Thinking About Seabasing: All Ahead, Slow

By Robert Work

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Of course, any errors in the report are mine alone, as are my findings and conclusions—as I'm sure Mark, in his inimitable style, would tell you!

Executive Summary

"Seabasing" is a new defense buzzword of growing importance and prominence in both joint and naval circles. Unfortunately, despite the increasingly common use of the term by both joint and naval planners alike, there still remains much mystery and misunderstanding about this important "new" concept. Indeed, one of the key problems that has hindered meaningful debate and discussion about seabasing—and especially the priorities revealed in its associated plans and programs—is that its contemporary definition and the important ideas that support it are poorly understood except among the relatively small group of officers and planners who have been intimately involved with their development.

To make matters worse, since its grand unveiling by the Department of the Navy (DoN) in 2002, the concept's definition has constantly changed. For example, in August 2005, the Seabasing Joint Integrating Concept (JIC) defined seabasing as "the rapid deployment, assembly, command, projection, reconstitution, and re-employment of joint combat power from the sea, while providing continuous support, sustainment, and force protection to select expeditionary joint forces without reliance on land bases within the Joint Operations Area (JOA). These capabilities expand operational maneuver options and facilitate assured access and entry from the sea." However, in the very month the Seabasing JIC was published, The DOD Dictionary of Military and Associated Terms, amended through August 31, 2005, defined seabasing as, "in amphibious operations, a technique of basing certain landing force support functions aboard ship which decreases shore-based presence." Moreover, as is explained in this report, both of these definitions—and others like them—are unduly restrictive, incomplete, confusing, or all of these things.

Partly as a result, there remains much uncertainty over exactly what seabasing is, and over the current programmatic and budgetary

direction of joint seabasing programs. As the Naval Studies Board of the National Research Council of the National Academies wrote in 2005:

Planning for the sea base (sic) is still in its infancy. Coordination across the Services is just beginning, with discussions between the Navy, the Army, and the Marine Corps, and in response to the Office of the Secretary of Defense (OSD) initiatives. As a consequence, the details have yet to emerge, especially with respect to joint operations and with respect to the availability and needed development of technology to perform the tasks that are envisioned for the sea base.

Juxtaposed against this lingering confusion about what seabasing is or should be are the associated material solutions being so aggressively developed and pursued by the Department of the Navy. While these plans now have a joint stamp of approval, this report argues that the programs are being conceived of and pursued long before the full range of desired and possible joint seabasing capabilities have been adequately explored and debated. The end result: current seabasing plans are rather narrowly focused on two rather limited capabilities—landing a single brigade on a hostile shore in 11 to 17 days from the "go" order, and thereafter providing seabased logistical support for two early entry brigades until follow-on joint forces arrive.

It is true that these two key capabilities reflect the "top level requirements" identified in the aforementioned Seabasing JIC. However, these two capabilities reflect a view of seabasing that rests upon questionable assumptions and analysis. This conclusion is based upon the following observations, developed throughout the report:

- First, seabasing is not so much a new "transformational" concept as
 it is a very old maritime concept whose time has come once again.
 Accordingly, current planners would do well to carefully consider
 the history of seabasing and the lessons derived from it when pursuing contemporary seabasing capabilities;
- Second, under no circumstances should seabasing be viewed as a
 naval concept that "enables" joint operations. As a maritime concept and key component of emerging forms of joint littoral warfare marked by the widespread use of guided weapons, seabasing
 initiatives should be prioritized and pursued by a joint organiza-

tion. Therefore, the 2004 decision by the Office of the Secretary of Defense (OSD) not to stand up a Joint Project Office for Seabasing and to instead consign the concept to the new Joint Concept Integration and Development System process was a serious mistake—one only compounded by assigning the Navy to be the lead agent for the Seabasing JIC;

- Third, the current definition for seabasing and the direction of its programs are narrowly focused on one thing: revitalizing the DoN's seabased operational maneuver and seabased expeditionary powerprojection capabilities which were allowed atrophy during the Cold War. The list of seabasing functions is much longer. Functional seabases can be formed to perform the following types of roles: strategic/prompt global strike operations; global patrolling and scouting; persistent surveillance of coastal areas of interest; overt and covert special operations support; unwarned unilateral punitive strikes and raids; rapid global movement of goods, services and personnel along interior lines; naval maneuver, including forcible entry operations, which use the sea to exploit an exterior advantage; and sustained combat, combat support, and combat service support of joint and combined forces operating afloat and ashore. Only if all of these seabasing functions are understood and compared can a rational prioritization of planned seabasing improvements occur;
- Fourth, although seabasing concept development within both the Department of the Navy and the Department of Defense (DoD) is focused on seabased operational maneuver and expeditionary power-projection capabilities, its disjointed development since the end of the Cold War has only served to confuse an urgently needed open debate and discussion about the future of naval maneuver in general and amphibious operations in particular, and the best mix of platforms to support both. Central to this debate is whether or not future forcible entry operations from the sea should be conducted from amphibious warships or commercial-standard MPF(F) ships, or a combination of both; and whether or not these operations should emphasize surface maneuver, aerial maneuver, or a combination of the two. The current understanding of both these issues need to be thoroughly questioned and reviewed;
- Fifth, such a review is made all the more urgent because of the Navy's unfortunate conflation of the ideas of air and missile strikes from the sea and seabased power-projection. As a result of this

circumstance, current Department of the Navy shipbuilding plans are wildly unbalanced in favor of aviation and surface combatant platforms and against combined arms operational maneuver and seabased logistics platforms;

- Sixth, any concept or plan is fundamentally shaped by its key assumptions, and the key assumption driving contemporary seabasing plans is that seabasing should focus on the "seize the initiative" phase of a major combat operation, and specifically on a rapid Joint Forcible Entry Operation (JFEO) against a "traditional" military opponent in approximately ten to 14 days. Such a narrow and questionable assumption unduly constrains a balanced review and pursuit of all potential seabasing initiatives; and
- Finally, following from the first six inter-related observations, current seabasing plans and programs are unduly skewed toward a Navy desire to replace amphibious warships with maritime prepositioning ships.

These seven observations suggest that OSD should order a thorough zero baseline review of the joint seabasing concept. This review should take its basic guidance from the 2005 National Defense Strategy and the 2005/06 Quadrennial Defense Review. These two documents provide guidance that is broad enough to facilitate a thorough and independent zero baseline seabasing review that is free of any preconceived notions or concepts. In this regard, while such a review should consider all concept work and program definitions to date, it is important that the review be in no way constrained by them. In this regard, OSD should not make the same mistake it made in 2002, when it directed the Defense Science Task Force on Seabasing to use an existing naval seabasing concept as its start point. It should instead direct the group conducting the review—either a newly formed Joint Project Office on Seabasing or a group composed of retired Combatant Commanders—to start from a clean sheet of paper, and to recommend the seabasing program with the highest joint payoff in the 21st century.

Said another way, once OSD has identified a group and its leaders have been identified, they should be given free rein to develop a notional joint seabasing construct that would guide the subsequent development of joint seabasing capabilities. Relieved of any requirement to decide whether or not to pursue seabasing programs in their current form, the group could begin from a clean slate. While there are

any number of ways such a review might be structured, at a minimum it should include four key steps:

- Establishing new overarching definitions for seabasing and seabases that highlight their contributions in maritime operations;
- Questioning the assumptions that now drive the development of joint seabasing programs—and developing new ones;
- Reviewing current seabasing plans and initiatives, diagnosing the most pressing joint seabasing deficiencies, and coming up with alternative plans to address them; and
- Establishing a set of principles to guide follow-on debates and discussions and to help prioritize required and desired joint seabasing capabilities.

In the final chapter, this report offers thoughts and recommendations for each of these steps. However, these recommendations are not meant to be prescriptive. They are instead made to further the debate about seabasing and to contribute toward a final joint seabasing program that is best suited for the expected challenges of the 21st century.

I. What's in a Name?

Twenty-first century Sea Basing will be our nation's asymmetric military advantage, contributing immeasurably to global peace, international stability, and warfighting effectiveness.¹

Vice Admiral Charles W. Moore Jr., USN, and Lieutenant General Edward Hanlon Jr., USMC, 2003

"Sea Basing" is a new defense buzzword of growing importance and prominence in both joint and naval circles. In the arcane, process-driven jargon of the new **top-down** Joint Capabilities Integration and Development System (JCIDS)—"a capabilities-based approach to identifying current and future gaps in our ability to carry out joint warfighting missions and functions"—Sea Basing is one of only seven new *Joint Integrating Concepts* (JICs). These seven JICs are capstone concepts deemed critical for future joint force warfighting success. Besides Sea Basing, they include Joint Command and Control; Global Strike; Joint Undersea Superiority; Joint Forcible Entry Operations; Integrated Air and Missile Defense; and Joint Logistics (Distribution).²

These seven JICs are themselves part of an extended *Family of Joint Operational Concepts (JOpsC)*. At the top of this hierarchical family is the *Capstone Concept for Joint Operations* (CCJO), a broad statement of how the joint force will operate in eight to ten years. The CCJO then spawns both *Joint Operating Concepts* (JOCs), which set the future "operational context" by identifying desired operational designs and effects; and *Joint Functional Concepts* (JFCs), which support the

¹ Vice Admiral Charles W. Moore Jr., USN, and Lieutenant General Edward Hanlon Jr., USMC, "Sea Basing: Operational Independence for a New Century," *Proceedings*, January 2003, found online at http://www.usni.org/Proceedings/Articleso3/PROseabasingo1.htm.

² See "The Joint Capabilities and Integration and Development System (JCIDS)," found online at http://www.almc.army.mil/hsv/2003-ISE.pdf.

JOCs by identifying required functional capabilities. From these come the JICs, which identify the "tasks, conditions, and standards" necessary to integrate service efforts, and which form the basis for follow-on *Capabilities-based Assessments* (CBAs) in their respective areas. Each CBA is, in turn, composed of a *Functional Area Analysis*, a *Functional Needs Analysis*, and a *Functional Solutions Analysis*. These analyses form the basis for both an *Initial Capabilities Document* and a *Capabilities Development Document*, which ultimately lead to specific changes to joint doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF).³ DOTMLPF changes to be derived from the Sea Basing JIC are supposed to be identified sometime after mid-2006.⁴

In 2002—long before this new top-down joint capabilities development process was even created—the Navy decreed in their own **bottom-up** service capabilities development process that Sea Basing would be the guiding framework for all DoN programs, as was made clear in *Sea Power 21*, the service's guiding vision statement published in October of that year. The vision stated, in part, that, "Beyond its operational impact, *the Sea Basing concept provides a valuable tool for prioritizing naval programs*...All naval programs should foster these attributes to the greatest extent feasible. This means transforming shore-based capabilities to sea-based systems whenever practical, and improving the reach, persistence, and sustainability of systems that are already afloat" (emphasis added).⁵

Not surprisingly, given this head start, the Department of the Navy (DoN) is racing ahead with its own DOTMLPF solutions for Sea Basing, as revealed in its recently released 30-year shipbuilding plan for a future "313-ship Navy." This draft plan includes a future Maritime Prepositioning Force (Future) (MPF(F)) Squadron of 14 ships, sup-

³ See Final Signature Draft, Chairman of the Joint Chiefs of Staff Instruction CJCSI 3010.02B, "Joint Operations Concepts (JOpsC) Development Process," dated December 7, 2005, found online at http://www.dtic.mil/futurejointwarfare/concepts/cjcsi3010_02b.doc; see also Chris Miller, "Meeting FORCENet Requirements: An Acquisition Community Perspective," a November 14, 2005 PowerPoint briefing found online at enterprise.spawar. navy.mil/getfile.cfm?content=ld744.

⁴ Commander Mark Becker, USN, Deputy Sea Base Pillar Lead (N832), Navy Warfare Development Command, "Seabasing Joint Integrating Concept Update," a PowerPoint briefing given before the International Institute for Defense Conference on Seabasing, Washington, DC, October 6, 2005.

⁵ Admiral Vern Clark, USN, "Sea Power 21: Projecting Decisive Joint Capabilities," Proceedings, October 2002.

ported by four "high-speed connectors," which is designed to operate as a distributed, mobile Sea Base for a Marine Expeditionary Brigade. The first new ships of the squadron are to be authorized in the Fiscal Year 2009 budget.⁶

In truth, the apparent disconnect between joint and DoN Sea Basing efforts is not as bad as it seems. Because the Navy was given the lead in developing the Seabasing JIC, it is not at all surprising that Navy plans fit nicely within the JIC's top level operational requirements. Indeed, it would not be inaccurate to say that for the moment, initial *joint* seabasing plans and the *naval* MPF(F) program are, for all intents and purposes, indistinguishable.

DEFINING SEA BASING

What exactly is "Sea Basing?" Is it really just about transferring shore-based capabilities to sea-based platforms, and improving the reach, persistence, and sustainability of systems already afloat? That sounds like a good description for building any quality navy. Could Sea Basing connote something different and more profound?

In a word, yes. Unfortunately, however, despite the increasingly common use of the term by both joint and naval planners alike, there still remains much mystery and misunderstanding about this important "new" concept. Indeed, one of the key problems that has hindered meaningful debates and discussion about Sea Basing—and especially the priorities revealed in its associated plans and programs—is that its contemporary definition and the important ideas that support it are poorly understood except among the relatively small group of officers and planners who have been intimately involved with its development. Making matters worse, since its grand unveiling by the DoN in 2002, both the concept's spelling and definition have constantly changed (proponents would say evolved), and the definitions themselves have been unduly restrictive, incomplete, confusing, or all of these things.

The concept of using the sea as a base of operations for strategic, operational, and tactical advantage is an old one, developed to a high

⁶ Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for FY 2007 (Washington, DC: Department of the Navy, February 2006).

degree by the Athenian Empire over 400 years before the birth of Christ. Nevertheless, many proponents of Sea Basing—especially many of those (but not all) who tout it as a new "transformational" initiative—talk as though the notion began with the end of the Cold War. Indeed, much (but not all) of contemporary thinking about the concept can be traced directly to two Marine Corps concept papers published in the mid- to late-1990s—Maritime Prepositioning Force 2010 and Beyond and Seabased Logistics. The former outlined a triad of new MPF capabilities, including fast deployment, reinforcement, and "sustained sea basing" (three words, all lower case). Sustained sea basing would "provide enduring logistics support for forces conducting sustained operations ashore." Although not offering a definition of its own, Seabased Logistics declared the "primacy of the 'sea base'" as being the first among five tenets of seabased logistics.

