

A REPORT OF THE  
CSIS NEW DEFENSE  
APPROACHES PROJECT

# Tough Choices

SUSTAINING AMPHIBIOUS CAPABILITIES' CONTRIBUTIONS  
TO STRATEGIC SHAPING

*Authors*

Maren Leed  
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### Cover

*Top photo:* A helicopter crew assigned to U.S. Marine Medium Helicopter Squadron 265 (REIN) loads cargo nets with relief supplies for the regions of Western Sumatra and Padang, Indonesia, in October 2009. U.S. Navy photo by Petty Officer 2nd Class Aaron Burden, at [http://www.defense.gov/dodcmsshare/photoessay/2009-10/hires\\_091012-N-7130B-146a.jpg](http://www.defense.gov/dodcmsshare/photoessay/2009-10/hires_091012-N-7130B-146a.jpg).

*Bottom photo:* Republic of Korea and BLT 3/1 Marines set up side-by-side communications after an assault on a beach in Pohang during a bilateral amphibious training exercise. ROK and U.S. forces conduct bilateral training annually. U.S. Marine Corps photo by Cpl. Ryan Wick, at <http://www.marines.mil/unit/mcbjapan/PublishingImages/2008/081121-korea4.jpg>.

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# CONTENTS

Acknowledgments	iv
Executive Summary	v
Introduction	vii
1 Historical Uses of U.S. Amphibious Capabilities for Strategic-Shaping Activities	1
2 Attributes of Amphibious Capabilities	6
3 Contributions of Amphibious Attributes to Strategic-Shaping Missions	10
4 Implications for Trades between Defense Capabilities	26
5 Summary and Recommendations	34
Appendix: Interviews	37
Bibliography	40
About the Authors	53



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## EXECUTIVE SUMMARY

As budgets tighten, major U.S. defense programs will be subject to increasingly greater scrutiny. At present, the Department of Defense's processes for determining whether programs should be cut or eliminated are based on two main factors: cost and operational impact. However, mechanisms for evaluating both factors are frequently incomplete, because the Defense Department lacks a process for systematically and routinely including the full range of relevant information. Thus, policymakers may be making decisions that overestimate potential savings, underestimate operational risks, or both.

These deficiencies can be remedied by adopting a more robust decisionmaking framework. Specifically, that process should take a more expansive and realistic view of the likely savings that includes not only the expected cost avoidance but also the costs *shifted* to other elements of the force that assumes responsibility for missions previously conducted by the capability that is reduced. Operationally, the framework should also account more explicitly for the impact of capability reductions not only on combat missions, but also on those activities aimed at precluding the need for those missions—that is, “strategic-shaping” activities. These activities include humanitarian assistance and disaster relief operations, training and exercises with partner nations, and regional assurance and deterrence activities. Under the current national and defense strategies, these activities have taken on greater importance, based on the expectation that a greater emphasis on prevention will reduce the likelihood of future combat.

**Policymakers may be making decisions that overestimate savings, underestimate operational risks, or both. An improved process should take cost shifts and operational risks, including those associated with strategic-shaping missions, into account.**

This study offers a case study of how broader conceptions of cost and operational risk can be brought more deliberately to the fore. It represents an in-depth examination of how U.S. amphibious capabilities contribute to strategic-shaping activities as the first step in determining the effects of potential reductions on that mission set. Its main findings are as follows:

- Amphibious capabilities—the ships, aircraft, “connectors,” ground vehicles, and forces that enable and conduct sea-based operations on land—make substantial contributions to strategic-shaping activities.
- Multiple attributes of amphibious capabilities—particularly breadth, mobility, persistence, and responsiveness—are highly relevant to the conduct of strategic-shaping activities. This suggests that if those capabilities were cut, most alternatives would likely involve higher operational risk and/or higher costs.

- The operational risks of alternative approaches are highest for regional assurance and deterrence missions in general, and for the full range of strategic-shaping activities in Asia, Africa, and the Middle East in particular.
- If those risks are deemed acceptable and/or are mitigated in some way, the alternative approaches are likely involve some, and potentially substantial, additional cost. These costs should be decremented from any cost savings expected to be realized from reductions to amphibious capabilities.

Evaluating the specific implications, both from an operational and fiscal perspective, of any given reduction in amphibious capability requires a detailed understanding not only of the magnitude and nature of the reductions being considered but also of the potential alternatives. This is a complex decisionmaking process with multiple permutations, and it involves conditional decisions about which the study team at the Center for Strategic and International Studies could not make reasonable projections. The framework here, however, provides a mechanism that policymakers could use for this purpose once specific options are defined.

More broadly, the framework developed here can be applied to any capability area for which cuts are being considered. It offers an objective basis for evaluating the operational relevance of a given capability to the preventative missions that are a key tenet of U.S. security strategy. Incorporating these considerations as part of every resource decision must become routine if a preventive strategy is ever to truly take hold.

If the framework highlights risks that policymakers deem unacceptable, then it also provides a way to assess the risks associated with alternative approaches. If a given approach is in turn deemed to be operationally viable, the framework further indicates that the associated costs should be taken into account. This would result in a more realistic reflection of the true fiscal impact of a given capability reduction.

Although such a process is more complex, it would result in a sounder and more comprehensive basis for determining future capability reductions. As defense resources face greater and greater pressure, ensuring the highest-quality decisions becomes an even greater imperative. To best meet this imperative, we recommend that the Department of Defense take these steps:

- Develop a robust and searchable data repository for objective information about capabilities' contributions to the full range of missions, to include strategic shaping.
- Include the opportunity costs (both financial and operational) that are associated with strategic-shaping missions as an explicit factor in decisions about capability reductions.
- Utilize a capability attribute framework to better inform analyses of the feasibility of alternative approaches.

Implementing these recommendations will decrease the likelihood of making decisions that might eliminate or reduce capabilities without fully appreciating their potential impact. In the amphibious case explored here, the indications are that this impact—depending on the exact nature of the cuts—could be significant. Policymakers have never made these decisions lightly, but they can be enabled to make them on the basis of more complete information.



# INTRODUCTION

The two most prevalent features of the current and future security environment are complexity and uncertainty, both of which seem to be perpetually compounding. The breadth and depth of issues with which the leaders of the U.S. Department of Defense (DoD) must concern themselves is multiplying at the same time that pressure on defense resources is greater than at any point since the mid-1990s, complicating the already difficult task of setting clear defense priorities. Missions and programs are facing increasing scrutiny as leaders seek to balance multiple types of risk across the massive defense portfolio.

The task of charting a clear path ahead is complicated still further by a broadening defense remit. Historically, DoD has pursued military capabilities based on the expected demands of large-scale, high-intensity conflict, assuming that less violent or “lower-end” missions could be handled as “lesser included cases.” The vulnerability of this assumption has been clearly illustrated by operations during the past 15 years, however. Operations in the Balkans, Iraq, Afghanistan, and the Horn of Africa have exposed clear gaps in doctrine, equipment, organizations, and training, for which leaders at all levels have been forced to accommodate.

The growing appreciation for the range of potentially differing requirements between different military missions has occurred concurrent with a broader shift in security strategy. To a greater degree than ever before, U.S. security policy now emphasizes preventing, not just prevailing in, conflicts. The 2010 *National Security Strategy* highlights the importance of investing in capacity building with key partners, with an eye toward “preventing the challenges and seizing the opportunities of tomorrow.”<sup>1</sup> Within DoD, preventing and deterring conflicts is one of four strategic priorities, and it is planned to assume even greater import as current operational commitments decline.<sup>2</sup> The Obama administration’s emphasis on “strategic shaping,” or the set of activities directed at forestalling the outbreak of conflicts, argues for a more explicit consideration of specific military capabilities’ contributions to conflict prevention and deterrence as a key criterion in force structure decisions.

To help amplify these decisions, the Center for Strategic and International Studies applied this lens in one specific area. Future U.S. amphibious capabilities—the ships, aircraft, “connectors,” and ground vehicles that collectively support the conduct of amphibious operations—have been a topic of particular focus of late, for at least two reasons. Some have questioned whether the forcible entry mission for which these capabilities are optimized remains relevant in the future. Others accept

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1. White House, *National Security Strategy* (Washington, D.C.: White House, 2010), 27.

2. The 2010 *Quadrennial Defense Review Report* states that “in the future, as our forces transition into a period of less-intensive sustained operations, the Department’s force planning assumes an ability to undertake a broader and deeper range of prevent-and-deter missions.” U.S. Department of Defense, Office of the Undersecretary of Defense, *Quadrennial Defense Review Report* (Washington, D.C.: U.S. Department of Defense, 2010), vi.



the continued validity of the forcible entry mission, but they challenge whether the costs associated with specific programs that provide amphibious capability warrant continued investment.<sup>3</sup> Both concerns raise the possibility that key portions of the U.S. amphibious capability set could be subject to reduction or elimination in an increasingly stringent budget environment.

Such reductions, if made, may be entirely appropriate given the multiplicity of demands upon defense resources. They should also be informed by a clear understanding of the contributions that various capabilities provide to the full range of U.S. strategic objectives, to include preventing and deterring future conflicts. This study thus seeks to illuminate the potential opportunity costs to strategic-shaping missions were there to be reductions in amphibious capabilities.

Quantifying the impact of potential losses of capability is a complex proposition, not least because most of the strategic-shaping activities to which amphibious capabilities contribute are not “inherently amphibious.” This suggests that other tools in the DoD tool kit could, at least in theory, be applied to achieve the same objective, though perhaps at a greater cost or with some degradation in effectiveness. The task of considering all the potential alternatives for any given scenario fell well beyond the bounds of this analysis. Instead, this study offers an objective framework that could be employed to better understand those areas most and least amenable to solution through other means. This study thus addresses two main questions:

- What do amphibious capabilities contribute to strategic-shaping missions, or, put differently, what is the potential opportunity cost to strategic-shaping missions if amphibious capabilities are reduced?
- How should DoD assess the ability of utilizing other capabilities as a way to reduce that opportunity cost, and what might other effects be?

To address these questions, the CSIS team undertook two main analytic efforts. The first was an attempt to capture the contributions of amphibious capabilities to strategic-shaping activities during the past five years in five key regions: the Asia-Pacific, the Middle East, Africa, Europe, and Central and South America. This admittedly excludes some major activities in areas such as the Caribbean—where humanitarian assistance and disaster relief missions are particularly relevant—and Central Asia, but the project’s timeline and budget precluded a global examination. The five regions covered, however, are broadly representative of amphibious contributions to strategic shaping, and they do capture the bulk of the activity.

Strategic-shaping activities were defined as those that fell into one of three mission areas supported by amphibious capabilities:

1. *Humanitarian assistance and disaster relief operations*, or named military operations aimed at reducing the misery and meeting the life-saving needs of a population suffering from a human-made or natural disaster;

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3. For examples of the former, see Robert Gates, “Speech,” Navy League Sea Air Space Exposition, Washington, D.C., May 3, 2010; and Andrew Krepinevich, *7 Deadly Scenarios* (New York: Bantam Books, 2009), 189. Krepinevich was quoted by Tony Perry and Julian Barnes, “U.S. Rethinks a Marine Corps Specialty: Storming Beaches,” *Los Angeles Times*, June 21, 2010; and Frank Oliveri, “Beyond the Beachhead,” *CQ Weekly*, July 12, 2010, 1690. For examples of the latter, see Craig Hooper, “A Poster Child for Next-War-Itis,” *U.S. Naval Institute Proceedings* 134, no. 11 (2008): 22–26; Dakota Wood, “Caught on a Lee Shore,” *The American Interest*, Autumn 2010, 22; and Loren Thompson, “The EFV Debate Is Really about the Future of the Marine Corps,” *Defense*, July 13, 2010.

2. *Partnership activities* to build the security capacity of partner nations, which include activities focused on training local military forces to better meet the security and crisis response needs of their nation or region. These include nation-assistance missions,<sup>4</sup> as well as the full range of combined exercises and training. (Some other definitions also include activities such as educational exchanges and technology transfer agreements. We did not include these activities because they are not directly supported by amphibious capabilities.)
3. *Regional assurance and deterrence activities*, or actions that show national commitment and resolve in the face of instability or potential conflict, with the intent that demonstrating readiness to respond will shape the behavior of others to more closely align with U.S. interests. These missions include peace operations, shows of force, noncombatant evacuation operations, and security for senior U.S. officials as they travel to other nations both to reaffirm relationships and to demonstrate U.S. commitment.

These three categories are only a subset of the full range of amphibious operations. However, they represent most of the activities amphibious forces would likely conduct on a routine basis or in an “immediate response” posture, as well as those that relate most directly to conflict prevention. Because the intent of the study was to capture strategic-shaping activities, it does not include “combat” or kinetic missions such as counterpiracy or counterterrorism, or ongoing counterinsurgency operations in Iraq or Afghanistan. These combat missions are routinely incorporated into existing Defense Department decision processes.

Within each subset of strategic-shaping activities, the CSIS study team sought to quantify the level of activity supported by amphibious capabilities during the past five years. Although we attempted to capture as much data as possible about past amphibious activities, for reasons explained more fully in chapter 1, we are certain that what is presented here falls short of the full range of relevant activities. The data should therefore be interpreted as the *minimum* potential opportunity cost of amphibious capability reductions, with an acknowledgment that the actual potential cost is greater by some unknown amount.

Clearly, not all this potential cost would be realized. It is unlikely that the entirety of U.S. amphibious capabilities would be eliminated, but instead that some portion would be reduced. Depending on the nature of what was cut, the impact on strategic-shaping activities could vary widely, from marginal to significant. The subset of the potential impact associated with a specific capability cut could in turn be further reduced if DoD’s leaders decide to reassign responsibility for activities that had previously fallen to those forces to others, or if they decide to discontinue them outright.

To help inform this decisionmaking process, the project’s second task was to structure a discussion of opportunities to avoid or reduce the potential opportunity cost of reductions in amphibious capability. To address this much more complex analytic task, the study team adopted a two-pronged approach. The first involved an extensive literature review that included more than 200 official government documents, books, theses, articles, and monographs; the full list is included in the bibliography.

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4. Nation-assistance missions are defined as those that advance “the establishment of an effective local government supporting the goal of crisis prevention, . . . [including] actions that assist in and support legitimate governments of host nations and counter attempts by destabilizing forces from within the affected nation.” U.S. Marine Corps, Combat Development Command, *Multiservice Procedures for Humanitarian Assistance Operations FMFRP 7-16* (Quantico, Va.: Combat Development Command, 1994), 1–3.

The second was to augment the literature review with interviews conducted both by the CSIS study team directly and by regional experts in CSIS's Southeast Asia, Europe, and Africa programs (the people who were interviewed are listed in the appendix). Some of these interviews were with other CSIS colleagues in the Middle East and South Asia programs, as well as with the Burke Chair in Strategy. Team members also spoke with regional experts from other U.S. as well as foreign think tanks, and with representatives from numerous foreign embassies in Washington. Within DoD, the team conducted interviews with U.S. military leaders and staffs from the Headquarters and/or Navy and Marine Force components of U.S. Africa Command, U.S. Pacific Command, U.S. European Command, U.S. Southern Command, and U.S. Central Command, various elements of Headquarters Marine Corps, and the Joint Staff. The study team also met with officials in the Department of the Navy. Finally, the study team interviewed key congressional staff from the House and Senate Armed Services Committees and the Senate Defense Appropriations Subcommittee.

Together, the literature review and expert input provided insights into global trends affecting the future security environment, specific regional issues and concerns that might affect the applicability of amphibious capabilities, and the history of past operations as an illustration of the relevance of amphibious capabilities under varying conditions. The study team utilized these insights for two purposes: (1) to identify the attributes of amphibious capabilities that most directly affect their effectiveness; (2) and to inform judgments about the importance of those attributes across strategic-shaping missions and across regions. These judgments underpin the assessments of where opportunities to substitute non-amphibious capabilities are greatest and where they might be most likely to result in higher costs and/or higher operational risk.

Before writing the final report, the CSIS study team shared its draft findings and recommendations with senior officials at Headquarters U.S. Marine Corps, the Navy staff, the Office of the Secretary of Defense's Cost Assessment and Program Evaluation, and the Joint Staff. These interactions provided an opportunity for experts outside CSIS to offer feedback on the study's core conclusions and recommendations.

This report is made up of five chapters. Chapter 1 describes past amphibious strategic-shaping activities by region and mission type. Chapter 2 identifies 10 attributes of amphibious capabilities to support the analysis in chapter 3, which assesses the relative contributions of each amphibious attribute to strategic-shaping missions in five key regions of the world. Chapter 4 describes the implications of those assessments for the potential to address future strategic-shaping demands with alternative capabilities. Finally, chapter 5 offers a summary and recommendations.

# 1

## HISTORICAL USES OF U.S. AMPHIBIOUS CAPABILITIES FOR STRATEGIC-SHAPING ACTIVITIES

As a jumping-off point for evaluating opportunity costs, the study team began its analysis by attempting to capture the past contributions of amphibious capabilities to strategic-shaping activities. Although the recent emphasis on preventing future conflicts may seem new, U.S. military forces have a long history of supporting strategic-shaping activities—defined as humanitarian assistance and disaster relief (HA/DR) operations, partnership activities, and regional assurance and deterrence (RA/D) operations. This chapter provides a brief overview of how amphibious capabilities in particular have supported strategic shaping during the past decade, across five key regions: the Middle East, Africa, the Asia-Pacific, Europe, and Central and South America.

Activity levels can be captured in myriad ways. These include measures of frequency or cumulative duration, scale (number of personnel or cumulative duty days, pieces of equipment involved, people affected, etc.), cost, and “importance” of a given event. Unfortunately, DoD lacks reliable and consistent information about most, if not all, these measures. The most readily available information, which still involved significant time to collect, was a simple count of past strategic-shaping activities involving amphibious capabilities.

Gathering this information was a particular challenge because the bulk of these activities fall short of the named operations for which DoD’s records are most complete (although still lacking in many ways). The study team relied on numerous sources to identify the number of strategic-shaping activities that Marine Corps units operating from sea-based platforms—specifically amphibious or maritime prepositioning ships—have supported during the last decade.

Simple counts of activities are at best an imperfect proxy for a clear understanding of amphibious contributions. They do provide, however, some insight into the volume and types of activities, and thus some indication of the numbers of events (whether small or large) that could be either forgone or might require support from some other capability if amphibious resources were reduced.

### Data Limitations

Unfortunately, the lack of an authoritative, unclassified database that captures past amphibious activities greatly impeded the study team’s efforts. The team thus relied on a variety of sources to obtain these data. These included Marine Expeditionary Units’ postdeployment briefs, command histories, weekly situation updates from various units, interviews with headquarters staffs, command press releases, and media coverage. Overall, the more recent the event, the more reliable we believe the data to be.

