methodologies.

Present-Day Relevance of COG.

Clausewitz's theory is touted as the foundation for the U.S. military's application of COG in current planning doctrine. While Clausewitz's theory may provide some foundational legitimacy to the concept, it has little value in establishing detailed practical application of COG for planners, particularly at the operational level of war. For the many reasons recently presented by Dale Eikmeier, military planners need to be much less concerned with Clausewitz's history and theory of COG than with the more critical value and application of contemporary COG methodology.¹ In other words,

while the theory of COG is sound, it does not answer modern-day methodology questions.

Differing Definitions. Joint Publication (JP) 5-0, *Joint Operation Planning*, defines *center of gravity* as a "source of power that provides moral or physical strength, freedom of action, or will to act."² It was only a short time ago that each Service had its own definition of COG. While it is significant that Service and joint COG definitions now align, the definition itself is too generic to be of value to planners.

Modern-day COG theorists have their own variations on the definition, which obviously had some influence on the current joint definition. Joe Strange proposed defining COG as "primary sources of moral or physical strength, power and resistance."³ Milan Vego defined COG as:

*a source of massed strength—physical or moral—or a source of leverage, whose degradation, dislocation, neutralization, or destruction would have the most decisive impact on the enemy's or one's own ability to accomplish a given military objective; tactical, operational, and strategic centers of gravity are differentiated; each center of gravity is related to the corresponding military objective to be accomplished.*⁴

While both of these definitions use language similar to the current joint definition, Vego's in particular presents three components that are critical to practical application by planners. His statement that "destruction would have the most decisive impact on the enemy's or one's own ability to accomplish a given military objective" ties COG directly to the objective and also specifies that a COG exists for both the enemy and oneself. In

arguing that “tactical, operational, and strategic centers of gravity are differentiated; each center of gravity is related to the corresponding military objective to be accomplished,” Vego clarifies that COGs exist at each level of war and are tied to specific objectives tasked to each level of war.

COG analysis methodology in Navy Warfare Publication (NWP) 5-01, *Navy Planning*, combines the aspect of Vego’s writings that indicates how to identify a COG with Strange’s writings on how to attack/defend it. However, Navy doctrine uses some of the same terms as joint doctrine but defines them differently. Critical factors are defined as critical strengths (CSs) and critical weaknesses (CWs) in NWP 5-01, but are comprised of critical capabilities (CCs), critical requirements (CRs), and critical vulnerabilities (CVs) in JP 5-0.

Varying Methodologies. Various methodologies exist in doctrine that attempt to describe the practical application of the COG concept for use by planners. These methodologies mostly rely on Strange’s writings to determine how to attack (or defend) a COG. The identification of a COG, however, is glossed over in most doctrine (NWP 5-01 is an exception).⁵ Some doctrinal methodologies tend to take a critical concept and make it overly complex. Examples include JP 2-01.3, *Joint Intelligence Preparation of the Operational Environment*, which describes a COG as originating in a nodal system where it “typically will not be a single node in the system, but will consist of a set of nodes and their respective links”⁶ with no explanation as to how to identify the system, and Air Force Doctrine Document 3-0, *Operations and Planning*, which recommends synthesizing four different methodologies to identify and analyze COGs.⁷

Practical Application

Practical application requires a practical definition of COG. The current doctrinal definition is rather ambiguous. Based on the military application of COG analysis, a simpler, reasonable definition follows: COG is the princi-

pal force/entity that accomplishes the objective at a specified level of war.

No matter which COG methodology is employed, planners cannot rely on a checklist mentality to implement COG in their work; they must have an internalized understanding of why COG is important to their efforts and confidence in a clear methodology to conduct its identification and analysis. Understanding the usefulness of COG comes from appreciating that its identification is a process that determines what (a force or entity) accomplishes a stated objective. The “thing” that accomplishes the objective is critical to planners because it *must* be dealt with, directly or indirectly, to preclude an adversary from accomplishing its objective. Likewise, the thing that accomplishes our friendly objective must be given a priority of effort, be sustained, and be protected for us to be successful.

Vego’s writings provide a credible method to identify a COG by determining CSs and CWs that are essential to accomplishing the objective.⁸ The COG is identified as the CS that actually accomplishes the stated objective. After listing the critical strengths, planners can analytically go down the list one by one and ask, “Does this critical strength accomplish the objective?” If the answer is “yes,” then it is a COG. If the answer is “no,” then it is probably a critical capability or critical requirement and possibly a critical vulnerability. The complexity arises in identifying critical strengths. Planners must ensure they are as detailed as possible in listing CSs to be as discrete as possible in the identification of a COG. This is essential, particularly at the operational level of war and the component (domain-related) level where a COG will typically be a specific force. For example, if Combined Force Maritime Component Commander (CFMCC) planners are working to identify a friendly COG in the maritime domain where an objective is seizure of an island, some critical strengths may be identified as ships, mines, and integrated air defense systems. The term *ships*, however, may be too general. Based on CFMCC maritime objectives, the landing force (amphibious ships and Marines) may be what

explicitly accomplishes the objective, and the remainder of the surface ships (aircraft carriers, destroyers, supply ships, patrol vessels, and so forth) are merely in support. Knowing the value of detail in determining critical strengths and critical weaknesses to the COG process will yield more discrete and effective COG identification. This will allow for more focused analysis and clarity in COA development. The determination of both CSs and CWs is crucial not only because it narrows down the list of potential COGs (COG comes from a list of CSs), but also because the list of CWs will support determination of CVs later in the methodology.

Once the COG is identified, the CC/CR/CV method of analysis presented by Strange comes into play. This part of the methodology is how planners take an identified COG and ascertain the things that are critical to attack (or defend), which are clearly linked to undermining the COG. *This becomes the foundation of the COAs.* To be valid, each proposed COA must neutralize (defeat, destroy, and so forth) the enemy’s identified COG and must protect and support the identified friendly COG. Further COG analysis, to the level of CVs, provides details of susceptible aspects of critical requirements that can undermine a COG. With this understanding, COA development ensues, with planners employing innovation to propose different ways (the *how*) to neutralize the enemy COG while defending the friendly COG. This is the reason for the primacy of COG to planning: it links an objective to CVs that provide the foundation for the COAs (see figure 1).

NWP 5-01 does an effective job of describing the CC/CR/CV COG analysis methodology, but it is too vague in stating, “Many of these elements (CCs) are often found in the joint functions.”⁹ Planners must go to the six joint (or operational) functions (command and control, intelligence, sustainment, movement and maneuver, fires, protection) to begin their COG CC analysis. Common problems in resolving the CCs arise from two challenges. First, planners forget the necessary linkage that



U.S. Soldiers with 3rd Squadron, 2nd Cavalry Regiment, approach objective during squadron-level field training exercise at Tapa Training Area, Estonia, April 6, 2016 (U.S. Army/Steven M. Colvin)

must be maintained from objective to COG to CC. For each identified CC, the linkage question, “Does this CC enable the COG to accomplish the objective?” must be asked. Without this linkage, the value of the process will break down. Second, planners often simply list the six joint functions as the CCs and move on. This also undermines the value of the process. In our example, if the landing force is identified as the friendly COG that seizes an island (objective), just stating “operational sustainment” as a CC is too general—this means *everything* is a priority for sustainment. A more refined CC associated with operational protection may be to “sustain the combat force ashore.” This provides a more discrete view of priorities for sustainment in the COA. Additionally, there often are multiple CCs associated with a joint function.

Similarly, a linkage must be maintained from CCs to CRs, which are the

resources that allow the CC to enable the COG to accomplish the objective. In the above example, logistics ships, ship-to-shore connectors, ammunition, and food are resources that allow the CC (sustain combat force ashore) to enable the COG (landing force) to accomplish the objective (seize the island). This analytic linkage must be maintained for COG analysis to be useful.

The analysis continues further with determination of CVs. They are not CRs; they are “an aspect of a critical requirement which is deficient or vulnerable to direct or indirect attack that will create decisive or significant effects.”¹⁰ For the friendly COG, CVs are aspects of CRs that must be protected or mitigated. For the enemy, CVs are aspects of CRs that will provide for indirect attack of the enemy COG. In our example, a CV may be the susceptibility of logistics ships to submarine attack during transit. The

CV is not the logistics ships; it is their vulnerability to submarine attack. The planners must determine how to mitigate that vulnerability in COA development to protect the ability of the COG to accomplish the objective. Otherwise, the commander will assume tremendous risk to mission success (see figure 2).

Is COG Analysis Too Difficult?

Some recent articles propose doing away with or dramatically altering COG analysis in planning. Lawrence Freedman suggests that instead of analyzing COGs, planners should answer the question, “What is the position you wish to reach?”¹¹ Jeff Becker and Todd Zwolensky expound upon Freedman’s writings and recommend replacing COG with “joint maneuver.”¹² While intriguing, neither of these assertions provides a practical methodology for planners to link COAs to an objec-

tive. Freedman’s “position you wish to reach” sounds like just another way of stating an objective. Likewise, to be useful, Becker and Zwolensky’s corollary to Freedman must identify what “joint maneuver” will be used against. In all likelihood, it will be a COG.

Dale Eikmeier and, more recently, Jan Rueschhoff and Jonathan Dunne proposed determining CCs first and then working backward to identify the COG because COG identification is difficult to do.¹³ In practical application, how can one identify CCs that enable a COG to accomplish an objective without first identifying the COG that actually accomplishes the objective? Certainly, the objective-COG-CC-CR-CV-COA linkages allow for a verifying “backward look” after the analysis has been completed. However, trying to identify a COG after determining CCs weakens the value of the linkage-based requirements of the COG analysis components.

On a practical level, planners must be able to rationalize and recommend to the commander the best employment of resources that will allow us to accomplish our objectives while precluding the enemy from accomplishing theirs. The important fact to remember is that COG analysis is a component of *planning* that focuses the efforts of planners. It is not an elusive “search for the knockout blow,” but simply a planning tool (albeit a complex one at times) that underpins a COA. How else can planners determine and prioritize what to attack and defend? Additionally, the COA must be assessed in execution to verify that the COG linkages determined in planning are in fact proving successful. Taking the COG linkages into execution, we have a cyclical pattern: determine objectives, identify COG, plan to attack/defend COG, execute the plan, assess the plan, and adapt the plan (by revisiting objectives and so forth). Without COG analysis, planners will be taking a shot in the dark at what to attack/defend.

Another potentially confusing point is that the friendly COG does not necessarily attack the enemy COG directly. Friendly and enemy COGs must be analyzed separately in planning since they are based on specific friendly and enemy

Figure 1. Linking OBJ to COA Through COG Analysis

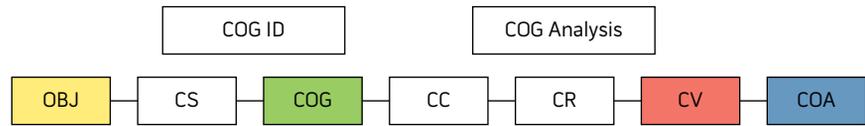
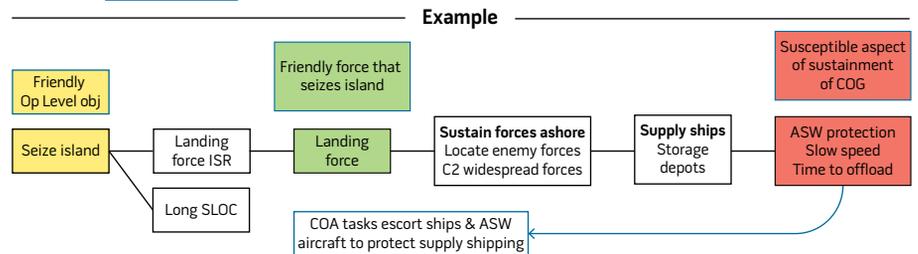
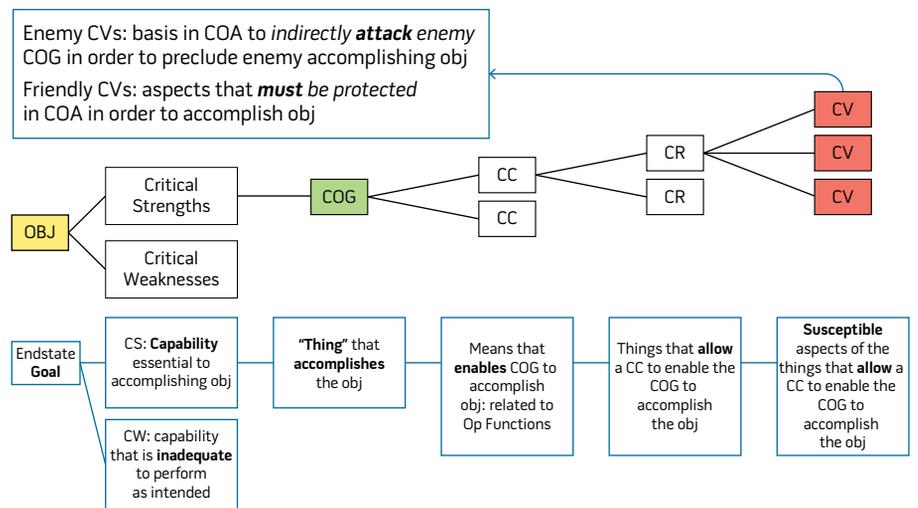


Figure 2.



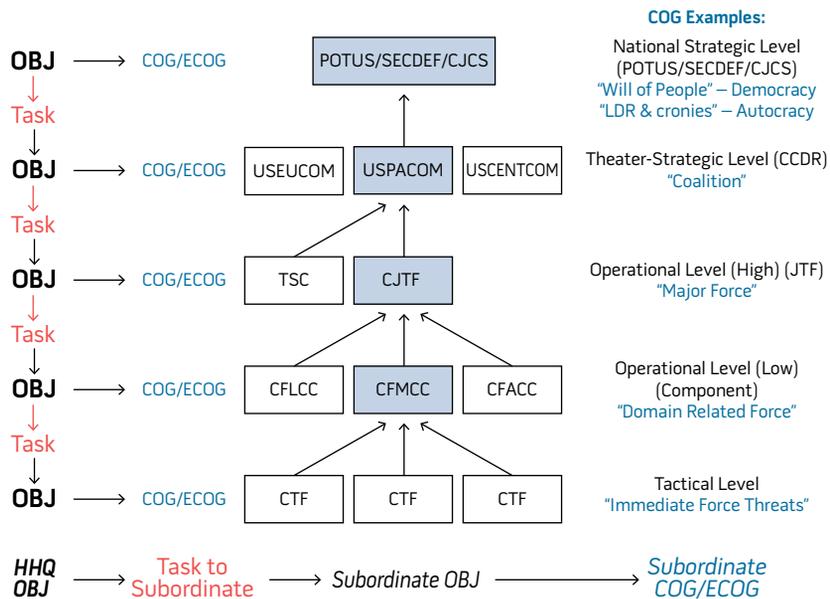
objectives. When possible, planners should be innovative in COA development in using non-COG (friendly) resources to degrade or defeat the enemy COG, allowing the friendly COG to focus on accomplishing the friendly objective. For example, using friendly airpower to degrade enemy infantry forces (enemy COG) that are defending an island (enemy objective) will enable the friendly landing force (COG) to more readily seize the island (objective). Independent COG analysis by the J2 (for the enemy) and planning team (for the friendly) will keep friendly and enemy COGs from being intermixed, allowing more innovation in COA development.

COGs at each level of war are based on tasks from higher headquarters that

become subordinate objectives (see figure 3). Objectives at one level necessitate tasks to subordinates. These tasks become objectives to that subordinate level, necessitating determination of a COG that accomplishes the nested subordinate objective. Complexity arises at the higher levels of war when the COG may not be a military force.

Vego states, “The true value of center of gravity may be the framework the concept provides for thinking about war. In other words, the process of determining centers of gravity may be as important as the product.”¹⁴ This underpins the idea that COG analysis is for *planning*. It gives planners something on which to focus the use of resources. In execution, however, staffs must use assessment to

Figure 3. Objective Nesting and COG ID at All Levels of War



determine if the plan (based on COG analysis) is trending toward accomplishing the objective. If not, the COG analysis may be in error (that is, the CVs may not be as clearly linked to the COG and objective as planners originally thought), and a branch plan may need to be implemented.

All doctrine agrees that a COG is related to an objective. Objectives exist at each level of war, and objectives are accomplished by a COG. Joint and Service doctrine COG methodologies should be much more similar than they are currently. The methodology must have two parts: identification (what accomplishes an objective) and analysis (how to attack/defend it). Strange's analysis methodology (CC, CR, and CV) is common within Service and joint doctrine and logical. The problem that arises is what may be the most important aspect of COG methodology: identification of a COG. This is where Vego's methodology is particularly valuable. Just because COG analysis is difficult to do well does not mean it should not be used. It is the practical way to tie an objective to a COA.

What Really Matters

The following are COG-related ideas that are critical for planners (from plan-

ning team members to commanders) to know and believe:

- A COG is based on and linked to an objective; indeed, it is what *accomplishes* an objective.
- COG identification and analysis provide the foundation for COA development.
- COG is a *planning* concept; objectives or capabilities may change in execution, necessitating re-analysis of COGs.
- A great part of the value of COG analysis to planners are the discussion and debate that arise from conducting the analysis.
- Because they are based on objectives, COGs exist at each level of war and in each domain; this necessitates COG analysis by all joint task force components.
- Identification and analysis of COGs must be done as discretely as possible for focus and clarity in COA development.
- Do not assume that the friendly COG will be used to defeat the enemy COG; this may be an inefficient use of resources.
- Multiple varying objectives may necessitate multiple COGs.

- To limit confusion, planners should use level-of-war modifiers when discussing and briefing COG (for example, combatant commander COG, theater-strategic COG, joint task force COG, operational COG, maritime COG, and so forth).
- When planners truly understand COG, the concept and methodology are valuable and usable across the range of military operations.

COG identification and analysis are critical aspects of planning that enable planners and decisionmakers to have clarity in linking objectives to COAs. Without detailed use of the COG concept, planners may propose COAs that are not directly linked to the stated objective. COG methodologies must be understood deeply to ensure COG is given appropriate consideration throughout the planning process. JFQ

Notes

¹ Dale C. Eikmeier, "Give Carl von Clausewitz and the Center of Gravity a Divorce," *Small Wars Journal*, July 2, 2013, available at <smallwarsjournal.com/jrnl/art/after-the-divorce-clausewitz-and-the-center-of-gravity>.

² Joint Publication (JP) 5-0, *Joint Operation Planning* (Washington, DC: The Joint Staff, August 11, 2011), xxi.

³ Joe Strange, "Centers of Gravity and Critical Vulnerabilities: Building on the Clausewitzian Foundation So We Can All Speak the Same Language," *Perspectives on Warfighting* no. 4, 2nd ed. (Quantico, VA: Marine Corps University, 1996), 43.