Although "sustained sea basing" and "primacy of the sea base" are both clearly focused on seabased logistics operations, the text of the two operational concepts leaves no doubt that they had a more expansive vision in mind. This was indicated by two new planned MPF(F) capabilities: the *at-sea* arrival and assembly of the maritime prepositioning force, and the reconstitution and redeployment of expeditionary forces *at sea*—without the need to conduct material maintenance or replenishment at "strategic sustainment" bases located on land somewhere in a theater.9

These two capabilities were subsequently highlighted more prominently in a follow-on collaborative Navy-Marine Corps concept paper entitled *Enhanced Networked Seabasing* (three words, all capitalized), or *ENSeabasing* for short. The paper defined "ENSeabasing" as "the integrated capabilities resident in a family of systems and assets afloat that maximize the projection of all dimensional naval power both at sea and ashore. It is a quantum leap forward in naval power projection capabilities through phased at-sea arrival and assembly, selective offload, and reconstitution at sea using a netted dispersed

⁷ Maritime Prepositioning Force 2010 and Beyond (Washington, DC: Headquarters, US Marine Corps, December 30, 1997), found at http://www.fas.org/man/dod-101/sys/ship/docs/mpf-2010.htm.

Elieutenant General J.E. Rhodes, USMC, and RADM G.S. Holder, USN, Seabased Logistics (Marine Corps Combat Development Command and Navy Doctrine Command, May 12, 1998), found online at https://www.mccdc.usmc.mil/futures/concepts/sealog.pdf.

⁹ Maritime Prepositioning Force 2010 and Beyond.

force, enabled by FORCEnet, which facilitates joint operations across the range of military operations" (emphasis added).¹⁰

This complex definition corrected the seemingly narrow focus of seabased logistics found in *MPF 2010 and Beyond* and *Seabased Logistics*, but it had problems of its own. First, it left no doubt that ENSeabasing was more of a *naval concept* that "enabled" joint operations than a truly *joint maritime concept* (note: the difference between a naval and a maritime concept will be discussed at length at the end of this chapter). Second, by defining seabasing primarily in terms of the process steps used earlier to describe future maritime prepositioning operations (i.e., phased at-sea arrival), the definition began to inextricably link the idea of ENSeabasing with the future MPF program—for better or worse. On the more positive side, the concept's accompanying text introduced a new and interesting distinction between "dynamic seabasing," that is, using the sea as a base of operations for operational maneuver and forcible entry, and "static seabasing," or using the sea as a base of operations to logistically support ground forces operating ashore.¹¹

Sea Power 21, the aforementioned Navy vision published in October 2002, contracted Enhanced Networked Seabasing into just "Sea Basing" (two words, both capitalized). However, it at the same time expanded Sea Basing's significance and importance by describing it as the first among three "fundamental concepts that lie at the heart of the Navy's continued operational effectiveness in the 21st century," the other two being "Sea Strike" and "Sea Shield." Sea Basing was defined simply as "...placing at sea—to a greater extent than ever before—capabilities critical to joint and coalition operational success: offensive and defensive firepower, maneuver forces, command and control and logistics." Sea Basing thus made Sea Strike and Sea Shield operational realities. 12

The Sea Power 21 definition for Sea Basing was neither informative nor discriminating. It could apply to any small- or medium-size power-projection navy, and it implied that nearly any conceivable new battle fleet platform or improvement to battle fleet platforms qualified

¹⁰ Lieutenant General Edward Hanlon Jr., USMC, and Rear Admiral R.A. Route, USN, *Enhanced Networked Seabasing* (Marine Corps Combat Development Command and Navy Warfare Development Command, 2002), at http://www.nwdc.navy.mil/Concepts/Sea_Basing/ENSeabasing.aspx.

¹¹ Hanlon Jr. and Route, Enhanced Networked Seabasing.

¹² Moore Jr. and Hanlon Jr., "Sea Basing: Operational Independence for a New Century."

as a Sea Basing initiative.¹³ Also, it is most likely inaccurate; it is hard to envision any future Sea Basing effort larger than the sea based power-projection operations mounted in World War II, such as the 1945 invasion of Okinawa, for example. Significantly, however, the text of *Sea Power 21* did introduce a new impetus for DoN Sea Basing efforts: a desire to conduct seabased operational maneuver more rapidly. As a consequence, the vision explicitly endorsed the use of maritime prepositioning ships to achieve this aim, tying the concept of Sea Basing even more closely to the MPF program.

Sea Power 21, a Navy vision, was soon followed by the 2003 **Naval** Transformational Roadmap (NTR)—a collaborative Navy and Marine effort. The Roadmap asserted that "Seabasing" (now one word, capitalized) was "a national capability," and was the DoN's "overarching transformational operating concept for projecting and sustaining naval power and joint forces which assures joint access by leveraging the operational maneuver of sovereign, maneuverable, and networked forces operating globally from the sea." Whew! Thankfully, the NTR was much more concise in its basic definition for Seabasing: "the concepts and capabilities that exploit our command of the seas to project, protect, and sustain integrated warfighting capabilities from the maritime domain." The NTR also defined a sea base (two words) as "an inherently maneuverable, scalable aggregation of distributed networked platforms that enable the global power projection of offensive and defensive forces from the sea, and includes the ability to assemble, equip, project, and sustain those forces without the reliance on land bases within the Joint Operations Area."14

The idea that Seabasing is a concept that exploits *command of the seas* was an important addition to the concept's definition. It implied that transferring additional offensive and defensive firepower, maneuver forces, command and control and logistics onboard ships when one

¹³ Lieutenant Commander Henry J. Hendrix II, US Navy, "Exploit Sea Basing," *Proceedings*, August 2003, p. 61.

¹⁴ The Honorable Gordon England, Secretary of the Navy, Admiral Vern Clark, Chief of Naval Operations, and General Michael W. Hagee, Commandant of the Marine Corps, 2003 Naval Transformational Roadmap (Washington, DC: Department of the Navy, undated), pp. 1-2. This definition was subsequently used before Congress in a Department of the Navy hearing before the Projection Forces Subcommittee of the House Armed Services Committee on FY 2005 Navy Ship Construction Programs, March 10, 2005, found online at http://www.house.gov/hasc/testimony/109thcongress/Projection%20Forces/3-10-05Joint NavyStatement.pdf.

didn't enjoy command of the seas might not be a good idea (unless intent on challenging another power for command of the seas). However, by saying that Seabasing was about projecting, protecting, and sustaining integrated warfighting capabilities *from the maritime domain* rather than *from the sea in support of maritime operations*, the definition reinforced the impression that the concept remained more naval than maritime in character.

The naval flavor of the concept was perhaps unwittingly reinforced by the NTR's definition for a sea base, which was otherwise technically unobjectionable and accurate. However, it left the impression that the purpose of seabasing was to replace land bases (a naval objective) rather than to gain access to or augment land base (a maritime objective). Moreover, while aggregations of platforms certainly perform specific functions on the sea, the definition obscured an important point: command of the seas turns the oceans themselves into a secure base of operations for joint power-projection. Said another way, and in a preview of things to come, many tend to explain Seabasing in terms of the things on the seas and the process of assembling bases at sea rather than in terms of using the seas as a secure base of operations for a variety of power-projection functions. As will be thoroughly discussed, these are two different ways to look at the same problem—the first more narrow and naval in character, the second more expansive and maritime in scope.

The question over whether to describe Seabasing more narrowly as a naval concept rather than more broadly as a maritime concept was not simply a matter for conceptual debate. Before the concept of Seabasing could truly gel and take hold in the joint arena, it needed to be discussed in terms more seductive to a wider audience beyond just the Navy and Marines. The Defense Science Board (DSB) Task Force on Sea Basing, although dominated by both serving and retired naval officers, took the first step in this direction when it defined "sea basing" (two words, lower case) simply as "the capacity and/or capability to project rapidly sustainable power ashore from the sea" (emphasis added). Helpfully, the Task Force's definition eschewed any focus on platforms or the process of assembling and operating them. However, although the Task Force went on to say that "sea basing capacities must be flexible and adaptable to a wide range of contingencies," its new definition emphasized the

¹⁵ Defense Science Task Force on Sea Basing, (Washington, DC: Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, OSD, August 2003), at http://www.acq.osd.mil/dsb/reports/seabasing.pdf.

Task Force's relatively narrow focus on future forcible entry operations from the sea. And in this regard, when developing their ideas on how future "amphibious operations" would become just a subset of "seabasing operations," Task Force members implied that sea basing was a concept applicable primarily to joint forcible entry operations. Moreover, they explicitly endorsed the idea—whether justified or not—that these operations could be conducted far more effectively from commercially-designed MPF ships than purpose-built amphibious *war*ships. ¹⁶

The Office of Force Transformation (OFT)—the office charged with advocacy of the Secretary of Defense's agenda for defense transformation and keeper of all service transformation roadmaps—then weighed in. It defined "sea-base" (lower case, hyphenated) as "a noun; the sea and not the things on it," and "seabasing" (one word, lower case) as "a verb, not a noun; the dynamics of operational maneuver exploiting the exterior advantage." ¹⁷ OFT's definition of the sea-base was the first definition that attempted to convey the notion that when a nation commands the seas it can conceive of the oceans themselves as being a secure base for joint operations—a critically important point. Unfortunately, however, its definition for seabasing was incomplete; it focused solely on dynamic aspects of sea based maneuver while ignoring the equally important potential contributions of static seabasing.

Later, Thomas Hone, an Assistant Director at OFT, amended the office's definition in an even more intriguing way, describing seabasing as "the elimination of the conceptual difference between operations on land and operations on or from the sea." ¹⁸ This interesting hint of seabasing's underlying maritime aim was reflective of much of OFT's writings, in that the definition was highly conceptual and required much additional amplification and discussion before it could be easily understood, much less accepted. That said, its conceptual implications—particularly the inextricable blending of land and sea operations in future joint expeditionary power-projection operations—were noteworthy, and deserved more attention than they received.

Then, in August 2005, the aforementioned Seabasing Joint Integrating Concept defined "Seabasing" (one word, capitalized) as "the rapid deployment, assembly, command, projection, reconstitution, and

¹⁶ Defense Science Task Force on Sea Basing.

Aarti Shah, "Cebrowski Touts Seabasing, But Criticizes Related Misconceptions," *Inside the Navy*, February 4, 2005.

¹⁸ Hone, "Sea Basing: Poised for Takeoff,"

re-employment of joint combat power from the sea, while providing continuous support, sustainment, and force protection to select expeditionary joint forces without reliance on land bases within the Joint Operations Area (JOA). These capabilities expand operational maneuver options and facilitate assured access and entry from the sea." ¹⁹ This definition is a fair one, as it attempts to blend Seabasing's naval roots with the steadily increasing joint interest in the concept. It usefully highlights the key distinction between naval maneuver (dynamic seabasing) and sustained support of joint forces operating ashore (static seabasing), and artfully captures two of the key contributions of Seabasing in maritime operations—facilitating or forcibly seizing land access, and providing a commander with expanded maneuver operations.

There were, however, two inter-related problems with the definition. First, it marked a return to defining seabasing primarily in terms of the process steps—and, at that, process steps applicable to *any* power projection operation, and not one that took place only on or from the sea. Second, it emphasized that seabasing would provide "continuous support" without reliance on land bases within the JOA. The definition thus comes across far more naval than maritime in character (although again, in fairness, the text of the JIC has a strong, positive maritime flavor).

Meanwhile, in the very month the Seabasing JIC was published, *The DOD Dictionary of Military and Associated Terms*, amended through August 31, 2005, defined "seabasing" (one word, lower case) as, "in amphibious operations, a technique of basing certain landing force support functions aboard ship which decreases shore-based presence" (emphasis added).²⁰ This definition is clear and accurate—as far as it goes. But therein lay its problem: it is far too clinical and restrictive. First, by tying seabasing exclusively to amphibious operations, it misses other important seabasing contributions. Using just one example, the World War II "fleet train" that provided the US battle fleet with such unprecedented range and freedom of action in the Central Pacific drive was in no way tied solely to amphibious operations. Second, since the definition focuses only on static seabasing; the definition fails in any way to capture the power of dynamic seabased operational maneuver.

¹⁹ Becker, "Seabasing Joint Integrating Concept Update."

²⁰ Joint Pub 1-02, *DOD Dictionary of Military and Associated Terms*, 12 April 2001, as amended through August 31, 2005, found online at http://www.dtic.mil/doctrine/jel/doddict.

WHICH WAY AHEAD?

Although the definition found in the Seabasing JIC was subsequently approved by the services and the Joint Staff, the constantly changing (or evolving) definitions of **seabasing** (note: henceforth, this report will adopt the spelling convention found the DOD Dictionary of Military and Associated Terms) and **seabase** (analogous to airbase)—and the concepts that underlie them—helps to explain why current discussions about seabasing so often resemble two simultaneous monologues rather than true dialogues. As implied above, some proponents see seabasing as a *naval* concept that "enables" joint operations," while some see seabasing as a maritime concept that is an integral part of emerging forms of joint littoral warfare. Some see seabasing as more about building bases at sea to replace land bases, while other see seabasing more about using the sea as a base of operations to overcome a temporary lack of land bases. Some see seabasing more in terms of the static support of joint forces operating ashore, while others are attracted to the more dynamic aspects of seabased maneuver. Meanwhile, the DSB views it as a way to conduct seabased forcible entry operations more rapidly, supplanting traditional "amphibious assaults." Without a common understanding and acceptance of seabasing that simultaneously embraces all of these things or resolves their conceptual differences, it will be difficult, if not impossible, to initiate a fair and informed debate about current seabasing plans and programs.