Although we attempted to assemble as comprehensive and consistent a data set as possible, we know that it underrepresents the total level of amphibious activity for at least three reasons. First,

funding and time constraints caused the study team to focus its effort on the five regions mentioned above. Therefore, the data we collected do not include amphibious activities in other areas such as Central Asia and the Caribbean.. Thus recent humanitarian assistance operations in Haiti and Pakistan, for example, are not included in our analysis.

Second, our data collection focused on activities conducted from the sea (i.e., from an amphibious or maritime prepositioning ship). We thus excluded activities to which forces deployed in some other manner (either self-deployed, in the case of Marine helicopters or aircraft, over land, by some other type of ship, or by military or commercial air or sealift). We made this distinction to avoid overestimating the potential losses associated with reductions in amphibious capabilities—that is, if Marine infantry units can support an exercise by flying in, this activity could presumably continue even if ships were to be reduced. The data included here do not, therefore, capture the substantial additional contributions to strategic-shaping missions from forces that, at different points in their training or rotational cycles, might be associated with an amphibious capability and thus that might also be “at risk” if reductions are made. (In instances where it was unclear whether Marines were supporting an activity from a ship or in some other manner, we did not include the event in order to avoid over-representing activity levels.)

Finally, the team was subject to the vagaries of individual units’ record keeping and the variability in detail that such records entail. We thus believe that some relevant activities occurred but were not captured in the sources that we examined, if at all. We are unable to estimate the cumulative size of these omissions, but expect that we likely missed some number of smaller interactions in particular.

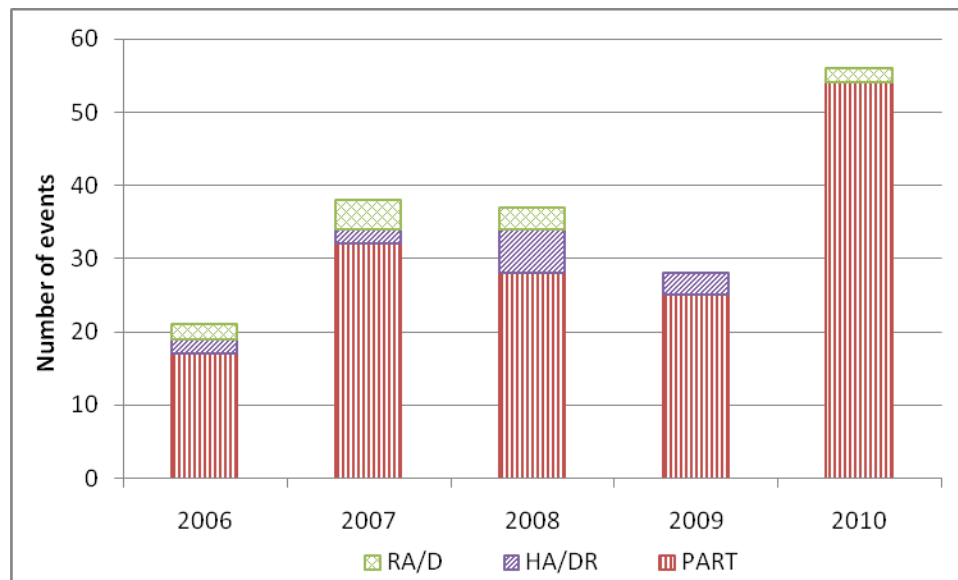
Despite these significant limitations, the data do provide meaningful information for policy-makers. Specifically, they represent the *minimum* level of activity that might not be performed in the future, depending on the size and nature of any reductions in amphibious capability.

## Trends in Amphibious Strategic-Shaping Activities

As figure 1 illustrates, despite significant commitments in Iraq and Afghanistan, amphibious forces more than doubled their support for strategic-shaping activities between 2006 and 2010. The vast majority of these activities fall under the rubric of partnership. The trend has fluctuated somewhat, but its overall rise is due to increased support for partnership activities. We suspect that some of the growth portrayed is due to higher-quality data in more recent years. Either way, in 2010 alone, Marines operating from amphibious or maritime prepositioning ships supported more than 50 exercises and training events in the five regions we examined. (As noted above, Marines from units based in the United States and elsewhere overseas supported an even larger number of events, but we excluded these from our analysis because their activities are not directly tied to potential reductions in amphibious capabilities.)

Amphibious capabilities have also supported at least 13 different HA/DR missions during the past five years in the regions we examined, all of which were in Asia. (This does not include repeated HA/DR operations in both Haiti and Pakistan that were supported by amphibious capabilities, because they fell outside the geographic bounds of our study.) Support to RA/D missions was rarer but still not uncommon. We were able to identify 11 separate RA/D events that amphibious forces supported during the past five years. Of these, only 1—a noncombatant evacuation in Lebanon in 2006—was an actual operation. The other 10 RA/D activities involved the provision of security for presidential or cabinet-level visits to one of our five regions.

**Figure 1. Number of Strategic Shaping Activities by Mission, 2006–2010**



Notes: RA/D = Regional assurance and deterrence; HA/DR = Humanitarian assistance and disaster relief; PART = Partnership activities

The 2010 data include activities conducted before November 22, 2010; the total 2010 numbers will likely be somewhat higher.

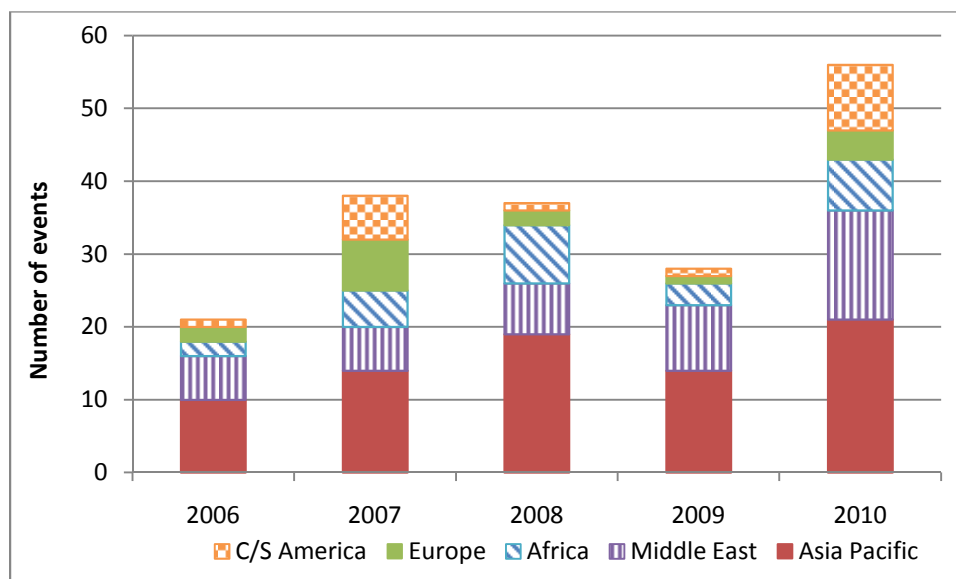
Source: Created by the CSIS New Defense Approaches Project. Data were compiled from multiple sources including Marine Expeditionary Units' post-deployment briefs, command histories, weekly situation updates from the various units, interviews with headquarters staffs, command press releases, and media coverage.

Figure 2 shows the same data, but by region. It indicates that the largest and most consistent activities were in the Asia-Pacific region, and that strategic-shaping support has shown a rising trend from 10 events in 2006 to more than 20 in 2010. As noted above, these data include an average of 1 to 2 HA/DR operations each year, as Asia's unique geography and geology contribute to its unenviable position as host to almost half the world's natural disasters during the past three decades.<sup>1</sup>

Data for both Africa and Central and South America reflect something of an anomaly—many partnership activities, in particular in these regions, are supported under the mantle of the Africa and Southern Partnership Stations, respectively. In both instances, multiple ship types support the routine deployments of joint forces that conduct engagement activities with regional partners. When the deployments involved amphibious or maritime prepositioning ships, these events are included in our analysis. When they were conducted from destroyers, high-speed vessels, or other nations' platforms, however, they are not. Although this has the effect of underrepresenting the overall level of Marine interaction in both regions, it does provide a clearer sense of how much

1. United Nations Economic and Social Commission for Asia and the Pacific and United Nations International Strategy for Disaster Reduction, *Protecting Development Gains: Reducing Disaster Vulnerability and Building Resilience in Asia and the Pacific* (Bangkok: United Nations, 2010), 7.

**Figure 2. Number of Strategic Shaping Activities by Region, 2006–2010**



Note: C/S America = Central and South America

Source: Created by the CSIS New Defense Approaches Project. Data were compiled from multiple sources including Marine Expeditionary Units' post-deployment briefs, command histories, weekly situation updates from the various units, interviews with headquarters staffs, command press releases, and media coverage.

activity could potentially be lost if amphibious-related platforms were reduced. Thus, though the trends vary from year to year, the general increase in strategic-shaping activities in both Africa and Central and South America reflect the growing number of such interactions, although not all are supported by amphibious capabilities.

Conversely, we believe that the activity levels for strategic shaping in Europe, which also show a pattern that varies from year to year, have actually declined somewhat, and that this decline is likely to hold steady if not continue. The dramatic cuts in European defense budgets and the apparent trend toward greater consolidation and potential “mission sharing” suggest that combined exercises in the region will continue to be large, relatively lengthy, and complex, but relatively infrequent. Marine forces do support a number of smaller engagements with a variety of European partners, especially those in Central and Eastern Europe, but these tend to be with land-based rather than ship-based forces and are thus not captured here.

Trends in the Middle East also indicate a slight rise in amphibiously supported strategic-shaping activities. This reflects the primacy of the U.S. military as a key regional balancer and the general security climate in the region. Neither factor seems likely to change in the foreseeable future, though the degree to which additional interactions with U.S. amphibious forces may be sought is unclear.

Overall, the available data indicate that amphibious capabilities make substantial contributions to U.S. strategic-shaping activities, and that this support has likely been growing over time, even while Marine forces have been substantially engaged first in Iraq and now more heavily in



Afghanistan. If amphibious capabilities were to be reduced, some portion of this support would likely be at risk of falling beyond the residual capacity of amphibious forces. This might be an acceptable outcome, particularly if DoD's leaders expect that demand for such activities might fall in the future.

This appears unlikely, however, at least in four of the five regions we examined. Although demand for strategic-shaping engagements may fall in Europe as European militaries contract (and indeed, such contraction could have the inverse effect of *increasing* the demand for U.S. interaction), trends in Asia, the Middle East, Africa, and Central and South America all suggest equal if not greater levels of potential instability and threats from regional and global terrorist and criminal organizations. Our interviews revealed the somewhat paradoxical view that perceived declines in U.S. power and fears of greater American isolationism would in some cases lead to increased demand for U.S. forces as an illustration of continued U.S. interest and commitment to regional security concerns, particularly in Asia and Europe.

**Amphibious capabilities make substantial contributions to U.S. strategic-shaping activities, and this support has been growing over time. Reductions in amphibious capabilities would therefore be likely to have a negative impact on those missions.**

Therefore, the study team does not foresee diminishing appetites for strategic-shaping activities from regional partners. How future demand might be met is not yet determined, but it does suggest that DoD's leaders have little basis to expect that reductions in amphibious capabilities could be made without some impact on the strategic-shaping activities that they currently support. To better understand that effect, chapter 2 describes the attributes of amphibious capabilities that are particularly relevant to strategic-shaping missions within and across regions.



# 2

## ATTRIBUTES OF AMPHIBIOUS CAPABILITIES

Chapter 1 described the past contributions of amphibious capabilities to strategic-shaping operations, and it argued that near-term future demand for such activities is unlikely to diminish. Even if this projection holds, however, it does not necessarily mean that the activities of amphibious capabilities will remain steady or rise in parallel. There are at least two reasons why this might not be true.

First, it is possible that U.S. leaders during the next decade will make significantly different decisions than did their predecessors about the level and/or types of activities to which they wish to commit U.S. forces. Projections of continued demand implicitly assume that the patterns of U.S. support for strategic-shaping activities will roughly approximate those of the past—for example, the average U.S. response rate to humanitarian crises in Asia for the next 10 years will closely resemble that of the last decade. This assumption is clearly vulnerable in any particular instance, but it is likely to be more valid in the aggregate and over relatively long periods of time. The clearest signal available to inform this judgment is stated U.S. policy, which currently places a strong emphasis on strategic-shaping missions. This suggests a continued, if not increased, willingness to support HA/DR and partnership activities relative to the past, at least for the foreseeable future.

A second reason that future amphibious activity levels might depart from past patterns is that these missions would instead be conducted by a different (non-amphibious) capability. Although such substitutions are possible, a variety of factors tend to militate against such substitutions. One is that certain types of capabilities are particularly suited to certain missions (e.g., ground vehicles of some type are likely to be needed in most operations involving food distribution). Another is that many U.S. capabilities center on major pieces of capital equipment that have long service lives and are very expensive, thus creating an incentive to utilize them fully, even if the functions for which they might have been originally designed may have shifted somewhat. A third is that because U.S. capabilities seldom “fail,” it can be difficult to create enough bureaucratic momentum to fix something that is not broken.

However, despite factors that may create a (not necessarily inappropriate) bias toward a perpetuation of “business as usual,” countervailing forces may be growing stronger. The operational demands associated with the wars in Iraq and Afghanistan during the past nine years have led to some cases of temporary capability “substitutions,”<sup>1</sup> perhaps opening the conceptual door more widely for departures from traditional patterns of employing military capabilities. This proposition may well be tested as growing budget pressures and associated efficiency force a greater consideration of alternative ways to meet demands, even if strategic-shaping objectives remain constant. Trading across various capabilities may well become a more routine part of DoD practice as more of the “slack” is removed from DoD as a whole.

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1. For example, although DoD denied an explicit link between the two, in 2004 the United States deployed a bomber squadron to South Korea just as an Army brigade based north of Seoul was preparing to deploy to Iraq. Joo Sang-Min, “Stealth Bombers in Korea on Temporary US Mission,” *Korea Herald*, June 30, 2004.

If the need and/or desire to use current capabilities more interchangeably are in fact rising, how should DoD's leaders think systematically about making such decisions? For example, can some of the humanitarian assistance missions that have traditionally been supported by large-deck amphibious ships instead be met by less expensive prepositioning vessels or littoral combat ships, and if so, what are the implications for the size of the required amphibious fleet? Similarly, can Army or ground-based Marine forces meet some of the demand for partnership activities, given that some of the exercises currently supported by amphibious capabilities are not focused on inherently amphibious skills?

These questions serve both as a starting point for considering future efficiencies and as important considerations resulting from decisions made for other reasons—for example, if a given program is canceled due to cost overruns, determining after the fact which other asset(s) is best suited to provide the desired operational effects. For this study, CSIS developed a framework to help inform prospective decisions about trade-offs for amphibious capabilities in particular. (The following discussion addresses considerations for substituting other capabilities for amphibious ones; it does not address the opposite situation in which amphibious capabilities might meet other needs.)

## Attributes of Amphibious Capabilities

The proposed framework is based on eight key attributes of amphibious capabilities. Although they hold for amphibious capabilities in general, the discussion below includes judgments about the value of each attribute for a typical Marine Expeditionary Unit (MEU)—the common unit of analysis for expressing amphibious force demands. To assess other types of amphibious capabilities (e.g., a single amphibious ship with a particular combat load and task-organized landing force embarked, or a maritime prepositioning force), the values of each attribute may need to be adjusted, but the overall framework would still hold.

Amphibious capabilities possess a number of characteristics which are not unique individually but are singular in combination. This does not, however, mean that the missions to which amphibious capabilities (or almost any other type of U.S. military capability) are applied require each attribute, or that attributes that are important for a given mission in one region are equally important in another. This fact suggests that some substitutions are theoretically possible, at least from a purely capability-based perspective—as discussed above, decisions about substitutions or trade-offs should also incorporate considerations such as cost and effectiveness. As represented by a typical Marine Expeditionary Unit, key amphibious attributes include:

- **Breadth**, or the range of military functions that can be performed, both separately and in combination as part of a combined-arms force. For a typical MEU, these include command and control, intelligence, fire support, infantry, aviation (fixed and rotary wing), and logistics support (e.g., water purification systems capable of treating up to 1,500 gallons of freshwater or 1,200 gallons of saltwater hourly). Breadth of capability can have an important impact on responsiveness, particularly when force requirements are highly variable or uncertain.
- **Variable visibility**, or the ability to raise or lower the identifiable profile of U.S. military presence as the situation dictates. For example, in some areas of the world, governments wish to downplay their cooperation with the United States, which would imply the need for a less visible counterpart force. In other instances (perhaps in the same region), a highly visible demonstration of U.S. military capability might be needed as a deterrent. Because amphibious forces

are sea based and can position themselves within view or over the horizon, in general they have a greater ability to finely calibrate perceptions of their level of presence than can land-based alternatives.

Another element of visibility relates to amphibious forces' habitual deployment patterns. To the extent that MEUs or other capabilities are routinely moving in and out of various regions, national leaders have a greater ability to calibrate the public perceptions of their intended purpose, both domestically and abroad. For example, in an instance where the United States wishes to avoid possible escalation but still provide a response capability, amphibious capabilities that are already forward deployed can be repositioned with less fanfare than would be generated by shifting a large land force, or even an aircraft carrier. Alternatively, if the United States wishes to highlight a deterrent or coercive intent, it can do so by calling attention to the MEU's presence, putting additional capabilities aboard, and/or moving it closer to shore. As noted above, the more routine presence has become in certain regions, the greater the ability to finely tune the intended perception.

- **Responsiveness**, or the speed with which various elements of an amphibious force can deliver the desired effects. Because amphibious forces tend to be forward deployed, they typically can respond more quickly than many capabilities based in the United States. If advance warning of a developing situation (e.g., a storm or a diplomatic crisis) is available, amphibious capabilities can be repositioned to shorten response times still further.
- **Scalability**, or the degree to which amphibious capabilities can be disaggregated and reaggregated. A typical MEU deploys aboard three vessels: an amphibious assault ship that holds the majority of the Marine ground and aviation forces, and amphibious transport dock and dock landing ships, both of which contain the equipment that moves ground forces to shore. The MEU is based around a single marine infantry battalion. Its command-and-control, ground combat, aviation, and logistics elements combined constitute a 2,200-person task force. This combination of forces can divide functionally (e.g., into a helicopter detachment or an infantry company) or into smaller combined armed units as needed, and then reaggregate into the complete combined arms battalion.
- **Lethality**, or the ability of amphibious elements to both defend themselves and, if necessary, inflict violence on adversaries. Elements of the MEU (to include amphibious ships) have robust defensive systems and also possess tanks and armored vehicles, a number of artillery systems, attack aircraft and helicopters, and infantry units with a variety of personal weapons that can be used for both offensive and defensive purposes.