⁴ Milan Vego, *Joint Operational Warfare: Theory and Practice* (Newport, RI: U.S. Naval War College, 2009), VII-13.

⁵ Navy Warfare Publication (NWP) 5-01, *Navy Planning* (Washington, DC: Headquarters Department of the Navy, December 2013), appendix C.

⁶ JP 2-01.3, *Joint Intelligence Preparation of the Operational Environment* (Washington, DC: The Joint Staff, May 21, 2014), IV-11.

⁷ Air Force Doctrine Document 3-0, *Operations and Planning* (Washington, DC: Headquarters Department of the Air Force, November 9, 2012), 111-117.

⁸ Vego, VII-15-VII-24.

⁹ NWP 5-01, C-3.

¹⁰ JP 5-0, GL-8.

¹¹ Lawrence Freedman, "Stop Looking for the Center of Gravity," *War on the Rocks*, June 24, 2014, available at <http://warontherocks>.



Australian Army Lieutenant and Gunner from 8/12 Regiment coordinate fire support as U.S. Marine from 2nd Battalion, 7th Marine Regiment looks on during Combined Joint Live Fire Exercise on Townshend Island during Talisman Sabre 2011 (Australian Army/Janine Fabre)

com/2014/06/stop-looking-for-the-center-of-gravity/>.

¹² Jeff Becker and Todd Zwolensky, “Go Ahead, Forget Center of Gravity,” *War on the Rocks*, July 9, 2014, available at <<http://warontherocks.com/2014/07/go-ahead-forget-center-of-gravity/>>.

¹³ Dale C. Eikmeier, “A Logical Method for Center-of-Gravity Analysis,” *Military Review* (September–October 2007), 62–66; Jan L.

Rueschhoff and Jonathan P. Dunne, “Centers of Gravity from the ‘Inside Out,’” *Joint Force Quarterly* 60 (1st Quarter 2011), 120–125.

¹⁴ Vego, VII-14.

New from NDU Press

for the Center for Strategic Research

Strategic Forum 293

National Security Reform and the 2016 Election

by Christopher J. Lamb and Joseph C. Bond



Over the past 20 years, there has been a sea change in senior leader views on national security reform from

skepticism to support. Nine major studies argue the national security system cannot generate or integrate the capabilities needed to manage security problems well. The system is “broken.” Yet there are major obstacles to reform. However, two key prerequisites for success are in place: galvanizing cases of unsustainable performance, and in-depth problem analysis that reveals the origins of the same. A third prerequisite is committed leadership. With that in mind, the authors identify several reasons why Presidential candidates should embrace national security reform during the 2016 campaign.



Visit the NDU Press Web site for more information on publications at ndupress.ndu.edu



Marines storm SS *Mayaguez* to recover ship (DOD/Michael Chan)

Abandon Ship

Interagency Decisionmaking During the *Mayaguez* Incident

By Richard B. Hughes

The struggle on Koh Tang was, in a sense, a metaphor of the entire Vietnam War: an action begun for what seemed a good and noble purpose, which quickly degenerated into an ugly, desperate fight, micromanaged from no less than the office of the President of the United States.

—RALPH WETTERHAHN

The Last Battle: The *Mayaguez* Incident and the End of the Vietnam War

Commander Richard B. Hughes, USNR, currently serves as a Reservist supporting the Naval History and Heritage Command in Navy Combat Documentation Detachment 206 in Washington, DC.

In the spring of 1975, Cambodia's communist Khmer Rouge government seized a U.S. merchant ship, the SS *Mayaguez*, leading the United States to mount a joint operation to rescue the

ship and its crew. The focus of this effort became an assault on Koh Tang, a small island in the Gulf of Thailand approximately 30 miles from the Cambodian mainland.¹ Despite the notable evolu-

tions in joint and interagency doctrine in the more than 40 years since this incident, it remains strikingly relevant because of the nature of the challenges it presented to interagency decisionmakers: a short timeline, limited intelligence, forces not tailored to the mission, an unpredictable opponent, and fevered public interest. At the time, the “*Mayaguez Incident*” was generally viewed as a success.² A more sober review, however, shows that the military operation nearly ended in disaster. A close examination of interagency decisionmaking reveals a series of pitfalls, including intelligence failures, poor interagency communication, and incomplete assessment of risk. These factors led the National Security Council (NSC) to make decisions that had little chance of furthering President Gerald Ford’s foreign policy objectives and that placed U.S. forces at grave risk. Military and civilian leaders would do well to review the lessons of this crisis, lest they make the same mistakes in the future.

The Incident

It was only 12 days after the fall of Saigon, the sobering end to U.S. involvement in the Vietnam War. Confidence in U.S. military power was at a low ebb and the Watergate scandal had propelled Gerald Ford into the White House.³ In Cambodia, the Khmer Rouge, a murderous new anti-American communist government, had come into power in Phnom Penh less than a month earlier. On May 12, 1975, at 4:03 P.M. local time, the U.S. Defense Attaché in Jakarta, Indonesia, after consulting with the U.S. Ambassador, dashed off an intelligence message to Washington. The message relayed a Mayday call from a privately owned cargo vessel of U.S. registry that had initially been received by an affiliated company in Indonesia: “Have been fired upon and boarded by Cambodian armed forces at 9 degrees 48 min. N/102 degrees 53 min. E. Ship being towed to unknown Cambodian port.”⁴

The Cambodians, after initially taking the vessel to the nearby island of Poulo Wai, then moved it to Koh Tang on

May 13. The crew was initially moved there as well, but the following day they were taken by fishing boat to the port of Kompong Som on the Cambodian mainland.⁵ By this time, some 12 hours after the Mayday call, U.S. P-3 Orion surveillance aircraft were already keeping the SS *Mayaguez* under observation.

President Ford initially learned of the seizure at his morning briefing on May 12 (it was already evening in Cambodia), and the NSC met at approximately noon that same day. Because the United States had no diplomatic relationship with the Khmer Rouge government, overtures were made to try and contact them via China.⁶ The NSC reconvened at 10:30 A.M. on May 13. During this meeting, the President was informed that the SS *Mayaguez* was anchored at Koh Tang and that a military aircraft had observed what was thought to be at least some members of the crew being moved to the island itself.⁷ Following this meeting, the President directed the U.S. military to intercept any vessels approaching or leaving Koh Tang. Various military assets were moved closer to the area, including the aircraft carrier USS *Coral Sea* and the destroyer USS *Harold E. Holt*. In addition, U.S. Marines stationed in the Philippines and U.S. Air Force helicopters from Nakorn Phanom, Thailand, converged on Utapao, the closest Thai base to Koh Tang.⁸

Late that evening (now the morning of May 14 in Cambodia), a third NSC meeting was convened. At the same time, U.S. aircraft attempted to stop the fishing vessel, which was moving the crew to Kompong Som. Although orders were to sink such vessels if they did not turn around, the U.S. pilots had spotted “Caucasian faces” on board and held their fire.⁹ After warning shots and even tear gas were unable to make the boat reverse course, real-time communications allowed President Ford to make the decision whether to sink the vessel or allow it to proceed. He elected to let it move inside the 12-mile boundary of Cambodian territorial waters and proceed to the mainland.¹⁰ Still convinced that at least some of the crew was on Koh Tang or still aboard the SS *Mayaguez*, the NSC discussed military options, coalescing on

a plan to seize the island and retake the U.S. vessel. They also authorized U.S. aircraft to sink any Cambodian gunboats in and around the island.¹¹ On the afternoon of May 14, a fourth NSC meeting was held and a military plan approved.¹²

Less than 5 hours later (now the morning of May 15 in Cambodia), a force consisting of 170 U.S. Marines, transported via eight U.S. Air Force helicopters, launched from Utapao to assault Koh Tang, with the intent of recovering the SS *Mayaguez* and its crew. Based on his intelligence briefing at Utapao, the commander of the assault force believed that 18 to 20 Khmer irregulars and their families were garrisoned on Koh Tang, with less than 100 total people on the island.¹³ The Defense Intelligence Agency (DIA), however, believed that “[p]ossibly 150 to 200 Khmer Communists were on the island, armed with 82mm mortars; 75mm recoilless rifles; 30-caliber, 7.62-mm, and 12.7-mm machineguns; and B4W41 rocket[-]propelled grenade launchers.”¹⁴ The first helicopters crossed the beach shortly after dawn local time and immediately received heavy fire from prepared positions. Of the first wave of eight helicopters, three were shot down and the other five received heavy battle damage. (Two never returned to base and none participated in subsequent operations.) While the original plan envisioned that all U.S. forces would land within 10 minutes, only 131 Marines landed during the course of 17 insertion attempts made over 3 hours. Even more troubling, they found themselves in isolated and compromised positions.¹⁵

Minutes after the assault began, the USS *Holt* pulled alongside the SS *Mayaguez* and placed a security force on board, but found no one there. At almost the same time—and perhaps spooked by the flurry of American air activity and the loss of a number of patrol boats—the Cambodian government in Phnom Penh ordered the crew of the SS *Mayaguez* released. At approximately 10:00 A.M. Cambodian time, the USS *Wilson*, another destroyer that had just arrived on the scene, intercepted a Thai fishing vessel with the entire crew of the SS *Mayaguez* onboard.¹⁶



Marine and Air Force pararescueman of 40th Aerospace Rescue and Recovery Squadron (in wet suit) run for Air Force helicopter during assault on Koh Tang Island to rescue U.S. merchant ship SS *Mayaguez* and crew, May 15, 1975 (DOD)

The crew's recovery, in some sense, brought the crisis to an end, but the assault on Koh Tang was now unfortunately a pitched battle. A second wave of 100 Marines from Utapao was landed around noon local time as the force attempted to consolidate its precarious positions. Shortly thereafter, they were advised to disengage and prepare for extraction. What followed was a desperate effort to retrieve all the Marines before nightfall. Only through the extraordinary heroism of the Marines, U.S. Air Force, and U.S. Navy close air support, naval gunfire support (including machine gun fire from the gig of the USS *Wilson*), and astonishing flying by the U.S. Air Force H-53 helicopter crews was this accomplished. The final account of the attack on Koh Tang was sobering: 15 killed in action, with 3 missing and 49 wounded. These numbers do not include an additional 23 Air Force personnel killed in a May 13 helicopter crash during preparations for the attack.¹⁷ The three Marines missing in action were initially believed to have been on the helicopters; their absence was discovered only

after a full headcount was taken following evacuation. How they died will likely never be fully known, although author Ralph Wetterhahn makes a convincing case that they survived on the island, only to be later captured and executed by Khmer forces there.¹⁸

Analysis of Interagency Decisionmaking

At the time, the Ford administration's actions during the *Mayaguez* Incident were seen as broadly successful: the crew was returned safely, no protracted hostage situation ensued, and it appeared that the U.S. military had cowed the Cambodian communists.¹⁹ Hindsight paints a different picture, however. Although the low-risk air attacks on Kompong Som and Cambodian naval vessels were effective in influencing the Cambodians, the U.S. ground assault was ill advised, a risky insertion of poorly prepared troops on an island where none of the crew was ever located. The crew's release was made in spite of, not because of, the

island assault.²⁰ The costs of attacking Koh Tang were significant, with a total of 68 casualties.²¹ In fact, this could have been much worse, since, as described above, the evacuation of the Marines nearly ended in complete disaster. How did this happen? Certainly there were errors in tactics and execution, but the errors by strategic leadership were much more telling.²²

To better consider how this decision-making evolved, it is useful to consider the perspectives and contributions of some of the key players at the NSC level. These include the Department of Defense (DOD), Central Intelligence Agency (CIA) and Intelligence Community broadly, and Department of State. We must also determine whether their contributions coalesced into a well-integrated strategic perspective that balanced risk to and reward for the national interest.

Department of Defense

DOD, including the Joint Chiefs of Staff and the commander in chief of Pacific Command (CINCPAC), had a

critical role to play during *Mayaguez* decisionmaking. They had to plan for and prepare to execute operations as well as advise President Ford of his options and their military viability and risk as the NSC process evolved. In the first area, DOD acquitted itself well. Assets were moved into the area quickly and a true joint effort was made to coordinate U.S. Navy, Air Force, and Marine Corps forces to respond to the crisis. On May 13, 1975, the day following the seizure of the ship, DOD provided an options paper to the President, showing three scenarios for recovery of the SS *Mayaguez* and its crew.²³ This paper provided reasonable advice about the timing of any attack on Koh Tang and/or the *Mayaguez*, appearing to favor waiting until at least the morning of May 16 for any assault. It noted that with such a delay, “[h]elicopter-borne assault operations could be conducted from the deck of the [USS] *Coral Sea*,” by then expected to be within miles of Koh Tang, thus significantly lowering the risk of conducting operations from Thailand, 190 nautical miles distant. It also advised that the operation “be given additional time for the working of the diplomatic process.”²⁴

Unfortunately, because the DOD paper was provided to the NSC *before* the sighting of crewmembers headed for the Cambodian mainland, it assumed the crew was either aboard the *Mayaguez* or on Koh Tang. There is no evidence that the paper was ever updated in light of this new information. Likewise, the discussions at the NSC on the evening of May 13 (after “Caucasians” had been spotted being transferred to Kompong Som) took no notice of the crew’s location, focusing instead on how soon an assault on Koh Tang could be launched.²⁵ By the time of the NSC meeting on May 14, CIA Director William Colby provided the best update available on the crew’s whereabouts, advising the President that “the Cambodians have apparently transported at least some of the American Crew from Koh Tang Island to the mainland, putting them ashore at Kompong Som port at about 11:00 last night, Washington time.”²⁶ David Mets,

a C-130 pilot during the operation, later stated, “On Wednesday (*early morning, May 14th DC time*), I knew, or thought I knew, from the intelligence brought back by our A-7 pilot that the *Mayaguez* crew was not on Koh Tang. But this was not so clear back in Washington.”²⁷ Despite this new and important information, the focus remained on Koh Tang.

Regarding the timing of operations, Secretary of Defense James Schlesinger initially reflected the cautions articulated in the paper, informing the President that “we need the morning of the 16th for a coordinated assault.” When Secretary of State Henry Kissinger proposed an assault on the morning of May 15, Schlesinger noted, “the problem with that is that the *Coral Sea* will not be there.” But as Colby and others urged quicker action, Schlesinger changed course, stating, “We will be prepared to go on the morning of the 15th.”²⁸ By the time of the NSC meeting on May 14, the acting head of the Joint Chiefs of Staff, General David C. Jones, was committed to an assault that evening (the following morning, Cambodian time).²⁹ This advancement in the timeline created significant new risks for the operation, robbing the Marines of an extra day to plan, forcing the helicopters to operate from Utapao (a 1.5-hour flight from Koh Tang) rather than the USS *Coral Sea*, and restricting the tactical air support available in the initial phases of the operation.

The Intelligence Community

These risks were amplified because CIA Director Colby and others did not articulate the full extent of the threat during the NSC meetings. U.S. intelligence produced three estimates of military strength in the course of the crisis. An initial Intelligence Pacific (IPAC) estimate severely underestimated Khmer Rouge strength on Koh Tang at only 10 to 20 soldiers. A May 13 IPAC assessment was closer, estimating 100 soldiers, with 75mm recoilless rifles, machine guns, and rocket launchers. A May 12 DIA estimate was almost perfect, estimating that there was a total of 150 to 200 soldiers armed with 82mm mortars, 75mm recoilless rifles,

machine guns, and rocket-propelled grenades. Although neither of the more accurate estimates ever reached the operational commander, at least the IPAC estimate was available to the NSC.³⁰ Colby often characterized 100 troops as the upper end of enemy strength. During the NSC meeting on May 13, he noted, “Our estimate was that there were 2,000 in Kompong Som. There is not a large force on the island [Koh Tang].” When President Ford responded, “Do you think we can figure with 100?” Colby replied, “Yes. The KC [Khmer Communists] have just arrived in power. They probably have not had time to man the island more fully.” The director’s written update, provided to the President (and briefed verbally) to the NSC on May 14, did not provide any substantial update on the Cambodian forces on Koh Tang itself, focusing instead on the Cambodian order of battle at Kompong Som.³¹ This was in spite of a request at the Director of Central Intelligence morning meeting on May 14 for a full update of the Cambodian order of battle, which certainly should have alerted Colby to the more accurate DIA estimate.³² In aggregate, the CIA director’s briefs to the NSC left the impression that the Marines would encounter only token resistance. General Jones also seemed unconcerned when briefing the proposed action on the afternoon of May 14, either unaware or unconcerned that his assault force would be taking on heavy weapons-capable forces that would leave it outgunned.³³ The Joint Chiefs of Staff certainly mirrored the confidence of on-scene commanders, who still had access only to the earlier estimates of 20 soldiers with no heavy weapons.³⁴ Even the earliest analyses of the operation concluded that intelligence failures occurred at all levels.³⁵

The State Department

The State Department also had a role to play during NSC meetings and was ably (or at least powerfully) represented by Secretary Kissinger.³⁶ Yet Kissinger seemed to focus more on military rather than diplomatic options,³⁷ leaving this



Marine captain prepares to fire on and destroy important equipment on disabled HH-53 to prevent its capture by Cambodians (U.S. Air Force/Ronald T. Rand)

key aspect of national power unexplored. The only efforts by the State Department to use diplomacy consisted of providing a message to the Khmer Rouge via the People's Republic of China, both in Washington and in Beijing.³⁸ Although diplomatic communications with the new (and decidedly anti-American) government in Phnom Penh were extraordinarily difficult, there were potential avenues, including Voice of America broadcasts in Khmer and Cambodian representatives in Paris and Moscow. State, however, did not pursue either of these avenues.³⁹ During the initial NSC meeting, virtually all of Secretary Kissinger's comments related to which, not whether, military actions needed to be taken.⁴⁰ At the next day's meeting, Kissinger was absent, and Under Secretary of State for Political Affairs Joseph Sisco represented the State Department. Sisco did not utter a word during the 45-minute meeting, and no diplomatic options were discussed.⁴¹

State also had indications that the Cambodians were wavering and that more time might be useful. A cable sent by the U.S. Embassy in Tehran on May 14 (addressed to the State Department and CINCPAC Hawaii, among others) titled "Chinese Embassy Tehran believes *Mayaguez* to be freed soon" provided evidence that the Chinese were pressuring the Khmer Rouge to release the vessel and crew.⁴² Just before the American helicopters lifted off to assault Koh Tang, the U.S. Foreign Broadcast Information Service monitored a domestic radio broadcast by the Cambodian minister of information indicating they would release the SS *Mayaguez* and order the ship to depart Cambodian waters.⁴³ Neither of these nascent indications that there might be room for a repatriation of hostages without military action was ever discussed at the NSC. The role of State in the NSC was to serve as the subject matter expert on and advocate for diplomacy, yet the record shows they did neither of these

particularly well during this crisis. Indeed, Secretary Kissinger was the biggest advocate for the use of force, so much so that Christopher J. Lamb believes that he was aware of the U.S. Embassy Tehran's cable and made a conscious decision not to share it with his NSC colleagues.⁴⁴