Lingering confusion about the concept is especially evident among those analysts and planners outside the relatively small group of officers and planners familiar with the evolution of joint and naval seabasing efforts. As the Naval Studies Board of the National Research Council of the National Academies wrote in 2005:

Planning for the sea base (sic) is still in its infancy. Coordination across the Services is just beginning, with discussions between the Navy, the Army, and the Marine Corps, and in response to the Office of the Secretary of Defense (OSD) initiatives. As a consequence, the details have yet to emerge, especially with respect to joint operations and with respect to the availability and needed development of technology to perform the tasks that are envisioned for the sea base.²¹

²¹ Committee on Sea Basing, Naval Studies Board, National Research Council of the National Academy of Sciences, *Sea Basing: Ensuring Joint Access From*

These thoughts were echoed in January 2006, five months after the new definition for seabasing was agreed to in the JIC. That month, the Vice President of Naval Systems at Boeing commented that the seabasing concept is going to require a partnership between government and industry to help everyone clearly understand what end capability or outcome the Pentagon is looking for. "It's a very complex problem," he said. "It takes a partnership to come close to defining the level of clarity for industry to start to build components." He went on to say that Boeing was investing to expand its knowledge of the seabasing concept so that it can better understand some of its capabilities and limitations, "To help both ourselves, and to share with our customer, things they should consider as they try to add more definition to what seabasing means to them" (emphasis added).²²

These thoughts were seconded soon thereafter by a former head of the Navy's Warfare Development Command who now works with General Dynamics. While on active duty, Rear Admiral Robert Sprigg, now GD's Director of Advanced Warfighting Concepts, was right in the middle of the rapid evolution of seabasing that occurred in the first years of the 21st century. He rightly observed that the "seabase discussion has been a discussion that has developed in segments, not in one coherent manner." While he believes that the picture of a "seabase's desired operational capabilities" are getting more coherent, he stated "It's not there yet to start building too many things." He recommended an open dialogue begin between the operating forces, acquisition community, and industry to help better define the concept and to understand better the required capabilities.²³

Juxtaposed against this lingering confusion about what seabasing is or should be are the associated material solutions being so aggressively developed and pursued by the Department of the Navy. While these plans now have a joint stamp of approval, this paper will argue that the programs are being conceived of and pursued long before the full range of desired and possible joint seabasing capabilities have been adequately explored and debated. The end result: current seabasing plans are rather narrowly focused on two key capabilities—landing a

the Sea (Washington, DC: The National Academies Press, 2005), p. 2.

²² This passage was drawn from Geoff Fine, "Public Private Partnership Needed to Clearly Define Sea Basing Concept," *Defense Daily*, January 18, 2006.

²³ These quotes were drawn from Geoff Fine, "Discussion, Understanding Capabilities Key for Sea Basing, Official Says," *Defense Daily*, January 20, 2006.

single brigade on a hostile shore in 11 to 17 days, and thereafter providing seabased logistical support for two early entry brigades until follow-on joint forces arrive. It is true that these two key capabilities do indeed reflect the "top level requirements" identified in the Seabasing JIC. Nevertheless, it is hard not to get the sense that DoN plans are first about recapitalizing the Department's amphibious and expeditionary maneuver fleets, and only second about developing an inclusive maritime concept of seabasing more attuned to the evolving strategic environment and the likely security challenges of the 21st century.

PURPOSE, SCOPE, AND ORGANIZATION

Accordingly, the purpose of this paper is to explore the strategic, operational, tactical, and programmatic impetus for both naval and joint seabasing efforts. The paper attempts to answer the following questions: What does the historical record suggest about seabasing? What are the current strategic drivers behind the concept? What are its operational and tactical aims? Are the current programmatic directions for seabasing prudent? If not, why not? While the paper will highlight some alternatives to current programs as examples, it is more about providing a basis for informed debate than outlining any specific alternative seabasing plans.

To help answer these questions, the paper is divided into six remaining chapters and three parts. Part One can be generally thought of as *The Rise and Fall of Seabasing*. Chapter II discusses the rise of seabasing and naval maneuver in US strategic thought and operations through the end of World War II, the heyday of modern US seabasing capabilities. Chapter III then discusses how the strategic conditions of assured access in the Cold War led directly to a great diminishment of US seabasing thought and operational ability.

Part Two, *The Rise of Seabasing*, discusses how the idea of seabasing has made a roaring comeback in US strategy, operations, and plans in the post-Cold War strategic era. Chapter IV describes the new strategic impetus for seabasing in the "Joint Expeditionary Era;" Chapter V details the specific evolution of seabasing concepts from 1989 through 2001; and Chapter VI discusses the transition from concepts to joint seabasing plans and programs that has occurred since then.

Part Three, in one chapter entitled *Rethinking Seabasing*, proposes a new definition for seabasing, questions the assumptions that now so indelibly shape seabasing—first among them the emphasis on conducting rapid forcible entry operations—and attempts to establish some enduring first principles about seabasing that should shape a thorough, joint review of all seabasing plans and programs. This chapter is itself shaped by the following inter-related observations, developed throughout this paper:

- First, seabasing is not so much a new "transformational" concept as
 it is a very old maritime concept whose time has come once again.
 Accordingly, current planners would do well to carefully consider
 the history of seabasing and the lessons derived from it when pursuing contemporary seabasing capabilities;
- Second, under no circumstances should seabasing be viewed as a naval concept that "enables" joint operations. As a maritime concept and key component of emerging forms of joint littoral warfare marked by the widespread use of guided weapons, seabasing initiatives should be prioritized and pursued by a joint organization. Therefore, the 2004 decision not to stand up a Joint Project Office for Seabasing and to instead consign the concept to the JCIDS process was a serious mistake, and one only compounded by assigning the Navy to be the lead agent for the Seabasing JIC;
- Third, the current definition for seabasing and the direction of its programs are narrowly focused on one thing: revitalizing the DoN's seabased operational maneuver and seabased expeditionary powerprojection capabilities which were allowed atrophy during the Cold War. The list of seabasing functions is much longer. Functional seabases can be formed to perform the following types of roles: strategic/prompt global strike operations; global patrolling and scouting; persistent surveillance of coastal areas of interest; overt and covert special operations support; unwarned unilateral punitive strikes and raids; rapid global movement of goods, services and personnel along interior lines; naval maneuver, including forcible entry operations, which use the sea to exploit an exterior advantage; and sustained combat, combat support, and combat service support of joint and combined forces operating afloat and ashore. Only if the entire range of seabasing functions is explicitly listed and compared can a rational prioritization of planned seabasing improvements occur;

- Fourth, although seabasing concept development within both the Department of the Navy and the Department of Defense (DoD) is focused on seabased operational maneuver and expeditionary power-projection capabilities, its disjointed development since the end of the Cold War has only served to confuse an urgently needed *open* debate and discussion about the future of naval maneuver in general and amphibious operations in particular, and the best mix of platforms to support both. Central to this debate is whether or not future forcible entry operations from the sea should be conducted from amphibious *warships* or commercial-standard MPF(F) ships, or a combination of both; and whether or not these operations should emphasize surface maneuver, aerial maneuver, or a combination of both. The current answers to both these issues need to be thoroughly questioned and reviewed;
- Fifth, this review is made all the more urgent because of the Navy's
 unfortunate conflation of the ideas of air and missile strikes from
 the sea and seabased power-projection. As a result of this circumstance, current Department of the Navy shipbuilding plans are
 wildly unbalanced in favor of aviation and surface combatant platforms and against combined arms operational maneuver and seabased logistics platforms;
- Sixth, any concept or plan is fundamentally shaped by its key assumptions, and *the* key assumption driving contemporary seabasing plans is that seabasing should focus on "seizing the initiative" by enabling a rapid Joint Forcible Entry Operation (JFEO) against a "traditional" military opponent in approximately ten days. Such a narrow and questionable assumption unduly constrains a balanced review and pursuit of all potential seabasing initiatives; and
- Finally, following from the first six inter-related observations, current seabasing plans and programs are unduly skewed toward a
 Navy desire to replace amphibious warships with maritime prepositioning ships.

Taken together, these key observations suggest that current *joint* seabasing plans are incomplete and current *joint* seabasing programs are premature. As a result, and as mentioned above, the Secretary of Defense should take the opportunity of the recent publication of the 2006 Quadrennial Defense Review to order a thorough, joint, "zero baseline

review" of seabasing options before proceeding with any particular material solution, including the DoN's newly designed MPF(F) squadron.

SEABASING: A MARITIME CONCEPT

As should be evident from the discussion so far, this paper will continuously highlight the difference between seabasing as a *naval* concept and seabasing as a *maritime* concept. Before proceeding, then, it might be helpful to explain the critical distinction between maritime operations and strategy and naval operations and strategy.

The word "maritime" encompasses all activities regarding the seas and oceans of the world, as well as their close interrelationships. Among these activities include international affairs; international law; economics; trade; politics; communications; migration and immigration; science; and technology.²⁴ More to the point, however, in the conduct of war, maritime strategy and operations:

...[concern] "the principles which govern a war in which the sea is a substantial factor." It does not concern itself solely with fleet operations or even operations upon the sea, but it "regards the fleet and army as one weapon, which co-ordinates their action, and indicates the lines on which each must move to realise [sic] the full power of both." To think of naval and military (i.e., land force) strategy as separate is to disregard the theory of war, "which brings out their intimate relation." ²⁵

On the other hand, naval strategy and operations:

...deal with ships, shipbuilding, war at sea, and military forces associated with navies. Moreover, naval theory is primarily concerned with the means and methods of

²⁴ Lieutenant Commander John J. Klein, USN, "Corbett in Orbit: A Maritime Model for Strategic Space Theory," *Naval War College Review*, Winter 2004, pp. 62-63.

From Lieutenant Commander Y.B. Lindsey, USN, "Assuming Away History: A Critical Analysis of *Forward ...From the Sea* by Sir Julian S. Corbett," found online at http://www.globalsecurity.org/military/library/report/1997/Lindsey.htm. The embedded quotes are from Julian Stafford Corbett, Some Principles of Maritime Strategy.

employing forces at sea to achieve national goals while increasing national power and prestige. The emphasis on naval operations and fleet actions results in a "sea" and "[naval]"-centric perspective.²⁶

As should be evident, then, a maritime concept and a naval concept are two sides of the same coin. However, it is a coin that is most definitely "loaded;" when flipping the coin to determine which concept is more important for joint power projection operations, the side marked "maritime concept" will always land face up. Naval strategy is a *subset* of maritime strategy, albeit an important one, which has as its ultimate object "passage and communication"—which, as will be explained, means the assured transoceanic delivery of armies, navies, and air forces, as well as the joint goods and services needed to support and sustain them. In other words, *naval* activities to achieve or exploit command of the seas are merely a means to achieve a critical *maritime* end: the projection of national power over the world's oceans. Said another way, "The value of command of the sea lay(s) not in any fact of its physical conquest or possession—an idea which only makes sense in land warfare—*but in the use to which it [can] be put*" (emphasis added).²⁷

With this distinction in mind, the next five chapters explain the uses to which command of the seas can be put in projecting US power around the globe, and help to set the stage for the final discussions and recommendations developed in Chapter VII.

²⁶ Klein, USN, "Corbett in Orbit: A Maritime Model for Strategic Space Theory," p. 62.

²⁷ Geoffrey Till, as cited in Lindsey, "Assuming Away History: A Critical Analysis of *Forward ...From the Sea* by Sir Julian S. Corbett."

II. The Rise of Seabasing and Naval Maneuver in US Strategic Thought and Operations

Cromwell had seen that the possession of a port would enormously improve England's position by making her independent of uncertain neutrals and doubtful allies.²⁸

Julian S. Corbett, 1906

Throughout history, successful regional and global states have sought the means to improve their ability to project military power at a distance. As soon as man mastered the art and science of designing, building, and safely handling ships capable of transporting men, animals, and cargo, the sea became a primary avenue for such powerprojection operations, for the simple reason that ships can move large weights and volumes much faster over water than ground forces can move over land. The German blitzkrieg through France moved about two hundred miles in seven days, or thirty miles per day. One definitive study of army movement rates suggests that against light opposition an average advance of a hundred miles a week is more typical, or about 15 miles per day. In the recent invasion of Iraq, US ground forces moved approximately 400 miles in three weeks, an average of 130 miles per week and about 20 miles per day. A fleet at sea can easily move a combat force more than an order of magnitude faster-2,500 miles in seven days. Moreover, sea lines of communications have normally-but not always—proved to be more secure than land routes, which are subject to constant raids and interdiction by enemy forces.²⁹

²⁸ Julian S. Corbett, "Review of England in the Mediterranean: A Study of the Rise and Influence of British Power Within the Straits 1603-1713," The Quarterly Review, no. 408, July 1906, p. 15.

²⁹ Captain Wayne P. Hughes, USN, ret., "Naval Maneuver Warfare," *Naval War College Review*, Summer 1997, found online at http://www.nwc.navy.mil/press/Review/1997/summer/art2su97.htm.

With regard to the latter point, great states—jockeying for position in the regional or global pecking order—have sought to gain *command* of the seas, defined by maritime theorist John B. Hattendorf as "removing the possibility of a rival or potential rival['s] naval forces from effectively using the *common sea lanes* to interfere with one's own use of the sea" (emphasis added).³⁰ Command of the seas therefore bestows upon its possessor a vast, secure avenue of movement for the transport of cargo and goods across great distances—and denies this same avenue to opposing powers. As Sir Julian Corbett wrote:

Command of the sea, therefore, means nothing [more than] the control of maritime communications, whether for commercial or military purposes. The object of naval warfare is the control of communications, and not, as in land warfare, the conquest of territory. The difference is fundamental. . . . It is obvious that if the object and end of naval warfare is the control of communications it must carry with it the right to forbid, if we can, the passage of both public and private property upon the sea. . . . 31

Obviously, states capable of commanding the seas thus enjoy immense advantages at the strategic, operational, and tactical levels of war. Chief among these advantages is that, in addition to just moving forces and supplies efficiently and quickly, the *sea itself becomes a base for regional or global operations*, just as is suggested in the Office of Force Transformation's definition of seabasing. This thought was well captured in a superb article written by Samuel P. Huntington in 1954, entitled "National Policy and the Transoceanic Navy," in which he laid out the reason for having a strong navy even when there were no hostile fleets to fight:

...in a very real sense *the sea is now the base* from which the Navy operates in carrying out its offensive activities against the land. Carrier aviation is sea based (*sic*) aviation; the Fleet Marine Force is a sea based

³⁰ John B. Hattendorf, "Recent Thinking on the Theory of Naval Strategy," in *Maritime Strategy and the Balance of Power: Britain and America in the Twentieth Century*, John B. Hattendorf and Robert S. Jordan, eds. (New York: St. Martin's Press, 1989), p. 153.