This definition is expansive in that it includes the concept of survivability, or the ability of a given system to withstand an attack and continue to perform its designated functions. We did not distinguish between the two concepts (offensive and defensive, or more colloquial understandings of lethality and survivability) because, in the mission-based construct employed in this study, both are determined by the overall threat environment and are thus assumed to be identical. Although the broader construct serves the purposes of this study, follow-on or complementary analyses may wish to address the two components of the lethality attribute separately. For example, if policymakers were to examine the suitability of alternative platforms to perform an amphibious-based mission in a region in which lethality was deemed to be important, they may wish to take into account not only the ability of various platforms to support the

application of lethal force if required, but also the likely operational and strategic consequences if those platforms were subject to attack. Thus, although the distinction was not meaningful for the level of analysis here, it could be critical to assessing specific alternatives for performing strategic-shaping missions in hostile or potentially hostile environments.

- **Autonomy**, or the ability of amphibious forces to operate with little or no requirement for shore-based infrastructure. Because most operations are conducted from the ship, a MEU provides the ability to adapt to local infrastructure conditions as required.
- **Mobility**, or the effort required to position or reposition capabilities in support of a given activity. Being sea-based offers MEUs a large degree of latitude to be repositioned with relative ease, either in advance of events (e.g., impending natural disasters) or in response to unforeseen crises.
- **Persistence**, or the ability to remain in a given location for indefinite periods of time. In conjunction with mobility, this attribute allows MEUs and other amphibious capabilities to remain in place (which can be very precisely or more broadly scoped—e.g., off a particular coast or “in the Mediterranean Sea”) for long periods of time. This attribute has particular importance in situations where the initiation of operations or exercises is uncertain, and also in instances of long duration.

In addition to these “direct” attributes, amphibious capabilities can also be characterized by two “indirect” or inferred attributes. These attributes result from combinations of the attributes above, and include flexibility and versatility. Although the relevance of the eight attributes above varies across missions, these two attributes are “mission independent” in the sense that they relate to combinations of missions across the full range of military activities, from strategic shaping to combat:

- **Flexibility**, or the ability to conduct multiple different types of missions within a given deployment. This flexibility derives principally from the combination of the wide range of functions that are resident in a MEU (breadth), the ability to tailor one or more single- or combined-arms force packages based on differing mission needs (scalability), the ability to engage in hostile or potentially hostile environments if needed (lethality), and the ability to operate with or without associated shore infrastructure (autonomy).
- **Versatility**, a related but distinct attribute that reflects the ability of a MEU to support multiple activities (whether of similar or disparate nature) simultaneously or in close temporal proximity. Facilitated by breadth, mobility, and persistence, this attribute offers national leaders the opportunity to satisfy multiple, at times very distinct, demands with a single capability, while at the same time maintaining unity of command.

Collectively, these 10 attributes (8 direct and 2 indirect) represent the key features of those amphibious capabilities that were identified by U.S. and/or foreign partners as particularly relevant to one or more strategic-shaping activities. As such, they represent considerations that ought to factor into decisions about how many and what types of other DoD capabilities could potentially perform similar strategic-shaping activities, if responsibility were to be reassigned to others.

# 3

## CONTRIBUTIONS OF AMPHIBIOUS ATTRIBUTES TO STRATEGIC-SHAPING MISSIONS

The 10 amphibious attributes described in chapter 2 capture many of the characteristics that amphibious capabilities bring to bear in strategic-shaping missions. Determining when and where the greatest possibilities for using other capabilities as substitutes for amphibious forces exist requires understanding which of these attributes are most critical in various scenarios.

To address this task, the CSIS team developed judgments about whether a given attribute was very important, important, or less important to a specific strategic-shaping mission in each of the five regions we examined. The relevance of the eight “direct” attributes to strategic-shaping activities is discussed first, beginning with humanitarian assistance and disaster relief missions, followed by partnership activities and then regional assurance and deterrence missions. The chapter concludes with a brief discussion of the importance of the two “indirect” or mission-independent attributes in various regions.

### Humanitarian Assistance and Disaster Relief Missions

Disasters are becoming both more common and more costly, in both human and material terms.<sup>1</sup> According to the Center for Research on the Epidemiology of Disasters, there were 385 disasters around the world between 2000 and 2009, 67 percent more than during the 1990s and an increase of more than 230 percent since the 1980s. By the National Oceanic and Atmospheric Administration’s estimates, the costs of weather-related disasters have doubled or tripled each decade during the last 35 years and produced other costs averaging at least \$50 billion per year. In the last five years alone, U.S. amphibious forces, frequently in combination with other key U.S. capabilities, have provided assistance to populations struggling to recover from disasters ranging from earthquakes to tsunamis. With such events on the rise, the U.S. military and its amphibious components are likely to continue to be called upon to play a crucial role in alleviating the suffering of others.

This need is likely to persist despite the contributions of numerous other actors. Cumulatively, national and international governmental and nongovernmental organizations offer substantial capacity to respond to disasters around the globe. However, there are circumstances under which they may not be able to apply the full range of their expertise, at least not immediately. Geography and/or the physical effects of a disaster may inhibit rapid access to an affected area quickly. In others, security conditions may limit civilian organizations’ activities. In still other instances, the scale of an event may outstrip civilian organizations’ capacity—many lack large equipment like helicopters or truck fleets (or lack sufficient numbers), both to conduct rescue operations and to

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1. Femke Vos, Jose Rodriguez, Regina Below, and D. Guha-Sapir, *Annual Disaster Statistical Review 2009: The Numbers and Trends* (Brussels: Centre for Research on the Epidemiology of Disasters, 2010), 25.

distribute relief supplies. Under any or all of these circumstances, the capabilities of U.S. military can make invaluable contributions to saving lives and reducing the effects of crises.

Amphibious capabilities are frequently included in the U.S. response because they possess attributes that are particularly relevant to the requirements of HA/DR operations. The study team's analysis indicates that six of eight "direct" amphibious attributes are either very important or important in every region we examined. Five of the eight attributes were of equal importance (either very important or important) in every region and are discussed first. The importance of the three exceptions—variable visibility, lethality, and autonomy—differs between regions, as discussed at the end of this section.

**Amphibious capabilities possess attributes that are particularly relevant to the requirements of HA/DR operations.**

The range of tasks in HA/DR operations can be vast, from rescue and recovery to the provision of clean water to the distribution of relief supplies over long distances to engineering and construction to establish and potentially operate refugee settlements to controlling airspace and coordinating among hundreds of relief organizations and donors from around the world. Thus possessing a great deal of functional *breadth*—ground, air, and sea, logistical, command and control, and so on—is deemed to be very important to mission success. *Responsiveness*—the ability to move quickly—is also critical, not only in real terms as casualties mount and disease spreads, but also in the important realm of perception. If local or even international populations believe that help is not forthcoming, the consequences can be significant and long lasting. These can include threats to local governments, outbreaks of violence, or the erosion and even potential reversal of any goodwill that might be earned with U.S. contributions. From a practical perspective, the ability to get to the areas of most immediate need in the most expeditious manner possible can help preclude higher numbers of casualties and further destruction.

**Persistence** is also very important in HA/DR operations. Their scale and scope frequently evolves over time as new challenges such as aftershocks, outbreaks of disease, or fear-induced migrations arise, so the ability to remain in place for long periods of time, building relationships with other players and deepening knowledge of the particular scenario at hand, can be immensely beneficial. Persistence can also play a key role in responsiveness, especially in the Asia-Pacific, the most natural disaster-prone region in the world.<sup>2</sup> U.S. forces' ability to not only deploy to but—more important—also remain in the area for extended periods increases the probability that they will be there if disaster strikes, and also makes it more likely that they will still be in the vicinity if there are subsequent contingent events such as aftershocks or tidal waves.

**Mobility** is universally crucial to the HA/DR mission. In instances where disasters provide some warning, the ability to move forces into the general vicinity of an impending disaster while maintaining a safe distance greatly enhances responsiveness. When events are not foreseen, having the ability to position and reposition capabilities, from ships and all their attendant capabilities to helicopter squadrons or even small ground units, greatly enhances the ability of commanders to meet rapidly evolving requirements and respond as the situation changes on the ground.

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2. The nations of the Asia-Pacific region experienced 45 percent of recorded disasters between 1980 and 2009. United Nations Economic and Social Commission for Asia and the Pacific and United Nations International Strategy for Disaster Reduction, *Protecting Development Gains*, 7.



These four attributes—breadth, responsiveness, mobility, and persistence—are very important in most, if not all, HA/DR operations in every region we examined. **Scalability**, or the ability to disaggregate and reaggregate, can be crucial but may not be as necessary in every instance and is thus deemed to be important. If operations are relatively geographically concentrated and/or the required military functions are relatively narrowly circumscribed, scalability may not be needed. In an operation that is geographically or functionally diverse, however, the ability of a unit to break into smaller units that suit the particular tasks at hand while remaining under a single chain of command can help to preserve unity and enhance coordination. Any combination of conditions could arise in any theater, so there is no particular basis for expecting that scalability needs might differ by region.

That is not the case, however, for the attributes of variable visibility, lethality, and autonomy. **Variable visibility**, or the ability to either downplay or highlight the United States' presence according to the circumstances, is most important in regions where governments may desire U.S. activity but their populations are less supportive. These conditions are perhaps less likely to occur during HA/DR operations, in which American altruism may be more broadly accepted. Overall, however, the deep and widespread distrust and dislike of Americans in the Middle East,<sup>3</sup> and a strong streak of independence and reluctance to appear reliant on Western powers in Central and South America,<sup>4</sup> make the ability to tailor the degree of perceived presence an important attribute even for HA/DR missions. Although this may also be true in some limited cases in Asia, Africa, and Europe, in these parts of the world the need to carefully manage the extent of American contributions in HA/DR operations is generally less immediate and is thus judged to be of less importance.

The importance of **lethality** also varies regionally. Essentially, the probability that amphibious forces to be able to protect themselves or to inflict violence on others during an HA/DR operation is a function of at least two variables. The first is the potential for violence to erupt within the population that is receiving assistance. Although this might at first seem counterintuitive, widespread privation can spark hostilities that require armed force to maintain order and ensure that relief efforts can continue.<sup>5</sup> The ability of relief agents to apply force if necessary may also serve as a deterrent, discouraging potential troublemakers who might seek to hijack relief supplies or seek to inflict harm on rival ethnic or religious groups that might otherwise act in the presence of purely civilian agencies. However, the use of force may inhibit or dissuade nongovernmental organizations and other humanitarian actors from engaging in humanitarian activities, leading to greater reliance on U.S. forces during a crisis.

The possibility that violence could emerge from within an HA/DR operation exists irrespective of its location, but is likely to be higher in humanitarian crises that have some human-made rather than natural cause. Thus, the probability of violence is higher in HA/DR operations addressing mass migrations of refugees fleeing ethnic conflict or disputes over access to water than

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3. For example, one recent poll indicates that about 80 percent of the populations in six Middle Eastern nations hold very or somewhat unfavorable views of the United States. Shibley Telhami, "2010 Arab Public Opinion Poll," Brookings Institution, Washington, D.C., August 5, 2010, 11.

4. Telephone interview with Colonel Bruce Gandy, Marine Forces South, August 26, 2010.

5. The events in Somalia in 1993 are one obvious historical example. More recently, in early December 2010, food shortages in Haiti led to riots that caused numerous injuries as German aid workers, the Haitian police, and UN peacekeepers looked on. Althia Raj, "Peacekeepers Helplessly Watch Riots in Haiti," QMI Agency, December 8, 2010, <http://www.edmontonsun.com/news/haiti/2010/01/21/12564451-qmi.html>.

in cases where an entire population has been displaced by a typhoon or earthquake. Incidences of the former are most prevalent in Africa, which suggests a greater requirement for lethality than in many other regions. Therefore, lethality is judged to be at least important in all of the regions that we examined, and very important in Africa.

In some regions, however, there is an additional risk factor stemming from the potential for nefarious actors to exploit a relief operation to their advantage. This could come in the form of direct attacks on U.S. forces engaged in relief operations, or in the form of causing harm to a native population or humanitarian organizations in a way that casts blame on U.S. forces and thus indirectly results in them becoming the targets of violence. This possibility is not geographically universal, although the increasing ability of individuals with access to simple materials and the Internet (and thus the ability to create new weapons) raises the likelihood of attacks that just a decade ago would have been a much more difficult proposition. This also suggests that it is increasingly imprudent to assume that HA/DR operations will occur in benign environments.

Logically, the potential for opportunistic attacks rises as proximity to terrorist groups' "home territory" increases. U.S. forces conducting HA/DR operations in Asia, where Asian governments continue to battle multiple regional terrorist groups that may have a limited ability to attack the U.S. homeland but likely remain capable of conducting operations within the region, may therefore be at greater risk. The same is true in portions of the Middle East and North and West Africa. This suggests that although lethality is important in Europe and Central and South America, it is very important in Asia, the Middle East, and Africa.

Finally, the importance of *autonomy*, or the ability to conduct HA/DR operations independently, varies across regions. An argument can be made that in most HA/DR operations, all forces benefit from the ability to be autonomous and self-reliant, so our judgment is principally related to differences in the level of the host nation's response capabilities. Areas with poorly developed and/or vulnerable infrastructures are likely to be less able to support relief efforts after a disaster than those with more robust and expansive transportation and logistics networks, and thus autonomy is more important. Further, infrastructure capacity is relevant not only in the directly affected area but also for the region more broadly—for example, the plethora of large and capable airports, well-developed seaports, and extensive rail networks in Europe mean that HA/DR operations will likely be able to rely on those capabilities to a large extent, decreasing the premium that sea-based operations offer.

Conversely, countries such as Indonesia and the Philippines have populations that are widely dispersed either across islands or large land masses, and also have relatively limited infrastructure networks. In these instances, the ability to conduct relief efforts from an autonomous base is very important. Autonomy is also highly valuable in areas with very dense urban environments, because road and rail networks can become chokepoints for distributing relief supplies to very large numbers of affected people. Given these factors, autonomy is judged to be very important in the Asia Pacific, Africa, and Central and South America; it is less so but still important in the Middle East, and less important in Europe.

Figure 3 summarizes the importance of the eight "direct" amphibious attributes to HA/DR operations across the five regions. Collectively, the attributes are least crucial in Europe, more so in the Middle East and Central and South America, and most relevant in the Asia Pacific and Africa.



**Figure 3. The Importance of Amphibious Attributes in Humanitarian Assistance and Disaster Relief Operations**

	Asia Pacific	Middle East	Africa	Europe	C/S America
Breadth					
Visibility					
Responsiveness					
Scalability					
Lethality					
Autonomy					
Mobility					
Persistence					

Very important	
Important	
Less important	

Source: Created by the CSIS New Defense Approaches Project.

## Partnership Activities

Partnership activities represent the lion's share of strategic-shaping activities that amphibious capabilities support. These activities—training events, exercises, and nation-assistance operations—can serve a variety of purposes, some of which include those that can be thought of as regional assurance and deterrence. A mission or exercise may serve multiple ends—to build partner capacity, increase interoperability, provide assurance, and deter adversary action—as evidenced most recently by the U.S.–South Korean naval exercises in the wake of North Korean provocations. By the same token, some partnership activities could similarly be construed as principally serving a humanitarian assistance purpose. The provision of medical and dental services as part of a combined exercise in South America is one such example. For the purposes of this analysis, however, we did not attempt to discern the primary purpose of a given interaction, which we viewed as highly subjective. Instead, we considered all exercises and training events conducted in conjunction with at least one other nation as a partnership activity.

The emphasis on these activities has been growing increasingly pronounced. As Secretary of Defense Robert Gates stated in his June 2010 article in *Foreign Affairs*, “Helping other countries better provide for their own security will be a key and ensuring test of U.S. global leadership and a critical part of protecting U.S. security.”<sup>6</sup> Amphibious capabilities make substantial contributions in this area, of two related types. They interact both with their amphibious counterparts in other nations’ militaries and with other militaries’ general-purpose forces. This is reflected in a small

6. Robert Gates, “Helping Others Defend Themselves,” *Foreign Affairs* 89, no. 3 (2010): 2–6.

number of amphibious-specific training and exercises, for example, the *Phiblex* (amphibious exercise) series with the Philippines, a larger number of exercises that have many components of which amphibious-related training is one (e.g., *Baltops* in the Baltic Sea), and a set of exercises which has no specific amphibious component but to which amphibious capabilities make substantial contributions (e.g., the *Eastern Maverick* series in Qatar). Despite the varying degree of relevance for amphibious skills as a complete set to these activities, many attributes of amphibious capabilities are broadly useful. Their relative importance, however, is highly dependent on differing regional circumstances, with one exception—scalability.

**Scalability** is the only attribute for partnership activities that is judged very important in all regions. In every region, partnership activities are conducted with partner militaries that range in size from a few hundred personnel to several hundreds of thousands, and the units with which amphibious forces interact can similarly range from a dozen or less to many thousands. The ability to adjust force size to best support the desired training or exercise outcome is critical, because it allows for interactions across the full spectrum of missions, from personnel- and equipment-intensive disaster relief or peacekeeping training to training with highly tailored “niche” units for counterterrorism operations.

Many attributes of amphibious capabilities are broadly useful to partnership activities, though their importance varies by region.

The importance of **breadth** varies widely across the globe, as a result of two primary factors. The first is the level of operational complexity for which partner nations have some level of capacity to engage and wish to train. Highly complex operations typically require the integration of multiple functions, which in turn implies breadth. The second is the range of missions for which nations in a given region may wish to train. Breadth is more important when partners have disparate interests than when their objectives are relatively similar (and can thus be supported by a more narrowly functionally focused force). With respect to complexity, partner desire includes the full range of basic to highly advanced training in Asia and Europe in particular. With respect to the desire to train for multiple missions, this too is high in Asia and Europe, and also the Middle East (e.g., the defense of the Suez Canal, UN peacekeeping support, counterterrorism and counterpiracy, along with high-end conflicts between states). Therefore, breadth is judged to be very important in these three regions.

By contrast, we assess breadth to be important in Africa and Central and South America. African partners are generally small to medium sized, and of varying (but generally not highly advanced) capabilities. African militaries, which currently are focused on peacekeeping and regional security, are expanding their capabilities to meet more global needs in counterterrorism, nuclear counterproliferation and/or trafficking, and counterinsurgency operations, so the importance of breadth in their U.S. partners may grow. Central and South American forces tend to be medium sized, and relatively capable in specific areas, such as counterdrug operations. Breadth is less crucial to engage the relatively limited (though also growing) mission set of Central and South American forces.

The need for U.S. forces to be able to adjust perceptions of their presence for partnership activities is very important in some areas of the world and much less so in others. The ability to ratchet up and down the **visibility** of U.S. presence is very important, particularly in the Middle East, Africa, and Central and South America. Although many governments want interaction with

the United States, and many militaries in these regions desire training and exercises with U.S. forces, the unpopularity of the United States with civilian populations in the Middle East, Africa, and parts of Central and South America makes a highly visible U.S. presence a liability. In Central America, demonstrating separation from U.S. influence must be balanced by the long-standing and much desired opportunities to train with United States forces.