Strategic Perspective

If strategy is balancing ends, ways, means, and risk, then the *Mayaguez* Incident is a stark example of how these can become unbalanced. By failing to properly account for risk, senior leaders jeopardized a serious strategic setback. The desired (and achieved) result of having the vessel and crew returned was certainly critical to the United States, reeling from geopolitical setbacks in Vietnam and a general public perception that U.S. military power was at low ebb. But the President should have known that the military plan presented to him had huge risks for the American forces and presented little to no chance

of recovering the entire crew. The plan, as drawn up, called for assaulting Koh Tang in spite of the fact that no one knew the location of the hostages with any certainty. Indeed, the evidence that did exist suggested that the crew was not on Koh Tang, a fact perhaps explained by the strong focus of the decisionmakers on recovering the ship itself.⁴⁵ They may also have been focused on avoiding a repeat of the 1968 *Pueblo* Incident, a significant black eye for American prestige.⁴⁶ In any event, not carefully accounting for the crew's whereabouts introduced serious risks to U.S. foreign policy. If the crew had not been released, the costly assault on Koh Tang would certainly have been perceived by many as foolish and ineffective, recovering only an empty ship and leaving the Khmer Rouge still in possession of the crew. The crew likely would have made for useful hostages for the Cambodians, even had the empty ship been recaptured.⁴⁷

Perhaps more importantly, senior decisionmakers poorly understood the military risks of the assault.⁴⁸ The helicopter assault by lightly armed Marines with no combat experience into well-defended landing zones against a battle-hardened and determined foe with heavy weaponry went in many ways better than it should have. It could just as easily have ended with the Marines being completely overrun.⁴⁹ Although the evacuation efforts avoided this grim turn of events, the Marines left behind on Koh Tang (assuming they did survive and were captured by the Cambodians, as noted above) still could have been exploited as hostages and propaganda tools.⁵⁰ In short, the military assault on Koh Tang incurred risk that was not justified to achieve the ends desired. This is especially true since a more nuanced approach might have yielded the same result; especially telling is that a more multifaceted approach was not even considered.⁵¹

Conclusions

One can be forgiven for viewing the *Mayaguez* Incident as a relic of a bygone era; after all, it occurred nearly 40 years ago, before the Goldwater-Nichols Department of Defense Reor-

ganization Act of 1986 and the consequent successful joint operations of the past several decades. Yet the issues that plagued national leadership during the *Mayaguez* Incident do not seem so antiquated when viewed alongside those that have confronted more recent U.S. administrations: intelligence not reaching the correct decisionmakers, the failure of policymakers to discuss critical information at the NSC, policy and operational risks that seem foolish in hindsight, and an imbalanced focus on one instrument of national power.

Could the same mistakes be made again? Certainly the current emphasis on joint doctrine and joint education is of some help. The plans presented by DOD during the *Mayaguez* Incident were the result of an embryonic joint planning process that unraveled under the stress of short-fused planning efforts. My own experiences as a planner at the International Security Force Headquarters and Interim Joint Command in Afghanistan would lead me to believe that we could do better, especially at the tactical level. Likewise, important changes within the Intelligence Community have occurred in the past 35 years. Intelligence support to operations has certainly improved, and lessons learned from the terrorist attacks on September 11, 2001, among others, has led to community-wide efforts to break down interagency stovepipes.⁵² Likewise, the 1987 standup and subsequent evolution of U.S. Special Operations Command (USSOCOM), which had its origins in the disastrous Operation *Eagle Claw* mission to rescue American hostages held in Iran in April 1980, has significantly enhanced the military's ability to rapidly and effectively plan such operations. In recent years, USSOCOM and the Joint Special Operations Command have shown an ability to quickly assimilate intelligence and manage risk to execute short-fused operations, such as the much publicized Operation *Neptune Spear*, which resulted in the death of Osama bin Laden in May 2011. The actions against the Somali pirates who hijacked the MV *Maersk Alabama* in 2009 also demonstrate that the employment of special operations

forces alongside regular naval forces has come a long way. In light of these successes, it is hard to imagine an operation as chaotic as the *Mayaguez* Incident in the current joint environment.⁵³

Yet perhaps the most enduring lessons of *Mayaguez* are those related to the ability of the NSC to rapidly and effectively synthesize the collective knowledge of the various stakeholder agencies into a truly national perspective. Especially during crises that occur in the "gray area" between war and peace, the NSC must formulate and realistically evaluate approaches that utilize all the instruments of national power to resolve a crisis. I argue that it is in this area that the biggest failures of *Mayaguez* occurred. Issues that were known inside each agency (for example, the actual location of the hostages or that a hastily assembled force of Marines would be attacking a well-defended island) were never substantially discussed at the highest levels. The plan to end the crisis was focused exclusively on the military instrument of national power, despite indications that diplomacy might have a role to play. Risks to mission and negative policy implications of mission failure were never articulated and evaluated by the NSC.

Is the current interagency decisionmaking environment substantially changed from that of 40 years ago? Without the congressional pressure that led to Goldwater-Nichols, USSOCOM and other military reforms, the NSC role in the interagency decisionmaking process has remained advisory rather than directive, creating an environment in which individual agencies may be more worried about protecting their equities than working toward a common objective. In this environment, synthesis of information and the instruments of national power must occur on an ad hoc basis. Equally troubling, such disconnects at the strategic level also create obstacles to collaboration in the field. Recent operations in Iraq and Afghanistan bear witness to the ongoing challenges in getting the State Department and military staffs to work together effectively to integrate the instruments of national power, leading some to say that "the time



Marines reboard USS *Harold E. Holt* (DE-1974) from SS *Mayaguez* after merchant ship's recovery, Koh Tang Island, Cambodia, May 14, 1975 (DOD/Michael Chan)

has come to look to a new, more effective operational model.”⁵⁴ While the NSC has certainly contributed to unity of perspective at the strategic level, it continues to fall well short of unity of effort among agencies, which is essential to effective strategy and decisionmaking. Instead, we rely on “lead-follow” relationships between agencies, often leading to strategic solutions dominated by one instrument of power. Until we have a reliable framework that integrates the resources each element of government brings to bear, we will continue to have strategic blind spots. These can lead national decisionmakers, like those in the Ford administration during the *Mayaguez* crisis,

to focus on singular solutions (military or otherwise) that do not take into account all aspects of complex policy challenges.

In the interim, joint leaders would be well advised to ensure that interagency stakeholders are present, critical, and vocal in planning efforts, and that advice provided to national leadership reflects a whole-of-government perspective. During *Mayaguez*, agencies were certainly present at NSC discussions, but they fell short in the critical and vocal categories; diplomatic cables were not evaluated, the whereabouts of hostages and enemies’ dispositions were not fully discussed, and perilous military plans were left unquestioned. Likewise, even

the most seasoned joint planner or commander needs to check his assumptions and ensure that new data do not conflict with the underpinnings of their operational design. Since the SS *Mayaguez* crisis, the need for carefully integrated interagency operations that balance all elements of national power and judiciously assess risk on an ongoing basis has only increased. However, many national leaders believe we are no better at meeting such demands today than we were 40 years ago. As former Chairman of the Joint Chiefs of Staff General Richard Myers argues, we “have to realize that the United States’ interagency and national security apparatus, as currently organized, can’t deal effectively with the threats of the twenty-first century.”⁵⁵ Perhaps, then, what the *Mayaguez* Incident teaches us—and we have been slow to learn—is that better national security decisionmaking will not occur simply by electing more talented leaders. It requires serious organizational reforms similar to those that have served to improve joint planning and special operations. JFQ

Notes

¹ *Koh* is Khmer for *island*, so the article avoids the redundant construction *Koh Tang Island*.

² The American public and press generally approved of the operation, and President Ford’s rating in the Gallup Poll increased from 39 to 51 percent. See The Kennedy School of Government, *The Mayaguez Incident* (Boston: President and Fellows of Harvard College, 1983), 22.

³ President Gerald Ford’s pardon of former President Richard Nixon in September 1974, along with a poor economy and foreign policy setbacks, had made him an unpopular President. Ford’s approval rating was only 39 percent in May 1975, and Americans did not generally view him as the solution to the Nation’s woes. See Robert J. Mahoney, *The Mayaguez Incident: Testing America’s Resolve in the Post-Vietnam Era* (Lubbock: Texas Tech University Press, 2011), 3–5.

⁴ The Kennedy School of Government, 1.

⁵ Government Accountability Office (GAO), *The Seizure of the Mayaguez: A Case Study in Crisis Management* (Washington, DC: Government Printing Office, 1976), 63–64.

⁶ These efforts at least appeared unsuccessful as the Chinese returned diplomatic notes, but some scholars speculate that some of these

communications may have reached the Khmer government, possibly via its embassy in Beijing. See Richard G. Head, Frisco W. Short, and Robert C. McFarlane, *Crisis Resolution: Presidential Decision Making in the Mayaguez and Korean Confrontations* (Boulder, CO: Westview Press, 1978), 145; see also Mahoney, 216.

⁷ Gerald R. Ford, *National Security Council [NSC] Minutes, May 13th, 10:22am, 1975* (Washington, DC: The White House, 1975), 2.

⁸ GAO, 115–126.

⁹ Ford, *NSC Minutes, May 13th 10:40pm, 2*. For specifics of the aircraft and pilots' observations, see also Commander in Chief, U.S. Pacific Command Headquarters (CINCPAC HQ), Command History Branch, *CINCPAC Command History, 1975, Appendix VI, Top Secret, Declassified May 8, 1980* (San Francisco: CINCPAC HQ, 1976), 17. Hereafter, *CINCPAC Command History*.

¹⁰ Ford, *NSC Minutes, May 13th 10:40pm, 2–5*. The boat in question was a Thai fishing vessel with Cambodian guards; the terrified Thais wanted to turn around, but were forced on at gunpoint by their Cambodian captors. See Ralph Wetterhahn, *The Last Battle: The Mayaguez Incident and the End of the Vietnam War* (New York: Carroll & Graf Publishers, Inc., 2001), 104–106.

¹¹ Ford, *NSC Minutes, May 13th, 10:40pm, 5–23*.

¹² Ford, *NSC Minutes, May 14th, 3:52pm, 1–27*.

¹³ *CINCPAC Command History*, 19.

¹⁴ GAO, 89–92.

¹⁵ Urey W. Patrick, *The Mayaguez Operation* (Washington, DC: Center for Naval Analysis–Marine Corps Operational Analysis Group, April 1977), 10–13.

¹⁶ GAO, 125

¹⁷ *CINCPAC Command History*, 19.

¹⁸ Wetterhahn believes, based on interviews with a Cambodian who commanded the Khmer troops at Koh Tang, that Lance Corporal Joseph N. Hargrove was wounded, captured shortly after the initial battle, and then executed by gunshot. According to the same source, Private First Class Gary Hall and Private Danny G. Marshall were captured by a Khmer patrol on the island some days after the battle and transported to Kompong Som where, a week later, on orders from Phnom Penh, they were beaten to death with a B40 grenade launcher. See Wetterhahn, 277–289.

¹⁹ Head, Short, and McFarlane, 147–148.

²⁰ On the other hand, air attacks, both on Cambodian naval vessels and on Kompong Som by the *Coral Sea*, did appear to influence Cambodian decisionmakers. See Mahoney, 157.

²¹ Eighteen Marines, Sailors, and Airmen were killed in the attack on Koh Tang, although three Marines were initially listed as MIA, with 50 wounded. See *After Action Report: Rescue of the SS Mayaguez and Its Crew* (Washington, DC: The Joint Staff, May 19, 1975), 21.

²² A poor command and control structure;

unreliable tactical communications (especially across Service lines); inadequate pre-mission planning; employment of forces outside of their training and doctrine; chaotic and incomplete intelligence, surveillance, and reconnaissance; and poor plans for supporting fires were noted in several immediate reviews of the action. See GAO, 59–61; *CINCPAC Command History*, 10–20; and Patrick, 21–22.

²³ Department of Defense, *Possible Scenarios for Recovery of Ship and Crew*, Options Paper (Quantico, VA: Ford Library, 1975), 2.

²⁴ *Ibid.*, 2.

²⁵ Ford, *NSC Minutes, May 13th, 10:40pm, 1–23*.

²⁶ Ford, *NSC Minutes, May 14th, 3:52pm, 3*.

²⁷ David A. Mets, “Last Flight from Koh Tang: The Mayaguez Incident a Generation Later,” *Joint Force Quarterly* 45 (2nd Quarter 2007), 112.

²⁸ Ford, *NSC Minutes, May 13th, 10:40pm, 12–14*.

²⁹ Ford, *NSC Minutes, May 14th, 3:52pm, 7–9*.

³⁰ Christopher J. Lamb, *Belief Systems and Decision Making in the Mayaguez Crisis* (Gainesville: University of Florida Press, 1989), 129–130. For additional details on intelligence messages at the CINCPAC level, see also Mahoney, 251–255.

³¹ Director of Central Intelligence, National Security Council Intelligence Briefing, “Cambodian Forces during Mayaguez Incident,” U.S. National Archives and Records Administration (NARA), 1975.

³² Director of Central Intelligence, Memorandum, “The Rescue of SS *Mayaguez* and Its Crew,” NARA, 1975, 12.

³³ Ford, *NSC Minutes, May 14th, 3:52pm, 7–9*.

³⁴ In addition to multiple intelligence estimates, a hastily organized command and control structure contributed to poor situational awareness. In at least one instance, an Air Force intelligence officer who had access to higher enemy troop strength numbers was rebuffed when he attempted to provide them to those planning the assault. See Mahoney, 251–255.

³⁵ Patrick, 21.

³⁶ “It is not surprising to find that Ford, pushed into office by the Watergate scandal, relied heavily on Kissinger to formulate foreign policy. . . he was undoubtedly strongly influenced by Kissinger’s opinion.” See Lamb, 63.

³⁷ Lamb notes, “A diplomatic settlement rated a very poor second on the list of American priorities, especially for the Secretary of State, who headed off such a development as best he could.” Lamb, 246. See also Mahoney, 25.

³⁸ GAO, 66.

³⁹ *Ibid.*, 67–68.

⁴⁰ Ford, *NSC Minutes, May 12th, 12:05pm*.

⁴¹ Ford, *NSC Minutes, May 13th, 10:22am*.

⁴² Although the cable’s insight came via a Pakistani diplomat, it still should have given decisionmakers some degree of pause. Depart-

ment of State, U.S. Embassy Tehran Cable 14MAY750856GMT: “Chinese Embassy Tehran Believes Mayaguez to Be Freed Soon,” Digital National Security Archive, 1975.

⁴³ GAO, 124.

⁴⁴ Lamb, 123. See also Christopher J. Lamb and Alexandra A. Singer, *The Mayaguez Crisis Mini Case Study* (Washington, DC: Project on National Security Reform Case Study, 2009), 4–7.

⁴⁵ Lamb, 81. For a more detailed analysis of the tension between the objectives of ship and crew, see also Lamb and Singer, 5–7.

⁴⁶ Lamb, 202. See also Lucien S. Vandenbrouke, *Perilous Options* (New York: Oxford University Press, 1993), 83–84.

⁴⁷ Vandenbrouke makes a strong case that President Ford and others were clearly aware that this was a real, perhaps even likely, outcome. Vandenbrouke, 83.

⁴⁸ Vandenbrouke notes that “[u]nder the best of circumstances, the difficulty of conducting a successful operation with units that have never worked together, drawn from services that never train together, is great.” He goes on to detail the NSC’s poor understanding of these risks. *Ibid.*, 88–90.

⁴⁹ The Joint Chiefs, *After Action Report*, 19.

⁵⁰ These Marines were initially listed as MIA, and their status was later changed to KIA. *Ibid.*, 21. See also GAO, 65. When they were initially discovered missing, a search by the crew of the USS *Wilson* was unsuccessful. A proposed SEAL Team insertion to search further was considered but voted down. Mahoney, 179–180.

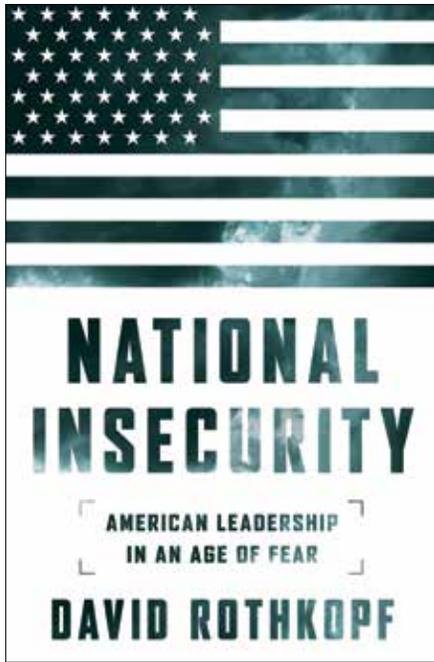
⁵¹ While decisionmakers during the *Mayaguez* Incident were justifiably concerned about a long-lasting hostage standoff such as had occurred with the USS *Pueblo* in 1968, a more recent example, the 2001 Hainan Incident, in which a U.S. EP-3 ARIES II crew was held by the People’s Republic of China, demonstrates that a “pause” for diplomacy can be more effective than a purely military solution, especially when backed by a credible military response.

⁵² Nancy Bernkopf Tucker, “The Cultural Revolution in Intelligence: Interim Report,” *Washington Quarterly* 31, no. 2 (2008), 47–61.

⁵³ Sean D. Naylor, “A Triumph for JSOC,” *Defense News*, May 9, 2011, 11.

⁵⁴ Dennis Blair, Ronald Neumann, Eric Olsen, “Fixing Fragile States,” *The National Interest*, September–October 2014. See also B. Baylor, J. Burington, B. Davis, R. Goehring, “Iraq: A Case Study in Building Civil-Military Capacity, 2007–2010,” *Prism* 1, no. 3 (2011), 137–138; Rudra Chaudhuri and Theo Farrell, “Campaign Disconnect: Operational Progress and Strategic Obstacles in Afghanistan 2009–2011,” *International Affairs* 87, no. 2 (2011), 284–287.

⁵⁵ Richard B. Myers, *Eyes on the Horizon: Serving on the Front Lines of National Security* (New York: Simon & Schuster, 2009), 301.