³¹ Sir Julian Stafford Corbett, Some Principles of Maritime Strategy (Annapolis, MD: Naval Institute Press, 1988).

ground force; the guns and guided missiles of the fleet are sea based artillery...*The base of the United States Navy should be conceived of as including...the seas of the world right up to within a few miles of the enemy's shores*. This gives American power a flexibility and a breadth impossible of achievement by land-locked powers (emphasis added).³²

However, even for states possessing the most powerful fleets in the world, enjoying unchallenged command of the seas, and blessed with counting the world's oceans as a secure base of operations, sustaining persistent military power once across a sea or ocean—as opposed to conducting short-duration raids or blockades—normally requires access to ports and land bases. Sustaining large land forces ashore using just ships on the sea has proven to be a difficult, if not insurmountable task, especially as those forces move farther from the coastline. However, as history shows, and as America's own experience repeatedly demonstrates, obtaining reliable land access requires a tricky combination of diplomatic, military, and economic negotiations. Even then, as Sir Julian Corbett's words imply above, access to foreign ports and bases often comes with strings attached that can limit even a great power's operational independence.

Consequently, with the aim of gaining or improving their freedom of action, great regional and global powers have often sought to acquire distant ports and bases *under their direct control*, first by conquering or annexing the necessary territory. If these efforts prove to be impossible (as is the case today because of limiting international norms), great powers next try to arrange the use of ports and bases located on the soil of their most trusted and reliable allies, often by providing some sort of security guarantee. A third, more undesirable option is to negotiate "access" to the territory of "uncertain neutrals and doubtful allies." Of course, in time of war, if none of these options is available or sufficient for a country's needs, a country's armed forces can either seize advance

Samuel P. Huntington, "National Policy and the Transoceanic Navy," *Proceedings*, May 1954, p. 491. This is a superb short article, written by Huntington nine years after the end of World War II. It is, in essence, a call to naval leaders to think more broadly about the Navy's role in a new national security policy era. As will be seen, his thoughts about seabasing remain relevant to this day.

bases held by an enemy, or establish bases within close striking distance of, or even on, enemy-controlled territory.³³

Some great regional and global powers—among them Athens and Rome in the ancient Mediterranean; the Mongol Empire and Chinese Ming Dynasty in Asia and the Indian Ocean; and, at various times, Portugal, the Netherlands, Great Britain, and the United States across transoceanic ranges—became adept at both exploiting the sea as a base of operations and in negotiating, coercing, annexing, or forcibly seizing ports or bases of operations using attacks from the sea. They also became adept in using both ideas together to conduct sustained operations in theaters far from home.³⁴ However, among these great powers, perhaps none have pursued seabasing with greater enthusiasm and technological vigor than the United States. The purpose of this chapter is to review why and how seabasing became so central to US defense strategy through the end of World War II.

THE CONTINENTAL ERA: WATCHING AND LEARNING

The very first instinct of the Continental Navy and Marine Corps was to conduct "out of area" forward deployment and expeditionary power-projection operations. Tasked by Congress in 1775 to defend the American coast from British commerce raiders, Commodore Esek Hopkins' first move was to conduct an amphibious raid on the British colonial town of Nassau in the Bahamas. As one contemporary naval analyst wrote, this very first operation mounted by the Continental Navy and Marine Corps "...became a metaphor for the entire subsequent history of the United States Navy: Forward deployment and power-projection would trump coastal patrol and homeland defense every time." ³⁵

³³ For a thorough discussion about the history of basing see Robert E. Harkavy, "Thinking About Basing," *Naval War College Review*, Summer 2005, Vol. 58, No. 3, pp. 13-41.

While Athens, Rome, the Mongols and the Ming Dynasty established local or regional sea control, Portugal, the Netherlands, Great Britain and the United States were global maritime hegemons that pursued "rimland bases" around the periphery of the Eurasian "heartland." See Harkavy, "Thinking About Basing," pp. 14-18.

³⁵ Peter M. Swartz, *Sea Changes: Transforming U.S. Navy Deployment Strategy*, 1775-2002 (Alexandria, VA: Center for Naval Analysis, July 31, 2002), p. 13. This is a wonderful piece of work, which explains in detail the changing

Faced with any naval adversary other than the British Royal Navy, the Continental Navy might have made further use of the seas as a base for wartime operations. But the simple fact was that Great Britain, with a battle line of unequaled capability and power, commanded the high seas and claimed the world's oceans as a vast base of operations for global expeditionary power-projection and empire policing. The fledgling American Navy, incapable of challenging this basic strategic circumstance even along its own coast without the assistance of an allied battle line, was reduced to conducting "guerrilla warfare" at sea—that is, blockade breaking, commerce raiding, attacks against single British warships, and small raids against British interests ashore.

Soon thereafter, to facilitate their naval strategy of *guerre de course* throughout England's Atlantic "seabase," the Americans sent a mission across the Atlantic to negotiate bases for forward-deployed US warships. Throughout the Revolutionary War, US warships operating from bases in France and Spain attacked British merchantmen and conducting small raids against British interests ashore. Indeed, in 1778, John Paul Jones landed in England itself in an attempt to burn British ships anchored in port—the first hostile landing on English soil in more than a 100 years.³⁶

After its successful War for Independence and throughout most the 19th century—an era referred to by Samuel Huntington as the Continental Phase of national policy—threats to the new Republic's national security occurred primarily on the North American continent. As a result, in the *Continental Era* of US military development, the US lacked the capability to conduct large-scale power-projection operations beyond the Western Hemisphere.³⁷ However, despite their small size relative to the world's great naval powers—particularly Great Britain—the US Navy and Marine Corps routinely deployed and operated globally. These forward deployed operations protected US trade and interests in peacetime and postured the fleet to immediately transition to commerce warfare should war erupt. The astonishing reach of US Navy (and Marine Corps) throughout this period was facilitated by stealing a page from the British and using the sea as a base of operations for *global*

deployment patterns of the US Battle Force since 1775. It is packed with useful information.

³⁶ Swartz, Sea Changes: Transforming U.S. Navy Deployment Strategy, 1775-2002, p. 13.

Huntington, "National Policy and the Transoceanic Navy," pp. 483-93.

patrolling, "an achievement unmatched by many larger and more modern navies of the time, which remained regionally focused." 38

US naval global patrolling activities were maintained through most of the 19th century without the benefit of any sovereign US overseas basing infrastructure or any formal sea-based combat or mobile logistics forces. Indeed, on first thought, it would be reasonable to question why these global patrols would even need these things. The wooden ships during the age of sail relied on the power of the wind for propulsion, and carried considerable powder and shot for their cannons. They also carried extra cordage, canvas, wood, and masts, and the skilled craftsmen needed to make most voyage and minor battle damage repairs. Ships could stand ashore as necessary to replenish water and forage for food. Given these circumstances, why would one need a basing structure or a combat logistics fleet to support forward-deployed patrols?

Regardless how rugged and self-sufficient the wooden ships of the era were, the Navy discovered early on that sustained forwarddeployed overseas operations required some sort of fleet support base to repair more serious storm or battle damage, to purchase additional supplies and food, and to give their crews respite from long patrols at sea. Accordingly, despite the early Republic fears about entering into "entangling alliances," after the Revolutionary War the sail-powered US Navy maintained several far-flung "fleet stations"—forward operating locations for small squadrons of ships.³⁹ To help sustain the ships assigned to these stations, the United States negotiated a rather large, albeit informal, land-based fleet basing structure. This globally dispersed structure included numerous nascent "advance bases" consisting of a warehouse or warehouses purchased or leased in friendly ports, overseen by a naval storekeeper who lived in the port with his family. The naval storekeeper, in turn, negotiated access to foreign shipyards for US ships, where most squadron maintenance was conducted by the Americans themselves.40

At different times during the 19th century, the Navy maintained such "bases" in Port Mahon, in Spain's Balearic Islands; Valparaiso,

³⁸ Swartz, Sea Changes: Transforming U.S. Navy Deployment Strategy, 1775-2002, p. 26.

 ³⁹ See especially Robert Albion, "Distant Stations," *Proceedings*, March 1954.
 ⁴⁰ The information about these bases included herein comes from a series of emails from experts at the Center for Naval Analysis, including Peter Swartz, B.C. MacCaffree, Albert Nofi, and particularly Patrick Roth. I am indebted to them for their kind support.

Chile; Rio de Janeiro, Brazil; Callao, Peru; Luanda, Angola; Macau, China; Magdalena Bay, Mexico (Baha California Sur); Colon and Panama City, Panama; Tenefre, Canary Islands; Cap Haitien, Haiti; St. Thomas in the Danish Virgin Islands; and Porto Prava in the Cape Verde Islands. These bases were often augmented by the first "maritime prepositioning ships"—station store ships that were periodically replenished by other store ships operating as a nascent "shuttle fleet" between the United States and the distant station. 41

This informal basing structure proved quite sufficient to the needs of US national security during the Continental Era. It provided the dispersed global patrol Navy with a great measure of freedom of action in peacetime, posturing it for immediate transition to commerce warfare should conflict erupt (depending, of course, on the speed of communications). However, as should be evident, the entire structure was critically dependent on "uncertain neutrals and doubtful allies." Moreover, even had the structure been located on sovereign US overseas territories, the fact was that without being able to claim the intervening oceans as a secure base of operations, the bases were vulnerable to interdiction, isolation, attack, or seizure.

Indeed, this point was driven home repeatedly to US defense and naval strategists during the American wars fought throughout the Continental Era. During both the American Revolution and the War of 1812, the British Royal Navy leveraged its command of the seas to again and again to plant army units where they would be effective, greatly complicating US defensive efforts. Conversely, when not fighting against the British, and when able to claim local command of the seas in the Western Hemisphere, the American military learned first hand the operational and tactical payoffs of claiming the sea as a base of operations. The Army, Navy, and Marines exploited the sea to conduct joint coastal and riverine operations in Florida during the Second Seminole War (1835-42). Shortly thereafter, during the Mexican War (1846-48), the battle fleet supported its first large-scale amphibious landing at Vera Cruz, landing 8,600 troops under the command of General Winfield Scott in less than five hours and with no loss of life. This was to remain

⁴¹ Swartz, Sea Changes: Transforming U.S. Navy Deployment Strategy, 1775-2002; and emails from Swartz, MacCaffree, Nofi, and Roth. As was often the case up through the end of the 19th century, there "existed a close nexus between the security and economic functions" of this informal US overseas basing structure. Harkavy, "Thinking About Basing," p. 17.

⁴² Hughes, "Naval Maneuver Warfare."

the largest US amphibious operation until the landings in Morocco in 1942, and gave the US military its first hint of the power of what is now known as "operational maneuver from the sea." The Mexican War was followed by operations during the Civil War (1861-65), during which the Union Navy effectively played the role of the Royal Navy while the Confederate Navy was consigned to the role of the Continental Navy. The Union Navy was able to turn the coastal seas along the Confederacy—and even its inland rivers and waterways, particularly the Mississippi and its great tributaries—into a base of operations for raids, amphibious landings, and support of troops operating ashore, contributing in no small way to the war's final outcome.

Toward the end of the Continental Era, then, a growing number of US naval officers argued for a bold, perhaps even reckless, step: to challenge the British Royal Navy as the number one naval power so that the United States could itself claim the world's seas as a secure base of operations. These officers were inspired by naval strategist Alfred Thayer Mahan, who came out strongly against the Navy's century-old strategy of *guerre de course* and for a new strategy designed to secure American command of the seas:

It is not the taking of individual ships or convoys, be they few or many, that strikes down the money power of a nation; it is the possession of that *overbearing power on the sea* which drives the enemy's flag from it, or allows it to appear only as a fugitive, and which, by *controlling the great common, closes the highways by which commerce moves to and from the enemy's shores.* This overbearing power can only be exercised by great navies...(emphasis added).⁴⁵

Even for a nation with "overbearing power" on the sea, however, Mahan recognized the importance of having access to secure bases overseas. Indeed, he argued that overseas bases were a logistical necessity and that "resting places for [warships], where they can coal and repair,

⁴³ Swartz, Sea Changes: Transforming U.S. Navy Deployment Strategy, 1775-2002.

⁴⁴ Hughes, "Naval Maneuver Warfare."

⁴⁵ Alfred Thayer Mahan, *The Influence of Seapower on History*, 1660-1783 (Boston, MA: Little, Brown and Co., 1890).

would be one of the first duties of a government proposing to itself the development of the power of the nation at sea." ⁴⁶

Mahan's thinking struck a chord with both naval officers as well as the nation's political leadership, which, having secured the continental borders of the United States, were anxious to extend the nation's security perimeter deep into the Atlantic and Pacific Oceans. Indeed, this thinking contributed in no small way toward hastening the transition to the next phase in US national security policy—and eventually to the heyday of US seabasing operations.

THE EXPEDITIONARY ERA: COMPETING FOR AND CLAIMING THE SEA AS BASE

During the latter two decades of the 1800s, the United States began to think more consistently about protecting and projecting its interests and power beyond the confines of its continental borders, leading to what Huntington called the Oceanic Phase of national policy.⁴⁷ The transition to the Oceanic Phase of national policy triggered the next phase of US military development, perhaps best thought of as the **Expeditionary Era**. One of the defining characteristics of this era was that the US Navy, supported by successive administrations and the Congress, consciously and determinedly sought to claim command of the world's oceans and to use the seas as a base of operations. As a result, two things happened very nearly simultaneously. First, the US Navy was transformed into an all-steel battle fleet, powered first by coal and later by oil, and based around a concentrated battle line consisting of big-gun battleships. This radical transformation occurred in a historical blink of an eye: in 1883, the US Navy was perhaps twelfth among the world's navies; by 1906, it was competing for the number two spot. Although it did not surpass the British Royal Navy as the number one naval power for about another four decades, from 1906 on it was clear the US Navy had set its sights on doing so.48

⁴⁶ Lieutenant Peter Halvorsen, USN, "Making a Case for Naval Lily Pads," *Proceedings*, March 2005, p. 84.

⁴⁷ Huntington, "National Policy and the Transoceanic Navy."

⁴⁸ Swartz, Sea Changes: Transforming U.S. Navy Deployment Strategy, 1775-2002.

The second thing that happened was that this grand fleet transformation was accompanied by the near simultaneous acquisition of the new sovereign overseas basing structure called for by Mahan, focused in the Caribbean and in the Pacific. In 1867, the United States purchased Alaska and the Aleutian Islands from Russia, and a captain of a US Navy sloop annexed Midway Island, located 1,500 miles northeast of Hawaii. Later, the 1898 Spanish-American War gave the US superb bases in Puerto Rico and Cuba in the Caribbean, as well as a major fleet base in the Philippines and a superb fleet anchorage on Guam. These war spoils were accompanied by the annexation of Hawaii in 1898, and Wake Island and American Samoa in 1899.⁴⁹ Thereafter, the US also stationed considerable forces in China, ultimately rising to a level of some 5,000 troops (primarily Marines) and 44 ships and river craft.⁵⁰ US naval forces operating at fleet bases in the Caribbean and the Pacific, and along the west and east coasts of the United States, were then linked with the purchase and the construction of the Panama Canal, completed in 1914.