The complexities of U.S. relationships in the Asia-Pacific region require delicate handling to ensure that they do not exacerbate regional tensions. Given the sensitive geostrategic dance between the United States and both China and North Korea, U.S. forces can be more effective in some training circumstances if there is little coverage of the activity. In many other instances, however, cooperation with the United States is welcome and encouraged, and governments may actually benefit from public perceptions of engaging in exercises and training with American units. The recent deployment of a U.S. aircraft carrier to conduct exercises in the region after the North Korean shelling of a South Korean island is an illustration of the careful consideration that such engagements require. Because variable visibility is occasionally critical but also not needed in other settings, it is deemed to be important in this region.

Variable visibility is even less necessary or less important in Europe—not in all cases, but for partnership activities specifically. Because of the long tradition of cooperation, there is little need or desire to downplay training and exercises with Western European nations. Central and Eastern European capitals may be particularly keen to publicize their interactions with U.S. forces to demonstrate strategic reassurance and NATO's presence in their respective country. Even the most antagonistic and controversial regional power broker, Russia, performs combined exercises with the United States' forces in the region with muted popular reaction.

The importance of *responsiveness* also is mixed. In the Middle East, governments and militaries frequently make last-minute requests for U.S. partnership activities.<sup>7</sup> In the absence of highly responsive forces, many of these opportunities would likely be foregone completely, making this attribute very important to continued interactions. By contrast, events tend to be scheduled well in advance in the Asia Pacific. However, the region is subject to some degree of unpredictability, both because regional tensions tend to flare episodically and because of the high incidence of natural disasters. Often, owing to responsiveness, the greatest training effect is not lost because circumstances change—even drastically. Thus responsiveness is deemed to be important in the Asia Pacific. It is less so in Africa, Europe, and Central and South America because scheduled events generally take place on time and in the manner planned, although there are some challenges.<sup>8</sup>

The *lethality* attribute may seem to have little relevance in partnership activities, because (presumably) the interaction is occurring with the full cooperation of the host nation. However, in some regions in particular, there may be a disconnect between the governments' desires and those of the population—or at least of local insurgent forces, terrorists, or criminals—that may necessitate a lethal (or threat of a lethal) response. These circumstances are most likely to arise

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7. Lieutenant General Joseph Dunford, commanding general, I Marine Expeditionary Force, and commander, Marine Forces Central Command, in an interview with the authors, September 9, 2010.

8. In Africa, for example, combined exercises can be influenced by both diplomatic and logistical concerns. Because of the perception of militarization by U.S. forces and concerns about local sensitivities, the U.S. embassy may challenge or curtail events. Logistically, the lack of infrastructure sometimes leads to issues like prohibitions on overland travel at night due to safety concerns, which can delay or draw out planned events. Telephone interview with Lieutenant Colonel Lewis Vogler, operations officer, Marine Forces Africa, October 26, 2010.

in the Middle East and Africa, making lethality an important attribute in those regions. They are less likely (and thus lethality is less important) in the Asia Pacific, Europe, and Central and South America. (This is not to dismiss the ever-present potential for violence, but instead to distinguish its generally greater probability in Africa and the Middle East than in other areas of the world.)

As a general proposition, cooperative partnership activities are assumed to be able to draw upon local security, infrastructure, economic, and logistics networks, decreasing the necessity for *autonomy*. These networks are more developed in regions with mature economies and well-supported militaries, such as Europe, the Middle East, and Asia, making autonomy less important in these areas. *Autonomy* is deemed to be important in Africa and Central and South America, however, where resources are scarcer and the possibility of U.S. forces competing for those resources (whether airheads or water supplies) might lead to criticism. Consideration of local sensitivities is often at the forefront of planning for exercises and training in stressed regions, but greater capacity for autonomy decreases the likelihood that plans might go awry and result in a negative incident.

*Mobility* is an attribute whose importance derives principally from the geographic dispersal of potential interlocutors. Because partners are spread across vast distances within the Asia Pacific, Africa, and Central and South America, the ability to easily move between them contributes to increased capacity and is very important. Partner activities are more concentrated in the Middle East, but interactions are relatively frequent, which still requires some degree of moving back and forth between nations. Mobility is thus important in the region. Partnership activities in Europe take place within a relatively more circumscribed space and are relatively infrequent (though large) events. As a result, mobility is less important to the effective support of these exercises.

*Persistence* in partnership activities relates to a unit's ability to remain in a given area for extended periods of time. This can be critical to the support of events whose timing is uncertain, or for interactions of long duration. Uncertain timing is a key characteristic of partnership activities in the Middle East, and to some degree in the Asia Pacific. Events in Asia and in Europe also tend to last longer than in other regions. Persistence is thus very important in all three regions. In Africa and Central and South America, partnership interactions are generally relatively brief but can involve sequential interactions—high-level staff talks, a command post exercise, and then some maritime training, for example—that require some level of persistence. Persistence is therefore important in these regions as well.

Figure 4 summarizes the judgments about the relative importance of the amphibious attributes to partnership activities in the five regions. Overall, it indicates that amphibious attributes are least relevant to partnership activities in Europe, followed by Central and South America. Seven of the eight attributes are either important or very important in Africa, as are six of the eight in the Asia Pacific (though only three are very important in Africa, and four meet that threshold in Asia). The attributes are of greatest relevance in the Middle East, where five are very important and two are important.

## Regional Assurance and Deterrence Missions

Assuring friends and deterring potential foes are two sides of the same coin: The ability to present a credible threat of rapid and decisive response in the event of an outbreak of hostilities both comforts allies and partners and discourages adversaries from addressing differences through

**Figure 4. The Importance of Amphibious Attributes in Partnership Activities**

	Asia-Pacific	Middle East	Africa	Europe	C/S America
Breadth					
Visibility					
Responsiveness					
Scalability					
Lethality					
Autonomy					
Mobility					
Persistence					

Very important	
Important	
Less important	

Source: Created by the CSIS New Defense Approaches Project.

violent means. Achieving regional assurance and deterrence objectives thus centers on convincing all parties that a U.S. response would in fact be swift and powerful.

In many parts of the world, the United States remains, in the words of one scholar, the “world’s power balancer of choice.”<sup>9</sup> As the sole superpower, capitals look to the United States to ensure that China, Iran, North Korea, and Russia in particular refrain from openly hostile acts that threaten their neighbors and maintain an active and committed presence, such as in Europe. Beyond these major and widely shared concerns, Washington’s commitments and especially its behavior underpin a much broader framework of complex regional relationships aimed at reducing security concerns and precluding the outbreak of conflicts.

Deterrence is no longer the straightforward prospect it may have been during the Cold War, which was by and large a two-player game. The problem has expanded, both in the number and the types of actors and actions to be deterred. Nuclear deterrence is still a major concern, but with a growing number of states at the table. The possibility of a non-state actor acquiring and using nuclear material remains a real possibility, introducing almost infinite complications and uncertainties.

The activities that the United States seeks to deter have also expanded. In Europe, the Middle East, and the Asia Pacific, U.S. deterrence concerns include the use of ballistic missiles, rogue nuclear materials, or conventional actions by regional aggressors. In South America and increas-

9. Leslie Gelb, “GDP Now Matters More Than Force: A US Foreign Policy for the Age of Economic Power,” *Foreign Affairs* 89, no. 6 (2010): 41.

ingly in Africa, the U.S. deterrence challenge is related to counternarcotics, requiring a different set of capabilities. In Africa, actions by neighboring governments but also piracy and trafficking constitute the U.S. deterrence challenge. Potential terrorist attacks preoccupy governments around the world, as most consider themselves either possible targets, unwitting (for the most part) sources, or both.

Amphibious capabilities possess attributes that are highly relevant to assuring friends and to meeting both state and non-state deterrence challenges. Two attributes in particular are judged to be critical to the success of RA/D missions in all regions—visibility and lethality. As a general proposition, RA/D missions are aimed at affecting the calculations of those who might wish to counter U.S. aims. Shaping their determinations about the role that hostile actions might play in those pursuits requires a visible demonstration of U.S. interest and commitment. Doing so presupposes that they are cognizant of the potential coercive power of U.S. forces, which in turn requires that they be visible—if they cannot be seen, they can neither assure nor deter. Thus, **variable visibility**, the ability to modify profile, as it is used in other sections of this report is of minimal utility.

There may be limited circumstances in which the U.S. wishes to reassure allies while maintaining a low profile in an effort not to inflame potential adversaries. There may also be specific regional concerns, such as sensitivities in South Asia, where there can be strong pressure to ensure that U.S. activities that could be interpreted to be favoring one country are counter-balanced by other activities to reassure neighbors. These circumstances could lead the U.S. to want to minimize attention paid to some military activities even in an RA/D context. In most cases, however, RA/D missions by their nature require that U.S. forces be visible as a precondition to achieving the desired effect, making variable visibility less important for this mission set.

**Amphibious capabilities possess attributes that are highly relevant to assuring friends and to meeting both state and non-state deterrence challenges.**

Regardless of the scale of the deterrence objective, **lethality** is an integral part of any RA/D mission. Any effort that is perceived to be unable to deliver tailored destruction is unlikely to achieve the desired assurance or coercive intent. More than any other strategic-shaping activity, the ability to take offensive measures if required, and to do so convincingly, both assures friends and deters adversaries. Credibility on this point is crucial to the success of the mission, making lethality a very important attribute.

Four more amphibious attributes—breadth, responsiveness, mobility, and persistence—are also very important to RA/D missions across the board. Functional **breadth** allows U.S. forces to present the threat of multiple avenues of attack. In the case of a Marine Expeditionary Unit, these range from air-to-ground munitions launched from fighter aircraft or helicopters to artillery fire to the insertion of ground forces that can come ashore in numerous ways at a number of different places, requiring adversaries to defend large areas in depth. The uncertainty that breadth creates substantially contributes to the assurance and deterrent effect, and is very important to RA/D missions. **Responsiveness** is also very important, especially in assuring the United States' friends around the world who expect that its presence and action in the event of aggression will be swift. Similarly, **mobility** and **persistence** are globally very important. High levels of mobility suggest greater survivability, which enhances assurance and deterrence. They also offer greater offensive



opportunity, presenting a greater threat to adversaries that increases the United States' power to coerce. Persistence adds a temporal dimension to the uncertainty U.S. adversaries face by broadening the window in which American forces might choose to strike.

The importance of the remaining two attributes, scalability and autonomy, does differ to some extent across regions. **Scalability** is most relevant in those areas of the world where the United States seeks to deter both state and non-state actors, because the demands for each suggest different types of forces. In the case of nation-states, leaders are presumably focused on the preservation of their country, and the greater the likelihood of destruction the greater the presumed deterrent effect. Bigger is not always better in seeking to deter individuals or small groups, however, whose interests tend to be very different. For example, pirates are unlikely to see much of a threat in an aircraft carrier, unless it plays host to a smaller force that can rapidly deploy and deliver targeted and discrete effects. The prolonged activities of various insurgent groups against U.S. forces in Iraq during the mid-2000s in particular are another illustration that greater might does not always evoke a deterrent response in non-state groups that might be expected from national leaders. Scalability is therefore at a premium when the threats are varied and friends have much to fear.

These conditions are most prevalent in Africa, where the United States seeks to contain multiple simmering flashpoints that include not only Sudan and Somalia but also Nigeria and the Democratic Republic of Congo. At the same time, terrorist networks such as al Qaeda in the Islamic Maghreb operate out of undergoverned spaces in the North and West with relative impunity, many times in areas where fragile governments could be easily toppled if a U.S. hand were too heavily applied, even further exacerbating the instability. Regional governments are increasingly concerned with theft or the bunkering of oil (particularly in Nigeria), illegal fishing, piracy, and various types of smuggling. Confronting the full range of these threats suggests that scalability is very important to the success of RA/D missions on the continent.

Scalability is also very important in the Middle East. As in Asia, in many ways the United States serves as cornerstone upon which the regional security balance rests. Despite the United States' general unpopularity in the region, leaders generally believe that American interests in the region provide Washington with strong incentives to ensure that no single nation (or even non-state actor) will be permitted to substantially shift the regional dynamic. Iran's pursuit of nuclear weapons, coupled with activities like providing material and financial support to numerous other violent groups throughout the region, create a vexing problem for both Washington and regional capitals, and traditional conventional deterrence means are diminished somewhat in the face of a likely nuclear capability. Thus, the ability for U.S. forces to pose both a large conventional and smaller, more targeted threat is of utility in the region.

Scalable forces are also relevant in the case of Yemen, a failing state that is relatively impervious to the threat posed by large or highly lethal U.S. forces. Actors within Yemen may be more apt to respond, however, to smaller force packages capable of putting highly valued assets (individuals, physical assets, money, etc.) at risk. Finally, threats operating in the Gulf of Aden—whether pirates, national forces, terrorists or others—pose challenges that might require a large-scale response but could also be more amenable to interventions by very small forces. In general, then, the diversity of threats in the Middle East put a premium on scalability to meet the demands of RA/D missions.

By contrast, the security environment in the Asia Pacific, though no less dynamic, is generally less complex. It is, for the most part, dominated by the two states of China and North Korea. China's historical, political, cultural, and increasingly economic relationships within Asia, as well

as its robust economic one with the United States and other Western nations, necessitate carefully calibrated responses to Chinese actions that many perceive as problematic. In the last decade, China has been increasing its military and worldwide diplomatic influence but has remained unclear about its intentions, creating concerns in the region and globally.<sup>10</sup> China's new weapons and weapons platforms have increased its ability to project power, as evidenced by its recent naval activities in the South and East China Seas, and the continuing military buildup opposite Taiwan.<sup>11</sup> In general, China's growing military capabilities suggest that an effective deterrent must be of sufficient capability and capacity to prevent serious "undermatch." Although scalability may be of some utility in preventing unnecessary escalation, for the most part, RA/D missions aimed at Beijing will generally need to be large to be credible.

China's multifaceted relationships within and, increasingly, outside the region are in stark contrast to the relative isolation of North Korea. This might make relations with Pyongyang more straightforward. Unfortunately, the predictability of Kim Jong-il's unpredictability, to paraphrase the chairman of the Joint Chiefs of Staff,<sup>12</sup> coupled with North Korea's nuclear capabilities, create an equally daunting set of challenges for the United States to ensure that the signals it sends are strong enough to induce more positive behavior but not so strong as to provoke escalation. Here, as with China, scalability provides some utility, but there is likely a size threshold that forces must exceed to have an impact on the North Korean leadership's calculations.

Asia is not immune from non-state threats, which include regional terrorist groups such as the Moro Liberation Front and a variety of criminal and trafficking networks. Many, however, lack global reach and are, with continued attention from regional states, subject to relentless attack. Overall, the greatest RA/D concerns are state based, and thus scalability is important but not critical in Asia.

Scalability is least important in Europe and in Central and South America. Overall, the high degree of political, military, and economic integration in Europe has led, from a security standpoint, to one of the most stable regions in the world, with the exception of the post-Soviet space, specifically the Caucasus and the Black Sea region. Ultimately, however, there is a minimal requirement for U.S. leaders to require carefully tailored force packages to reassure friends or deter problematic behavior. To the contrary, many European nations—in particular, the newest members of NATO, whose concerns are informed "not only by history but also by geography"<sup>13</sup>—would be desirous of the largest possible U.S. force commitment to their country in the event of heightened tensions. The unknown trajectory of Russia and its engagement in its so-called near abroad is the principal security concern within the region, but Moscow is likely to be unmoved by small force packages. Thus scalability is unlikely to be of great relevance for RA/D missions in Europe.

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10. Since the 1990s, China's naval modernization effort has encompassed a broad array of weapon acquisition programs, including anti-ship ballistic missiles, submarines, and surface ships as well as longer-range capabilities. During the last decade, China has also made significant improvements to the People's Liberation Army-Navy (PLAN), which receives approximately one-third of China's total defense spending. "China's Defense Budget," *Globalsecurity.org*, May 3, 2010, <http://www.globalsecurity.org/military/world/china/budget.htm>.

11. Viola Gienger, "Defense Official Aims for 'Sustainable' Ties in Beijing," *Bloomberg*, September 27, 2010.

12. Admiral Michael Mullen, "Global Threats: Interview with Fareed Zakaria," *CNN GPS*, November 28, 2010.

13. Ambassador Jacek Najder, Polish undersecretary of state, speaking at "NATO beyond the Lisbon Summit," Center for Strategic and International Studies, Washington, D.C., November 29, 2010.



The same is true in Central and South America. There are some regional agitators, most notably in Venezuela and to a lesser extent Bolivia. For the most part, however, security concerns are dominated by the “softer” problems of poverty and poor governance, some of which are exploited by criminal and terrorist groups. Unlike in many other regions, the calculations of bad actors in South America are more likely to be amenable to small or medium-sized force packages rather than large ones, but this narrower range of requirements means that scalability is of less importance in the region overall.

The need for *autonomy* is a function of both the general level of available infrastructure and also—of particular importance for RA/D missions—of the likelihood that the United States would in fact be able to utilize it if required. This combination suggests that autonomy is very important in Africa, where infrastructure is largely absent. It is important in Central and South America and in the Middle East, where infrastructure may be available but access might be limited for certain RA/D missions. Finally, autonomy is less important in the Asia Pacific and Europe, where infrastructure is relatively robust and prolific enough so as to be likely available for most RA/D missions.