National Insecurity: American Leadership in an Age of Fear

By David J. Rothkopf

PublicAffairs, 2014

496 pp. \$29.99

ISBN: 978-1610393409

and

What Good Is Grand Strategy? Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush

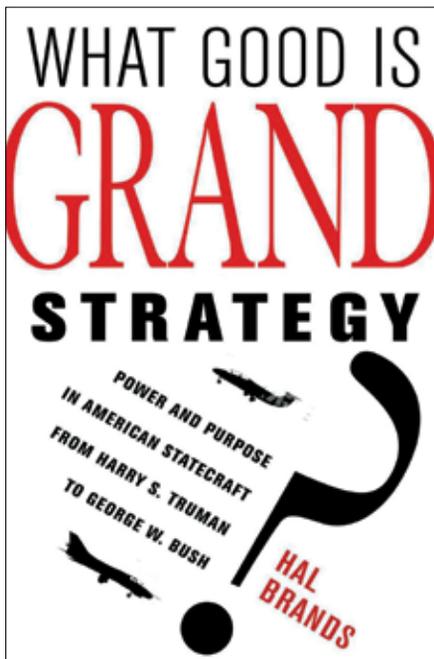
By Hal Brands

Cornell University Press, 2014

288 pp. \$29.95

ISBN: 978-0801452468

Reviewed by Brian C. Collins



Imagine the following scenario:

The President of the United States commits our military to confronting a difficult challenge in the Middle East. With mounting losses and growing economic costs, the American people and their representatives in Congress become increasingly critical of and vocal in their opposition to administration policies. This criticism centers on charges that the President and his advisors are operating without a clear plan of action and have no strategy to speak of.

It is a scenario that has played out numerous times: in 1983 in the wake of President Ronald Reagan's decision to intervene in Lebanon; in 2006 as the U.S. occupation of Iraq, under President George W. Bush, ground on; and now as President Barack Obama grapples with how to confront and defeat the Islamic State of Iraq and the Levant (ISIL). What should we make of these examples? Is having a strategy as important as many presume, or is claiming a lack of strategy simply an overblown excuse to score political points? Two recent books make the compelling case that not only is having a strategy important, but it must be adaptable and modest if it is to consistently produce positive policy outcomes.

While it would be correct to label David Rothkopf as a historian and a keen observer of the U.S. national security apparatus, such a simple description does

him much injustice. He has also proved that he can clearly and dispassionately determine what makes for an effective foreign policy process and, conversely, what practices lead to inevitable disappointment. This reputation is reinforced with the publication of his latest book, *National Insecurity: American Leadership in an Age of Fear*. While Bob Woodward has access to senior sources for his books, Rothkopf has the trust of—and therefore access to—the Bush and Obama administrations in order to tell their stories.

Rothkopf recounts the challenges faced by subsequent U.S. administrations, beginning with the invasion of Iraq in 2003 and continuing to the current confrontation with ISIL, and examines America's inconsistent response in this new era in which, he states, "Our nation [sees] threats everywhere." Furthermore, he shares the views of national security advisors who almost universally attribute the policy missteps of the last decade to the inability of the wider national security community to embrace creative strategic thinking.

Strategic thinking manifests itself as, of course, strategy. The strategic hurdles faced by the Bush and Obama administrations in the Middle East—"the place where," according to Rothkopf, "good intentions go to die"—were many and are particularly noteworthy. Bush, for example, embraced a two-state solution as a means for resolving the Israeli-Palestinian conflict only after he realized that there was little choice otherwise if peace were to be achieved. The lack of a consistent plan and a sporadic approach to engagement with both parties, however, resulted in upset allies (Israelis) and the electoral legitimization of a stated enemy (Hamas).

Rothkopf argues that inconsistency has likewise plagued the reaction of the Obama administration to the events of the Arab Spring. Despite delivering an inspiring speech in Cairo near the start of his first term, the promise the people of the Middle East perceived failed to materialize. In particular, the Egyptian people found the official American response to the revolution that began in their country in 2011 to be confusing and somewhat schizophrenic. Rothkopf describes an

administration struggling without a clear plan for what it should do. Expressions of support by the Obama administration for the regime of Egyptian President Hosni Mubarak were followed by rhetorical support for the opposition democracy movement, creating an atmosphere of incredible frustration and confusion. Despite Obama's good intentions, the Egyptian military, proponents of secular democracy, and Islamist factions today share a common mistrust of the United States.

Strategy is meant not only to define intention, but also to articulate the ways and means to achieve stated aims. In *What Good Is Grand Strategy? Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush*, Hal Brands helps readers understand the fundamental elements of an effective strategy. A renowned academic at Duke University and an accomplished author, Brands answers the question "What does a good strategy look like?" He begins with a working definition of *grand strategy* and examines the difficulties common to its formulation and execution. He then examines in detail four cases, centered on the administrations of Presidents Harry Truman, Richard Nixon, Ronald Reagan, and George W. Bush, that outline strategy from birth to execution and through to assessment. Even more critically, they bring into sharp focus the advantages of a clear and concise grand strategy, and the deleterious consequences of a poor—or even absent—strategy.

The foreign policy of the Bush administration, for example, illustrates the disastrous results of a poorly planned and executed strategy. Following the September 11, 2001, attacks, Bush implemented a new grand strategy of aggressive democratization in the Middle East generally and in Iraq specifically. Although U.S. goals in Iraq were clearly communicated, Bush and his advisors failed to apply appropriate resources and take the required actions to achieve the goals that had been set. This included an American military victory in Iraq that "was incompatible with the type of war it wanted to wage."

The incompatibility of desire and reality was not unique to the Bush administration, however. Indeed, for all of their foreign policy acumen, Richard Nixon and his National Security Advisor, Henry Kissinger, also are cited by Brands as having aspired to unattainable goals. This proves to be the strongest theme of Brands's book and is best captured in the last of his 10 suggestions for approaching the challenge of strategy development and execution: Keep expectations realistic. As he writes, "Strategy . . . can never be a game of perfect; it can only be a game of good enough."

Together, these two books clearly demonstrate that having a clear and concise strategy increases the chances for policy success. Any strategy, however, must also be nuanced enough to permit flexibility and modest enough to be achievable. Both Rothkopf and Brands do an admirable job—intentionally or not—of confronting cynics who claim that strategy development is a wasted effort because of the dynamic nature of world events. JFQ

Lieutenant Colonel Brian C. Collins, USMC (Ret.), recently concluded a 20-year career as a Combat-Decorated Infantry Officer. He serves as the Director for Policy at Business Executives for National Security in Washington, DC.

NEW from NDU Press

for the Center for Strategic Research
Strategic Forum 288
*The Rising Terrorist Threat in
Tanzania: Domestic Islamist Militancy
and Regional Threats*
by Andre LeSage

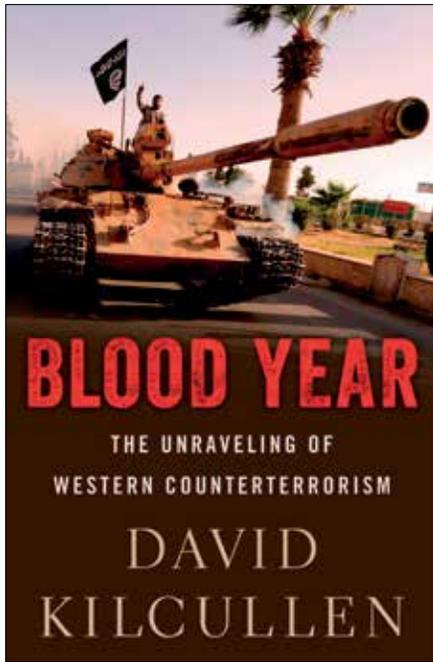


The growing number of militant Islamist attacks in Tanzania demonstrates a nascent terrorist

threat that can undermine peace and stability in yet another East African country. Local and regional dynamics could create a "perfect storm" that would exacerbate the threat. If its issues remain unaddressed, Tanzania is likely to experience the same security trends as Kenya, where, with the help of external support, local capabilities have been developed to conduct increasingly deadly attacks that affect U.S. and other foreign interests. In response, the United States needs to focus policy-level attention on the situation in Tanzania and invest additional intelligence, law enforcement, and strategic communications efforts to combat the spread of violent extremism.



Visit the NDU Press Web site for
more information on publications
at ndupress.ndu.edu



Blood Year: The Unraveling of Western Counterterrorism

By David Kilcullen

Oxford University Press, 2016

288 pp. \$24.95

ISBN: 978-0190600549

Reviewed by Thomas C. Greenwood

Students of strategy and defense policy who have closely tracked the war on terror since 9/11 will find David Kilcullen's new book both enlightening and discouraging. It is enlightening because he carefully weaves years of field study, scholarly research, and thoughtful analysis into a compelling work that is rich in insights and brutally honest in its judgments. Yet it is discouraging nonetheless. After taking the reader on a rich journey through the rise and fall of al Qaeda, the emergence of the Islamic State of Iraq and the Levant (ISIL), an analysis of the inconclusive campaigns in Iraq and Afghanistan, the collapse of order in the Middle East, the brutal civil war in Syria, and the largest dislocation of refugees since World War II, he offers the reader few policy recommendations on how we might rediscover strategic clarity and advance U.S. national inter-

ests in a multigenerational war against violent extremism.

Reader alert: this is not a feel-good book for military officers, civil servants, or government officials (of either party) who want to rationalize the Iraq War and its putative contributions to the broader global counterterrorism campaign. Kilcullen calls Iraq "the greatest strategic screw-up since Hitler's invasion of Russia," and the start of a great strategic unravelling that continues unabated today. As he puts it, "The West's strategy after 9/11—derailed by the invasion of Iraq, exacerbated by our addiction to killing terrorist leaders, hastened by precipitate withdrawal from Iraq and Afghanistan, opportunism in Libya, and passivity in the face of catastrophe in Syria—carried the seeds of disaster within it. And until that strategy changes, those disasters will continue." This from a man who advised General David Petraeus in Iraq and served as counselor to Secretary of State Condoleezza Rice. On this note, readers looking for a primer on how to speak truth to power will not be disappointed. Kilcullen is unsparing in his criticism of senior leaders, U.S. partners, and those who believe selective strategic engagement (my terms, not his) versus active containment (his words) is possible in a world without drawbridges.

Kilcullen quickly hooks the reader by recalling the capture of Mosul, Iraq's second-largest city, by ISIL in June 2014, a mere 12 days after President Barack Obama announced to West Point cadets that they might be the first class since 9/11 not to see combat in Iraq or Afghanistan. Kilcullen is perplexed, if not aghast, that the President thought the war against al Qaeda was largely over. President Obama, in fact, failed to mention ISIL—the new threat that was already wreaking havoc in Syria, Iraq, and the broader Middle East—a single time in his speech. How could any commander in chief with the largest intelligence apparatus in the world be so naïve about an ongoing conflict?

The West Point speech serves as Kilcullen's backdrop for one of the book's key observations: leaving a war is not the same as winning it. He posits

that the United States has lost its will, commitment, and sense of collective sacrifice for the latter. But what "victory" looks like in this age of global insurgency remains as elusive in the real world as it does in the book.

Nevertheless, Kilcullen is at his best when sharing his strategic thoughts, which are presented around five major themes.

Kilcullen contends that by 2005 the United States should have been in full stride implementing a counterterrorism "disaggregation" strategy that he helped write. The strategy's core tenet was that the defeat of al Qaeda required linkages between various groups in the al Qaeda global network to be systematically broken by targeting the "central players' ability to control their franchises, and partner with local governments to defeat threats in their own jurisdictions." These partnerships would involve "calibrated capacity building" with local governments to help reduce or eliminate preexisting grievances used by al Qaeda to attract recruits and elicit support from sympathetic populations—in other words, nation-building. Kilcullen, however, refrains from calling it that.

The disaggregation strategy was never fully implemented, however, because the twin insurgencies in Iraq and Afghanistan dominated the policy debate, becoming, in Kilcullen's words, "a hole in the heart of Western strategy" because it distracted leaders from focusing on other virulent al Qaeda franchises around the world. Perhaps. Given that Iraq and Afghanistan were where our troops were engaged, though, it is possible that both countries would have remained the top priorities of the day, receiving a preponderance of attention and resources irrespective of the proclaimed strategy.

Kilcullen also criticizes the tactics and operational design used to fight al Qaeda and ISIL. He argues that the light counterterrorism footprint initially used with success by the George W. Bush administration in Afghanistan was not the correct approach in Iraq, Libya, Yemen, and elsewhere. Why? Because of its over-reliance on the use of unmanned aerial vehicles, surveillance, and raids to

kill or capture high-value targets. Instead, Kilcullen believes more robust ground forces were essential to helping protect local populations from terrorists, training and advising indigenous security forces, and bolstering host-nation capacity for self-governance. In his view, more boots on the ground would have engendered trust-based interpersonal relationships within and among tribes. This would have provided more space for security forces and local governing structures to acquire increased legitimacy with the local populations, thereby marginalizing shadow governments being established by the terrorists.

Kilcullen cites the 2007 Iraq Surge as evidence that light counterterrorism operations are ineffective. He correctly notes that the Surge, rather than the victory it is often portrayed as, was instead a moral and tactical necessity, as Iraq and the United States were unable to convert military success into political stability. Nonetheless, he contends that if the United States had not left Iraq prematurely, a different outcome may have emerged.

This reflects wishful thinking on the author's part because political stability was never attainable so long as Nouri al-Maliki, then the prime minister of Iraq, remained in office as Tehran's surrogate. Furthermore, it is not self-evident how the United States could have deposed him earlier had the decision to do so been made. This is the dark side of counterinsurgency and nation-building: the reliance upon weak or corrupt leaders.

The chapters dealing with an adaptive enemy are among the book's best. Kilcullen describes how ISIL emerged from the ashes of al Qaeda, found sanctuary in Syria, and began waging war to establish its "Caliphate." Equally riveting, however, is his analysis of guerrilla terrorism (that is, infiltrating attackers into a target country rather than organizing and training them first in other countries), urban siege, remote radicalization, and leaderless resistance. Space does not allow for a full dissection, but serious readers will note the evolution of the threat from the days of Osama bin Laden hiding out in a cave in the mountains of Afghanistan

to ISIL's sophisticated use of social media to mobilize mass support.

Moreover, the description of ISIL's warfighting tactics alone is worth the purchase price of the book. Here, Kilcullen is masterful in illustrating the combined arms prowess of an army that employs guerrilla (irregular) operations to entice its enemies to mass into lucrative targets before striking with the speed, shock, and firepower traditionally ascribed to only the best modern ground forces in the West. Given that no military force in the Middle East today is capable of matching ISIL in combined arms operations, by what mechanism do we seal its defeat?

As noted previously, Kilcullen concludes his book with the discouraging (but accurate) assessment that U.S. counterterrorism strategy has failed and a complete re-think is therefore warranted. True enough. And while the insights he outlines in the epilogue serve as useful maxims, they are not realistic policy prescriptions for a nation that has other priorities, including rising strategic powers, to worry about. At the same time, the country remains war weary enough to stay in denial about what will be required to defeat ISIL, and averts its eyes from a humanitarian crisis that threatens European unity. Given these forces at play, any future counterterrorism roadmap should start with the proposition offered by security expert Audrey Cronin: "Wars pursued at odds with political reality cannot be won." To do otherwise risks repeating the folly of the last 15 years. JFQ

Colonel Thomas Greenwood, USMC (Ret.), is on the Editorial Board of *Joint Force Quarterly*. He served 31 years as a Marine Infantry Officer, including in both Iraq and Afghanistan, and has served on the staff of the National Security Council for three Presidents.

New from NDU Press

for the Center for the Study of
Chinese Military Affairs

Strategic Forum 289

*An Empirical Analysis of Claimant
Tactics in the South China Sea*
by Christopher D. Yung and



Patrick
McNulty

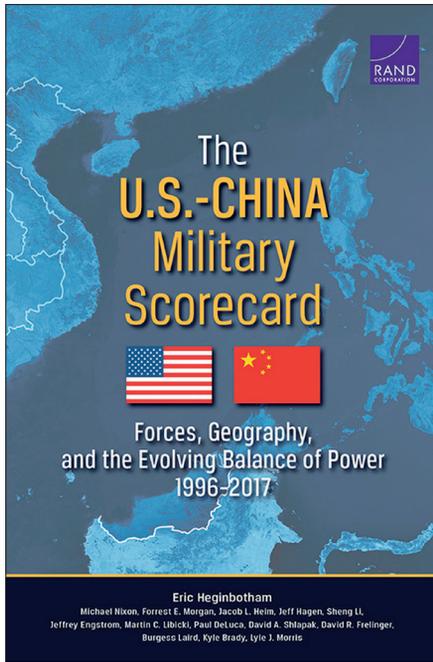
China,
Taiwan,
Vietnam, the
Philippines,
Malaysia,
and Brunei
have used

a wide variety of tactics to protect and advance their maritime territorial claims in the South China Sea. China is the most active user of the nine categories of tactics identified in this paper, with the exception of legal actions, and accounts for more than half of all military and paramilitary actions since 1995.

The unclassified database used in this analysis undercounts military and paramilitary actions, but captures enough activity to provide a representative sample. A classified version that captures more activity would improve the potential to develop the database into an Indications and Warning tool to assist in monitoring and managing tensions in the South China Sea.



Visit the NDU Press Web site for
more information on publications
at ndupress.ndu.edu



The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996–2017

By Eric Heginbotham et al.
 RAND Corporation, 2015
 430 pp. \$61.00
 ISBN: 978-0833082190

and

China's Military Power: Assessing Current and Future Capabilities

By Roger Cliff
 Cambridge University Press, 2015
 362 pp. \$32.99
 ISBN: 978-1107103542

Reviewed by Thomas McNaugher

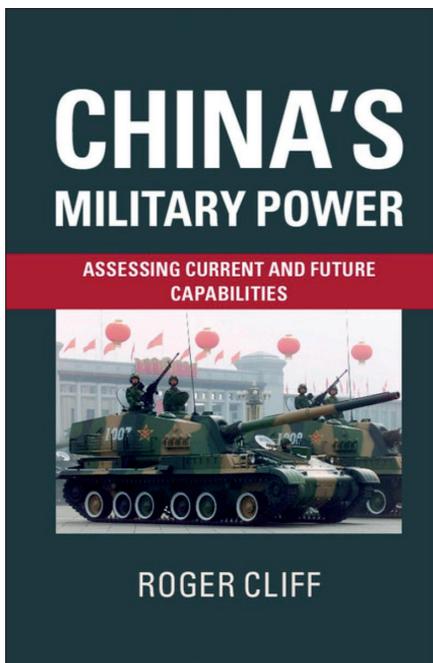
become more professional, better educated, and more highly trained.

But how are they doing, really? Both of these excellent books document, in convincing detail, the growth of an increasingly formidable Chinese force posture. Neither concludes that China has caught up with, much less surpassed, U.S. military capabilities that can be brought to bear around Taiwan or the South China Sea, the two scenarios at the core of each book's assessment. They make clear, however, that the days when the United States could cavalierly sail two aircraft carriers into the seas around Taiwan, as it did in 1996, confident that the PLA was virtually helpless to do anything about them, are long gone.