While this sovereign basing structure provided the burgeoning US battle fleet with great freedom of action in the Caribbean and Southern Atlantic and the Pacific, because the US was competing for the right to claim the sea as base with three or four other naval powers, Mahan cautioned that the battle fleet would need to be skilled in *gaining access to additional naval bases when and if necessary*. Mahan, who had not conceived of sea-based combat and mobile logistics forces, believed it was axiomatic that warships powered by coal were tied to their bases by the distance of their steaming radii. Since he reasoned that it would be impossible to acquire or maintain permanent bases in all parts of the world where the United States might conceivably desire to project military power, America would need to be able to seize and defend advanced naval bases, possibly against both sea and

⁴⁹ Swartz, *Sea Changes: Transforming U.S. Navy Deployment Strategy,* 1775-2002. Once the US Navy transitioned from sail-powered ships to steam powered ships, it had long had its eyes on Samoa and Hawaii, establishing coaling stations in these locations in 1878 and 1887, respectively. Lieutenant Colonel Frank O. Hough, USMCR, Major Verle E. Ludwig, USMC, Henry I. Shaw, Jr., "Chapter I: Origins of a Mission," *History of US Marine Corps Operations in World War II, Volume One, Pearl Harbor to Guadalcanal* (Washington, DC: US Marine Corps Historical Branch), p. 5, found online at http://www.ibiblio.org/hyperwar/USMC/I/index.html.

⁵⁰ "US Interventions," found online at http://www.globalpolicy.org/empire/history/interventions.htm.

shore-based opposition. The Marine Corps was considered the logical candidate for this new supporting *sea control* mission.⁵¹

As early as 1901, then, the Marines' new Advanced Base Force concept envisioned floating battalions of Marines embarked on their own high-speed, armed transports, conducting beach landings to secure forward operating bases for the fleet.⁵² Similar to the thoughts expressed in today's Sea Power 21, Marine planners envisioned the need for basing "offensive and defensive firepower, maneuver forces, command and control, and logistics" at sea to an "extent greater than ever before" to enable them to accomplish their mission. However, these thoughts were questioned by most naval officers, who believed the standard tactic for gaining advance bases would be for the fleet to land Marines at poorly defended fleet anchorages, to transfer their weapons ashore, and for them to defend the advance base from counterattack. This tactical model was based on experience gained during the Spanish-American War, when Marines landed unopposed at Guantanamo Bay to set up a coaling station for Navy ships then blockading Cuba, and then fought off subsequent Spanish attempts to dislodge them.53

Just how badly the battle fleet's needed access to forward bases was demonstrated in a compelling way with the 14-month, round-the-world voyage of the "Great White Fleet" between 1907 and 1909. With tensions between the United States and Japan rising, President Theodore Roosevelt wanted to demonstrate that the US Navy could swing from the Atlantic to the Pacific Oceans and operate successfully even in the far reaches of the Pacific. However, the battleships that made up the Great White Fleet were all powered by coal. As a result, the ships were forced to go into a port and take on coal every two weeks or so. It would take several days to coal a ship and an additional two or three days ridding the topsides and spaces of coal dust. In conjunction with the

⁵¹ Hough, Ludwig, and Shaw, Jr., "Chapter I: Origins of a Mission," *History of US Marine Corps Operations in World War II, Volume One, Pearl Harbor to Guadalcanal*, p. 4.

⁵² Vice Admiral George C. Dyer, USN, ret., *The Amphibians Came to Conquer*, found online in its entirety at http://www.ibiblio.org/hyperwar/USN/ACTC/actc-6.html. See especially Chapter VI, "Naval Organization, Doctrine, and Landing Craft Developments for Amphibious War." Discussions about the Advance Base Concept can be found on p. 207.

Jack Murphy, *History of the US Marines* (New York, NY: Exeter Books, 1984), pp. 48-51; Hough, Ludwig, and Shaw, Jr., "Chapter I: Origins of a Mission," *History of US Marine Corps Operations in World War II, Volume One, Pearl Harbor to Guadalcanal*, pp. 5-7.

coaling stops, the fleet also conducted maintenance and made voyage repairs. As such, over the course of 14 months, the fleet made 20 major port calls of varying duration. 54

While the voyage was widely considered one of the greatest peacetime achievements of the US Navy to date, naval planners from all countries noted that it could not have occurred without substantial overseas basing support. In no small way, the voyage thus spurred US Navy planners to redouble their efforts to provide the battle fleet with greater operational freedom of action. These efforts included the perfecting of *underway replenishment* operations for US warships, and the first conception of an accompanying "fleet train" which could trail the battle line and, when necessary, create a floating advance base by anchoring in any undefended and sheltered harbor, inlet, or atoll. The train would include transports for Marines who could secure these undefended anchorages. 55

It was not until sometime after 1913, three years after the formation of the Marine Corps' new Advance Base School, and the same year the Marines established a permanent Advance Base Force, that some Marines began to make the logical argument that any enemy in a forward theater of operations would likely to be drawn to the same suitable fleet anchorages as the US fleet, and they would also likely attempt to garrison them. Fa As first envisioned by Captain Earl H. Pete Ellis, and later codified in 1921 in the form of Operations Plan 712, Advanced Base Operations in Micronesia, this would mean the *forcible capture* of an advance base, rather than its subsequent *defense*, would become the main Marine Corps contribution to US Navy *sea control operations*.

⁵⁴ Journalist Second Class Mike McKinley, USN, "The Cruise of the Great White Fleet," found online at http://www.history.navy.mil/library/online/gwf_cruise.htm.

⁵⁵ McKinley, "The Cruise of the Great White Fleet;" and Norman Friedman, *US Amphibious Ships and Craft: an Illustrated Design History* (Annapolis, MD: Naval Institute Press, 2002), pp. 4-5.

⁵⁶ The Advance Base School was formally opened in 1910 in New London, Connecticut. It moved the next year to Philadelphia. See Dyer, *The Amphibians Came to Conquer*, p. 207.

For Hough, Ludwig, and Shaw, Jr., "Chapter I: Origins of a Mission," History of US Marine Corps Operations in World War II, Volume One, Pearl Harbor to Guadalcanal; Henry I. Shaw, Jr., Bernard C. Nalty, and Edwin T. Turnbladh, History of US Marine Corps Operations in World War II, Vol. III, The Central Pacific Drive (Washington, DC: US Marine Corps Historical Branch, 1966), found online at http://www.ibiblio.org/ hyperwar/USMC/III/index.html.

Only one decade later, Ellis's ideas were broadly accepted by both Marine and Navy officers. After World War I, Japan—then Britain's and America's Pacific ally—gained control of the former German possessions in the Marshall, Caroline, and Palau groups. With this, Japan gained a deep zone of permanent island outposts which guarded the maritime approaches to the Japanese main islands. By 1924, faced with the prospect of waging war against their former ally, a growing number of US naval officers reluctantly concluded that they would likely lose their advance bases in the Philippines and on Guam early in any conflict. Accordingly, the battle fleet would need to seize advance bases on Japanese-held islands on their way back to the Philippines, and ultimately on to Japan itself. As DoN planners grappled with the problem of how to support the advancing US battle fleet across the far reaches of the Pacific, Ellis' visionary ideas were incorporated into War Plan Orange and into naval tactical planning for operations against the Imperial Japanese Navy.58

During the two-decade plus Interwar period, then, guided by the operational goal of competing for, achieving and maintaining command of the seas in distant, opposed theaters—and spurred by the rapid advance of new naval technologies, particularly in naval aviation—naval planners began to conceive of the battle fleet less in terms of a concentrated armored battle line and more in terms of a Combined Arms Sea Control Battle Fleet. This fleet would include a mobile, distributed naval artillery base that was the primary arm for offensive action against enemy naval forces (Sea Strike!); mobile aviation bases, from which aircraft could scout for the enemy's battle line, defend the battle line against air and surface attack, and conduct independent raids to wear down an enemy's battle line before the decisive fleet engagement (Sea Shield!); mobile assault seabases from which Marine forces could attack and seize advance bases for the fleet (Sea Base!); all netted together with new technologies such as radar and radio (ForceNet!). This vision proved to be remarkably prescient during World War II, with only the expected roles of the battleship battle line and aircraft carriers being reversed.

⁵⁸ Shaw, Jr., Nalty, and Turnbladh, *History of US Marine Corps Operations in World War II, Vol. III, The Central Pacific Drive;* Hough, Ludwig, and Shaw, Jr., "Chapter I: Origins of a Mission," *History of US Marine Corps Operations in World War II, Volume One, Pearl Harbor to Guadalcanal.*

World War II: A "Sea as Base" Joint Power-projection Fleet

The concept of a *Combined Arms Sea Control Battle Fleet* and the related concept of using the sea as a base for joint power-projection operations would undoubtedly have manifested themselves quite differently if war with Japan and Germany had not actually broken out. However, history is the story of both seized and lost opportunities, and when war did occur, the direction of US seabasing efforts was aided and guided by nearly two decades of war games, tactical fleet analyses, fleet battle problems, and technological and operational experimentation. The result was no less than four "transformative" seabasing initiatives that proved vital to the outcome of the war: mobile aviation bases at sea; a distributed fleet logistics seabase; a purpose-built amphibious assault fleet, with associated intra-theater and ship-to-ashore assault connectors; and mobile seabased harbors for heavy theater logistics support. Each of these new initiatives will be discussed in turn.

Seabases for Naval Tactical Aviation

Although the battle fleet had been experimenting with aircraft carriers for nearly two decades prior, the operational and administrative structure of the DoN on December 7, 1941 was still built around the battleship as the capital ship of the fleet.⁵⁹ On the day the war started, the Navy operated 17 battleships—more than double the number of aircraft carriers then in commission.⁶⁰ The subsequent rise of the aircraft carrier and the eclipse of the battleship that occurred between 1942 and 1944 changed the power structure within the DoN and coincided with the US Navy finally claiming the top spot in the global naval competition—a position it has yet to relinquish. This latter circumstance helps

⁵⁹ After over 20 years of carrier development in the Navy, the President of the Naval War College prepared a confidential study in September 1941 that included scathing criticisms about carrier aviation, and an argument against building a "carrier" navy. There were many reasons why the institutional Navy was not yet ready to fully embrace the aircraft carrier. For an account of them, see Thomas Hone, Norman Friedman, and Mark D. Mandeles, *American & British Aircraft Carrier Development 1919-1941* (Annapolis, MD: Naval Institute Press, 1999). A description of the aforementioned study is found on p. 81.

^{60 &}quot;US Navy Active Ship Force Levels, 1938-1944," found at http://www.history.navy.mil/branches/org9-4.htm#1945.

to explain, in part, the pride of place that aircraft carriers continue to hold in battle fleet organization, structure, and operations.⁶¹

In any event, to exploit fully the transformative impact that naval airpower and aircraft carriers were having on naval warfare, World War II planners quickly moved to expand battle fleet aviation capabilities and to more widely distribute "aviation seabases" in fleet operations. Even on a wartime budget, however, planners had to take into account the cost of doing so. The result was a cost-effective mix of three different types of aviation power-projection platforms, two designed for offensive "fleet operations," and one for defensive and combat support operations. The larger of the two fleet aviation seabases were the fast (30-33 knots) fleet carriers (CVs), with air groups of over 100 fighters, dive bombers, and torpedo bombers. These ships formed the heart of the battle fleet's striking power. However, they were expensive, and took a long time to build.⁶² The CVs were therefore augmented by smaller light carriers (CVLs)—converted light cruisers that were as fast as the CVs, but capable of carrying only about one-third the numbers of planes. These were used first as a stop-gap measure until more CVs could be built, and later to augment the larger carriers in concentrated carrier task forces.⁶³ Between December 7, 1941 and August 1945, the US Navy commissioned no less than 26 fleet carriers—17 CVs and nine CVLs.64

Far more numerous were the auxiliary aviation seabases known as escort carriers, or CVEs. Designed only to keep up with slow moving convoys and amphibious task forces, these ships had top speeds of only 17-19 knots. When accompanying the former, they concentrated on anti-submarine warfare (ASW) work; when accompanying the latter, they concentrated on fleet air defense and providing close air support to ground troops ashore. Early CVEs generally were small converted merchantmen, while later CVEs were purpose-built from the keel up. Regardless, they were universally considered by their crews to be "com-

⁶¹ For a great history about the Navy's transition to the "Carrier Era," see Clark G. Reynolds, *The Fast Carriers: The Forging of an Air Navy* (Annapolis, MD: Naval Institute Press, 1968).

⁶² The primary fleet carrier built during World War II was the Essex class CV. For a thorough description of the class, see Chapter 7, "The *Essex* Class," in Norman Freidman, *US Aircraft Carriers* (Annapolis, MD: Naval Institute Press, 1983).

For a description of these CVLs, see Freidman, US Aircraft Carriers, pp. 182-92; also Reynolds, The Fast Carriers: The Forging of an Air Navy, p. 38.
 See "Aircraft Carriers, Ships of the US Navy, 1940-45," at http://www.ibiblio.org/hyperwar/USN/ships/ships-cv.html#cve.

bustible, vulnerable, and expendable." ⁶⁵ Despite their unflattering reputations, however, the CVEs proved to be highly effective in their designed roles, and by August 1945, the Navy counted 71 in its battle fleet. ⁶⁶

The aircraft carrier's rapid eclipse of the battleship during World War II can be directly attributed to the transformative effect that naval aviation had on naval warfare. However, in contemporary terms, the aircraft carrier's enduring effectiveness as a mobile airfield at sea can be attributed to three things: its modularity; re-configurability; and operational fungibility. Aircraft carriers were among the first truly modular warships in the battle fleet order of battle, with large payload capacities for interchangeable off-board systems (aircraft). This allowed the carrier to operate increasingly larger, heavier, and more capable aircraft without major redesign, and made the carrier's payload—its embarked air wing—flexibly reconfigurable. This, in turn, enabled the carriers to rapidly adapt to changing operational conditions. For example, during the great carrier battles at the start of the war, 75 percent of the aircraft carried were dive and torpedo bombers. By 1945, when faced with the *kamikaze* threat, 70 percent of a carrier's air wings were fighters or fighter-bombers.⁶⁷ This re-configurability—being able to tailor the carrier's "off-board systems" to specific missions—made the carrier especially fungible across the full range of naval missions.