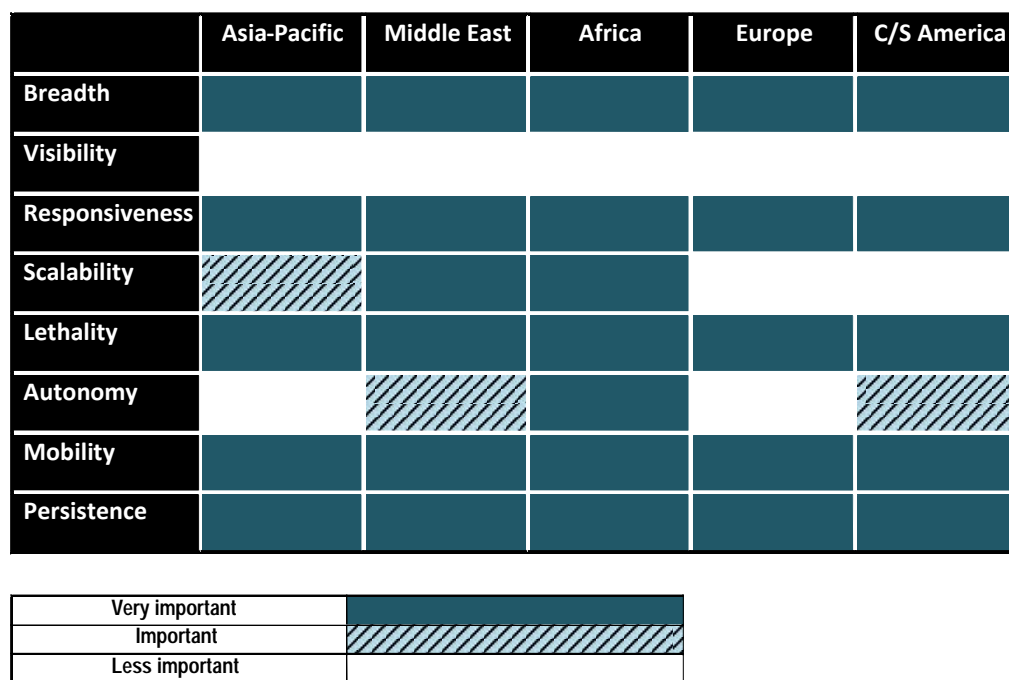
Africa’s level of development creates challenges for military operations, particularly those that might extend for any period of time. Staging bases and air heads are scarce, which means that supporting any large RA/D mission could crowd out civil operations (fuel, cargo handling, manpower, civilian air traffic, etc.), which could have significant negative political and economic effects. This possibility might cause some leaders to refuse access, particularly for missions lacking a clear international consensus. A further complicating factor is that governments in a number of nations would likely find any significant U.S. military presence, particularly one engaged in or likely to be engaged in combat operations, difficult to defend to their populations (though less so if it was endorsed by bodies such as the United Nations or African Union).

The circumstances in both Central and South America and the Middle East are more favorable. There are a large number of both military and civilian airports and naval bases throughout Central and South America that could in theory be leveraged for RA/D missions. Assuming that most RA/D missions would be directed at governments that most countries in the region also find problematic, political limitations would likely be minimal.

In the Middle East, the United States maintains military bases across the region—for example, in Qatar, Bahrain, Kuwait, Djibouti, and Saudi Arabia—and has developed a series of other access agreements to support operations in Iraq and Afghanistan that could potentially be leveraged for RA/D missions. As has been the case in the past, political sensitivities might limit the overall size or nature of military activity in any particular country, but the regional capacity is sufficiently large and diverse that multiple combinations of supporting “nodes” are possible in almost any scenario.

The greatest opportunities to leverage existing infrastructure lie in the Asia Pacific and in Europe. The existing infrastructure, both military and civilian, is robust in both regions. Both have world-class airports and seaports, and the United States and its likely allies have numerous existing military bases that could be utilized for RA/D missions. In Europe, most governments have in the past provided some level of support for U.S. operations of varying purposes and levels of popularity. To the extent that RA/D missions would be directed against Russia, the Eastern European nations in particular would likely offer significant support (e.g., forward-operating bases in Romania and Bulgaria), though their infrastructure is less modern and less developed than that of their Western counterparts.

**Figure 5. The Importance of Amphibious Attributes in Regional Assurance and Deterrence Activities**



Source: Created by the CSIS New Defense Approaches Project.

The political dynamic in Asia is slightly more complex, and support for RA/D missions could be heavily influenced by the nature and intended audience for any particular operation. The large geographic distances between nations could also complicate logistics support if infrastructure in a particular area is unavailable. Overall, however, the United States has a strong set of relationships throughout the region that include existing access arrangements, multilateral treaty relationships with groups like the Association of Southeast Asian Nations (ASEAN), and a number of important bilateral treaty relationships. Therefore, the capacity for autonomous operations for RA/D missions is less important both in Europe and in Asia than elsewhere in the world.

Figure 5 illustrates the relative importance of amphibious attributes to regional assurance and deterrence missions in the five regions. The high importance of five attributes in all five regions indicates that amphibious capabilities are highly relevant to RA/D missions overall. When all the attributes are taken into account, this relevance is greatest in the Middle East and Africa, slightly less so in Asia, and lowest, but still quite high, in Europe and Central and South America.

## Flexibility and Versatility

Although flexibility and versatility are not directly associated with a particular mission set, they may be the most relevant attributes of amphibious capabilities to strategic-shaping activities writ large. Flexibility, or the ability to support multiple missions of different types, is of greatest value in regions where missions are highly diverse. Versatility, or the ability to conduct multiple operations

simultaneously, is most useful in regions characterized by high levels of uncertainty and volatility. In combination, capabilities that provide both flexibility and versatility offer U.S. leaders an exceptionally powerful tool to meet needs associated not only with strategic shaping but also with combat operations (see box 1).

With respect to strategic-shaping activities in particular, the diversity of missions is greatest in Asia, which has a need for relatively frequent support for humanitarian assistance and disaster relief, a high demand for partnership engagements, and a geostrategic environment in which RA/D missions are highly relevant. **Flexibility** is thus very important. It is important but less so in Africa and the Middle East, because African missions are likely to be mostly related to HA/DR and partnership, though strategic-shaping activities in the Middle East will be made up principally of partnership engagements and RA/D missions. Flexibility is less important in Europe and Central and South America, because shaping activities there are likely to be dominated by partnership interactions.

The level of uncertainty or instability in a given region is obviously a highly subjective judgment, and it can change dramatically in a short period. In general, however, the challenges in the Asia Pacific (particularly with respect to North Korea and the high potential for HA/DR events with little advance notice) create high levels of uncertainty that in turn suggest **versatility** is very important. Uncertainty is also prevalent in Africa, given the relatively large number of potential flashpoints that could create requirements for U.S. forces either for direct intervention or in support of associated humanitarian assistance operations. This reality, coupled with the fact that many non-state groups seek to exploit what remains a relatively high level of undergoverned territory (some of which is in the maritime environment), suggests that Africa too is an area where versatility is at a premium.

The same judgment holds for the Middle East, which must contend with terrorists and pirates but also an unpredictable regime in Iran that seeks to foment instability in many of its neighbors. The potential for simultaneous missions is somewhat lower in Central and South America, though there is some possibility that conflict arising from regional agitators in Venezuela or elsewhere could emerge concurrent with the need to conduct counterterrorism or countertrafficking operations. A versatile force is thus important, but not very important, in this region. Versatility is least relevant in Europe, which rarely requires U.S. military support to address HA/DR operations and maintains a number of broadly capable militaries that tend to focus on crisis management operations through the Euro-

### Box 1. Flexibility and Versatility in Action

In September 2010, the 15th Marine Expeditionary Unit was in the middle of a deployment to the Middle East. Two sections of AV-8B Harrier aircraft were flying close air support missions in support of U.S. operations in Afghanistan. At the same time, heavy-lift helicopters and other Marine forces were assisting evacuees and moving cargo for relief efforts in Pakistan, which was experiencing the worst flooding it had seen in more than a century. Then, on September 8, the international antipiracy task force operating in the Gulf of Aden received a distress call from the Motor Vessel *Magellan Star*. The ship was under attack by pirates, and the crew was locking itself in a secure room. Within hours, two dozen Marines assigned to the 15th MEU's Maritime Raid Force had, with cooperation from the crew, boarded and retaken control of the ship. Nine pirates were killed, but there were no other casualties.

pean Union or NATO and are adequate to address many of the region's security issues. The possibility of numerous simultaneous missions for U.S. forces in that area of the world is relatively low, though scenarios in which the so-called frozen conflicts in the post-Soviet space of Transnistria, Nagorno-Karabakh, Abkhazia, and South Ossetia erupt in close temporal proximity are plausible. Overall, however, versatility is less important in Europe than in many other areas of the world.

These judgments reflect the relevance of a range of amphibious attributes to particular aspects of U.S. strategic-shaping efforts. None of the attributes, however, are unique to amphibious capabilities; other DoD assets are also flexible, responsive, and lethal, to varying degrees. This suggests potential opportunities to utilize them as alternatives to amphibious capabilities. The attribute framework and judgments given here provide some insight into where those opportunities might present the greatest and least risk, as is discussed further in chapter 4.

## 4

IMPLICATIONS FOR  
TRADES BETWEEN  
DEFENSE CAPABILITIES

Understanding how amphibious forces are utilized today provides insight, albeit imperfect, into the strategic-shaping needs of the future. The data on past contributions of amphibious capabilities to strategic shaping given in chapter 1 and the judgments about the relative importance of amphibious attributes made in chapter 3 provide a quantitative and qualitative baseline against which alternate ways of meeting shaping objectives can be compared. Each mission set has room for substitution by non-amphibious forces, but making informed decisions among alternatives requires a framework to ensure that the most complete set of implications is appreciated and factored in. The data about past operations give a sense of the scale of activities that might need to be supported in different ways if amphibious capabilities were to be cut. The attribute judgments offer a variety of insights about how to assess alternative solutions.

The discussion in this chapter offers examples about how some of those trade-offs might be considered. First, however, there is a subset of strategic-shaping activities currently supported by amphibious capabilities for which there is no real alternative: the partnership activities between U.S. amphibious forces and their foreign counterparts that focus on preparing for the conduct of amphibious operations.

Within the set of partnership activities supported by amphibious capabilities, a majority are for what might be considered “general” military purposes. These include such things as staff training; leadership development; basic skill training, such as patrolling, interdiction, search, and rescue; and logistics support. Many different kinds of forces within the U.S. military are proficient in these skills, and thus they all serve as potential alternatives for these types of partnership events.

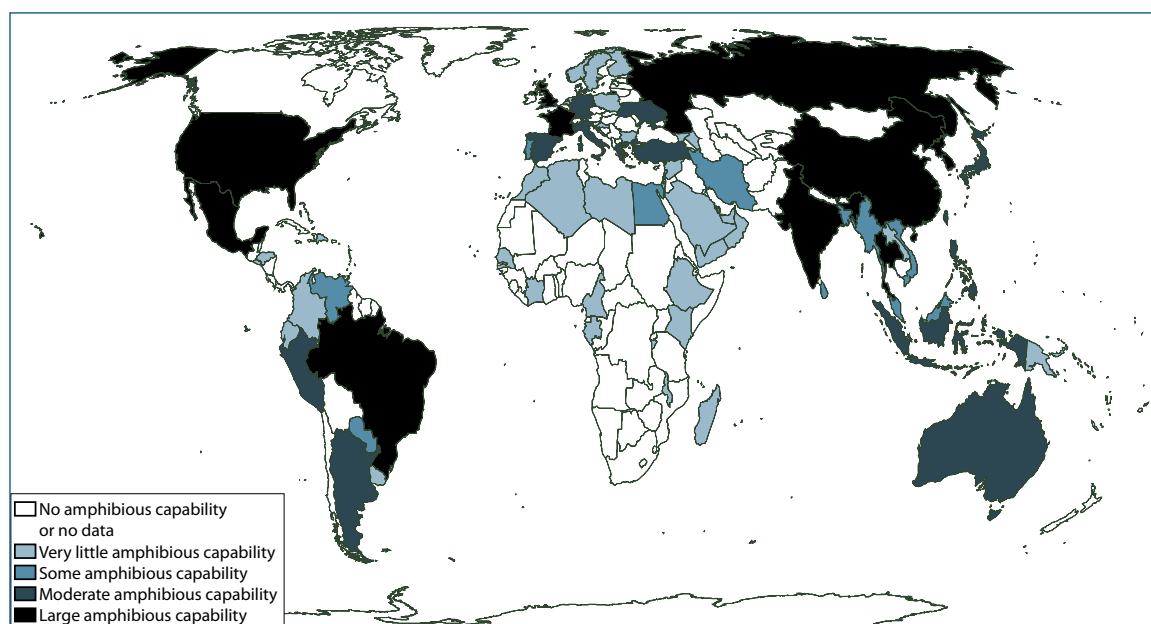
However, numerous countries also possess amphibious forces of their own—Marine Corps or sometimes naval infantry—and seek to either improve those skills or enhance interoperability by partnering with U.S. amphibious capabilities. Although the data did not allow us to reliably identify all of these “amphibious-unique” activities, our analysis indicates that at least a third of the 54 partnership activities in which amphibious forces participated during 2010 were either solely dedicated to amphibious interactions (e.g., *Marex*, an exercise with Indonesian Marines that included a mock amphibious assault and jungle warfare training) or involved an amphibious component (e.g., *Southern Exchange*, a multilateral naval and marine exercise with nine South American nations that included a beach assault). Some of these events would likely either be downsized to eliminate the amphibious aspects or canceled altogether if U.S. amphibious capabilities were not available to participate.

Figure 6 offers further insight into where amphibious-unique partnership activities are most likely, as it depicts the global distribution of amphibious capability.<sup>1</sup> It illustrates that most

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1. There are multiple ways to characterize amphibious capability. The judgments here reflect a synthesis of two measures: the size of a country’s navy and the number of amphibious platforms it owns. Nations

**Figure 6. The Global Disposition of Amphibious Capability**



Source: Created by the CSIS New Defense Approaches Project based on data from the International Institute for Strategic Studies, *The Military Balance* (London: Routledge, 2010).

Western European nations have at least some amphibious capacity, as do many in the Asia Pacific and South America. By contrast, amphibious forces are limited in Africa and Central Asia.

For amphibious-enabled rather than amphibious-unique activities, substitution is an option. In fact, it is already occurring to some degree, most notably in the Africa and Southern Partnership Stations. Multiple ship types—from leased high-speed vessels, or HSVs (commercial catamarans), to amphibious dock landing and landing platform dock ships to Coast Guard cutters and Navy destroyers—have supported partnership station missions, indicating that DoD’s leaders have determined that the combination of attributes each represents can be combined in ways that meet mission needs within an acceptable level of risk (see box 2). That said, the different ship classes are not completely interchangeable. The HSVs that have been used are commercial ships operated by civilian mariners. As such, they have little capacity to defend themselves in the event of hostilities and have a low level of *lethality*. In at least some instances, they are also being used for partnership missions where there is some potential for violence. Deploying HSVs in concert with an armed

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with “very little” amphibious capability have a small navy and a limited number of landing craft, but no really amphibious vessels. Nations with “some” amphibious capability have a small navy (10,000–20,000 personnel) and at least one small-deck amphibious vessel. “Moderate” amphibious capability is a small- to medium-sized navy (20,000–50,000 personnel) with one large-deck amphibious vessel or multiple small-deck amphibious ships. “Large” amphibious capability is a medium-sized to large navy (greater than 50,000 personnel), with at least one large-deck and multiple small-deck amphibious ships. Nations with medium-sized navies are considered to have large amphibious capability if they have at least one large-deck and some smaller-deck amphibious ships. Multiple amphibious vessels show a capacity for amphibious operations that would not be possible with a single amphibious ship.

Navy or Coast Guard ship, as has been the case with the Africa Partnership Station, presumably helps to mitigate this risk. It does, however, increase the cost as well.

Trades between various maritime capabilities may be the most straightforward, because many of the attributes of amphibious capabilities are shared (though to varying degrees). Figure 7 illustrates how the eight attributes of amphibious capabilities most directly relate to three primary war-fighting domains<sup>2</sup>—air, ground, and maritime. Although forces that operate in the ground domain have some level of mobility, for example, mobility is greatest in the air and maritime domains. Similarly, though air units have some degree of autonomy, it is a more dominant characteristic of maritime forces. The figure helps to illuminate some of the factors to consider when evaluating potential substitutions. For example, all military options will share the lethality attribute at some basic level. If, for example, maritime units are being considered to assume responsibility for some activities that have previously been conducted by amphibious ones, they may lack the breadth that the ground element of amphibious capabilities offers. Similarly, if ground units were to be considered as an alternative, they might require additional measures to ensure sufficient responsiveness or a low enough level of visibility for the task at hand. These factors are not necessarily prohibitive, but they should be accounted for in an analysis of both the operational impact and potential costs associated with any proposed alternative.

Figure 8 provides another way that the attribute framework can inform substitution decisions by highlighting the magnitude of potential risk. It depicts the number of attributes that are deemed to be important or very important across missions and regions. From a mission perspective, it indicates that the attributes of amphibious capabilities are most relevant for regional assurance and deterrence operations. This in turn suggests that using another capability for RA/D missions that had lower attribute values than

## Box 2. Different Ship Types Utilized in Support of the Africa Partnership Station

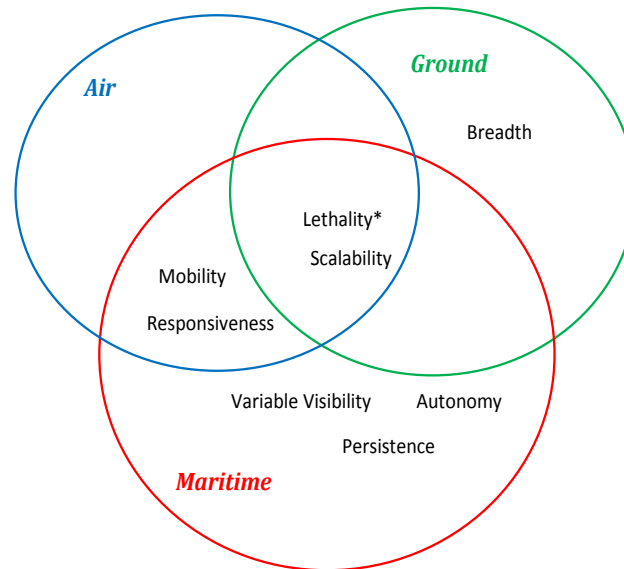
- USS *Fort McHenry* (LSD-43) and *Swift* (HSV-2), deployed to West Africa from November 2007 to April 2008.
- U.S. Coast Guard Cutter (USCGC) *Dallas* and USS *Leyte Gulf* (CG-55), part of a Law Enforcement Detachment, deployed to West Africa from mid to late 2008.
- USS *Nashville* (LPD-13), deployed to West Africa from February to May 2009.
- USS *Robert G. Bradley* (FFG-49), deployed to East Africa in February 2009.
- USS *Arleigh Burke* (DDG-51), deployed to East Africa in the summer of 2009.
- *Swift* (HSV-2 ) and USCGC *Legare*, deployed to West Africa in the summer of 2009.
- Royal Dutch Ship HNLMS *Johan De Witt*, deployed to West Africa in the fall of 2009.
- USS *Nicholas* (FFG-47) and *Swift* (HSV-2), deployed to East Africa, January 2010.
- USS *Gunston Hall* (LSD-44), deployed in February 2010 to West Africa (diverted to Haiti).
- USS *John L. Hall* (FFG 32), deployed in July 2010 to exercise with the Gambian and Senegalese navies.

Data provided by the CSIS Africa Program, drawn primarily from "Past APS Visits" on the U.S. Naval Forces Africa website, <http://www.naveur-navaf.navy.mil/AOR2.html>.

2. The other two domains—space and cyberspace—are not represented here because they do not relate directly to the considerations in this particular analysis, though they do in many other capability areas.