In keeping with its title, the RAND report rates the U.S.-China military balance over time (1996, 2003, 2010, 2017) and across 10 mission areas: Chinese attacks on air bases; relative air superiority; U.S. airspace penetration; U.S. attacks on air bases; Chinese anti-surface warfare; U.S. anti-surface warfare; U.S. counter-space; Chinese counter-space; cyberwar; and nuclear stability. RAND's analysts use an array of models to assess the outcome of conflict in each mission area, highlighting the changing balance over time in "stoplight" charts that convey U.S. or Chinese advantage.

U.S. readers will be pleased at the total absence of "red stoplights" (major Chinese advantage) on these charts, even in 2017. Indeed, RAND finds that the U.S. military's ability to attack Chinese air bases (should the President choose to do so) has actually improved since 1996, due in large part to the purchase of stealth aircraft and a number of standoff missiles. Still, in the Taiwan scenario, all major U.S. advantages disappear after 2003. The authors estimate that in today's environment, "a war for Taiwan would be a short, sharp, and probably desperate affair with significant losses on both sides" (p. 332). Even more alarming, they see "a series of tipping points" in China's favor that might, in the Taiwan scenario, "come as early as 2020" (p. 342).

U.S. forces fare better in the scenario involving the Spratly Islands, according



Over the past 20 years China's military spending, a low priority in the 1980s, has grown, in real terms, at roughly 11 percent per year. At the same time, the focus of China's military strategy has pivoted sharply from an army-centric "people's war under modern conditions" aimed to blunt a Soviet attack from the northwest to an air and naval force-centric emphasis on "local wars under informationized conditions" along the country's long coast, with the United States as the principal adversary. It has been a prodigious transformation, modeled after—and surely provoked by—the U.S. military's own transformation.

And from a distance, China seems to be doing remarkably well. A largely obsolete inventory of 1950s Soviet weaponry—"the world's largest military museum," as one wag put it—has been replaced by an array of far more sophisticated weapons: a prototype "fifth generation" fighter, an aircraft carrier (with one or two more on order), diesel and nuclear submarines, air defense and surface-to-surface missiles of ever-increasing range and accuracy including the notorious DF-21C, and an antiship ballistic missile meant to keep U.S. carriers outside the so-called First Island Chain. On the personnel front, a shrinking People's Liberation Army (PLA) has

to the authors, because “the PLA’s ability to control military events diminishes rapidly beyond the unrefueled range of jet fighters and diesel submarines” (p. 322), and U.S. platforms have more room to maneuver around these islands than they do around Taiwan. Neither China’s “Great Wall of Sand” that it is building in the South China Sea nor its new carrier make much difference against U.S. forces. Their value, one assumes, lies mainly in pressuring the local states.

Roger Cliff reaches a roughly similar view of the U.S.-China military balance, albeit from a different angle and using mostly different evidence. Unsatisfied with the longstanding tendency to assess adversaries by counting systems and people, Cliff wants to know if the PLA can actually use its new and more modern systems to their full capacity. He adapts the U.S. military’s DOTMLPF (doctrine, organization, training, materiel, leadership and education, personnel, and facilities) framework and adds organizational culture. Devoting one chapter to assessing each factor as it has evolved since the 1990s, Cliff concludes that so far, at least, China’s aspirations to field a modern, high-tech force have outrun its organizational capabilities. The PLA’s organizational structure and culture discourage the flexibility and independence needed to run the kind of “disjointed, non-linear operations” U.S. forces demonstrated in 1991 and 2003.

Cliff’s approach is a necessary corrective to the desire of military analysts to count things, and he brings to it a remarkable command of the literature on military effectiveness generally and China’s military specifically. Where data are available, his chapters yield important insights; the education levels of China’s soldiers, for example, have been rising, and by 2020 the PLA overall will be better educated than American soldiers (p. 119). In addition, the PLA’s training has become more realistic, even incorporating the use of “opposing forces” for ground, air, and air defense units (p. 194), although it scarcely emphasizes jointness (p. 133). Above all, however, the PLA lacks any serious combat

experience since the decidedly unmemorable invasion of Vietnam in 1979.

Where data are not readily available, Cliff gets creative. Unable to survey Chinese soldiers about their military culture, for example, he instead gathers the views of former U.S. military attachés to Beijing. The results are internally consistent and plausible, but not quite the real thing. It is no wonder that we so often settle for counting hardware and things, despite the obvious limitations.

Like RAND’s authors, Cliff runs through hypothetical “wars” over Taiwan and the Spratly Islands, deducting 20 percent from China’s presumed quantitative effectiveness to account for its organizational shortcomings. It is perhaps for this reason that his conclusion is slightly rosier than RAND’s: The United States and Taiwan together can stymie a Chinese attack on Taiwan without striking bases on the Chinese mainland. (In fairness, although the RAND team models attacks on Chinese air bases, they make clear that the decision to strike inside China “would be made at the highest political level” and would be based partly on political considerations.)

Although the United States “wins” in these models, there is little comfort in these “victories” for U.S. military analysts. Cliff and RAND’s authors agree: China is performing impressively as it works to catch up to the United States militarily. Cliff identifies no “tipping point,” but it is clear that warfare around Taiwan is destined to become even more unpredictable in the years ahead. That fact inevitably brings nuclear weapons into the picture. The United States has gone from near nonchalance about its ability to defend Taiwan conventionally to concerns about a scenario in which the United States and China would inevitably have to manage strategic risk in the fight. That change, one suspects, has done more to raise questions about U.S. “extended deterrence” in East Asia than modest changes in China’s nuclear forces.

More broadly, by charting the evolution of China’s military capability over time, both books highlight the seemingly relentless nature of China’s military development. Beijing has invested heavily

and wisely in a broad range of capabilities aimed at handling “local wars under informationized conditions,” leaving little out of its investment portfolio. (Moreover, it helps to be behind as the second mover; the U.S. military has charted the course here fairly well.) While the Chinese are moving forward, they “aren’t there yet.” Recently announced military reforms will facilitate further development by creating what amounts to combatant commanders in five military theaters, each with the power to train and plan jointly for serious contingencies.

Changes in China’s military forces, its more aggressive behavior (especially in the South China Sea), and Asia’s economic dynamism have all encouraged a needed U.S. “rebalance” toward Asia. Such a rebalance is hard to afford, however, when U.S. defense spending continues to emerge, almost as an afterthought, from a squeeze between tax cutters and entitlement defenders. While both books are aimed at defense experts and will make richly rewarding reading for that audience, one hopes they realize a much wider readership as well. JFQ

Dr. Thomas McNaugher is Senior Visiting Professor and Director of Studies at the Georgetown University Security Studies Program.

U.S. Marines with Special-Purpose Marine Air-Ground Task Force-Crisis Response—Africa and Royal Marines with 45 Commando clear rooms during combined operation part of exercise Blue Raptor in Frasselli, France, November 20, 2015 (U.S. Marine Corps/Keonaona C. Paulo)



The Multinational Interoperability Council

Enhancing Coalition Operations

By Michelle L. Pryor, Thomas Labouche, Mario Wilke, and Charles C. Pattillo, Jr.

Throughout history, coalitions have played an important role in military operations. In today's globalized world, nations are becoming even more likely to take part in an

operation as part of an alliance or coalition, rather than engaging in operations on their own.¹ Whether the operation involves an established alliance or an ad hoc coalition, interoperability between

multinational forces is imperative to achieving mission success. To be successful in the anticipated complex and shifting operating environment, coalition forces must identify and address potential strategic and operational challenges and interoperability concerns well in advance. This requires an investment in areas of common doctrine development, coalition planning, exercises, and experimentation. Early identification of the potential challenges

Colonel Michelle L. Pryor, USAF, is the Joint Staff J3 Chief of Multinational Operations Division and Multinational Interoperability Council Executive Secretariat. Lieutenant Colonel Thomas Labouche, French Army (Foreign Legion), is a Liaison Officer to the Joint Staff J3 Multinational Interoperability Council. Lieutenant Colonel Mario Wilke, German Luftwaffe, is a Liaison Officer to the Joint Staff J3 Multinational Interoperability Council. Charles C. Pattillo, Jr., is the Deputy Chief for the Multinational Operations Division and Multinational Interoperability Council Executive Secretariat.

can improve the speed and quality of decisionmaking and enhance unity of effort within a coalition. The Multinational Interoperability Council (MIC), led by senior operators of the member nations, focuses on understanding and addressing contemporary strategic and operational challenges and risks.

Focus on Coalition Operations

Today, many nations are working together in various coalition efforts throughout the world. Moreover, support for coalition operations within peacekeeping, humanitarian aid, and military conflict continues to grow. From a doctrinal standpoint, the U.S. National Security Strategy emphasizes the importance of engaging with our allies and partners as well as other state partners, nonstate and private actors, and international institutions.² This engagement helps advance both political and military objectives. Key advantages to operating as a coalition include an increased level of acceptability and legitimacy to military action, burden-sharing of operational costs, shared resources, shared expertise, and niche capabilities.³ Merging the capabilities of different military forces adds depth through strength in numbers and breadth through additional capabilities, as well as providing access to national and/or regional infrastructure, logistics, and information.⁴

While many advantages exist for multinational and coalition operations, these operations gather diverse entities whose national interests, military capabilities, definitions of success, and risk tolerance may differ. Additionally, multinational diversity may present challenges through capability gaps in standardization, doctrine, rules of engagement, information-sharing capabilities, training, and command and control.⁵ Despite these complexities, multinational and coalition operations are increasingly preferred not only because of individual nations' resource constraints but also because they reinforce legitimacy to operations in an international setting.

The future operating environment for coalitions will be even more volatile,

uncertain, complex, and dynamic, and we must continue to adapt to these changes.⁶ To respond to these threats, coalition members must have an awareness, understanding, and appreciation of the other participating nations and organizations capabilities within the context of multinational/coalition operations. By understanding each other's capabilities and having an awareness of identified obstacles to overcome, coalition members can work together more effectively and maximize the benefits of coalition operations. This is particularly true in the case of an ad hoc coalition where members may not have trained together extensively during peacetime. By fostering a coalition operating culture, the MIC intends to identify and address potential operational challenges now rather than waiting until a crisis.

The Multinational Interoperability Council

The MIC provides a unique, senior operator-led multinational forum to understand and address contemporary strategic and operational challenges and risks. The MIC's objectives are to build relationships to enhance mutual trust and understanding of national perspectives and to influence the development of operational practices to enable more effective coalition operations.

The MIC originated from an October 1996 multinational symposium entitled "C3I for the Coalition Task Force." Ministries and departments of defense participants from Australia, Canada, France, Germany, the United Kingdom, and the United States recommended the establishment of an operator-led council to provide oversight of coalition interoperability and assist in the implementation of approved actions. The council's inaugural meeting was in October 1999, and in May 2005 Italy joined the MIC as the seventh member nation.

The MIC's purpose continues to evolve with early emphasis placed on identifying interoperability issues and facilitating the exchange of relevant information across national boundaries to support multinational/coalition operations. Recently, the MIC expanded its

focus beyond interoperability to embrace a more inclusive look at challenges within contemporary operations. The MIC also retained its focus to:

- facilitate the formation of coalitions by identifying and mitigating strategic inhibitors
- set the conditions for stronger coalitions and enhanced interoperability for future operations
- promote national actions to resolve issues related to coalition operations and interoperability
- provide a range of accessible information to enhance coalition operations
- collaborate with other multinational interoperability fora.

To be a MIC member, a nation must demonstrate the competence and capability to lead a coalition and multinational operation, evidenced by leadership and involvement in recent coalition operations; the willingness to commit resources to leading and/or supporting coalition operations; and the willingness to commit sufficient personnel and resources to participate in all MIC meetings. The MIC aims to remain responsive, flexible, and credible in understanding and addressing contemporary strategic and operational challenges and risks. To keep this quality, the MIC needs to have a finite number of member nations.⁷

The MIC also maintains a close working relationship with the North Atlantic Treaty Organization (NATO) Allied Command Transformation, NATO Allied Command Operations, and European Union Military Staff, as well as New Zealand. Representatives from these organizations or nation may attend MIC meetings through an invitation as an observer when the MIC considers their participation as being mutually beneficial in supporting a specific topic or area of interest.

The MIC principals are senior flag officer/general officer operators from each MIC nation empowered to discuss national perspectives and address operational challenges and risks across the contemporary operating environment. The U.S. MIC principal is the Joint Staff Director



Marines attempt to break through wall of Bulgarian and Serbian soldiers during riot control course of Platinum Wolf 15 at South Base, Serbia, November 19, 2015 (U.S. Marine Corps/Derrick Irions)

for Operations. The MIC principals meet semi-annually and are responsible for defining and articulating the MIC's strategic direction and for providing guidance and directing appropriate actions to the action officers (AOs) directly or through the steering group (SG).

The SG is composed of O6/NATO OF5 representatives from each MIC member nation. They are responsible for coordinating and executing tasks assigned by the MIC principals and providing guidance, oversight, and direction to the AOs to accomplish the MIC's work as directed and approved by the MIC principals. Additionally, MIC AOs act as national points of contact who coordinate the respective national analysis of contemporary operational risks and challenges as directed by the MIC principals and identify solutions and/or prepare recommendations for approval by the principals. When addressing an

operational challenge, the goal is to attain an agreed-upon position by seven nations when possible. If consensus is not possible, the AOs identify any differing national positions and caveats to establish a baseline of similarities and differences of national positions. This process assists in developing a mutual awareness, understanding, and appreciation among the participating member nations.

The MIC executive secretariat (ES) staff is responsible for managing and coordinating the day-to-day business activities for the MIC and serves as the central point of contact for the MIC principals, SG, and AOs. As a unique permanent structure, the MIC ES is the primary contact for outreach activities and external engagement, coordination, and communication with non-MIC nations, organizations, and other multinational organizations. Two U.S. members along with two foreign liaison

officers from other MIC member nations (currently from France and Germany) serve as the MIC ES staff.

Products

While the MIC provides some of its project results directly to operators, national staffs, or other multinational organizations, many project results are located in the main product that captures the MIC's work: the Coalition Building Guide (CBG), whose purpose is to assist MIC member nations, as a coalition's lead nation, and their potential partners to work more effectively together in a coalition operation. It aims to offer guidance to a lead nation, a designated coalition force commander and the national staffs or coalition task force staffs in building and sustaining effective coalitions.⁸ The CBG also attempts to provide a common framework of reference by



Peruvian, Mexican, Chilean, Colombian, and U.S. ships transit in formation as part of Uitas 55-14 in Pacific Ocean, September 16, 2014 (DOD/Adam Henderson)

identifying some of the essential factors associated with the coalition-building process to inform participating nations as to what to expect. The CBG does not constitute official policy or doctrine, nor does it represent a definitive staff planning or military decisionmaking guide. The MIC acknowledges NATO joint doctrine, unless otherwise specifically directed, as the default doctrine for planning and conducting coalition operations. Additionally, U.S. Joint Publication 3-16, *Multinational Operations*, captures information from the CBG with regard to coalition planning.

The CBG consists of three volumes. Volume I, *Military Strategic Overview*, covers the fundamentals of coalition building.⁹ Volume II, *Strategic Design and Planning*, covers the principles of planning coalition operations at the strategic level by addressing the broad lines of recommended organization, processes, and tools for a coalition to ensure more robust cohesiveness within the coalition at the strategic military level.¹⁰ Volume III is a compilation of separate MIC documents that cover key coalition challenges and risks to consider when building and sustaining a coalition. The volume's separate and distinct chapters allow planners and staffs to select an individual section for quick reference. Chapter topics include but are not limited to the future coalition

operating environment, humanitarian/disaster response, communication and information systems, strategic communication, and cyber defense.¹¹

A Way Ahead

Historically, major focus areas for the MIC included using a comprehensive approach, developing civil-military cooperation within coalitions, and emphasizing cultural awareness and competence. These areas will continue to play a dominant role in the success of coalition operations. As we move toward the future, areas such as expanding information-sharing, preparing for ad hoc coalitions (rather than only previously established coalitions), and increasing collaboration between multinational organizations will also play an important role in coalition successes.

Comprehensive Approach.

Interoperability extends to integrating the political, security, development, rule of law, human rights, and humanitarian dimensions of international missions. This integration describes a comprehensive or whole-of-government approach, exploiting cohesion and realizing coalition synergies.¹² The comprehensive response must be based on a shared understanding of the problem and universal commitment to resolve it. A comprehensive approach centers on the ability of all

coalition military forces and other government departments, nongovernmental organizations, and international agencies to plan, communicate, and operate in a collaborative environment throughout all phases of an operation.

Civil-Military Cooperation. Civil-military relationships are important to the success of a comprehensive approach and overall multinational operation.¹³ The outcomes of recent and current operations clearly demonstrate that civil-military relationships must be considered to understand the compatible, supportive, and competing interests of each represented element, as well as how best to coordinate, deconflict, and interface the military forces with the local population, other governmental agencies, and the international humanitarian community. Effective relationships and coordination with the wide range of civilian organizations, local populations, governments, and military forces are essential. These activities require resources, arrangements, and activities in support of the mission, which fosters liaison, cooperation, and coordination with entities outside of the multinational force.

Coalition commanders and their staffs must have an awareness, understanding, and appreciation of how military operations are typically embedded in a larger context of civil-military interaction. It



B-1B Lancer takes off from strategic coalition air base Al Udeid Air Base, Qatar, to conduct combat operations April 8, 2015 (U.S. Air Force/James Richardson)

is imperative to inform potential civilian partners on the vision and views of militaries concerning such a civil-military framework and a method to crisis prevention, crisis management, and postconflict activities. The incentive for a successful civil-military effort is twofold: first, motivation to avoid duplication of efforts including spending unnecessary energy and resources, and second, recognition that the goals of military and civilian organizations are most often co-dependent even though their realization may not always be simultaneous.

Cultural Awareness and Competence. Coalition operations will take place in complex operational environments with a multitude of actors, where opposing forces and the population are intermingled in a way that it is hard to distinguish among the different stakeholders. Coalitions by themselves could be more challenging due to the number of nationalities they are likely to encompass.

To operate in such an environment requires the support and trust of other friendly, neutral, or other groups in the surrounding area or from other governmental or nongovernmental organizations to avoid inappropriate behavior and ideally to gain the trust of the people and to understand their claims and their needs.