In little less than three years, then, the rapid development of increasingly capable naval aircraft—as well as a family of modular, reconfigurable, and fungible aviation seabases upon which to operate them—sparked a revolution in naval warfare that would be felt in long-range strike, anti-air, anti-surface and anti-submarine warfare, and the close air support of ground troops. As explained by Admiral Chester Nimitz after the end of the war, by using aircraft carriers as sovereign aviation seabases:

...naval forces are able, without resorting to diplomatic channels, to establish off-shore, anywhere in the world, airfields completely equipped with machine shops, ammunition dumps, tank farms, warehouses,

⁶⁵ CE1 Robert A. Germinsky, USNR, "Escort Carriers," from a "Brief History of US Navy Aircraft Carriers," found at http://www.chinfo.navy.mil/navpalib/ships/carriers/cv-escrt.html.

^{66 &}quot;US Navy Active Ship Force Levels, 1945-1950;" http://www.ibiblio.org/hyperwar/USN/ships/ships-cv.html#cve.

⁶⁷ Bob Kress and Rear Admiral Paul Gilcrist, USN (ret), "Battle of the Super Fighters," *Flight Journal*, February 2002, p. 31.

together with quarters and all types of accommodations for personnel. Such task forces are virtually as complete as any air base ever established. They constitute the only air bases that can be made available near enemy territory without assault or conquest, and furthermore, they are mobile offensive bases that can be employed with the unique attribute of secrecy and surprise, which contributes equally to their defensive as well as offensive effectiveness.⁶⁸

Fleet Logistics Seabases

As transformative as naval aviation and aircraft carriers were for US battle fleet operations, their impact would have been far less dramatic had they not been accompanied by a supporting transformation in seabased logistics. The US Navy first began to experiment with "underway"—or more correctly, "alongside"—replenishment of ships at sea in the late 19th century. One of the first examples occurred during the Spanish-American War, when the coal-fired battleships *Oregon* and *Iowa* were ordered to proceed from the East Coast to the Philippines via South America (the Panama Canal not having yet been built). The ships were accompanied by a supporting logistics force consisting of the stores ship *Celtic* and no less than seven colliers. However, coaling operations had to take place at a protected anchorage.⁶⁹

The very next year, the battleship *Massachusetts* was replenished at sea by the collier *USS Marcellus*—the first true *underway* replenishment (UNREP) of a US Navy vessel operating at sea.⁷⁰ This marked the start of a 15-year program to develop a reliable underway recoaling capability. The capability was not yet perfected by the time the Great White Fleet sailed around the world. However, by the second decade of the 20th century, the Navy had developed a rig that enabled colliers to transfer coal to a battleships forecastle while underway. While this capability was rendered obsolete with the battle fleet's transition from coal-fired to oil-fired propulsion plants, it marked an important mile-

⁶⁸ As cited in Huntington, "National Policy and the Transoceanic Navy," p. 491.

⁶⁹ Emails to the author from Swartz, MacCaffree, Nofi, and Roth.

⁷⁰ "Underway Replenishment (UNREP)," at http://www.fas.org/man/dod-101/sys/ship/unrep.htm.

stone in the Navy's determined effort to break a warship's dependence on *land-based* coaling or refueling stations.⁷¹

Accordingly, during World War I, the US Navy worked hard to perfect technique of refueling ships at sea while steaming alongside one another. Throughout the following Interwar period, the Navy continued to perfect its at-sea refueling capabilities, and by 1939 it could refuel all of its ships at sea, including aircraft carriers. In contrast, the British Royal Navy, having operated largely in the North Sea during World War I and being accustomed to operating with the benefit of a global logistics infrastructure consisting of bases scattered all over the world, never bothered to develop an efficient technique for refueling at sea. Up through the end of World War II, their ships relied on the slow method of steaming ships in tandem with the trailing ship being refueled from a fuel line being towed by the leading ship.

Toward the end of World War II, while preparing for sustained seabased operations off of Iwo Jima, Okinawa, and ultimately Japan, the Navy further developed the means to transfer cargo at sea. After oil, due to their relatively small magazine spaces, the next major replenishment need for warships operating at sea was ammunition. The final need was to replenish dry and refrigerated stores, supply parts and assemblies, and even to transfer crew replacements or casualties. These new capabilities helped in no small way to sustain the battle fleet at sea for long periods of time, thereby enabling it to operate for long periods of time without immediate access to ports or land-based airfields.⁷⁴

Indeed, the job of sustaining combat ships at sea for long-duration seabasing operations became so important in providing the fleet with freedom of action that it led to the formation of Service Squadron Six, which was tasked with replenishing the ships of the Pacific Fleet while at sea and underway in forward combat theaters. The forerunner of today's "combat logistics force," ServRon Six consisted of tankers, ammunition ships, aircraft transports, dry store ships, and tugs or salvage ships used to tow battle damaged ships away from a forward operating area.⁷⁵

Commander Paul Nagy, USNR, "The History of Sea Basing," *Proceedings*, November 2002, pp. 36-37.

⁷² Nagy, "The History of Sea Basing."

⁷³ "Developments in Naval Warfare," at http://www.ramskov.nu/krih/ww2/001/12.htm.

Nagy, "The History of Sea Basing;" and "Developments in Naval Warfare."

⁷⁵ "Developments in Naval Warfare."

Replenishing the fleet's fuel, ammunition, and stores kept combat ready ships at sea in a forward theater of operations for long periods of time. However, *maintaining* a fleet's combat effectiveness in a forward theater involved much more than that. Forward-deployed warships needed repair and maintenance, and their crews required respite from the constant strain of combat. This suggested an enduring need for forward fleet logistics bases. The first inclination of naval planners was therefore to establish expeditionary "strategic sustainment" bases *on land*:

Such units were specially organized in the United States with equipment packaged for erection in forward areas. Designated as Lions (major bases), Cubs (minor bases), and Acorns (aviation bases), they included construction battalions, boat pools, harbor defense units, repair facilities, and other functional components. These had to be set up in advanced areas and could not readily be moved forward as the war advanced. Cubs were established at Espiritu Santo and Guadalcanal, and a Lion was set up at Manus.⁷⁶

However, as the war progressed, the Navy began to outrun their early expeditionary shore bases. As explained by retired Rear Admiral W.R. Carter in the definitive book about World War II battle fleet logistics, *Beans, Bullets and Black Oil*, "All these went to make great bases which after a very short period of activity found themselves so far in the rear as to raise the question whether the amount of shipping required to build them might not have *supplied the necessary fleet support afloat, and been mobile and ready to go forward at short notice*" (emphasis added).⁷⁷ As a result, as the war progressed, the battle fleet literally began to shift its Lions, Cubs, and Acorns to sea.

After the capture of the Marshall Islands in February 1944 the Navy combined all of its "mobile logistics forces" and formed Service Squadron Ten, a "medley of floating equipment, including repair ships, floating dry docks, tenders, provision ships, ammunition ships, hospital ships, station tankers, lighters, tugs, floating cranes, distilling ships,

⁷⁶ "Developments in Naval Warfare."

⁷⁷ Rear Admiral Worrall Reed Carter, USN, ret, *Beans, Bullets and Black Oil*, pp. 60-61. I would like to thank Commander Mark Becker, Deputy Sea Base Pillar Lead (N832) at the Navy Warfare Development Command for highlighting this great book to me.

survey ships, cold storage ships, and floating barracks." The largest piece of floating equipment used during the war was the ABSD (advanced base sectional dock), a modular dry dock consisting of up to ten separate sections which were towed separately and mated at a protected anchorage. The ABSD was capable of lifting 90,000 tons and docking any ship in the Pacific, including aircraft carriers and battleships.⁷⁸

The only requirement for this distributed logistics seabase was a large anchorage capable of being protected from submarine attack. Adjacent land was required only for protective fighter strips, recreation areas, and some modest—and austere—shore-based support facilities. The atolls and islands of the Central Pacific were perfectly suited for these requirements, as indicated by the string of logistics seabases that marked the US advance across the Pacific, located at Majuro, Eniwetok, and Ulithi. Earlier in the war floating bases were established in conjunction with shore facilities at Noumea in New Caledonia, Espiritu Santo in the New Hebrides, and Manus in the Admiralty Islands. Afloat bases were also later assembled at Samar in the Philippines and the Keramaretto near Okinawa.⁷⁹

In practice, then, ServRon Six served as the fleet's seabased "service station" and "mini-mart," while ServRon Ten served as the fleet's distributed seabased dealer maintenance and service chain. Before their development,

The lack of fast and mobile oilers and of a fast, large, and modern "fleet train" of supply ships and tenders rooted the US Navy logistics to "substantially a system of continental support." That is, naval task forces were dependent upon fixed bases for support, and those bases, even when established in forward areas, were dependent in turn upon a line of supply reaching back to the United States....⁸⁰

Therefore, the development of a mobile fleet logistics seabase consisting of both combat and mobile logistics forces helped to further free the battle fleet from any need for land bases in a forward operating theater, and helped to convert the US carrier-based battle fleet from

⁷⁸ "Developments in Naval Warfare."

⁷⁹ "Developments in Naval Warfare."

⁸⁰ Hone, Friedman, and Mandeles, *American & British Aircraft Carrier Development 1919-1941*. This quote is fully explained in pp. 69-74.

a tactical battle grouping into a strategic offensive striking force with unprecedented freedom of action and operational independence in contested forward theaters and operating areas.⁸¹

Amphibious Assault Seabases for Advanced Base Seizure and Theater Forcible Entry

Indeed, along with the diminishing threat of the Japanese Navy, the development of a mobile logistics seabase meant that by the end of the Pacific campaign the aim for naval operations was less to seize advanced *naval* bases, and more to seize the advanced *bomber* and *land* bases necessary to support a major invasion of the Japanese islands. However, in keeping with their deep roots of advanced naval base seizure, these operations were commanded by a Navy admiral. Meanwhile, in the European Theater of operations, where the allies gained command of the seas sooner than in the Pacific, the role of naval forces was to help project and sustain major US and allied attacks into major land combat theaters—first in Africa, then in Sicily and Italy, and finally onto continental Europe itself. In these operations, the Army commander in charge of the invasion, not the Navy, directed the seabased phase of the operation.⁸²

Regardless of their objective, however, both types of operations involved large-scale *amphibious operations*. Amphibious operations have been a key seabasing operation since man first exploited the seas for military purposes. As one Navy admiral once remarked, "The *Ark* made the first recorded amphibious movement which is known to have had a deadline for both the building of the craft and for the departure of the passengers." ⁸³ At various times, the Persians, Greeks, and Romans all used galleys to transport and land troops and to help conquer or subjugate most of the Mediterranean area before and after the birth of Christ. In Europe, the Danes and Vikings used longboats to move and land forces in order to extend their power and influence beyond the Baltic region into Western Europe and the British Isles, and even to the New World. Later, it was the British who proved to be the masters at

⁸¹ Hone, Friedman, and Mandeles, *American & British Aircraft Carrier Development* 1919-1941.

⁸² Dyer, *The Amphibians Came to Conquer*, p. 202.

⁸³ Dyer, *The Amphibians Came to Conquer*, p. 201.

moving, landing, and supporting ground combat forces over and from the sea during both peacetime and wartime.⁸⁴

Importantly, however, as suggested earlier, most amphibious operations prior to the 20th century involved putting troops ashore where the enemy was absent or was too weak to oppose a landing. The landing force would then either remain in place and defend the location or move to attack an assigned objective elsewhere.85 In contrast, after having been tasked with the job of seizing and defending advance bases for the battle fleet, Marine planners began to think about the problem of amphibious attacks launched from the sea against an opponent who might defend his sea approaches, beaches, and surrounding territory with combined arms forces and supporting arms. This was a formidable operational challenge, perhaps first thought of in a serious way by Antoine H. Jomini in his *Precis de'Art de la Guerre*, published in 1838. However, its first practical demonstration did not occur until 1915, when allied forces were landed at Gallipoli. The resulting disaster led many leading contemporary strategic thinkers such as B.H. Liddell Hart to conclude that an amphibious landing against determined resistance was a "difficult, indeed almost impossible task." 86

Undaunted, and spurred by the real-world operational challenge of projecting the battle fleet across the Pacific in the face of Japanese opposition, guided by the visionary thinking of officers like "Pete" Ellis and Dion Williams, and aided by a series of initial experiments conducted during the 1920s, the Marine Corps began thinking in a serious way about the problem of what are now referred to as seabased *joint forcible entry operations* (JFEOs). The result was the *Tentative Manual for Landing Operations*, published in 1934.⁸⁷ This document marked a great advance in the US approach to amphibious warfare, as indicated by the fact that in the 1934 edition of *War Instructions, United States Navy*, the subject of "amphibious warfare" was not even listed in the index. Indeed,

⁸⁴ Major Henry B. Cook, USANG, "The Workhorse of the Pacific," *Marine Corps Gazette*, August 2004, found online at http://www.mca-marines.org/Gazette/2004/04cook.html.

⁸⁵ Shaw, Jr., Nalty, and Turnbladh, *History of US Marine Corps Operations in World War II, Vol. III, The Central Pacific Drive*; and Hough, Ludwig, and Shaw, Jr., "Chapter I: Origins of a Mission," *History of US Marine Corps Operations in World War II, Volume One, Pearl Harbor to Guadalcanal.*

⁸⁶ Lieutenant General Victor H. Krulak, USMC, ret., First to Fight (New York, NY: Simon & Shuster, 1984), p. 95.