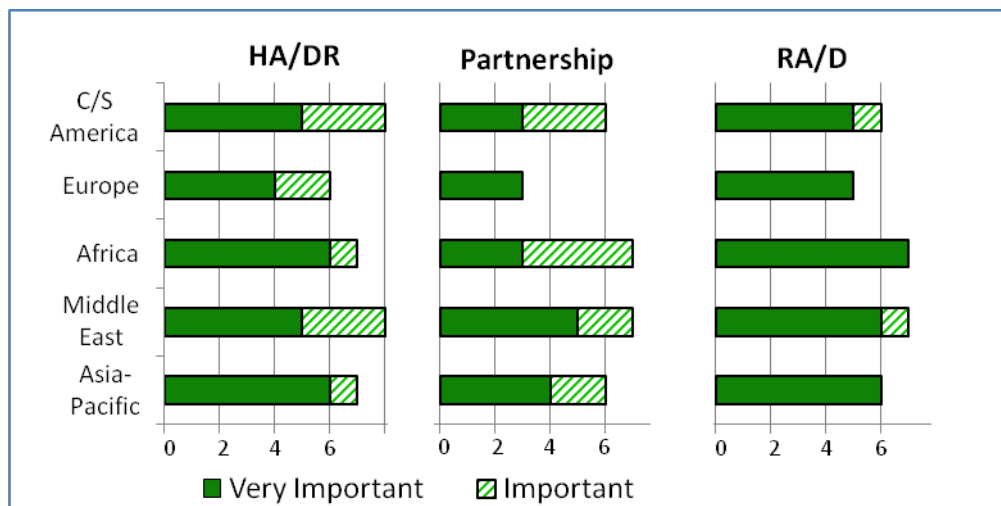
**Figure 7. Amphibious Attributes by Domain**



\*Except in instances where the capabilities are nonmilitary (e.g., leased or civilian-operated ships).

Source: Created by the CSIS New Defense Approaches Project.

**Figure 8. Number of Important Attributes in Strategic Shaping Missions, by Region**



Note: HA/DR = Humanitarian assistance and disaster relief Partnership = Partnership activities RA/D = Regional assurance and deterrence

Source: Created by the CSIS New Defense Approaches Project.



those of a Marine Expeditionary Unit would risk being less effective relative to those attributes. That is, from an operational perspective, another capability that might be used for RA/D missions would need to possess equal or greater levels of at least five very important attributes to perform those missions with the same level of risk as does a MEU.

Meeting the demands of partnership activities in alternative ways without accepting additional risk is likely to be a less complex proposition because fewer amphibious attributes are highly relevant to this mission set. HA/DR missions fall somewhere in the middle.

From a regional perspective, figure 8 suggests that the attributes of amphibious capabilities are most critical in Africa, Asia, and the Middle East, because the attributes were deemed to be very important in 16 of 24 possible cases. Their importance varies by mission area among regions in ways that further inform the discussion of alternatives. For example, many amphibious attributes are very important to HA/DR operations in all three regions, but the likelihood of HA/DR operations actually occurring is highest in Asia, followed by Africa, with relatively little probability in the Middle East.

This suggests that planning to conduct HA/DR support in the Middle East with assets that have less mobility or persistence than a typical MEU, for example, might be a lower-risk proposition (and thus more acceptable) than making similar substitutions in Asia. To add an additional level of complexity, however, it may be that the consequences of a slow or short-lived response to an HA/DR event in the Middle East would be more damaging to long-term U.S. interests than similar operational shortcomings in Africa or Asia. Considerations like this are additional inputs for decisionmakers that are not accounted for or resolved in the attribute framework. The framework does, however, facilitate a decisionmaking process that is more likely to bring such issues to the forefront so that they can be taken into consideration.

Another potential use for the attribute framework is to highlight the implications of capability reductions in attribute areas of particular concern. As an example, evaluating the importance of lethality across strategic-shaping missions and regions surfaces multiple considerations.

Figure 9 summarizes the judgments about lethality's importance to various missions in the five regions. It indicates that the level of lethality resident in a MEU is most important across the range of strategic-shaping missions in Africa and the Middle East, and least important in Central and South America and Europe. It also indicates that the lethality is critical to RA/D missions independent of where they might occur. This information is useful in understanding the implications of program changes that might affect a MEU's lethality. To offer one contemporary example, the recent cancellation of the expeditionary fighting vehicle, an amphibious tractor designed to carry combat-ready Marines from ship to shore rapidly and across long distances, presumably reduces the number of alternatives for how and where Marines would be able to launch a ship-based attack. In the strategic-shaping context, this reduces the level of lethality a MEU would represent in RA/D missions most directly. Its impact on the level of lethality for HA/DR or partnership activities would be less significant, because these operations are likely to rely more on the ability of the ship, aircraft, ground equipment, and individual Marines to protect themselves (or inflict harm on others) than the full range of offensive capabilities required for deterrence missions.

In another current example, the Navy may decide to staff amphibious ships with civilian crews (or partial civilian crews). This could also have an impact on lethality, again most significantly in the realm of deterrence, if adversaries take this action to indicate a decreased willingness on the part of the United States to engage these ships in significant combat operations.

**Figure 9. Relative Importance of Lethality to Strategic-Shaping Missions**

	Humanitarian assistance and disaster relief	Partnership activities	Regional assurance and deterrence
Central and South America			
Europe			
Africa			
Middle East			
Asia-Pacific			

Very important	
Important	
Less important	

Source: Created by the CSIS New Defense Approaches Project.

As these anecdotes illustrate, the level of a given attribute could be affected in multiple ways, and assessing the impact involves some degree of subjectivity. Comparing the new (presumed lower) levels of lethality with the current ones, by region and mission area, offers a clear depiction of where these differences are likely to matter most, both geographically and across missions. Once the range of potential effects is identified, policymakers have two alternatives. The first is to accept the additional risk associated with diminished capability (lethality, in this instance). The second option is to explore whether there are alternatives to help mitigate risks that are deemed to be unacceptable.

The attribute framework also helps to inform this discussion by establishing a baseline for comparison—an unbiased assessment of haves and have-nots. For example, commercial or “black bottom” ships could assume responsibility for some or all of the strategic-shaping activities that amphibious forces had been performing in Central and South America. These ships are less lethal than those in a MEU in numerous ways. The ships themselves are built to commercial standards of self-protection and are thus less likely to survive a significant attack. They are not equipped with weapons that can deliver fires ashore in support of ground forces. Their crews are made up of civilians who are neither equipped nor trained to conduct defensive or offensive missions in the event of hostilities. At the same time, such capabilities come at significant cost. Policymakers may determine that the need for lethality is low enough that this risk can be accepted to achieve greater cost savings. The attribute framework illustrates, however, that the operational risks posed by commercial alternatives specifically as they relate to lethality are greatest for RA/D missions. They are much lower for partnership activities, particularly in Central and South America, Europe, and Asia.

An alternative possibility is that amphibious capabilities’ strategic-shaping responsibilities could be reassigned to DoD assets that possess an even higher level of lethality, at least by some measures. Aircraft carriers, for example, are one of the most deadly U.S. military capabilities by multiple measures (e.g., capacity to deliver multiple types of ordnance against air, sea, and ground targets). Because these assets already exist in the DoD’s inventory and DoD has already accounted

for the costs to operate them, they may present an attractive alternative to amphibious capabilities for missions in which lethality is particularly important in that they present no additional operational risk and minimal additional cost, if any.

Are these exchanges worth the cost and risk associated with them when a broader range of attributes is considered? Although an aircraft carrier is highly lethal, it offers less breadth than does a MEU, for example, and breadth is one of the most universally important attributes to strategic-shaping missions. A carrier offers less variance in visibility; it is persistent but has less ability to scale; and depending on what is included, cost comparisons could be unfavorable. If aircraft carriers are also called upon to conduct HA/DR missions and partnership activities, the cumulative demands may require the purchase of additional carriers or more intense usage of existing platforms, both of which could involve substantial additional cost.

This example highlights the importance of constructing capability comparisons carefully. As is always the case, determining what is included can lead to very different results. From an operational perspective, it is easy to identify multiple alternatives to amphibious capabilities for any given activity, particularly those designed to enhance partnerships. Numerous units in both the Army and the Special Operations Command could likely support a two-week bilateral field exercise in Japan, for example, or leadership development in Mongolia. Responsiveness may be slightly lower than for a MEU-deployed force, depending on where those forces were stationed, and there may be little need for autonomy or persistence. The supporting units may also offer equivalent breadth (at least to the degree needed for these particular activities), lethality, and scalability. Variable visibility might also be lower but still be adequate for the mission. Thus, for any particular event, the options may be plentiful and represent little if any operational risk. Many may also be less expensive, depending on the range of variables upon which the calculation is based.

Arguably, however, this narrow construction will obscure a more relevant assessment of operational risk and projected cost that would result from a broader analysis. A more appropriate basis for comparison is likely to be something that represents the full set of activities that occur during a routine deployment or the employment of a given capability. For MEUs and other maritime capabilities, this would be a single deployment; for an Army brigade, it might represent the 12 to 15 months during which they are at their peak readiness levels and in reserve for employment by combatant commanders. To provide the most relevant basis for comparison, this period should be defined by the capability for which substitutes are being considered.

For a MEU, this period would include the full range of missions (to include combat activities, not just strategic shaping) that they routinely support or prepare to support. It may be that some combination of alternatives would be necessary to arrive at a level of acceptable risk and cost—the assignment of RA/D missions to aircraft carriers, for example, the support for partnership activities divided among various services' shore-based forces and Marines aboard non-amphibious vessels where needed, with HA/DR demands being met by a combination of shore-based forces and commercial ships. The costs of each piece of this equation could then be calculated, the sum of which would then be compared with the costs of a MEU.

A comprehensive cost assessment for alternative capabilities to perform any given mission set should also include two other important factors. The first is the total life cycle cost of the platform or platforms being compared, from the initial design phase through retirement. Ideally the Defense Department would be able to determine a fair way to apportion these costs to the performance of various missions. In instances when policymakers decide to assume greater operational

risk, the DoD should include some valuation of that risk, which in some cases could be substantial. This is particularly true in cases where the assumption of risk results in degradation of key elements of the defense industrial base. If those risk judgments are later reversed, reconstituting that base, if possible at all, can be very expensive. Placing a monetary value on that risk makes it both a more tangible and more realistic element of the overall decisionmaking process.

The above examples are not intended to suggest that MEUs will always be the most effective or most efficient solution. Instead, they are aimed at illuminating the types of considerations that should be taken into account, and a mechanism for raising them, to improve the quality of force structure decisions. Reductions in MEU capabilities or capacities may in fact represent the best alternative in any number of possible scenarios, but explicitly considering the operational and financial risks associated with capability reductions decreases the probability that such judgments will be made in error.

**Total life cycle costs and/or monetization of operational risk should also be included in cost comparisons.**

# 5

## SUMMARY AND RECOMMENDATIONS

This project's fundamental aim has been to illuminate the potential opportunity costs to strategic shaping that reductions in amphibious capabilities might incur. Our analysis indicates that amphibious capabilities provide substantial support to strategic-shaping activities, which in turn suggests that some or all of this might cease if amphibious capabilities were cut.

Frequently, decisions about force structure adjustments are made without an objective understanding of the contributions that they make to DoD priorities, the most important of which is actual activity, either operational or in support of DoD's partnership objectives. One reason for this is that DoD lacks high-quality, reliable data about U.S. military forces' activities. There are a variety of programs both within the military services and at a joint level that aim to address this shortfall. One major effort is the Office of the Secretary of Defense-sponsored Global-Theater Security Cooperation Management Information System (G-TSCMIS) program. Although an imperfect system, the program aims to capture a number of key aspects of information about how forces are being used. As of the end of 2010, the program sponsors are in the process of attempting to identify all the requirements for how the information might be used to ensure that the proper data are collected and are made accessible. At present, however, capturing information about total capability sets, to include major pieces of equipment, is not one of the program's intended purposes. G-TSCMIS has experienced growing pains, but it presents a tangible opportunity to ensure that factual depictions of strategic-shaping activities are incorporated into future force structure decisions.

**Amphibious capabilities provide substantial support to strategic-shaping activities.**

In closing, we offer three recommendations.

**Recommendation 1:** *The Office of the Secretary of Defense should develop policy to ensure that G-TSCMIS or some other program collects of consistent and comprehensive data about strategic-shaping activities (to include HA/DR and RA/D activities) from all CoComs and Services, to include both forces and equipment.*

Data about past activity levels serve as a point of departure for decisions about whether some or all of those activities should continue, and, of those that should, how they can best be accomplished. One of the great strengths of the military services is that they collectively offer multiple tools that can be applied to security problems. Policymakers have an obligation to ensure that these resources are put to their most effective use, but also that they are careful stewards of the nation's resources. Thus, leaders must continually assess whether strategic objectives can be met through different ways.

Ideally, data about past contributions would include the full range of activities, from strategic shaping to combat. Although DoD's requirements process typically takes this broad approach, once these requirements are set, the potential impact of future programmatic reductions tends to focus on two areas: the operational impact, as reflected by the specific implications for existing war plans; and the financial impact, as reflected by future cost avoidance. Though war fighting remains DoD's sine qua non, the president's current strategy emphasizes strategic-shaping activities as a key method to preclude future violence.

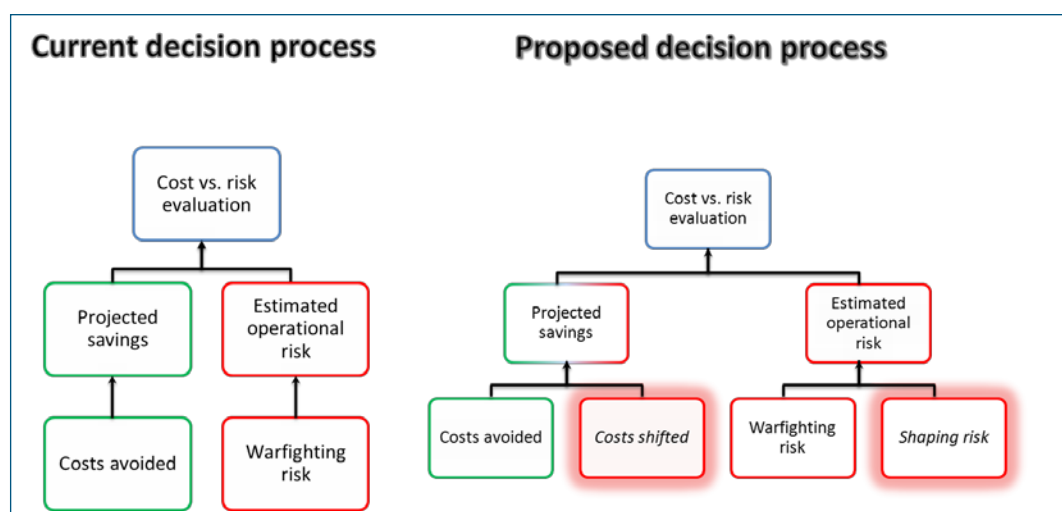
This focus means that a more deliberate accounting must be made of the effects of force structure reductions on strategic shaping to ensure that shaping objectives are not being inadvertently undermined. From a fiscal perspective, an accurate calculation of cost avoidance should account for potential cost shifts to other elements of the force if responsibilities are reassigned. These concerns may be part of some force structure decisions, but DoD lacks a process to routinely incorporate them in a consistent and objective manner.

**Recommendation 2:** *The Office of the Secretary of Defense should develop guidelines to routinely include the opportunity costs (both operational and financial) to the full range of missions, to include strategic shaping, as an explicit factor in decisions about capability reductions.*

**Recommendation 3:** *The Office of the Secretary of Defense should utilize a capability attribute framework to identify operational considerations that can in turn inform the development of capability alternatives that fully account for both operational and financial risk.*

Figure 10 offers a brief summary of how decisions about capability reductions would be made that include a broader basis for evaluating risk, and for a more accurately accounting for cost.

**Figure 10. Summary of Current and Proposed Decisionmaking Processes**



Source: Created by the CSIS New Defense Approaches Project. Data were compiled from multiple sources including Marine Expeditionary Units' post-deployment briefs, command histories, weekly situation updates from the various units, interviews with headquarters staffs, command press releases, and media coverage.



For the specific case of DoD's amphibious capabilities, our analysis indicates that many of the strategic-shaping activities performed by amphibious capabilities rely upon multiple characteristics or attributes those capabilities possess. Although all those attributes are shared by one or more other elements of the force, few if any possess them all at levels equal to those of a MEU. This has at least three implications. First, performing the same missions without assuming additional risk would likely require employing a combination of different capabilities rather than just one. Second, even if multiple capabilities are offered as alternatives, they still may require that policymakers assume additional operational risk, at least for some aspects of a given mission or in a particular region. Third, the total cost of reassigning missions to other capabilities may or may not result in expected cost savings, but the analysis should be done to ensure that calculations of cost avoidance account for the costs shifted to other elements within DoD.

The importance of amphibious capabilities is certain to continue to be debated as the fiscal climate becomes harsher, and this debate will almost certainly expand to a growing number of capability areas. The steps recommended here will better posture policymakers to make decisions based on a more comprehensive, explicit, and accurate understanding of the associated operational and financial risks.



## APPENDIX: INTERVIEWS

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## BIBLIOGRAPHY

- Alfonso, Juan. "U.S. Forces Share Beach Tactics with Thai Marines." Headquarters Marine Corps, July 12, 2007. <http://www.marines.mil/unit/hqmc/Pages/2007/U.S.%20forces%20share%20beach%20tactics%20with%20Thai%20Marines.aspx>.
- "Amphibs Stretched." *Inside the Pentagon* 26, no. 42 (2010): 9.
- Amos, James. Statement before U.S. Senate, Committee on Armed Services; Hearing, to Consider the Nomination of James Amos for Reappointment to the Grade of General and to be Commandant of the Marine Corps, Washington, D.C., September 21, 2010.
- Baas, David W. "The EFV." *Marine Corps Gazette* 93, no. 7 (2009): 61.
- Ball, Daniel. "Southern Partnership Station Arrives in Panama." *U.S. Naval Forces Southern Command / U.S. 4th Fleet Public Affairs*, January 16, 2008. [http://www.navy.mil/search/display.asp?story\\_id=41447n](http://www.navy.mil/search/display.asp?story_id=41447n).
- . "Southern Partnership Station, HSV Swift Complete Mission." *Southern Partnership Station Public Affairs*, April 26, 2009. [http://www.navy.mil/search/display.asp?story\\_id=44735](http://www.navy.mil/search/display.asp?story_id=44735).
- . "Southern Partnership Station Rehabilitates School in Colombia." *Southern Partnership Station Public Affairs*, January 29, 2009. <http://www.southcom.mil/appssc/news.php?storyId=1537>.
- Baum, Geoffrey. "Future MAGTF Operations." *Marine Corps Gazette* 93, no. 7 (2009): 68.
- Beehner, Lionel. "The Effects of 'Youth Bulge' on Civil Conflicts." *CFR Background*. April 27, 2007. [http://www.cfr.org/publication/13093/effects\\_of\\_youth\\_bulge\\_on\\_civil\\_conflicts.html](http://www.cfr.org/publication/13093/effects_of_youth_bulge_on_civil_conflicts.html).
- Ben-Ari, Guy, et al. *European Defense Trends: Budgets, Regulatory Frameworks, and the Industrial Base—An Annotated Brief*. Defense-Industrial Initiatives Group, Center for Strategic and International Studies, Washington, DC, May 2010.
- Braden, Nathan. "Marines Participate in Cold Response 2010." U.S. European Command, February 24, 2010. <http://www.eucom.mil/english/FullStory.asp?article=Marines-participate-Cold-Response-2010>.
- Brown, Oli, and Alec Crawford. *Climate Change and Security in Africa*. Winnipeg: International Institute for Sustainable Development, 2009.
- Button, Robert, Irv Blickstein, Josh Gordon, Peter Wilson, and Jesse Riposo. *A Preliminary Investigation of Ship Acquisition Options for Joint Forcible Entry Operations*. Arlington, Va.: RAND Corporation, 2005.
- Button, Robert, John Gordon, Dick Hoffman, Jessie Riposo, and Peter Wilson. *Maritime Prepositioning Force (Future) Capability Assessment: Planned and Alternative Structures*. Arlington, Va.: RAND Corporation, 2010.