Cultural aspects or cross-cultural differences, their knowledge and application, and the evaluation and synthesis of these subjects will remain relevant in current and future coalition operations not only when operating in close proximity to foreign populations but also in all kinds of operations where the military might be involved.¹⁴

Information-Sharing. Information-sharing is a recurring lesson identified from many recent operations and therefore key to the MIC's goal of delivering better, more efficient military capabilities that are coordinated around the needs of

the task.¹⁵ Information-sharing is essential to enable early planning, intervention, and preventative work resulting in effective and timely responses to crises, while also providing for the collective security and well being of a coalition. As nations move toward increased partnership and integrated services, professional and confident information-sharing is becoming more important to delivering the benefits of these arrangements. Information-sharing reduces duplication of effort while maximizing strengths and capabilities of responding forces; it should be necessary, proportionate, relevant, accurate, timely, and secure. A proper information exchange environment enables rapid transfer of information to appropriately designated receivers, while rigorously protecting information from unauthorized disclosure and release.

Focus on Ad Hoc Coalitions. Today's rapidly changing global landscape has given rise to the development of more

ad hoc coalitions consisting of groups of nations and or organizations working together outside of previously established alliances. In the future, greater consideration needs to be given to developing procedures for quickly establishing an ad hoc coalition and determining interoperability concerns for such situations. This will continue to be a challenge as national involvement within ad hoc coalitions will vary from one coalition operation to the next.

Continued Collaboration. We must continue to expand our knowledge of other multinational organizations that are dedicated to solving multinational interoperability challenges to work together toward a shared solution for the future, capitalize on mutually beneficial lessons learned, and eliminate duplicative work. The MIC maintains coordination with various multinational groups including but not limited to the Washington, DC-based Multifora, which is comprised of nine separate organizations addressing various aspects of multinational interoperability, multinational planning augmentation team, coalition interoperability assurance and validation, multinational information operations experimentation, and the multinational capabilities development campaign.

Coalition operations continue to shape and become the norm for the military's involvement in activities and engagements around the globe. Thus, it is essential to gain an awareness, understanding, and appreciation of each potential partner's capabilities, limitations, and culture in advance of operations to enhance the success of future multinational coalition operations. Therefore, mutual trust attained through relationships during peacetime is likely to foster more efficient interaction when building and sustaining a coalition operation. Beyond common doctrine, similar equipment and shared interests, the human factor plays a vital role in effective partnerships and remains an essential element in coalition success. In this regard, the MIC offers a unique opportunity for senior operators to build essential relationships and understand and address

coalition operations challenges and risks from respective national perspectives, ultimately helping to shape more effective coalition operations. JFQ

Notes

¹ Multinational Interoperability Council (MIC), *Coalition Building Guide, Volume I: Military Strategic Overview* (Washington, DC: The Joint Staff, 2015).

² *National Security Strategy* (Washington, DC: The White House, 2015).

³ MIC, *Coalition Building Guide, Volume III: Future Coalition Operating Environment* (Washington, DC: The Joint Staff, 2012).

⁴ MIC, *Coalition Building Guide, Volume I.*

⁵ MIC, *Coalition Building Guide, Volume III* (2012).

⁶ Ibid.

⁷ MIC, *Membership Policies and Procedures* (Washington, DC: The Joint Staff, 2015).

⁸ MIC, *Coalition Building Guide, Volume I.*

⁹ Ibid.

¹⁰ MIC, *Coalition Building Guide, Volume II: Strategic Design and Planning* (Washington, DC: The Joint Staff, 2015).

¹¹ Information on these MIC documents, as well as other MIC products, is available at <<https://community.apan.org/wg/mic>>.

¹² MIC, *Coalition Building Guide, Volume I.*

¹³ MIC, *Coalition Building Guide, Volume III: The Military Contribution to Stabilization Operations* (Washington, DC: The Joint Staff, 2013).

¹⁴ MIC, *Coalition Building Guide, Volume III: Cross Cultural Awareness and Competence* (Washington, DC: The Joint Staff, 2015).

¹⁵ MIC, *Coalition Building Guide, Volume III* (2012).

New from NDU Press

for the Center for Strategic Research

Strategic Forum 292

Supporting Democracy in Erdogan's Turkey: The Role of Think Tanks

by Richard H.M. Outzen and Ryan Schwing



Fifteen years into the era of President Recep Tayyip Erdogan, U.S. influence on his inner circle and support base, the new generation of Turkish strategic thinkers, and the Turkish public at large has diminished rather than improved. U.S. interests would be better served by avoiding confrontation and maintaining close military-to-military cooperation while also pressing for democratization in a patient, low-profile manner. The emerging Turkish think tank sector offers opportunities for doing just that. The sector has grown dramatically over the past 20 years and offers a window for better understanding the revolution in Turkish strategic thinking that now perplexes many American observers. Engaging Turkey's think tanks would support democratization.

U.S. interests would be better served by avoiding confrontation and maintaining close military-to-military cooperation while also pressing for democratization in a patient, low-profile manner. The emerging Turkish think tank sector offers opportunities for doing just that. The sector has grown dramatically over the past 20 years and offers a window for better understanding the revolution in Turkish strategic thinking that now perplexes many American observers. Engaging Turkey's think tanks would support democratization.



Visit the NDU Press Web site for more information on publications at ndupress.ndu.edu

Marines with Battalion Landing Team, 1st Battalion, 6th Marine Regiment, 22nd Marine Expeditionary Unit, convoy light-armored vehicles across beach as Navy landing craft, air cushion with Assault Craft Unit 4, departs beach of Sierra del Retin, Spain, during Spanish Amphibious Bilateral Exercise 2014, February 24, 2014 (U.S. Marine Corps/Austin Hazard)



The *Tao* of Doctrine

Contesting an Art of Operations

By G. Stephen Lauer

Pity the theory that conflicts with reason!

—CARL VON CLAUSEWITZ

According to Army Doctrine Publication (ADP) 3-0, *Unified Land Operations*, “Operational art is the pursuit of strategic objectives, in whole or in part, through the arrangement of tactical actions in time,

space, and purpose.”¹ With this definition, the U.S. Army broke with both its prior doctrinal paradigm of an operational level of war and the joint model in Joint Publication (JP) 3-0, *Joint Operations*, of the three levels of war.²

In contrast to ADP 3-0, however, Army Doctrine Reference Publication 3-0, *Unified Land Operations*, emphasizes the joint definition, acknowledging an operational level: “Operational art is applicable at all levels of war, not just to the operational level of war.”³ Thus, a contested delineation of operational art entered the cognitive space of schools and commands throughout the Army. This article is not specifically about

Dr. G. Stephen Lauer is an Assistant Professor at the U.S. Army School of Advanced Military Studies. He is a retired U.S. Marine Corps Infantry Officer and served as the first Chief of Florida Domestic (Homeland) Security from 2001 to 2004.

whether there should or should not be an operational level of war; rather, it is concerned with the concept of “doctrine” and its relationship to history and theory in the context of an operational art.

While definitions of operational art appear in self-described doctrinal manuals, do they describe, in fact, a *doctrine* of operational art? Can one prescribe *art* in doctrine? These questions lie at the heart of the contest engendered by the dual measures changing the Army doctrinal definition of operational art and dropping the operational level of war, both within a joint philosophical and *doctrinal* composition that retains that level. The term *doctrine* may be the most overused in the military lexicon.⁴ It can describe any written manual of guidance for any size force in either a training or combat environment. This article offers an approach to make clear where the term *doctrine* can most effectively be located in relation to an art of operations within the framework of the policy aim, allowing greater precision in its expression and clarifying its relationship to the larger concept of military ends, ways, and means—the context of strategy, operations, and tactics.

Anticipation, Adaptation, Emergence

The words *anticipation*, *adaptation*, and *emergence* evoke a flow of movement in experience, as in the concept of *Tao*, useful to describe both the purpose and evolution of doctrine.⁵ History and theory bind the term doctrine in time as a statement of the institutional understanding of the current nature and form of warfare in the context of an internal and external discourse. The internal discourse starts from analysis of the most recent employment of forces and capabilities of the Army. Second, the dialogue anticipates a resonance with all other individual Services, as well as with the conceptual joint force, including exploration of its results and effects by schools, in publications, and within official and unofficial papers and correspondence. Finally, this interchange includes American societal expectations and constraints, especially

limitations imposed by budgets, policy and politics, and strategic limitations. The external discourse involves exploration of its relationship with allies, but more importantly with a presumed or constructed antagonist. In essence, doctrine is the result of this discourse applied to an institution’s perception of its own historical continuity in action, pending its next engagement. Doctrinal manuals then anticipate the *near* future and assume its usefulness in the future environment. Since we cannot *predict* the future, we anticipate at least a level of utility that will suffice in planning as we assess a potential commitment.

Because of this future uncertainty, doctrine presents the practitioner with the problem of anticipating and adapting to the new environment in the most expeditious manner. This includes the possibility that what is “next,” requiring adaptation, may be so radically different from the anticipation as to constitute a crisis, requiring an essential rethinking of expected conditions.⁶ The options in adaptation lie on a spectrum from the need for minor procedural modifications to a response to a fundamental surprise and the recognition of the need for a new doctrinal paradigm. This demand underscores the view that doctrine is primarily authoritative as a means to provide a common *historical* understanding for the forces, the means, going into action anew. Doctrine cannot extend beyond the anticipation of a *near* future because the context of the approaching conflict or commitment environment, especially the future opponent’s will, requires a nearly immediate adaptation of the doctrine to the new contextual circumstances.

This adaptive response to the environment requires recognition, a learning response, of the imperative for emergence and change within the new environment, at whatever level this is recognized. The old discourse crystallizes in time and space with the engagement of an opposing will—the new external discourse—seeking to adapt itself to the new situation. An emerging doctrine, concurrent with its dissemination through the force, enters again the process of anticipation, adaptation, and

emergence. Seen in this light, doctrine, as the *Tao* itself, becomes understood as a living form, agile enough to flow and adjust to the demands of the complex, adaptive system model that we teach is the character of modern warfare. Absent this understanding, and training to implement such, doctrine becomes a rigid and stilted endeavor. It binds and blinds the force to the requirement to flexibly adapt its use—to be more correct than incorrect in the new environment, to adapt immediately to the new context, and then to embrace and disseminate an emergent consensus that allows for the agility and responsiveness necessary to save American lives in battle. The need for this agility becomes an embedded and emergent purpose of institutions such as the School of Advanced Military Studies. This is the education of the art, the imagination, of the student.

Throughout *On War*, Carl von Clausewitz described these qualities as necessary for a commander at any level, but especially for those most senior officers commanding a theater of operations, for example.⁷ The use of the terms *art* and *judgment* was intimately tied to the nature of war and its conduct.⁸ Judgment was the end result of both an individual’s talent and his personal experience of war, or vicarious experience in the study of history in the development of an informed intuition and the willingness to follow one’s path despite the distractions and uncertainty inherent in the clash of wills, driving our present understanding of complexity in war.⁹ His understanding resonated with the philosophy of Immanuel Kant. It was the realm of the *irrationality of genius*:

Hence the concept of genius corresponds to what Kant sees as the crucial thing about aesthetic taste, namely that it facilitates the play of one’s mental powers, increases the vitality that comes from the harmony between imagination and understanding, and invites one to linger before the beautiful. Genius is ultimately a manifestation of this vivifying spirit for, as opposed to the pedant’s rigid adherence to rules, genius exhibits a free sweep of invention and thus originality that creates new models.¹⁰



instruction that follows from general theoretical or technical knowledge. . . . Rather, the experienced person proves to be, on the contrary, someone who is radically undogmatic; who, because of the many experiences he has had and the knowledge he has drawn from them, is particularly well equipped to have new experiences and to learn from them. The dialectic of experience has its proper fulfillment not in definitive knowledge but in the openness to experience that is made possible by experience itself.¹²

The manifestation of the commander’s art lies, in doctrine, in the joint concept of a commander-centric philosophy of command and the U.S. Army mission command concept with its split between the art of command and the science of control.¹³ There are few concrete differences between the two concepts of command. The Army defines *mission command* as “the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander’s intent to empower agile and adaptive leaders in the conduct of unified land operations.”¹⁴ JP 3-0 describes *mission command* as “the conduct of military operations through decentralized execution based upon mission-type orders. Successful mission command demands that subordinate leaders at all echelons exercise disciplined initiative and act aggressively and independently to accomplish the mission.”¹⁵

Nothing in these words denies the essence of the development of the art and judgment of the commander. Both include the admonition that control, through synchronization, is immanent in this dialogue.¹⁶ As both the art of command (commander-centric) and the science of control, synchronization, exist together, the opportunity exists for one to dominate the execution of any operational structure. At what level of command is a subordinate empowered to break synchronization if he or she sees an opportunity?

As operations become more complex at the granular, local level within a theater of operations, and especially in light of the tight control of rules of engagement inherent in our post-World War II wars

Marine mortarman assigned to 3rd Light Armored Reconnaissance Battalion “Wolfpack,” 1st Marine Division, during tactical training briefing during Integrated Training Exercise 2-16 at Marine Corps Air Ground Combat Center, Twentynine Palms, California, January 23, 2016 (U.S. Air Force/Efren Lopez)

Thus, the development of judgment depended upon the openness of the individual to adapt:

Judgment is necessary in order to make a correct evaluation of the concrete instance. . . . Every judgment about something intended in its concrete individuality (e.g., the judgment required in a situation that calls for action) is—strictly speaking—a judgment about a special case. That means nothing less than that judging the case

involves not merely applying the universal principle according to which it is judged, but co-determining, supplementing, and correcting that principle.¹¹

In the context of this presentation, the “principle” is the nature of doctrine:

Agility and flexibility of mind, then, became a product of one’s experience, one’s art: Experience stands in an ineluctable opposition to knowledge and to the kind of

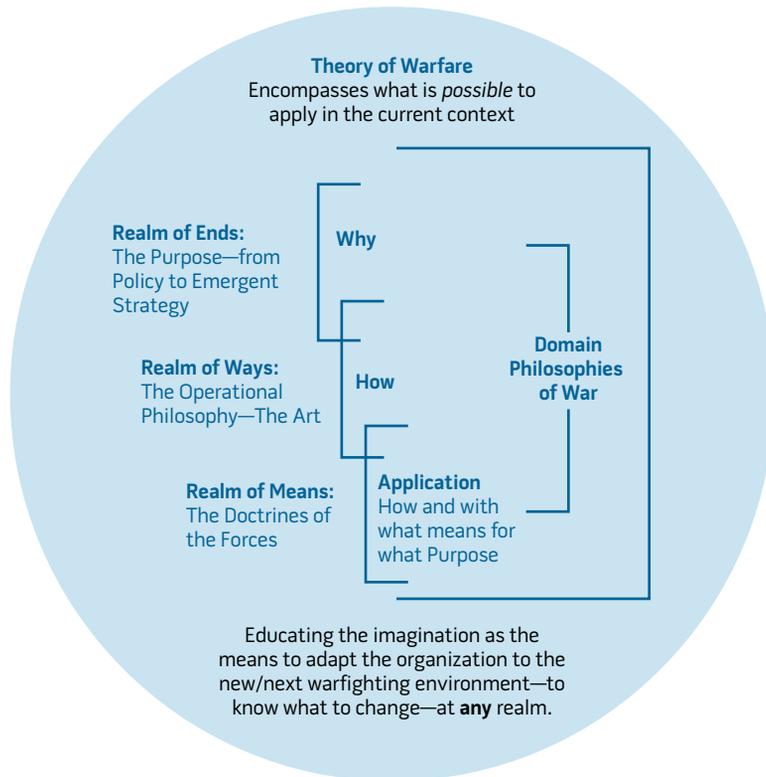
of limited aim, how much freedom can a commander be allowed to make these nonsynchronous decisions? This is especially so when a single judgment by a junior officer or enlisted leader may lead to significant political and policy risk, even if that decision was within the small unit leader's understanding of the commander's intent. Clausewitz noted that the more limited the political aim, the less effort demanded to achieve that aim, and the less involved the population, the application of violence as the fundamental nature of the phenomenon of war appears more politically effected and derived, and less military in its execution. Political and policy risk¹⁷ dominates the concerns of the military instrument—

*But the weaker the motives and the tensions, the less will the tendency of the military element, the tendency to violence, coincide with the directives of policy; the more, therefore, must war be diverted from its natural tendency, the greater is the distance between the political object and the aim of an ideal war, and the more does war seem to become political.*¹⁸

Thus, in limited war, mission command as a doctrine becomes ever more difficult to execute. Rules of engagement in the 21st century reflect more directly the concerns of politics and policy, not the use of violence to attain a political aim, limiting operational and tactical flexibility.¹⁹ This is especially the case when the consequences of junior leader decisions, or unfortunate or unexpected soldier actions, resonate in negative policy impacts for the theater commander and the policymaker.

Whereas the *Tao* of doctrine implies an inherent ability to adapt doctrine to conditions in the new context, this same doctrine, in its application in wars of limited aim, appears to have just the opposite effect. If the commander of the joint force cannot survive junior leader deviations from synchronization, including the rules of engagement, adapting when and where he believes essential to the conduct of the mission and the protection of the lives of soldiers, doctrinal adaptation through judgment becomes problematic.

Figure. Overarching Theory of War: Human, Social, Political, Economic, and Technological Phenomenon



The commander, in effect, becomes instrumental in preventing the recognition of changes in the new environment and adaptation therein, relying on strict execution of known doctrine and synchronization to avoid errors in judgment. The clarification of the terms *doctrine*, *philosophy*, and *theory*, then, may provide a way for senior commanders to arrive at solutions permitting both the adaptation necessary to save lives and the control necessary to achieve the policy aim.

Placing Doctrine in Context

If all things written in a green (or blue or black) manual are doctrine, how do we distinguish and bring to clarity the concepts that underlie the new definition of operational art and the end of the operational level of warfare? As Clausewitz noted, a purpose of theory is to “clarify concepts that have become, as it were, confused and entangled.”²⁰ To distinguish those things that are doctrine from those that may more succinctly be defined as philosophy,

I propose to paraphrase Clausewitz's use of the term *realms* and apply it to a description of the ends, ways, and means in a discussion of doctrine, philosophy, and theory.²¹ With the model shown in the figure, we can more accurately place the role and function of doctrine in the realm of the means as against the philosophy that guides the art of operations in the realm of the ways. Each in turn relates to the realm of the ends, wherein lies the policy aim. The location of *operational art* lies in the discourse between policy and the tactical means. It is from this discourse that an emergent strategy appears. The purpose of this emergent strategy, then, is to achieve the aim of policy in the application of the ways that ties the tactical to the strategic in consonance with that policy.

Furthermore, we can see the relationship of “domains” whose Service philosophies of warfare guide the doctrines of the forces, as well as the true role of the joint *philosophy* of warfare

that attempts to bind the whole in terms of unified action, which again cannot be so prescriptive as to constitute a *doctrine*. The domains not associated with a Service include the means associated with *space* and *cyberspace* and may include *information* as a human domain element. Limiting the term *doctrine* to the realm of the means makes clear the distinction that the word *art* implies a location in the realm of ways and ends—the art of operations lies in the ways the actions of the means relate to the realm of ends—the why or purpose, through a military strategy, to which the means aim. Operational art, then, lies in the realm of ways, not the doctrinal frame for the manner and methods of the employment of the means—the inherent complex interaction at the tactical level that constitutes the flow of fires and movement, the art of battle maneuver in direct contact with an enemy’s will during the engagement.