⁸⁷ See especially Shaw, Jr., Nalty, and Turnbladh, *History of US Marine Corps Operations in World War II, Vol. III, The Central Pacific Drive.*

the only indirect referral to the subject was found in the Instruction's list of the eight main tasks of the US Navy in war, which included "Escort of and cooperation with Expeditionary Forces in the seizure and defense of advanced bases and the invasion of enemy territory." 88

So advanced was the thinking found within its covers that the *Tentative Manual for Landing Operations* was later adopted by the Navy with minor alterations in 1938 as Fleet Training Publication No. 167, *Landing Operations Doctrine*, and in 1941 by the Army as *Field Manual 31-5*. As it turned out, then, the *Tentative Manual for Landing Operations* guided every amphibious landing made during World War II, whether conducted by the Marines or the Army. ⁸⁹ However, because amphibious operations were vital to both the seizure of advance naval bases and continental invasions, the development of amphibious doctrine during World War II was a concerted *joint* effort, as was made clear by Admiral Richmond Kelly Turner, a key architect of amphibious plans and operations during World War II:

No one Service invented amphibious warfare. The Marines contributed much (patterned on Japanese methods) to its development in recent years. But so also did the Navy, including Naval Aviation. Furthermore, beginning in 1940, the Army contributed a great deal. We should not forget that the biggest operation of all, Normandy, was very largely a U.S. Army and British affair. The Marines had nothing to do with the European and African landings, and the U.S. Navy was not the controlling element.⁹⁰

Indeed, before the war and during its opening year, both the United States Army and the United States Navy had overlapping functions in the seabased deployment and employment of forces. According to joint doctrine, "Joint Overseas Expeditions" included both joint overseas movements and landing attacks against shore objectives. In connection with Joint overseas movements, the Army was specifically charged: "To provide and operate all vessels for the Army, except when naval opposition by the enemy is to be expected, in which case they are provided and operated by the Navy." While the implicit distinction between the *movement of troops by sea* and the *combat maneuver of forces from the sea*

⁸⁸ Dyer, *The Amphibians Came to Conquer*, p. 223.

⁸⁹ Krulak, First to Fight, p. 96.

⁹⁰ Dyer, The Amphibians Came to Conquer, p. 203.

was an important and valid one, it led to a confusing and inefficient division of responsibilities, with both the Navy and Army developing their own amphibious transports and landing ships and craft. War Plan Rainbow Five tried to resolve the confusion, by assigning to the Navy the responsibility for the *initial movement and continued support* of both Navy and Army forces overseas. However, it was not until February 1943 that the Army and Navy agreed to consolidate their training efforts in an effort to eliminate duplication of activities.⁹¹

Even then, as implied by Admiral Kelly Turner above, the responsibility for the conduct of amphibious operations remained split. The final joint position was that amphibious operations in "island warfare" should be a primary function of the Navy, and that amphibious operations against a continent should be a function of the Army. The reasoning behind this division of responsibility was explained in this way: "In the one case, landings would be repeated many times, and continuous naval support is essential; whereas, in the second case, after the initial landing, the Navy's chief interest would be protection of the line of sea communications." ⁹²

This division of responsibility was not entirely clean; General Douglas MacArthur commanded what was, in effect, a naval island hopping campaign through the Southwest Pacific Theater on the southern flanks of the Navy's Central Pacific drive. Suffice to say that the conduct of amphibious operations was a true joint endeavor. But it did begin to address the key difference between a *naval* concept of seabasing and a *maritime* concept of seabasing: the former is about building mobile bases at sea to support a wide-ranging naval campaign; the latter is about using the sea as a base of operations to project and sustain joint power ashore. In either case, however, the need to build seabased command posts was evident; as a result, the Navy ultimately converted 16 merchant ships to joint command ships.⁹³

The development of joint command ships indicates an important lesson learned before the war. Fleet Landing Exercises 3, 4, and 5, held between 1936 and 1939, and what turned out to be two large pre-war amphibious rehearsals in 1940 and 1941—the latter of which involved two under-strength divisions, one Marine and one Army—made plain to Navy, Marine, and Army planners that any future assault seabase

⁹¹ Dyer, *The Amphibians Came to Conquer*, pp. 213-17.

⁹² Dyer, *The Amphibians Came to Conquer*, pp. 216.

⁹³ Norman Polmar, in a letter to the editor responding to Commander P. Nagy, "The History of Sea Basing," in *Proceedings*, January 2003, p. 30.

needed to consist of purpose-built amphibious ships and special-purpose ship-to-shore "connectors." As Marine Corps General H.M. Holland "Howling Mad" Smith made plain in the after action report for the 1940-41 exercises:

...it cannot be too strongly emphasized that until *this floating equipment* is placed in the hands of the Fleet and brought to a suitable state of combat efficiency, the mobility and tactical efficiency of Marine troops will remain vitally curtailed (emphasis added).⁹⁴

In other words, if the nation and battle fleet were serious about basing ground forces on the sea, they needed specialized equipment and platforms. Thus the war saw the development of a new and innovative special-purpose amphibious landing fleet that could assemble "distributed Enhanced Networked Seabases" capable of transporting, assembling, projecting, supporting, and sustaining large-scale combined arms assaults from the sea involving multiple Army and Marine divisions. The primary nodes for amphibious assault seabases included "fast" amphibious assault ships capable of sailing at 14-17 knots. These ships included attack transport ships (APAs) that carried troops and their personal equipment; attack cargo ships (AKAs) that carried cargo, supplies, equipment and ammunition; and fast destroyer transports (APDs), modified destroyers capable of carrying and supporting a Marine rifle company for advance force operations, reconnaissance, and raids.95

These ships, in turn, carried an enormous number of what would today be referred to as "ship-to-ashore assault connectors"—specialized landing craft and tractors of various types designed to transport men, equipment, and supplies from the "seabasing ships" to the beach. The most ubiquitous was the Landing Craft Vehicle Personnel (LCVP), a shallow draft landing craft with a bow ramp that could carry either 36 combat loaded troops or a jeep and 12 men. By war's end, over 20,000 had been built. Fhese were augmented by both artillery and tank lighters, which evolved into the successful Landing Craft Mechanized (LCM) family; Landing Vehicle Tracked (LVT), an armored amphibious tractor with an open personnel bay designed to crawl over coral atolls and up onto a defended beach; and even amphibious jeeps and 2.5 ton trucks

⁹⁴ Krulak, First to Fight, p. 99.

⁹⁵ Friedman, US Amphibious Ships and Craft: an Illustrated Design History.

⁹⁶ Cook, "The Workhorse of the Pacific."

(the latter commonly referred to as DUKWs).⁹⁷ Indeed, the sheer number and types of landing craft spurred the development of an innovative new fast amphibious ship called the Landing Ship Dock (LSD) that had a floodable "well deck," enabling it to carry and base large numbers of assault connectors, and to serve as a seabased boat haven.⁹⁸

These ships and assault connectors were not enough, however. World War II brought an entirely new requirement for amphibious planners: the need to land mechanized armies. As conceived of by British war planners, who were wrestling with the idea of how to project power from the British Isles back into the continent of Europe, this requirement called for an entirely new family of amphibious vessels which blended the transport ability of the larger amphibious assault ships and the beaching capability of the smaller ship-to-shore assault connectors. This led to the development of what today might be called "intra-theater assault connectors," including the Landing Ship Tank (LST); the Landing Craft Infantry (Large) (LCI(L)); the Landing Craft Tank (LCT); and the Landing Ship Medium (LSM). All of these ships and craft had one thing in common: an ability to disgorge their cargos and intact combat units directly across a beach.99 Although these ships had sailing radii between 1,200 to 8,000 nautical miles (nm), they were much slower than the "fast" amphibious ships. Since convoy speed determined how vulnerable a convoy was to submarine attack, convoys were routinely formed by grouping ships with common sustained speeds of advance. As a result, these intra-theater assault connectors normally arrived in a JOA after having steamed in separate convoys moving at the leisurely pace of 8-12 knots.100

By 1945, the distributed amphibious assault seabase consisted of no less than 2,587 major amphibious ships and tens of thousands of assault connectors, and was capable of injecting 13 divisions in readyto-fight conditions into contested access scenarios—out of a total of 91

⁹⁷ For a thorough history of the evolution of these connectors, see Friedman, *US Amphibious Ships and Craft: an Illustrated Design History,* Chapter 4.

⁹⁸ The British were directly responsible for the development of the LSD. See Friedman, *US Amphibious Ships and Craft: an Illustrated Design History*, Chapter 5.

⁹⁹ Friedman, US Amphibious Ships and Craft: an Illustrated Design History, Chapter 5.

Friedman, US Amphibious Ships and Craft: an Illustrated Design History, p. 312.

non-airborne Marine and Army divisions (14 percent). ¹⁰¹ This force—augmented and supported by five Army airborne divisions, a new type of "access-insensitive" light assault force—was optimized to support JFEOs in contested theaters. Together, they enabled the US drive across the Central Pacific toward Japan, the accompanying operations in the Southwest Pacific, and the allied invasions of North Africa, Sicily, Italy, and ultimately France.

Said another way, when the heavy seabased operational maneuver forces were combined with Army light airborne forces, by war's end American commanders could deploy and employ 18 of 96 divisions (nearly one in every five) in joint forcible entry operations. Of these, amphibious assault forces proved the most decisive. After the war, British military scholar J.F.C. Fuller called the development of amphibious assault seabases "in all probability...the most far-reaching tactical innovation of the war." 102

Mobile Seabased Harbors

If carrier warfare and mobile logistics seabases were unique to the World War II Pacific Theater, a fourth important seabasing initiative was unique to the European Theater of Operations. Once again, the initiative resulted from allied joint and combined war planners wrestling with a pressing operational problem: how to gain a foothold on the European continent, to pour reinforcements through that foothold, and to sustain the follow-on invasion force until a working theater logistics infrastructure could be erected ashore.

In circumstances quite unlike those found in the Pacific, allied war planners were secure in the knowledge that the forcible entry operation that initiated the invasion of continental Europe would be launched and supported by hundreds of ports and airfields located in Britain, separated from the French coast by the relatively narrow English Channel. However, the forcible entry operation was to be just the first phase of an allied attack aimed at the German heartland located hundreds of miles from the coast. To sustain the reinforced invasion force in its drive into

During World War II, the Marines formed six combat divisions. The Army assembled 67 infantry divisions; 16 armored divisions; and two cavalry divisions, for a total of 91 non-airborne divisions, of which the Army formed five. See http://www.army.mil/cmh/lineage/cc/inf.htm.

¹⁰² As cited in Krulak, First to Fight, p. 101.

Germany, the allies would ultimately need to seize suitable heavy theater logistics portals—deep draft and developed harbors and ports—in order to transship the thousands of tons of "beans, bullets, and band aids" the attacking allied armies would consume every single day.

Therein lay the challenge. As the failed amphibious raid on the French port of Dieppe suggested in August 1942, the German defense of the coast of Western Europe included formidable defenses around every suitable port. Because of the strength of these defenses, the allies began to think about alternative means to logistically sustain their invasion force in the early stages of the invasion. The innovative and elegant solution, conceived of and implemented by the British, was to bring a port along with the invasion force. ¹⁰³

The resulting MULBERRY mobile seabased harbor could be transported by sea and erected along the coast anywhere a favorable beach gradient could be found. Each harbor consisted of roughly 6 miles (10 kilometers) of flexible steel roadways, code-named Whales, which floated on steel or concrete pontoons called Beetles. The roadways terminated at massive pierheads—called "Spuds"—that could be jacked up and down on legs which rested on the seafloor. All of these structures were sheltered from the sea by lines of massive sunken concrete caissons (Phoenixes), lines of scuttled ships (Gooseberries), and a line of floating breakwaters (Bombardons). When fully operational, a MULBERRY harbor had the design capacity to transship 7,000 tons of vehicles and supplies per day from ship to shore. 104

In the event, two MULBERRY harbors were constructed in secrecy, one to support the US forces and one to support British Commonwealth forces. Almost immediately after D-Day, the allies started to float components of the harbors into position, and both harbors were operational within 12 days of the landing. However, just one day later, on June 19, 1944, one of the most violent Channel storms in history began, and within four days the American MULBERRY was completely destroyed. To make up for the loss in supply throughput, the US and Royal Navies were forced to initiate a much more inefficient shuttle service between Britain and Normandy using beachable landing ships. Meanwhile, the damaged and repaired British MULBERRY supported the Allied armies for the next ten months, serving as the transshipment

104 "MULBERRY."

¹⁰³ See "MULBERRY," at http://www.britannica.com/dday/article-9344572.

point for two-and-a-half million men, a half million combat vehicles, and four million tons of supplies.¹⁰⁵

Although the seabased harbors were not reusable (remains of the British MULBERRY can be seen today off the French coast near Normandy), they nonetheless represented an innovative use of the sea as a joint and combined base of operations for expeditionary power-projection. As one historian has written:

The importance of MULBERRY [harbors] goes far beyond the operational issue of how efficacious they were. Until their invention it was axiomatic that invading armies would need to capture a major functioning port soon after landing, to replenish those forces already ashore and to sustain the build-up...Meanwhile, having persuaded themselves (wisely or not) that their logistical needs would be met, for an extended time after the landings, by transportable [harbors], the allied planners freed themselves to think in a rather different geographical box from the German staff officers whose job was to second guess their plans. Its highest purpose, indeed, was to enable an exercise in maneuverism of a scale unsurpassed since Hannibal (emphasis added). 106

NAVAL MANEUVER

Seabasing—exploiting command of the seas by using the sea as a secure base of military operations to project military power across great distances—is thus anything but a new concept. Athens' mastery of the Aegean and surrounding seas helped it to fight and prolong the Peloponnesian War. Indeed, it lost the war when it could no longer claim the sea as a secure base of operations. Rome's mastery of the Mediterranean Sea gave it enormous advantages in projecting power and reinforcing garrisons located along the frontiers of its empire. The Vikings used the seas to terrorize the coastal regions of Western Europe and to almost conquer the British Isles. Great Britain's global empire was based around its command of the seas, which converted the world's oceans

^{105 &}quot;MULBERRY."

¹⁰⁶ Jane Penrose, editor, *The D-Day Companion* (New Orleans, LA: The National D-Day Museum, 2004), pp. 134-35.

into a vast British base of operations for expeditionary power-projection and empire policing. As for the United States, its World War II exploitation of the sea as a base of operations for naval campaigns and joint, and combined power-projection operations represents the ultimate use of seabasing for military advantage.