- Castelli, Christopher. "Amos Issues Broad Planning Guidance to Steer Marine Corps." *Inside the Pentagon* 26, no. 43 (2010): 1, 16–17.
- . "Charter for Marine Corps Review Predicts Unspecified Budget Cuts." *Inside the Pentagon* 26, no. 34 (2010): 1, 4–5.
- . "Gates' Efficiency Push Prompts Navy to Re-Examine Prepositioning." *Inside the Pentagon* 26, no. 35 (2010): 1, 14–15.
- . "Navy, Marine Corps Debate Prepositioning Plans in Drive for Efficiencies." *Inside the Pentagon* 26, no. 33 (2010): 1, 14–15.
- Cerminara, Carolyn. "USS Bataan Completes Multiple Community Outreach Events Overseas." *USS Bataan Public Affairs*, August 4, 2009. [http://www.navy.mil/search/display.asp?story\\_id=47361](http://www.navy.mil/search/display.asp?story_id=47361).
- "China's Defense Budget." *Globalsecurity.org*, May 3, 2010. <http://www.globalsecurity.org/military/world/china/budget.htm>.
- Conway, James. Statement before U.S. House of Representatives, Committee on Armed Services; FY11 National Defense Authorization Budget Request from the Department of Navy, Washington, D.C., February 24, 2010.
- "Cuts Eyed in POM 12." *Inside the Pentagon* 26, no. 41 (2010): 9.
- DeFilippis, Rocco. "African Lion Humanitarian Assistance Makes Impact on Guelmim Province." *Marines.mil*, June 24, 2008. <http://www.marines.mil/unit/marforeur/Pages/AfricanLionhumanitarianassistancemakesimpactonGuelmimProvince.aspx>.
- . "Marine, Moroccan 'Hercs' Come Together for African Lion Exercise." *Marine Forces Africa*, May 25, 2009. <http://www.marines.mil/unit/marforaf/Pages/Marine,Moroccan%E2%80%9DChurcs%E2%80%9DcometogetherforAL09.aspx>.
- Donovan, Edward A. "Combined Amphibious Operations." *Marine Corps Gazette* 93, no. 10 (2009): 65.
- Economist Intelligence Unit. *The GCC in 2020: The Gulf and Its People*. London: Economist Intelligence Unit Limited, 2009.
- . *The GCC in 2020: Outlook for the Gulf and the Global Economy*. London: Economist Intelligence Unit Limited, 2009.
- . *The GCC in 2020: Resources for the Future*. London: Economist Intelligence Unit Limited, 2009.
- Embassy of the United States in Mongolia. "Khaan Quest 2009 Begins." August 5, 2009. [http://mongolia.usembassy.gov/pr\\_0805015.html](http://mongolia.usembassy.gov/pr_0805015.html).
- Epright, Matt. "22nd Marine Expeditionary Unit and USS Kearsarge Host Maltese Visitors." *Public Affairs*, 22nd Marine Expeditionary Unit, August 21, 2007. <http://www.eucom.mil/english/FullStory.asp?article=22nd-Marine-Expeditionary-Unit-USS-Kearsarge-Host>.
- European Union, Commission of the European Communities. *Communication from the Commission to the Council and European Parliament: Black Sea Synergy—A New Regional Cooperative Initiative*. Brussels: European Union, 2007.



- . *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Strengthening the Global Approach to Migration: Increasing Coordination, Coherence and Synergies*. Brussels: European Union, 2008.
- European Union, Council of the European Union. “Revised Note from the Romanian Delegation Concerning the Black Sea Cooperation Platform.” Document of High-Level Working Group on Asylum and Migration. Brussels: European Union, 2009.
- “Exercise Shared Accord 2009.” *Marine Corps News*, June 5, 2009. <http://www.military.com/news/article/marine-corps-news/exercise-shared-accord-2009.html>.
- Flanders, Ron. “U.S. Navy Ships Arrive on Station to Support Armed Forces of the Philippines.” *Navy NewsStand*, June 25, 2008. <http://www.globalsecurity.org/military/library/news/2008/06/mil-080625-nns02.htm>.
- Garamone, Jim. “Flournoy Reinforces US Commitment to Asia, Pacific.” American Forces Press Service, November 23, 2010. <http://www.army.mil/-news/2010/11/23/48499-flournoy-reinforces-us-commitment-to-asia-pacific/>.
- Gates, Robert. “George P. Shultz Lecture.” San Francisco, August 12, 2010.
- . “Helping Others Defend Themselves.” *Foreign Affairs* 89, no. 3 (2010): 2–6.
- . “Navy League Sea-Air-Space Exposition.” Speech, Gaylord Convention Center, National Harbor, Md., May 3, 2010.
- Gelb, Leslie. “GDP Now Matters More Than Force: A US Foreign Policy for the Age of Economic Power.” *Foreign Affairs* 89, no. 6 (2010): 35–43.
- Gienger, Viola. “Defense Official Aims for ‘Sustainable’ Ties in Beijing.” Bloomberg, September 27, 2010.
- Giron, Alicia R. “Continuing Promise Sails Home after Deployment to Central, South America.” U.S. Southern Command, November 13, 2010. <http://www.marines.mil/unit/2ndmaw/SPMAGTF/Pages/ContinuingPromisesailshomeafterdeploymenttoCentral,SouthAmerica.aspx>.
- Gleditsch, Wallensteen, et al. *UCDP/PRIO Armed Conflict Dataset Codebook No. 4*. [http://www.prio.no/sptrans/-1423485763/Codebook\\_UCDP\\_PRIO%20Armed%20Conflict%20Dataset%20v4\\_2009.pdf](http://www.prio.no/sptrans/-1423485763/Codebook_UCDP_PRIO%20Armed%20Conflict%20Dataset%20v4_2009.pdf).
- Goh, Evelyn. “The ASEAN Regional Forum in United States–East Asia Strategy.” *Pacific Review* 17, no. 1 (2004): 47–69.
- . “Great Powers and Hierarchical Order in Southeast Asia: Analyzing Regional Security Strategies.” *International Security* 32, no. 3 (2007/2008): 113–157.
- Golden, Heater. “Marines, Sailors Provide Assistance in Bangladesh.” Marine Corps Bases Japan, August 7, 2009. [http://www.pacom.mil/web/site\\_pages/media/news%20200908/20090807-AssistanceInBangladesh.shtml](http://www.pacom.mil/web/site_pages/media/news%20200908/20090807-AssistanceInBangladesh.shtml).
- Grono, Nick. “Fragile States and Conflict.” Remarks, Institut Royal Supérieur de Défense, Brussels, March 27, 2010.

- Grotzky, Daniel, and Mirela Isic. "The Black Sea Region: Clashing Identities and Risks to European Stability." Center for Applied Policy Research, October 2008.
- Hayes, Danny. "USS Harpers Ferry Returned after Successful CARAT Deployment." Navy Public Affairs, September 9, 2009. [http://www.pacom.mil/web/site\\_pages/media/news%20200909/20090910 USSHarpersFerry.shtml](http://www.pacom.mil/web/site_pages/media/news%20200909/20090910 USSHarpersFerry.shtml).
- Heebner, David. Statement before U.S. House of Representatives, Committee on Armed Services, Subcommittee on Seapower and Expeditionary Forces; Hearing, FY11 National Defense Authorization Budget Request for the Department of Navy Shipbuilding Acquisition Programs, Washington, D.C., March 3, 2010.
- Hendrix, Henry. "Buy Not." *U.S. Naval Institute Proceedings* 135, no. 4 (2009): 52–57.
- Hoffman, Frank. "Forcible Entry Is a Strategic Necessity." *U.S. Naval Institute Proceedings* 130, no. 11 (2004): 1.
- . "Rethinking Naval Forward Presence." *Marine Corps Gazette* 91, no. 5 (2007): 74.
- Hooper, Craig. "A Poster Child for Next-War-Itis." *U.S. Naval Institute Proceedings* 134, no. 11 (2008): 22–26.
- Indian Integrated Ministry of Defence (Navy). *Freedom to Use the Seas: India's Maritime Military Strategy*. New Delhi: Integrated Headquarters, Ministry of Defence (Navy), 2007.
- . *The Indian Navy's Vision Document*. New Delhi: Integrated Headquarters, Ministry of Defence (Navy), 2006.
- Johnson, Greg. "Essex Departs for Talisman Saber." U.S. Pacific Command, June 12, 2009. [http://www.pacom.mil/web/site\\_pages/media/news%20200906/20090609-TalismanSaber.shtml](http://www.pacom.mil/web/site_pages/media/news%20200906/20090609-TalismanSaber.shtml).
- Karadeniz, Bülent. "Security and Stability Architecture in the Black Sea." *Perceptions*, Winter 2007.
- Keen, Gary. "Sea Breeze 2010 Kicks Off in Odessa, Ukraine." U.S. European Command, July 12, 2010, <http://www.eucom.mil/english/FullStory.asp?article=Sea-Breeze-2010-Kicks-Odessa-Ukraine>.
- Krepinevich, Andrew. *7 Deadly Scenarios*. New York: Random House / Bantam Books, 2009.
- Krepinevich, Andrew, Barry Watts, and Robert Work. *Meeting the Anti-Access and Anti-Denial Challenge*. Washington, D.C.: Center for Strategic and Budgetary Assessments, 2003.
- Kronstadt, K. Alan. *India-U.S. Relations*. Washington, D.C.: Congressional Research Service, 2008.
- Labs, Eric. Statement before U.S. House of Representatives, Committee on Armed Services, Subcommittee on Seapower and Expeditionary Forces; Hearing, Issues Affecting Naval Force Structure, Washington, D.C., January 20, 2010.
- Le Sage, Andre. *Africa's Irregular Security Threats: Challenges for U.S. Engagement*. *Strategic Forum* (Institute for National Strategic Studies, National Defense University), no. 255. May 2010: 1–12.
- Leslie, Rachael. "HSV Swift in Nicaragua for Training, Engagement Mission." High-Speed Vessel *Swift* (HSV 2) Public Affairs, June 9, 2009. <http://www.southcom.mil/appssc/news.php?storyId=2354>.

- Liermann, Christopher. "India's Approaching Expeditionary Armed Forces." Thesis, U.S. Army Command and General Staff College, 2008.
- Logico, Mark. "USS Harpers Ferry Returned after Successful CARAT Deployment." U.S. Pacific Command, September 10, 2009. [http://www.pacom.mil/web/site\\_pages/media/news%20200909/20090910-USSHarpersFerry.shtml](http://www.pacom.mil/web/site_pages/media/news%20200909/20090910-USSHarpersFerry.shtml).
- Malkasian, Carter A. *Charting the Pathway to OMFTS: A Historical Assessment of Amphibious Operations from 1941 to the Present*. Alexandria, Va.: Center for Naval Analyses, 2002.
- "Marines Mull EFV." *Inside the Pentagon* 26, no. 41 (2010): 9.
- McKee, David. "USS *Dubuque* Begins Exercise in the Maldives." Commander, U.S. Seventh Fleet, July 19, 2010. <http://www.c7f.navy.mil/news/2010/07-july/23.htm>.
- McMillen, Maria. "Rethinking Amphibious Operations." *Marine Corps Gazette* 94, no. 4 (2010): 40.
- . "Transforming the MEU." *Marine Corps Gazette* 92, no. 8 (2008): 50.
- McNabb, Meghan. "2nd Marine Logistics Group Marines Support NATO Exercise in Croatia." U.S. European Command, October 24, 2007. <http://www.eucom.mil/english/FullStory.asp?article=2nd-Marine-Logistics-Group-Marines-support-NATO>.
- Medieros, Evans S., et al. *Pacific Currents: The Responses of U.S. Allies and Security Partners in East Asia to China's Rise*. Arlington, Va.: RAND Corporation, 2008.
- Medina, Robert. "13th MEU Completes ARG/MEU Exercise." 13th Marine Expeditionary Unit, Public Affairs, June 3, 2009. [http://www.navy.mil/search/display.asp?story\\_id=45878](http://www.navy.mil/search/display.asp?story_id=45878) (accessed November 18, 2010).
- Miles, Donna. "Terminal Fury Prepares PACOM to Confront Crisis, Threats." *American Forces Press Service*, April 6, 2008. <http://www.globalsecurity.org/military/library/news/2008/04/mil-080406-afps02.htm>.
- Mohan, C. Raja. "Rising India: Partner in Shaping the Global Commons?" *Washington Quarterly* 33, no. 3 (2010): 133–148.
- Mullen, Michael. "Global Threats: Interview with Fareed Zakaria." *CNN GPS*, November 28, 2010.
- Murphy, Martin. *Littoral Combat Ship: An Examination of Possible Operational Concepts*. Washington, D.C.: Center for Strategic and Budgetary Assessments, 2010.
- Nagle, David. "Kearsarge Completes PANAMAX 2006." *Navy NewsStand*, September 13, 2006. <http://www.globalsecurity.org/military/library/news/2006/09/mil-060913-nns04.htm>.
- Najder, Jacek. "NATO beyond the Lisbon Summit." Panel discussion, Center for Strategic and International Studies, Washington, D.C., November 29, 2010.
- National Intelligence Council. *Global Trends 2025: A Transformed World*. Washington, D.C.: U.S. Government Printing Office, 2008.
- Nevers, David. "Marines Visit Europe for Liberty." U.S. European Command, June 20, 2006. <http://www.eucom.mil/english/FullStory.asp?article=Marines-visit-Europe-liberty>.

- Norris, Jimmy. "U.S., South Korea Begin Exercise amid North Korea's Threats." *Stars and Stripes*, March 29, 2009. <http://www.stripes.com/news/u-s-south-korea-begin-exercise-amid-north-korea-s-threats-1.88990>.
- O'Rourke, Ronald. "Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress." Congressional Research Service, December 22, 2009.
- . "Navy LPD-17 Amphibious Ship Procurement: Background, Issues, and Options for Congress." Congressional Research Service, December 22, 2009.
- . Statement before U.S. House of Representatives, Committee on Armed Services, Subcommittee on Seapower and Expeditionary Forces; Hearing, Issues Affecting Naval Force Structure, Washington, D.C., January 20, 2010.
- Obama, Barack. "Africa's Future Is Up to Africans." Remarks delivered at Accra International Conference Centre, Accra, July 11, 2009.
- Odom, William E. "Transforming the Military." *Foreign Affairs* 76, no. 4 (1997): 54–64.
- Olay, Matthew. "Southern Partnership Station Returns to Nicaragua." Southern Partnership Station Public Affairs, March 31, 2009. <http://www.southcom.mil/AppsSC/news.php?storyId=1615>.
- Oliveri, Frank. "Beyond the Beachhead." *CQ Weekly*, July 12, 2010.
- Partnership for Peace Information Management System. "Sea Breeze 2007 Military Exercise." September 7, 2007. <http://www.pims.org/event/2007/07/09/sea-breeze-2007-military-exercise>.
- Perry, Tony, and Julian Barnes. "U.S. Rethinks a Marine Corps Specialty: Storming Beaches." *Los Angeles Times*, July 21, 2010.
- Petraeus, David. Statement before U.S. Senate, Committee on Armed Services; Hearing, U.S. Special Operations Command and U.S. Central Command in Review of the Defense Authorization Request for Fiscal Year 2011 and the Future Years Defense Program, Washington, D.C., March 16, 2010.
- Petters, Mike. Statement before U.S. House of Representatives, Committee on Armed Services, Subcommittee on Seapower and Expeditionary Forces; Hearing, FY11 National Defense Authorization Budget Request for the Department of Navy Shipbuilding Acquisition Programs, Washington, D.C., March 3, 2010.
- Pinninti, Uday. "Blue Print to India's Amphibious Forces." Thesis, U.S. Marine Corps Command and Staff College, 2009.
- Ploch, Lauren. "Nigeria: Current Issues." Foreign Affairs, Defense, and Trade Division, Congressional Research Service. January 30, 2008.
- Polish Navy. "Noble Mariner Scenario 07, Short Version." <http://nmr-nad-ks.mw.mil.pl/index.php?akcja=scenario>.
- Preseton, Donald. "Thousands of Ghanaians Benefit from Shared ACCORD HUMANITARIAN ASSISTANCE." Marine Forces Europe, June 25, 2008. <http://www.marines.mil/unit/marforeur/Pages/ThousandsofGhanaiansbenefitfromSharedAccordhumanitarianassistance.aspx>.
- Program on New Approaches to Research and Security in Eurasia. *Transformations in the Black Sea Region*. Washington, D.C.: Program on New Approaches to Research and Security in Eurasia, 2008.