In contrast, an *operational art* may best find definition as a philosophy within a theory of war, a philosophical understanding of a theory of warfare that highlights the imagination of the commander in the determination of the ways in which to employ the means to achieve policy. If, as Clausewitz noted, art is an expression of talent and experience, then the ways cannot be limited by doctrine.²² This fits an understanding in our times that Clausewitz’s definition of strategy as the use of the engagement to achieve the ends of policy fulfills a theoretical placement of operational art in that locus, the realm of the ways.²³

Using this model, a definition of operational art emerges as a philosophy for the employment of the means to achieve a strategic aim derived from, and in concert with, a policy/political aim that provides its purpose and logic. Operational art is an expression of the *imagination* of the commander. It is effected as an understanding of the ways in which to orchestrate the actions of the means—the forces that must act—to achieve the policy aim in a warfare characterized by uncertainty created by the clash of wills with thinking, complex, adaptive opponents. This art cannot be defined by doctrinal lists of tenets,

especially when those tenets become substitutes for understanding the nature of such expression by a commander. The precepts that may be used to illustrate the characteristics of art may only define the nature of the canvas and the tools necessary for its creation. These are never sufficient to identify and restrict the nature of the imagination employed by the commander in his manifestation of the art of command.

An Operational Artist

Who is this operational artist? Current doctrine as written in ADP 3-0 states that anyone can be doing this in any formation at any level of command.²⁴ The figure, however, implies something entirely different—the operational artist is the person tasked with both the authority and responsibility to decide and order the ways in which the means will be employed, within the defined policy aim. How do we identify this person in terms of modern warfare and experience? Who is the person given the authority to negotiate for the means with which to achieve the policy aim? In the Afghanistan context, that person would have been the joint task force commander (of the International Security Assistance Force), the person who met with the Secretary of Defense to obtain and clarify the war policy and to coordinate that understanding with and for the means available to him.²⁵ In this location, defined by authority and responsibility within a delimited theater of operations, lies the role that must allow and expect the adaptation of the doctrine of the means to facilitate the emergence of doctrine specific to the new environment. Thus, the location of the art of operations in the realm of the ways drives the placement of an operational artist as the person charged with this role.

Examples of this placement abound in the history of theater of war commands both during World War II and after. As the Supreme Allied Commander of the European theater of operations, General Dwight D. Eisenhower routinely interacted with policymakers. These included military representatives of

President Franklin D. Roosevelt, such as Army Chief of Staff General George C. Marshall, to determine the means necessary to carry the war onto the European continent, as well as the ways necessary to achieve the strategy that emerged to defeat the German war machine in northwest Europe.²⁶ Admiral Chester Nimitz had the same responsibility in the Pacific theater of operations and a similar relationship to policy with President Roosevelt and Admiral Ernest King as the Chief of Naval Operations.²⁷ General Douglas MacArthur met personally with President Harry S. Truman in ongoing discourse to determine the aims and the means necessary to the emergent strategy determined to achieve those aims in the Korean theater of operations.²⁸ General William Westmoreland met alike with President Lyndon Johnson and his chief civilian policy advisors such as Secretary of Defense Robert McNamara also to determine the policy aims and the means necessary for these aims through ways deemed essential to accomplish the emergent strategy in Vietnam.²⁹

At its most basic level, theory fails to explain and differentiate that which is unclear if everyone (and everything done at every level) is potentially an operational artist. The mission, placement, and rules of engagement provided to the tactical means can only come from the person tasked with the determination of the ways in which the means act to achieve policy. It is in the theater of operations, where the joint force commander is in discourse with policy in the determination of the means required to achieve policy aims, that strategy emerges and operational art resides.

Philosophy, Not Doctrine

To paraphrase Michael Howard, it is not simply a matter of not getting the doctrine too wrong at first contact in a new environment; it is the recognition that the doctrine of the means, by its nature, will and *must* change once in contact with a new environment.³⁰ The force must be capable of such anticipation and, through this understanding, to immediately adapt, and then to embrace the emergence of a new



Marines with 3rd Reconnaissance Battalion suspend from special-purpose insertion and extraction rope after being extracted from jungle during patrol at Jungle Warfare Training Center on Camp Gonsalves, Okinawa, Japan (U.S. Marine Corps/Mark W. Stroud)

doctrine. This further underscores the importance of the *art* inherent in the development and adaptation of the ways that are solely the responsibility of the *artist* whose task lies in what we call the operational art—a philosophy—not a doctrine. JFQ

Notes

¹ Army Doctrine Publication (ADP) 3-0, *Unified Land Operations* (Washington, DC: Headquarters Department of the Army, October 2011), available at <www.army.mil/e2/rv5_downloads/info/references/ADP_3-0_ULO_Oct_2011_APD.pdf>.

² “The operational level links the tactical employment of forces to national and military strategic objectives. The focus at this level is on the design, planning, and execution of operations using operational art: the application of creative imagination by commanders and staffs—supported by their skill, knowledge, and experience—to design strategies, campaigns, and major operations and organize and employ

military forces.” See Joint Publication (JP) 3-0, *Joint Operations* (Washington, DC: The Joint Staff, August 2011), I-13. Marine Corps and joint doctrine offer a similar construct of the operational level of war. Marine Corps doctrine notes, “The operational level of war provides the linkage between tactics and strategy. It is the discipline of conceiving, focusing, and exploiting a variety of tactical actions to realize a strategic aim. With that thought as our point of departure, this publication discusses the intermediate, operational level of war and the military campaign which is the vehicle for organizing tactical actions to achieve strategic objectives.” See Marine Corps Doctrinal Publication (MCDP) 1-2, *Campaigning* (Washington, DC: Headquarters Department of the Navy, 1997), foreword.

³ Army Doctrine Reference Publication 3-0, *Unified Land Operations* (Washington, DC: Headquarters Department of the Army, May 16, 2012), 4-1.

⁴ *Doctrine* is “[f]undamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application.” See JP 1-02, *DOD Dictionary of Military and Associated Terms* (Washington,

DC: The Joint Staff, 2010).

⁵ These terms first arose in a conversation in the “hayloft” at the School of Advanced Military Studies (SAMS) between the author, Rick Herrera, and Kurt Taylor, a member of the SAMS Lyceum, from a question concerning the purpose and evolution of doctrine. Clarification of the relationships therein belongs to discussions with Jeff Kubiak, Bob Tomlinson, and Chris Marsh, then also of the “hayloft.” Mark Calhoun also provided a thoughtful review of an early draft of this article. Here, *Tao* means “The world . . . is the efficient cause of itself. It is resolutely dynamic, autogenerative, self-organizing, and in a real sense, alive. . . . a “pathway” that can, in varying degrees, be traced out to make one’s place and one’s context coherent . . . at any given time, both what the world is, and how it is.” See Roger T. Ames, *Sun-Tzu: The Art of Warfare*, trans. Roger T. Ames (New York: Ballantine, 1993), 50; “The *tao* ‘can be understood as the natural order of the universe,’ and people can act in accordance with the ‘way’ by attempting to live in harmony with those around them and with the natural forces at work in the universe. People are supposed to live in accord with the way, in harmony with the world around them, by living



Senior Airman inspects parachutes on a C-130 Hercules aircraft during Red Flag–Alaska 14-3 at Joint Base Elmendorf-Richardson, Alaska, August 5, 2014 (U.S. Air Force/Chad C. Strohmeier)

according to the precept of *wu wei*, or nonaction. What is meant by this is not that people do nothing, but that action should be effortless and in harmony with the natural forces at work in the universe. It is therefore ‘effortless doing,’ or ‘acting without acting’ (*wei wu wei*).” See Christopher Marsh, *Religion and the State in Russia and China: Suppression, Survival, and Revival* (New York: Continuum, 2011), 152.

⁶ Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1996), 84; John Lewis Gaddis, *The Landscape of History: How Historians Map the Past* (New York: Oxford University Press, 2002), 30–31.

⁷ Clausewitz, 111, 146.

⁸ *Ibid.*, 147–149.

⁹ *Ibid.*, 102.

¹⁰ Hans-Georg Gadamer, *Truth and Method*, trans. and rev. Joel Weinsheimer and Donald G. Marshall, 2nd rev. ed. (London: Continuum Publishing Group, 1989), 46. See also Kant’s *Critique of Judgment*, 1790, Part I, §46–49.

¹¹ Gadamer, 34–35.

¹² *Ibid.*, 350.

¹³ ADP 3-0, 13.

¹⁴ *Ibid.*, 6.

¹⁵ JP 3-0, II-2.

¹⁶ ADP 3-0, 9, 13; JP 3-0, II-3.

¹⁷ Alan C. Lamborn, “Theory and Politics in World Politics,” *International Studies Quarterly* 41, no. 2 (June 1997), 191–197.

¹⁸ Carl von Clausewitz, *On War*, trans. by O.J. Matthias Jolles (New York: Random House, 1943), 17.

¹⁹ Emile Simpson, *War from the Ground Up: Twenty-First Century Combat as Politics* (Sydney, Australia: Scribe Publications, 2013), 54–56, 74.

²⁰ Clausewitz, 132.

²¹ *Ibid.*, 149.

²² *Ibid.*, 146–147.

²³ *Ibid.*, 128.

²⁴ “Operational art is not associated with a specific echelon or formation, nor is it exclusive to theater and joint force commanders. Instead, it applies to any formation that must effectively arrange multiple, tactical actions in time, space, and purpose to achieve a strategic objective, in whole or in part.” See ADP 3-0, 9.

²⁵ Robert M. Gates, *Duty: Memoirs of a Secretary at War* (New York: Knopf, 2014), 344–358, 367–386.

²⁶ Paul Kennedy, *Engineers of Victory* (New York: Random House, 2013), 235–236.

²⁷ *Ibid.*, 288–289 (map), 305, 312, 367.

The Pacific Ocean Areas included the Southwest Pacific Area under Douglas MacArthur, within United States Strategic Direction, by structure under Admiral William Leahy “as titular head of the Joint Chiefs.”

²⁸ Max Hastings, *The Korean War* (New York: Simon and Schuster, 1987), 121–123.

²⁹ Fredrik Logevall, *Choosing War: The Lost Chance for Peace and the Escalation of the Vietnam War* (Berkeley: University of California Press, 1999), 234, 324; and H.R. McMaster, *Dereliction of Duty* (New York: Harper Collins, 1997), 244–245.

³⁰ “I am tempted to declare that whatever doctrine the Armed Forces are working on, they have got it wrong. I am also tempted to declare that it does not matter that they have got it wrong. What does matter is their capacity to get it right quickly when the moment arrives. It is the task of military science in an age of peace to prevent the doctrine being too badly wrong.” See Michael Howard, “Military Science in the Age of Peace,” *RUSI Journal* 119, no. 4 (March 1974), 4.



Joint Logistics Over-the-Shore camp comprised of Naval Support Element, Army Task Force 24, and Marine Corps 4th Landing Support Battalion Charlie Company participates in cooperative training exercise involving Moroccan military and 14th Marine Regiment in execution of ship to shore movement of cargo and equipment during Exercise African Lion 2011 (U.S. Navy/Jonathan Pankau)

Joint Engineers Launch New Knowledge-Based Management Program

By Brian E. Griffin

After more than 3 years in development, the Joint Staff Logistics Directorate will field its first joint engineering computer application: the Joint Engineer Common

Colonel Brian E. Griffin, USA, Ph.D., is Deputy Division Chief of the J4 Engineering Division on the Joint Staff.

Operating Picture (JECOP). Its purpose is to aid combatant command and Service engineers with steady-state planning, programming, and the synchronization of engineer efforts for worldwide military operations. The JECOP portal serves as a collaborative knowledge management tool that depicts network information on a map

in order for end-users to quickly gather and analyze location data for a variety of purposes including data summary, trend analysis, infrastructure planning, and decision support. The portal also provides users access to real-time authoritative data linked to strategic direction via map-based displays and user-defined views.



Soldier assigned to 331st Transportation Company locks in portion of Trident pier during Combined/Joint Logistics Over-the-Shore naval exercise on Korean Peninsula, April 15, 2013, intended to improve logistics interoperability, communication, and cooperation between the United States and South Korea (U.S. Navy/Elisandro T. Diaz)

Background

The concept for JECOP grew out of the recommendations from an Engineer Capability Assessment, which identified a competency gap in knowledge management. This was attributable to stove-piped legacy information systems, lack of fused visibility and limited access, inability to present a common picture, and limited decisionmaking

tools for joint engineers to manage activities and events within their respective areas of responsibility. In an effort to address this capability gap, the Joint Operational Engineer Board authorized the development of a common operating picture to support the combatant commanders' theater campaign plan in December 2012. This decision represented a change in approach from

spending a significant amount of time and resources on rewriting a specialized contingency planning module, such as the Joint Engineer Planning and Execution System (JEPES). However, JEPES will not go away. Instead, the rewrite of the JEPES module will become the second phase of this development effort. The JEPES module and JECOP portal will complement one another. In short, JECOP is a steady-state planning tool, and JEPES will continue to be a contingency planning and execution module within Global Combat Support System-Joint.

Strategic Concept

JECOP can be used to improve the transfer of knowledge by leveraging visualization methods to produce a shared understanding of requirements and the operational environment. It performs deductions and helps facilitate action, and its system architecture is designed to enable collaboration among widely separated planners at all command echelons. The JECOP portal is not a database. As such, it will not serve as a repository of execution information or an asset management, scheduling, or accounting tool. While JECOP may support deliberate or crisis action planning processes, it does not have the sufficient detail to build products such as a time-phased force and deployment data. Instead, the JECOP portal serves as a program of record designed to pull data from multiple databases and produce results much faster, more detailed, and more accurate than using spreadsheet software or with a stubby pencil and calculator using planning factors. In doing so, JECOP provides authorized users a comprehensive, up-to-date picture of U.S. engineering activities and events worldwide.

So how does JECOP work? Engineer capabilities enable joint operations by facilitating freedom of action necessary for the joint force commander to meet mission objectives. During steady-state operations, engineers primarily focus on preparing the operational environment to receive large numbers of forces for future joint operations. Some examples of joint

engineering include the improvement of infrastructure, environmental and energy considerations, exercise-related construction, humanitarian and civil assistance projects, the construction of bases, and other support to ongoing joint and multinational operations. A majority of these projects are managed by U.S. Army Corps of Engineers, Naval Facilities Engineering Command, and Air Force Civil Engineer Center, and then stored in their historical archives. JECOP pulls relevant data from the Services' databases and other open source data sets, then translates the project addresses into geo-coordinates on a map. The JECOP portal uses a simple icon to denote engineer construction efforts across the command. In addition to displaying data on a map, JECOP aims to link requirements found in the theater campaign plans (TCPs) that support combatant commanders' long-term vision of their areas of responsibility. Commanders use their TCP to synchronize activities along complementary lines of effort to allocate resources and assess progress toward achieving the endstate.

Besides connecting activities to objectives, JECOP aids commanders and their engineering staff to achieve a shared common understanding of the operational environment. Within the TCP, the theater posture plan provides an important link to the resources necessary to implement a commander's strategy. The plan is comprised of three elements: forces, footprints, and agreements—all essential to supporting current operations, security cooperation, and other steady-state activities. Commanders rely on well-placed footprints, which consist of basing, facilities, infrastructure, and prepositioned equipment, to enable operational reach, flexibility, and depth throughout their areas of responsibility. In support of steady-state planning, joint engineers must acquire knowledge of critical terrain information such as runway dimensions at potential aerial ports of debarkation or the harbor depths at potential sea ports of debarkation to support the future movement of forces. A majority of this information can be found on open source Web sites. The JECOP portal facilitates the transfer of knowledge by displaying



Soldier assigned to 331st Transportation Company works to bring last sections of Trident causeway together during Combined Joint Logistics Over-the-Shore military exercise on the Korean Peninsula, April 18–28, 2013 (U.S. Navy/Anthony R. Hayes)

critical information against the operational environment that enables joint engineering staffs to arrange disparate facts into a logical and understandable construct. So, for example, a senior leader may ask the engineering staff to update a staff estimate in country x . By displaying basic information on a map coupled with critical information requirements, JECOP serves as a starting point of reference for joint engineers to use their intuition to identify candidate actions and elements of operational risk, as well as develop solutions. This capability can help significantly reduce the options to a few core scenarios that can be further analyzed to derive a recommendation.

The smart directory structure displays time, geography, funding type, execution method, cost, and other resources to allow the users to dynamically choose which groups of information to display. When more detailed information is required, a link is provided to take the user to the appropriate database. Another benefit of the smart directory is the ability to communicate a shared vision among stakeholders. For example, JECOP provides the combatant command the ability to time phase specific engineering activities and events associated with the development of site x over the course of 3, 5, or 10 years. Access

to this knowledge allows Service engineers to engage combatant command engineers early in the master planning processes to identify resourcing requirements and inform respective Service personnel operations and maintenance and budget submission. Additionally, the smart directory provides Active, Reserve, and National Guard engineers with the tools to view potential construction projects in each combatant command that may be ideal for troop construction projects using a multi-component engineer approach in support of command initiatives.

An essential challenge for joint engineers in the future is to meet increasingly demanding logistics requirements with constrained resources during steady-state operations. Knowledge management is a way to close the information gap and gain a greater understanding of the existing environment because it facilitates and accelerates processes in a resource-constrained environment. The JECOP portal is the first step in creating an engineer-centric, knowledge-based network where everyone benefits from information-sharing. Embracing JECOP presents an opportunity for the engineer community to build a collaborative, innovative, and knowledge-sharing culture. JFQ



Marines and Sailors participate in military drill in hangar bay of aircraft carrier USS *Nimitz* as part of Marine Corps professional military education course, May 10, 2013 (U.S. Navy/Derek A. Harkins)

JPME II Available at Satellite Sites

By Kenneth Pisel

Joint Professional Military Education, Phase II (JPME II) is a career milestone for joint warfighters and was designed and implemented to assist with the development of military leaders. The Department of Defense (DOD) Joint Officer Management Program mandates JPME II for an officer to be designated a Level III

Dr. Kenneth Pisel is the Satellite Program Manager in the Joint and Combined Warfighting School at the Joint Forces Staff College.

Joint Qualified Officer and eligible for promotion to O-7.¹ This requirement generates a high demand signal for JPME II, but that demand is tempered by constraints in both the law and the existing infrastructure. The National Defense Authorization Act (NDAA) for fiscal year 2016 modified the language in Title 10 U.S. Codes that define JPME II and authorized JPME II—granting institutions (for example, Joint Forces Staff College (JFSC) and Service war colleges) greater flexibility

in presenting their curricula.² The result is that JPME II is now exportable to sites away from the traditional residential campuses. Preserving academic outcomes and associated resource requirements will determine how this flexibility allows the schools to best support the joint warfighter.

Background

To understand where JPME II may be heading, it is vital to understand its origin and the processes that led to

the current state. The genesis of JPME II is the Goldwater-Nichols National Defense Reorganization Act of 1986 (GNA).³ GNA created a bifurcated system of JPME, with the first phase (JPME I) presented at the Service staff colleges and the second (JPME II) presented at the National Defense University (the former Armed Forces Staff College (AFSC), JFSC's predecessor). As with any legislation, the details for GNA's implementation were refined over time. The seminal event in this process was 1989's Panel on Military Education of the 100th Congress. Chaired by Representative Ike Skelton, the panel defined JPME II:

*Phase II curriculum at AFSC should build on Phase I and concentrate on the integrated deployment and employment of multi-service forces. The course should provide time for: (1) a detailed survey course in joint doctrine; (2) several extensive case studies or war games that focus on the specifics of joint warfare and that involve theaters of war set in both developed and underdeveloped regions; (3) increasing the understanding of the four service cultures; and (4) most important, developing joint attitudes and perspectives.*⁴

While the language of the Committee on Armed Services states that joint attitudes and perspectives are "most important," this idea cannot be overemphasized. The inculcation of joint attitudes and perspectives (now commonly referred to as "joint acculturation") is the single element that makes JPME II unique, provides significant added value, and drives how it is presented. The Committee went on to define Skelton's four pillars for a JPME II program: a joint curriculum, taught by a joint faculty, to a joint student body, in a program under the Chairman's oversight. Additionally, the Committee determined that the acculturation process required 3 months to achieve.⁵

With the guidance from the Panel on Military Education in hand, DOD attempted to implement JPME II using a 9-week curriculum. Congress did not view 9 weeks as equivalent to 3 months;

thus it specified in law that JPME II shall be not less than 12 weeks. As a result, the 2005 NDAA implemented 3 modifications to the JPME II model: (1) the JPME II course at JFSC was reduced to 10 weeks in length, enabling a 4th class to be conducted each year; (2) senior Service colleges were given authority to grant JPME II; and (3) JPME II could be taught only in an in-residence format. This final change reflected Congressional belief that direct student interaction was indispensable in achieving joint acculturation.⁶

Concurrently in 2005, then-Chairman of the Joint Chiefs of Staff General Peter Pace published a White Paper on joint officer development with a vision for all O-6s to have completed JPME II.⁷ This vision created a challenge. With the senior Service colleges now granting JPME II, the total output for all venues increased to just over 2,100 personnel per year. In today's reduced force, there are more than 18,000 Active Component (AC) and Reserve Component (RC) O-6s and 48,000 O-5s.⁸ Thus it was obvious that demand and capacity were incompatible.

With a need to increase capacity and with the personnel tempo (PERSTEMPO) at record levels, the National Defense University/JFSC was tasked in 2006 to develop innovative alternative approaches for presenting JPME II. Having received proposals for programs of 40 to 52 weeks that would utilize hybrid or night-school formats, the combatant commanders and the Joint Chiefs of Staff favored a satellite program that replicated the JFSC's 10-week course of instruction. The concept was presented to Congress, and the 2012 NDAA authorized a 5-year test of the satellite-campus model at two combatant command (CCMD) headquarters.⁹ Tampa, Florida, was chosen because it offered the headquarters for both U.S. Special Operations Command (USSOCOM) and U.S. Central Command (USCENTCOM). Of nearly equal importance was the availability of academic space within the Joint Special Operations University (JSOU). A classroom at JSOU gave the Joint and Combined Warfighting School (JCWS)

Satellite Program a home that had sufficient separation between the students and the gravitational pull of their staff jobs. From 2013 to 2015, the JCWS Satellite Program completed 12 classes at JSOU and collected the data required to support the Congressional decision in the 2016 NDAA. With that authority, the satellite program pilot has now been expanded to other CCMD sites.

Academic Program

The decision to use the 10-week model offered distinct advantages. The students would not need to focus on their staff jobs and the JPME II program simultaneously, and the model required almost no adaptation to the curriculum. In addition, the satellite classes begin on the same day as the resident program and the lessons proceed at the same pace.

The course is not specifically tailored to the CCMD; it presents enduring doctrinal planning concepts that, like the Norfolk-administered course, provide students with foundational material to work across regions, domains, and functions. When compared to the resident JCWS program, the satellite curriculum has only two unique elements. First, because the students are not in a temporary duty status, the administrative time required for out-processing is eliminated. This efficiency enables the satellite seminar to graduate the afternoon before the Norfolk class. More significant is the requirement to adapt two lessons to the satellite site. JCWS employs a case study and staff-ride of the Yorktown Revolutionary War battlefield in southern Virginia to achieve learning objectives for teaching the basic concept of operational art and introducing the elements of operational design. Aside from it being an excellent scenario for the academic requirement, Yorktown is also close to the JFSC campus.

Similar scenarios were developed for each satellite site with the exception of the National Capital Region class, which will use Yorktown. For USCENTCOM/USSOCOM and U.S. Southern Command, the Second Seminole War of 1835–1842 is the case study, with



Colonel Lenny Richoux, 18th Wing vice commander, addresses group of students and instructors from Japan Self Defense Force Joint Staff College at Kadena Air Base as part of Japan's year-long advanced professional military education program, February 3, 2010 (U.S. Air Force/Christopher Hummel)

staff rides to the Dade and Loxahatchee battlefields, respectively. U.S. Northern Command used Bent's Old Fort National Historic Site in Colorado to analyze Brigadier General Stephen Kearney's march down the Santa Fe Trail into New Mexico at the start of the Mexican War in 1846. General Sterling Price's 1864 campaign into Missouri and the Union defense of Fort Davidson in the battle of Pilot Knob, Missouri, will support U.S. Transportation Command. U.S. Pacific Command will employ a staff ride to multiple sites as they look at the attack on Pearl Harbor on December 7, 1941, from the Japanese operational perspective. Finally, U.S. Strategic Command will utilize the Strategic Air and Space Museum in Ashland, Nebraska, and execute a case study on the 1962 Cuban Missile Crisis.

Because joint acculturation is arguably foundational to true integration of our Armed Forces across domains

and functions, JPME II is a program in which the students build on the basic curriculum through regular facilitated and unfacilitated discussion and discourse among themselves. The seminar composition at the satellite sites thus reflects Congressional direction for joint acculturation. Like seminars in Norfolk, the goal for each satellite seminar is to have 16 uniformed students (both AC and RC), with a one-third air-land-sea Service mix. There will also be a slot for an international officer and a U.S. Government civilian. If the international officer and civilian are not available, those slots will be filled by uniformed students.

While the PERSTEMPO benefits for the students are significant at the satellite locations, the diversity of available networking opportunities and student-infused perspectives from other commands, regions, and staffs represents a downside. In residence at JFSC, each seminar is

composed of a cross-section of students from different CCMDs, the Joint Staff, Service staffs, and other agencies. The diversity of classroom discussions and the resultant student Rolodexes are beneficial throughout their careers. Conversely, the satellite seminar students tend to be primarily from the local CCMD, limiting the diversity of knowledge and discussion. It does, however, provide more immediate networking across the directorates within that CCMD, a noticeable student-stated benefit of the satellite seminars that have already been executed in Tampa and Colorado Springs.

The Way Forward

Ultimately, the future of JPME II comes back to the law. There are three sections of Title 10 U.S. Code that drive JPME II. Congress modified § 2154 to relieve the restriction on resident-only JPME II.¹⁰ This change

opened the door for a satellite program and for blended-learning options. However, Congress did not modify § 2155¹¹ or § 2156.¹² The former mandates that neither the student nor the faculty distribution of the senior Service colleges' JPME II programs may exceed 60 percent of home Service (that is, the Army War College may not be more than 60 percent Army), and the remaining Services must be proportionally represented. The latter mandates that the principal course of instruction at JFSC is a 10-week resident JPME II program.¹³

This change indicates two things. First, any of the JPME II institutions can field a satellite program (although currently it is only JFSC that is doing so). Second, these same institutions can develop a blended program for JPME II. Today, only the Army War College and JFSC (that is, Advanced Joint Professional Military Education (AJPME)) have blended programs. The challenge for the Army will be to draw enough other-Service students and faculty to meet the 60/40 mix requirement defined by law.

The value of the satellite and, potentially, the hybrid AJPME program, is to those who will be able to complete JPME II without increasing family separation in an already high-PERSTEMPO environment. Plans for 2016 and 2017 are defined by available funding. There will be one satellite seminar in each of the four classes each year.

Plans for 2018 and beyond are still undetermined. It is likely that there will be an operational pause to assess lessons learned and actual costs for all sites before the long-term schedule is determined.¹⁴

Staff officers interested in pursuing JPME II at a CCMD satellite site should contact their respective J-1 approximately 90 days before class is scheduled to start. The goal is to submit student nominations to the Services for approval not later than 60 days before each class begins. Staff officers in the National Capital Region will need to coordinate directly with their individual Services for information about that satellite class.

The satellite program is an innovative approach to making JPME II available

Table.

Class 16-1 Jan–Mar 2016 USNORTHCOM	Class 16-2 Mar–Jun 2016 USTRANSCOM	Class 16-3 Jun–Aug 2016 USSTRATCOM	Class 16-4 Sep–Nov 2016 USEUCOM/ USAFRICOM
Class 17-1 Jan–Mar 2017 USPACOM	Class 17-2 Mar–Jun 2017 USSOUTHCOM	Class 17-3 Jun–Aug 2017 National Capital	Class 17-4 Sep–Nov 2017 USSOCOM/ USCENTCOM

to many joint warfighters who would otherwise not have the opportunity. The challenge is that JPME II is academically rigorous and directly competes with responsibilities at home. While the CCMD chief of staff can give the students top cover that the classroom is their primary place of duty, students and their families must understand the academic requirements of the course. The original vision in 2006 was to expand the opportunities for warfighters to complete JPME II and to improve quality of life by offering the course at CCMD HQ sites. As visions and resources changed over the last decade, only the quality of life element remains; currently, 8 percent of JCWS graduates per year attend the satellite program. Though a small percentage of satellite students believed they would have been better served by taking the resident course in Norfolk and completely immersing themselves in academics, the majority of students were happy they completed the satellite seminar without needing to leave their families for 10 weeks. JFQ

for Fiscal Year 2005, H.R. No. 108-491 (to accompany H.R. 4200), 108th Cong., 2nd sess., May 14, 2004.

⁷ *CJCS Vision for Joint Officer Development* (Washington, DC: The Joint Chiefs, 2005).

⁸ Defense Manpower Data Center, available at <www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp>.

⁹ Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005.

¹⁰ Joint Professional Military Education: Three-Phase Approach, USC 10, Pub. L. 108-375, § 107-2154 (2011).

¹¹ Joint Professional Military Education Phase II Program of Instruction, USC 10, Pub. L. 108-375, § 107-2155 (2011).

¹² Joint Forces Staff College: Duration of Principal Course of Instruction, USC 10, Pub. L. 108-375, § 107-2156 (2011).

¹³ National Defense Authorization Act for Fiscal Year 2016.

¹⁴ More information about the satellite program is available at <[http://jfsc.ndu.edu/Academics/JointandCombinedWarfightingSchool\(JCWS\).aspx](http://jfsc.ndu.edu/Academics/JointandCombinedWarfightingSchool(JCWS).aspx)>.

Notes

¹ Department of Defense (DOD) Instruction 1300.19, *Joint Officer Management (JOM) Program* (Washington, DC: DOD, March 4, 2014).

² Committee on Armed Services, National Defense Authorization Act for Fiscal Year 2016, H.R. Report No. 114-102 (to accompany H.R. 1735), 114th Cong., 1st sess., May 5, 2015.

³ *Ibid.*

⁴ *Professional Military Education: Hearings before the Panel on Military Education of the Committee on Armed Services*, 100th Cong., 1st and 2nd sess. (1990).

⁵ *Ibid.*

⁶ Committee on Armed Services, Ronald W. Reagan National Defense Authorization Act

Joint Publications (JPs) Under Revision (to be signed within 6 months)

- JP 1-04, *Legal Support to Military Operations*
- JP 2-01, *Joint and National Intelligence Support to Military Operations*
- JP 2-03, *Geospatial Intelligence in Joint Operations*
- JP 3-0, *Joint Operations*
- JP 3-01, *Countering Air and Missile Threats*
- JP 3-04, *Joint Shipboard Helicopter and Tiltrotor Operations*
- JP 3-08, *Interorganizational Coordination*
- JP 3-13.4, *Military Deception*
- JP 3-18, *Joint Forcible Entry Operations*
- JP 3-20, *Security Cooperation*
- JP 3-25, *Countering Threat Networks*
- JP 4-01.2, *Sealift Support to Joint Operations*
- JP 4-08, *Logistic Support of Multinational Operations*
- JP 5-0, *Joint Planning*

JPs Revised (signed within last 6 months)

- JP 1-0, *Joint Personnel Support*
- JP 1-06, *Financial Management Support in Joint Operations*
- JP 2-01.2, *Counterintelligence/Human Intelligence*
- JP 3-03, *Joint Interdiction*
- JP 3-07, *Stability*
- JP 3-13.3, *Operations Security*
- JP 3-14, *Space Operations*
- JP 3-15, *Barriers, Obstacles, and Mine Warfare*
- JP 3-34, *Engineer Operations*
- JP 3-41, *CBRN Consequence Management*
- JP 3-42, *Joint Explosive Ordnance Disposal*
- JP 4-03, *Joint Bulk Petroleum and Water*

New from NDU Press

for the Center for the Study of
Chinese Military Affairs

Strategic Forum 291
*Korean Unification and the Future of
the U.S.-ROK Alliance*
by David F. Helvey



Unification of the Korean Peninsula would remove the primary threat that has animated the U.S.–

Republic of Korea (ROK) alliance for over 60 years, but it need not require termination of the alliance. An alliance between the United States and a unified Korea would, at a macro level, reinforce the international liberal democratic order. At a micro level, it could help ensure security on the Korean Peninsula during the process of integrating the North, assist in the defense of Korea, and serve as a platform for multilateral security cooperation. A future alliance should be a part of planning for Korean unification and should consider the purpose of the alliance, its roles and missions, coordinating structures, and presence (if any) of U.S. troops.



Visit the NDU Press Web site for
more information on publications
at ndupress.ndu.edu

LESSONS ENCOUNTERED

LEARNING FROM THE LONG WAR

Edited by Richard D. Hooker, Jr., and Joseph J. Collins

NEW from NDU Press

Lessons Encountered:

Learning from the Long War

NDU Press, 2015 • 488 pp.

This volume began as two questions from General Martin E. Dempsey, 18th Chairman of the Joint Chiefs of Staff: What were the costs and benefits of the campaigns in Iraq and Afghanistan, and what were the strategic lessons of these campaigns? The Institute for National Strategic Studies at the National Defense University was tasked to answer these questions. The editors composed a volume that assesses the war and analyzes the costs, using the Institute's considerable in-house talent and the dedication of the NDU Press team. The audience for this volume is senior officers, their staffs, and the students in joint professional military education courses—the future leaders of the Armed Forces. Other national security professionals should find it of great value as well.

The volume begins with an introduction that addresses the difficulty of learning strategic lessons and a preview of the major lessons identified in the study. It then moves on to an analysis of the campaigns in Afghanistan and Iraq from their initiation to the onset of the U.S. Surges. The study then turns to the Surges themselves as tests of assessment and adaptation. The next part focuses on decision-making, implementation, and unity of effort. The volume then turns to the all-important issue of raising and mentoring indigenous

security forces, the basis for the U.S. exit strategy in both campaigns. Capping the study is a chapter on legal issues that range from detention to the use of unmanned aerial vehicles. The final chapter analyzes costs and benefits, dissects decisionmaking in both campaigns, and summarizes the lessons encountered. Supporting the volume are three annexes: one on the human and financial costs of the Long War and two detailed timelines for histories of Afghanistan and Iraq and the U.S. campaigns in those countries.

The lessons encountered in Afghanistan and Iraq at the strategic level inform our understanding of national security decisionmaking, intelligence, the character of contemporary conflict, and unity of effort and command. They stand alongside the lessons of other wars and remind future senior officers that those who fail to learn from past mistakes are bound to repeat them.

Available at ndupress.ndu.edu/Books/LessonsEncountered.aspx

Women on the Frontlines of Peace and Security

Foreword by Hillary Rodham Clinton and Leon Panetta

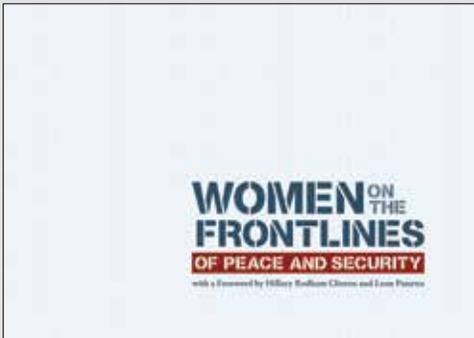
NDU Press, 2015 • 218 pp.

This book reflects President Barack Obama's commitment to advancing women's participation in preventing conflict and keeping peace. It is inspired by the countless women and girls on the frontlines who make a difference every day in their communities and societies by creating opportunities and building peace.

Around the globe, policymakers and activists are working to empower women as agents of peace and to help address the challenges they face as survivors of conflict. When women are involved in peace negotiations, they raise important issues that might be otherwise overlooked. When women are educated and enabled to participate in every aspect of their societies—from growing the economy to strengthening the security sector—communities are more stable and less prone to conflict.

Our understanding of the importance of women in building and keeping peace is informed by a wide range of experts, from diplomats to military officials and from human rights activists to development professionals. The goal of this book is to bring together these diverse voices. As leaders in every region of the world recognize, no country can reach its full potential without the participation of all its citizens. This book seeks to add to the chorus of voices working to ensure that women and girls take their rightful place in building a stronger, safer, more prosperous world.

Available at ndupress.ndu.edu/Books/WomenontheFrontlinesofPeaceandSecurity.aspx



Have you checked out NDU Press online lately?



With 20,000 unique visitors each month, the NDU Press Web site is a great place to find information on new and upcoming articles, occasional papers, books, and other publications.

You can also find us on:



Facebook



Flickr



Twitter



Pinterest

Visit us online at: <http://ndupress.ndu.edu>

JFQ is available online at the Joint Electronic Library:
www.dtic.mil/doctrine/jfq/jfq.htm



JFQ

JOINT FORCE QUARTERLY

Published for the Chairman of the Joint Chiefs of Staff by National Defense University Press
National Defense University, Washington, DC