- “Push Made.” *Inside the Pentagon* 26, no 19 (2010): 9.
- Raj, Althia. “Peacekeepers Helplessly Watch Riots in Haiti.” *QMI Agency*, December 8, 2010. <http://www.edmontonsun.com/news/haiti/2010/01/21/12564451-qmi.html>.
- Rock, Aaron. “26th MEU Wraps Up Kuwait Training.” 26th Marine Expeditionary Unit, January 16, 2009. <http://www.marines.mil/unit/26thmeu/Pages/2009/26thMEUwrapsupKuwaittraining.aspx>.
- Rose, Cory. “USS Vella Gulf Deploys for BALTOPS.” U.S. European Command, May 18, 2006. <http://www.eucom.mil/english/FullStory.asp?article=USS-Vella-Gulf-Deploys-BALTOPS>.
- Roxburgh, Charles, Norbert Dorr, Acha Leke, et al. *Lions on the Move: The Progress and Potential of African Economies*. New York: McKinsey & Company, 2010.
- “RSOI/Foal Eagle.” *Globalsecurity.org*. <http://www.globalsecurity.org/military/ops/rsoi-foal-eagle-2006.htm>.
- Sang-Min, Joo. “Stealth Bombers in Korea on Temporary US Mission.” *Korea Herald*, June 30, 2004.
- Second Line of Defense*. “Augmenting the Capability of the Amphib: A Key Element in the Evolution of the Seabase.” Interview with Jim Strock, May 12, 2010. <http://www.sldinfo.com/?p=7908>.
- Shanahan, Moira, and Dara Francis. *U.S. Support to African Capacity for Peace Operations: The ACOTA Program*. Peace Operations Factsheet Series. Washington, D.C.: Henry L. Stimson Center, 2005.
- Sharp, Walter. U.S. House of Representatives, Committee on Armed Services; Hearing, The FY 11 National Defense Authorization Budget Request from the U.S. Pacific Command and U.S. Forces Korea, Washington, D.C., March 25, 2010.
- Sherman, Jason. “Marine Corps Faces Huge Decisions in FY-12 Budget Endgame.” *Inside the Pentagon* 26, no. 46 (2010): 18.
- Sherman, Jason, and Cid Standifer. “Marine Corps Ground Vehicle Strategy Now Due after Conway Exits.” *Inside the Pentagon* 26, no. 25 (2010): 14.
- Simon, Lee. “Contracting 101 for the MAGTF: Can We Provide Buddy Aid to a Deployed Marine Corps Contracting Officer?” *Marine Corps Gazette* 94, no. 3 (2010): 44–47.
- Stackley, Sean, John Terrence Blake, and George Flynn. Statement before U.S. House of Representatives, Committee on Armed Services, Subcommittee on Seapower and Expeditionary Forces; Hearing, FY11 National Defense Authorization Budget Request for the Department of Navy Shipbuilding Acquisition Programs, Washington, D.C., March 3, 2010.
- Standifer, Cid. “SAC-D Skeptical of EFV, Cuts Budget and Adds Termination Funds.” *Inside the Pentagon* 26, no. 38 (2010): 12.
- . “Work: Modified EFV, Possible New System on the Table.” *Inside the Pentagon* 26, no. 40 (2010): 3.
- Sunohara, Tsuyoshi. “The Anatomy of Japan’s Shifting Security Orientation.” *Washington Quarterly* 33, no. 4 (2010): 39–57.

- Telham, Shibley. "2010 Arab Public Opinion Poll: Results of Arab Opinion Survey Conducted June 29–July 20, 2010." Brookings Institution, Washington, D.C., August 5, 2010.
- International Institute for Strategic Studies. *The Military Balance*. London : Routledge, 2007.
- . *The Military Balance*. London: Routledge, 2008.
- . *The Military Balance*. London: Routledge, 2009.
- . *The Military Balance*. London: Routledge, 2010.
- White House. *National Security Strategy*. Washington, D.C.: White House, 2010.
- Thompson, Loren. Statement before U.S. House of Representatives, Committee on Armed Services, Subcommittee on Seapower and Expeditionary Forces; Hearing, Issues Affecting Naval Force Structure, Washington, D.C., January 20, 2010.
- Tiernan, Cullen. "Shared Accord Prepares Peacekeeping Forces" *US Marine Corps News*, August 2, 2010. <http://www.globalsecurity.org/military/library/news/2010/08/mil-100802-mcn01.htm>.
- Torres, Paul. "Marines Showcase Engineering Capability in Indonesia." 15th Marine Expeditionary Unit Public Affairs, July 26, 2010. [http://www.i-mef.usmc.mil/external/15thmeu/news/news\\_2010\\_07\\_26\\_03.jsp](http://www.i-mef.usmc.mil/external/15thmeu/news/news_2010_07_26_03.jsp).
- Tuck, Shane. "Valiant Shield Provides Valuable Joint Training among U.S. Military Forces." *USS Ronald Reagan* Public Affairs, June 20, 2006. [http://www.navy.mil/search/display.asp?story\\_id=24224](http://www.navy.mil/search/display.asp?story_id=24224).
- "20/20 Vision? The Middle East to 2020." *Middle East Quarterly* 11, no 1. (2004): 63–67.
- United Nations Development Program. *Human Development Report 2009: Overcoming Barriers*. New York: Palgrave Macmillan, 2009.
- United Nations Economic Commission for Africa and African Union. *Economic Report on Africa 2010: Promoting High-Level Sustainable Growth to Reduce Unemployment in Africa*. Addis Ababa: United Nations Economic Commission for Africa, 2010.
- United Nations Economic and Social Commission for Asia and the Pacific and United Nations International Strategy for Disaster Reduction. *Protecting Development Gains: Reducing Disaster Vulnerability and Building Resilience in Asia and the Pacific*. Bangkok: United Nations, 2010.
- United Nations Office on Drugs and Crime. *Drug Trafficking as a Security Threat in West Africa*. New York: United Nations, 2008.
- . *West Africa under Attack*. <http://www.unodc.org/unodc/en/frontpage/west-africa-under-attack.html>.
- United Nations Office of the Secretary-General. *Thirty-First Report of the Secretary-General on the United Nations Organization Mission in the Democratic Republic of the Congo*. New York: United Nations, 2010.
- U.S. Africa Command. *CJTF-HOA Factsheet*. <http://www.hoa.africom.mil/AboutCJTF-HOA.asp>.
- . *Operation Enduring Freedom Trans Sahara Factsheet*. <http://www.africom.mil/oef-ts.asp>.
- U.S. Africa Command, Public Affairs Office. *Fact Sheet: Africa Contingency Operations Training and Assistance (ACOTA)*. June 15, 2008. <http://www.africom.mil/getArticle.asp?art=1886>.



- . *Fact Sheet: Maritime Security*. February 7, 2008. [http:// www.africom.mil/getArticle.asp?art=1633](http://www.africom.mil/getArticle.asp?art=1633).
- . *Key Facts on Africa Partnership Station 2008*. January 28, 2008. <http://www.africom.mil/getArticle.asp?art=2510> (accessed June 9, 2010).
- U.S. Africa Command, U.S. Naval Forces Europe-Africa. “International Forum Plans 2010 Maritime Partnership in Africa.” July 30, 2009. <http://www.africom.mil/getArticle.asp?art=3249>.
- U.S. Central Command. “Exercise Bright Star 09/10.” <http://www.centcom.mil/brightstar>.
- U.S. Congress, House of Representatives Committee on Armed Services. *China: Recent Security Developments*. 111th Cong., 2nd Sess., January 13, 2010.
- . *The Fiscal Year 2009 Budget Request for the Department of the Navy*. 110th Cong., 2nd Sess., March 6, 2008.
- . *FY11 National Defense Authorization Budget Request from the Department of the Navy*. 111th Cong., 2nd Sess., February 25, 2010.
- . *The FY11 National Defense Authorization Budget Requests from the U.S. Central Command, U.S. Special Operations Command, and U.S. Transportation Command*. 111th Cong., 2nd Sess., March 17, 2010.
- U.S. Congress, House of Representatives Committee on Appropriations, Subcommittee on Defense. *Navy Posture*. 110th Cong., 2nd Sess., March 13, 2008.
- U.S. Congress, Senate Committee on Armed Services. *The Department of the Navy in Review of the Defense Authorization Request for Fiscal Year 2011 and the Future Years Defense Program*. 111th Cong., 2nd Sess., February 25, 2010.
- . *U.S. Special Operations Command and U.S. Central Command in Review of the Defense Authorization Request for Fiscal Year 2011 and the Future Years Defense Program*. 111th Cong., 2nd Sess., March 16, 2010.
- U.S. Department of Defense, Defense Science Board Task Force. *Sea-Basing Report*. Washington, D.C.: Office of the Undersecretary of Defense for Acquisition, Technology, and Logistics, 2003.
- U.S. Department of Defense, Joint Chiefs of Staff. “Amphibious Operations Joint Document 3-02,” Washington, D.C., August 10, 2009.
- . “Joint Forcible Entry Operations Joint Document 3-18.” Washington, D.C., June 16, 2008.
- U.S. Department of Defense, Office of the Secretary of Defense. *Military and Security Developments Involving the People’s Republic of China*. Washington, D.C.: Pentagon, 2010.
- U.S. Department of Defense, Office of the Undersecretary of Defense. *Quadrennial Defense Review Report 2010*. Washington, D.C.: U.S. Department of Defense, 2010.
- U.S. Department of State, Bureau East Asia and Pacific Affairs. *Plan of Action to Implement Indonesia-U.S. Comprehensive Partnership*. Washington, D.C.: U.S. Department of State, 2010.
- U.S. Department of State, Bureau of Public Affairs, Office of Electronic Information. “International Military Education and Training Account Summary,” October 22, 2009. <http://www.state.gov/t/pm/ppa/sat/c14562.htm>.



- U.S. Department of State, Office of Electronic Information. "Foreign Military Financing Account Summary." Bureau of Public Affairs, October 22, 2009. <http://www.state.gov/t/pm/ppa/sat/c14560.htm>.
- U.S. Department of the Navy. *Naval Operations Concept 2010: Implementing the Maritime Strategy*. Washington, D.C.: U.S. Department of the Navy, 2010.
- U.S. Department of the Navy, U.S. Marine Corps, and U.S. Coast Guard. *A Cooperative Strategy for 21st Century Seapower*. Washington, D.C.: U.S. Department of the Navy, 2007.
- U.S. European Command. August 21, 2007. <http://www.eucom.mil/english/FullStory.asp?article=22nd-Marine-Expeditionary-Unit-USS-Kearsarge-Host>.
- U.S. Marine Corps, Africa Public Affairs. "U.S. Service Members Arrive in Morocco for African Lion." U.S. Africa Command, May 17, 2010. <http://www.africom.mil/getArticle.asp?art=4421&lang=0>.
- U.S. Marine Corps, Combat Development Command. *Marine Corps Operating Concepts: Assuring Littoral Access . . . Proven Crisis Response* 3rd ed. Quantico, Va.: Combat Development Command, 2010.
- . *Multiservice Procedures for Humanitarian Assistance Operations FMFRP 7-16*. Quantico, Va.: Combat Development Command, 1994.
- U.S. Marine Corps, 15th Marine Expeditionary Unit. "History." <http://www.i-mef.usmc.mil/external/15thmeu/history/history.jsp>.
- U.S. Marine Corps, Headquarters. *Operational Maneuver from the Sea: A Concept for the Projection of Naval Power Ashore*. Washington, D.C.: U.S. Marine Corps, January 4, 1996.
- U.S. Marine Corps, Marine Corps Combat Personnel Command, Deputy Commandant for Combat Development and Integration. *Amphibious Operations in the 21st Century*. Quantico, Va.: U.S. Marine Corps, 2009.
- . *Evolving the MAGTF for the 21st Century*. Quantico, Va.: U.S. Marine Corps, 2009.
- . *Seabasing for the Range of Military Operations*. Quantico, Va.: U.S. Marine Corps, 2009.
- U.S. Marine Corps, Program Assessment and Evaluation Division. *U.S. Marine Corps Concepts and Programs*. Washington, D.C.: U.S. Marine Corps, 2006.
- . *U.S. Marine Corps Concepts and Programs*. Washington, D.C.: U.S. Marine Corps, 2007.
- . *U.S. Marine Corps Concepts and Programs*. Washington, D.C.: U.S. Marine Corps, 2008.
- . *U.S. Marine Corps Concepts and Programs*. Washington, D.C.: U.S. Marine Corps, 2009.
- . *U.S. Marine Corps Concepts and Programs*. Washington, D.C.: U.S. Marine Corps, 2010.
- U.S. Marine Corps, Strategic Vision Group. *Vision & Strategy 2025*. Washington, D.C.: U.S. Marine Corps, 2008.
- U.S. Marine Corps, 31st Marine Expeditionary Unit Public Affairs, "31st MEU Reflects on '08." *US Marine Corps News*, December 19, 2008. <http://www.globalsecurity.org/military/library/news/2008/12/mil-081219-mcn01.htm>.

- U.S. Navy, Commander Naval Surface Force, U.S. Pacific Fleet. "Dubuque Participates in MAR-EX10." July 7, 2010. <http://www.public.navy.mil/surfor/lpd8/Pages/DubuqueParticipatesinMAREX-10.aspx>.
- U.S. Navy, Commander U.S. Seventh Fleet. July 13, 2010. <http://www.c7f.navy.mil/imagery/galleries/monthly/2010/07-july/slides/100713-N-7948R-130.htm>.
- U.S. Navy, Director, Warfare Operations, Office of the Chief of Naval Operations. "Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for FY2011," February 2010.
- U.S. Navy, Fleet Forces Command. "Seabasing: Concept of Operations for Low- to Mid-Intensity Operations," February 12, 2010.
- U.S. Navy, Navy Shipbuilding and Conversion. "Fiscal Year 2011 Budget Estimates: Justification of Estimates," February 2010.
- U.S. Navy, Strategic Mobility / Combat Logistics Division. *Seabasing Logistics Enabling Concept*. December 2006.
- U.S. Southern Command. "Beyond the Horizon 2008." October 29, 2008. <http://www.southcom.mil/AppsSC/factfiles.php?id=46>.
- . "Beyond the Horizon 2009." July 17, 2009. <http://www.southcom.mil/AppsSC/factFiles.php?id=104>.
- . "Disaster Relief: Costa Rica and Panama." March 31, 2009. <http://www.southcom.mil/AppsSC/factFiles.php?id=90>.
- . "Fuerzas Aliadas, PANAMAX 07." September 7, 2010. <http://www.southcom.mil/AppsSC/factfiles.php?id=25>.
- . "Global Fleet Station: Pilot Deployment April–October 2007." October 2, 2007. <http://www.southcom.mil/AppsSC/factFiles.php?id=9>.
- . "PANAMAX '08." December 8, 2008. <http://www.southcom.mil/appssc/factFiles.php?id=66>.
- . "PANAMAX '09." November 3, 2009. <http://www.southcom.mil/appssc/factFiles.php?id=126>.
- . "Tradewinds 2007." May 8, 2007. <http://www.southcom.mil/appssc/news.php?storyId=406>.
- . "Unitas Atlantic 2007: Fact Sheet." <http://www.southcom.mil/AppsSC/factFiles.php?id=10>.
- . "Unitas Pacific 2007." April 4, 2008. <http://www.southcom.mil/AppsSC/factFiles.php?id=15>.
- U.S.-China Economic and Security Review Commission Hearing. "China-Taiwan: Recent Economic, Political and Military Developments across the Strait and Implications for the United States," March 18, 2010.
- Van der Lijn, Jäir. *Sudan 2012: Scenarios for the Future*. The Hague: Clingendael Institute, 2009.
- Velasquez, Gabriel. "CLB-15 Medical Detachment Provides Care in Timor Lest." *15th Marine Expeditionary Unit Public Affairs*, July 26, 2010. [http://www.i-mef.usmc.mil/external/15thmeu/news/news\\_2010\\_07\\_26.jsp](http://www.i-mef.usmc.mil/external/15thmeu/news/news_2010_07_26.jsp).

- Vernaza, Tyler. "Ceremony Marks Beginning of PHIBLEX." *31st Marine Expeditionary Unit*, October 14, 2010. <http://www.marines.mil/unit/31stmeu/Pages/CeremonymarksbeginningofPHIBLEX.aspx>.
- Vos, Femke, Jose Rodriguez, Regina Below, and D. Guha-Sapir. *Annual Disaster Statistical Review 2009: The Numbers and Trends*. Brussels: Centre for Research on the Epidemiology of Disasters, 2010.
- Ward, William. Statement before the U.S. Senate, Committee on Armed Services; Hearing, to Receive Testimony on U.S. European Command, U.S. Africa Command, and U.S. Joint Forces Command in Review of the Defense Authorization Request for Fiscal Year 2011 and the Future Year's Defense Program, Washington, D.C., March 9, 2010.
- . Statement before the U.S. Senate, Committee on Armed Services; Hearing, to receive testimony on United States Southern Command, United States Northern Command, United States Africa Command, and United States Transportation Command, Washington, D.C., March 13, 2008.
- Wertheim, Eric. "World Navies in Review." *U.S. Naval Institute Proceedings* 134, no. 3 (2008): 14–26.
- Willard, Robert. Transcript of News Briefing at the Foreign Press Center, Washington, D.C., March 25, 2010.
- Williams, Kim. "HSV *Swift* Begins Engagement Mission in Guyana." High Speed Vessel *Swift 2* Public Affairs, September 2, <http://www.southcom.mil/appssc/news.php?storyId=2450>.
- . "HSV *Swift* Begins Exchanges with Guatemalan Forces." High Speed Vessel *Swift 2* Public Affairs, July 7, 2010. <http://www.southcom.mil/appssc/news.php?storyId=2383>.
- . "HSV *Swift* Brings Subject Matter Expert Exchanges to El Salvador." High Speed Vessel *Swift 2* Public Affairs, June 23, 2010. <http://www.southcom.mil/appssc/news.php?storyId=2369>.
- Williard, Robert. U.S. House of Representatives, Committee on Armed Services; Hearing, the FY 11 National Defense Authorization Budget Request from the U.S. Pacific Command and U.S. Forces Korea, Washington, D.C., March 25, 2010.
- Womble, Jennifer. "Exercise Iron Magic Concludes in Arabian Gulf." Navy Newsstand, December 23, 2009. <http://www.globalsecurity.org/military/library/news/2009/12/mil-091223-nns03.htm>.
- Wonson, Craig. "Forcible Entry from the Sea: Maintaining a Viable and Unique Capability." *Marine Corps Gazette* 94, no. 3 (2010): 40–43.
- Wood, Dakota. "Caught on a Lee Shore." *The American Interest*, September–October 2010. <http://www.the-american-interest.com/article.cfm?piece=859>.
- Work, Robert. "The Post-Afghanistan Marine Corps." Keynote address, Military Strategy Forum, Center for Strategic and International Studies, Washington, D.C., August 3, 2010.
- . *The US Navy: Charting a Course for Tomorrow's Fleet—Strategy for the Long Haul*. Washington, D.C.: Center for Strategic and Budgetary Assessments, 2008.
- World Bank. *Conflict in Somalia: Drivers and Dynamics*. Washington, D.C.: World Bank, 2005.

Wyckoff, Ashley. "De Wert Arrives in Denmark to Begin Baltops 2007." Navy News Service, June 1, 2007. [http://www.navy.mil/search/print.asp?story\\_id=29788&VIRIN=&imagetype=0&page=1](http://www.navy.mil/search/print.asp?story_id=29788&VIRIN=&imagetype=0&page=1).

Zellner, Paul. "Aussies, Marines from Okinawa Trade Non-Lethal Tactical, NOLES 09." III Marine Expeditionary Force Public Affairs, October 9, 2009. <http://www.dvidshub.net/news/printable/40000>.



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