Although US seabasing initiatives originated within the context of *naval* campaign planning designed to assert *sea control*, recall that the "value of command of the sea lay not in any fact of its physical conquest or possession—an idea which only makes sense in land warfare—*but in the use to which it could be put*" (emphasis added).¹⁰⁷ By 1944, with both the Japanese and German fleets in ruins, US naval planners recognized that the broad oceans had been transformed into an uncontested joint and combined operating base, from which naval forces could project joint power and decisively influence combat operations ashore. Accordingly, by the end of the Second World War, the battle fleet had conceptually transformed once again from a *Combined Arms Sea Control Battle Fleet* into a *Joint Sea as Base Power-projection Fleet*, composed of equally capable and complementary *Strike* and *Operational Maneuver Fleets*, and both supported by a mobile and flexible *Logistics Seabase*.¹⁰⁸

The power of this Sea as Base Power-projection Fleet was amply demonstrated during 1944-45, first with the combined invasion of Europe initiated by sea and air on June 6, 1944, and soon thereafter during the 1945 invasion of Okinawa, the prelude to the final invasion of Japan. This latter operation involved landing a joint ground force the size of that put ashore at Normandy to root out and defeat wellentrenched Japanese forces located only 350 miles from the Japanese mainland. However, unlike the landings in France, which were launched from scores of land and naval bases located on Britain within tens to hundreds of miles from the landing area, the invasion of Okinawa was conducted in a "Joint Operations Area" located over 4,000 miles from Hawaii and 800 miles from the recently seized Marianas Islands. When comparing the invasion of Europe with the invasion of Okinawa, the difference between the naval concept of seabasing and the maritime concept of seabasing is dramatically revealed. In essence, the 1,200 ships that constituted the Okinawan "Enhanced Networked Seabase,"

¹⁰⁷ Geoffrey Till, as cited in Lindsey, "Assuming Away History: A Critical Analysis of *Forward ...From the Sea* by Sir Julian S. Corbett."

¹⁰⁸ The distinction between a Combined Arms Sea Control Fleet and a Seabased Power-projection Fleet is well captured in Hone, "Seabasing: Poised For Takeoff."

and which supported the forces on the island for the duration of the campaign, substituted for hundreds of land bases located on Britain. 109

Owing to its inherent mobility, this massive power-projection seabase—equally adept at supporting naval and maritime campaigns could be relatively quickly "reconstituted and redeployed" for additional operations. After Okinawa, for example, the Joint Power-projection Fleet, reinforced by ships from the British Royal Navy, was prepared to land 1.3 million men (including six Marine divisions) on mainland Japan, and to support them with thousands of combat aircraft from aviation platforms at sea, hundreds of mobile artillery bases at sea (surface combatants), and the same vast logistics seabase that supported operations off of Okinawa.

This impressive seabased power-projection fleet, without equal either before or since, was itself backed up a huge wartime *Transoceanic* Transport Fleet, consisting of 5,777 ships operated by the US Merchant Marine, including 2,751 Liberty Ships, 531 larger Victory Ships, and numerous troop transports. This fleet carried the millions of tons of supplies, equipment, food, cargo, and ammunition necessary to sustain subsequent operations ashore in multiple theaters of operations. 110

As this discussion suggests, then, the World War II Sea as Base Power-projection Fleet was more than capable of "the rapid deployment, assembly, command, projection, reconstitution, and re-employment of joint combat power from the sea, while providing continuous support, sustainment, and force protection to select expeditionary joint forces without reliance on land bases within the Joint Operations Area"—the "transformational" definition of seabasing now found in the current Seabasing Joint Integrating Concept. However, as technically accurate as this definition may be, as suggested in the first chapter this definition is unconsciously biased toward the naval concept of seabasing, which is more about the process of assembling bases on the sea in order to free the battle fleet (and, only by extension, the joint force) from any dependence on land bases, rather than the maritime concept of seabasing, which is about two key things: first, using the sea as a base of operations in order to maintain joint freedom of action, freedom of maneuver, and operational independence until land bases can

¹⁰⁹ For a wonderful recap of the operations of the Sea-based Power-projection

Fleet off of Okinawa, see Hone, "Seabasing: Poised For Takeoff."

See "Ships for Victory," at http://www.seawaves.com/bookreviews/ shipsforvictory.htm.

be seized; and second about using this advantage to cause intractable problems for an enemy on land and sea.

These two closely related concepts, described in the first chapter as representing two sides of the same coin, are inevitably and inextricably linked by *naval maneuver*, defined by one leading naval strategist and theoretician as *the swift movement of forces* [by sea] to successive positions the loss of which will hurt the enemy badly.¹¹¹ This is an elegant formulation, because it makes no judgment about whether the movement is in support of a naval or a maritime campaign, or about the difficulty associated with seizing or taking a successive position.

With regard to the later point, too many want to refer to an attack from the sea that involves heavy fighting as an "amphibious assault," and an attack from the sea that involves little fighting as "operational maneuver from the sea." This is a false distinction. As defined in the *DOD Dictionary of Military and Associated Terms*, an amphibious assault is described simply as the "principal type of amphibious operation that involves establishing a force on a hostile or potentially hostile shore." ¹¹² Thus, operational maneuver from the sea is simply an elegant variation of an amphibious assault, and both are forms of naval maneuver whose final butcher's bill and success depends as much on the *enemy's* skill as anything else:

Mediocre campaigners will not recognize the vital nature of their own such positions and will leave the door open for a swift, information-dense and casualty-light campaign against them. More to the point, an enemy without a substantial navy is powerless to prevent swift movement at sea. On the littoral, which by definition is within reach of naval forces, such an advantage may be decisive, and entail few casualties. When, however, the enemy is skillful, he will know the center of gravity and be prepared, as were the Japanese in the Marianas and again at Okinawa.¹¹³

Without question, however, as repeatedly demonstrated by history's great maritime powers, naval maneuver's swift movement of forces and capabilities often overtakes an enemy's ability to react or to retreat,

¹¹¹ Hughes, "Naval Maneuver Warfare."

Joint Pub 1-02, DOD Dictionary of Military and Associated Terms.

¹¹³ Hughes, "Naval Maneuver Warfare."

reinforce or realign his forces, causing an effect described as "permanent surprise." ¹¹⁴ This is true whether naval maneuver is used as the key component of a naval campaign like the World War II Central Pacific Drive, or as the initial phase of a maritime operation like the invasion of Europe, or as a major supporting operation in a joint campaign like the later landing at Inchon in the Korean War.

That is why seabasing and naval maneuver have been used so successfully by both naval *and* Army and Air Force officers in the conduct of warfare, as explained below:

A number of conclusions can be drawn from history. First, naval maneuver warfare is associated with a campaign and applies at the operational level of war. Second, the absence of bloodshed is not the defining characteristic of maneuver warfare. The defining characteristic is the freedom to apply combat power where it counts; the more critical the point, the more certain that the enemy will recognize it and shed blood to keep it. Also, the focus is not always on Navy-Marine forces. When the scale is sufficient—a "major regional conflict," for instance—the Army and Air Force are equal or superior partners. But the entire operation rests on freedom of maneuver at sea, as it did in the Korea, Vietnam, and Gulf conflicts (emphasis added).¹¹⁵

The reason why the Army and Air Force have often been superior partners in seabased operations can be explained in this way: although three of the four seabasing initiatives described above were conceived of as part of a naval campaign to achieve sea control (the MULBERRY harbor being the exception), in execution, all four—to varying degrees—were less about eliminating the Navy's dependence on land bases and more about allowing joint freedom of action given a *temporary* lack of land bases in a contested theater, and then augmenting, complementing, and supplying land bases thereafter. Even the development of the vast mobile logistics seabase in the Pacific was never intended to fully replace land bases, as was made clear by Admiral Raymond Spruance when he wrote that, "The study of our naval logistics effort in the Pacific...brings

¹¹⁴ Hughes, "Naval Maneuver Warfare."

¹¹⁵ Hughes, "Naval Maneuver Warfare."

out our dependence on both shore bases and mobile floating bases...Each had its advantages, and neither alone could have done the job." 116

Indeed, the very reason that World War II represents the heyday of US seabasing thought and execution was that the war saw major combat operations in multiple *contested* theaters across the globe where forward access needed to be fought for. Under these circumstances, the centrality of seabasing in maritime power projection operations was manifest. As fate would have it, however, a radical change in the postwar strategic environment soon helped to obscure the great joint advantages inherent in seabasing and naval maneuver, even among Navy and Marine officers. As a result, as the United States improved its ability to move troops, equipment and cargo *over* the seas, it lost to a great degree its ability to project power *from* the sea. Like the distinction between building bases at sea and using the sea as a base of operations, the difference between the two is critical, and the history that explains it warrants further, more detailed, discussion.

¹¹⁶ Carter, USN, ret, Beans, Bullets and Black Oil, p. vii.

III. The Fall of Seabasing and Naval Maneuver and the Rise of "RSOI"

Why should we have a Navy at all? The Russians have little or no Navy, and the Japanese Navy has been sunk, the navies of the rest of the world are negligible, the Germans never did have much of a Navy. The point I am getting at is, who is this big Navy planning to fight? There are no enemies for it to fight except apparently the Army Air Force. In this day and age to talk about fighting the next war on the oceans is a ridiculous assumption. The only reason for us to have a Navy is just because someone else has a Navy, and we certainly do not need to waste money on that.¹¹⁷

Army Air Corps Officer, c. late 1940s

By 1945, as the Second World War came to a close, the United States finally achieved the goal it set 55 years before: the US battle fleet was, "incomparably, the finest navy in the world." ¹¹⁸ With 6,768 ships of all types and six Marine Divisions, the US Navy and Marine Corps had surpassed the British Royal Navy and Marine Corps as the largest and most powerful naval force in the world in terms of tonnage, number of ships, manpower, and overall warfighting capability. ¹¹⁹ Also, without question, the late-war Sea as Base Joint Power-projection Fleet was the most impressively capable transoceanic power-projection fleet in history.

An unmanned Air Force officer cited by Huntington in "National Policy and the Transoceanic Navy," p. 484.

¹¹⁸ The call for a Navy that was the "greatest in the world" came from none other than Woodrow Wilson, during his run for President. At the time, he was chided by many for being so bold as to challenge the primacy of the British Royal Navy. See Hagan, *This People's Navy*, p. 252.

[&]quot;US Navy Active Ship Force Levels, 1945-1950."

Ironically, this stunning achievement threatened the US Navy in a way neither the Imperial Japanese nor German Navies ever could. Immediately after the war, and for the first time in nearly six decades, the fundamental justification that led first to the development of a Combined Arms Sea Control Fleet and ultimately to the Joint Power-projection Fleet was no longer present. With no credible hostile navy or naval coalition to fight, sea control was no longer a viable battle fleet *raison d'etre*. As a result, despite the demonstrated power of seabasing and naval maneuver, naval leaders were hard pressed to justify the continued expenditure of resources on maintaining either command of the seas or a major seabased power-projection capability.

Such questions and thoughts were unheard of during the first five decades of the Expeditionary Era when the DoN received the lion's share of the nation's peacetime defense resources. However, if defending the need for and size of the battle fleet was a new requirement for DoN leaders, it was to become an enduring one. Indeed, the new need to justify a battle fleet was but one harbinger of an impending shift to a new national security policy era.

Another harbinger of change was the World War II development of the atomic bomb and guided weapons. The dropping of two atomic bombs on Japan sparked a strategic revolution in military affairs, and rightly captured the most attention from national security leaders immediately after the war. Less noticed, but no less profound, however, was the dropping of an Mk 24 Acoustic Mine (torpedo) by a US Navy patrol plane on a German submarine in the Atlantic Ocean in March 1943. With this first modest attack, the DoN introduced the US armed services to the Guided Weapons Warfare Regime. As will be discussed, the appearance of this regime was ultimately to have enormous impact of the broader strategic national security environment and military operations—indeed, in the end, arguably more so than the development of atomic weapons.

More to the point, however, the lack of a naval opponent, the development of atomic and guided weapons—and the emergence of a new continental foe in the Eurasian heartland—was to have a major impact on the direction of US seabasing capabilities.

THE GARRISON ERA: POWER-PROJECTION OUT, GARRISON REINFORCEMENT IN

In 1947, as these new circumstances were being mulled and debated, "The Sources of Soviet Conduct," written by diplomat George Kennan under the pseudonym "Mr. X," was published in the prestigious journal *Foreign Affairs*. It had the same galvanizing influence on US national leadership as Alfred Thayer Mahan's work did in 1890. ¹²⁰ With the announcement of the Truman Doctrine and Marshall Plan, the US drew a line in Europe to forestall any further expansion of communism. A new national security era—referred to by Huntington as the Transoceanic Phase of national policy—was born. ¹²¹

The primary goals of the US armed forces remained relatively constant over the course of what turned out to be a four-decade long "Cold War": to contain the expansion of communism by deterring or resisting efforts by the Soviet Union to forcibly expanding its empire—either through direct attack or by waging proxy wars. However, in the late 1940s, it was by no means clear how best to accomplish this goal without bankrupting the United States. 122 The first decade-and-a-half of the Cold War saw successive Administrations trying to come up with a cost-effective approach to accomplishing this new national security imperative. At the same time, all of the US armed services were trying to come to grips with the operational and tactical implications of both nuclear and guided weapons warfare. 123 It was a period of great strategic uncertainty, rapid technological transformation, and utter confusion

[&]quot;The Sources of Soviet Conflict" was itself a reprint of the "Long Telegram" sent by Kennan from Moscow in 1946. However, the 1947 *Foreign Affairs* article was much more widely read than the Long Telegram, and the Truman Doctrine and Marshall Plan were not announced until April and June, 1947, respectively. George Kennan, "The Sources of Soviet Conduct," found online at http://www.historyguide.org/europe/kennan.html.

For a thorough description of Cold War/Garrison Era, see Joseph Smith, *The Cold War, Second Edition, 1945-1991* (Historical Association Studies: Blackwell Publishers, 1997). CNN also has an excellent interactive website on the Cold War at http://www.cnn.com/SPECIALS/cold.war/episodes.

¹²² "John Lewis Gaddis on Eisenhower's Economics and the Bomb," at http://www.pbs.org/wgbh/amex/bomb/filmmore/reference/interview/gaddis9.html

¹²³ For a good description of the Navy's adjustment to atomic warfare, see Dr. Jeffrey G. Barlow, "The Navy and the Bomb: Naval Aviations' Influence on Strategic Thinking, 1945-1950," found online at http://www.history.navy.mil/colloquia/cchie.htm.

among the services as what their exact national security roles would, or should, be.

However, one thing was certain, even during the turbulent shift from the Expeditionary Era of US military development to the new one: the US global posture was sure to be utterly transformed. With the 1949 formation of the North Atlantic Treaty Organization (NATO) and the uneasy 1953 truce along the border between North and South Korea. the United States began to assemble and man large, standing *peacetime* garrisons overseas on allied soil for the first time in its history. Prior to this, the only time the United States had maintained a long-term "peacetime" garrison on foreign soil was in China—between 1900 and 1941—the long-time home to units of the Asiatic Fleet, and later the 4th Marine Regiment. In contrast, by expanding on their post-World War II footprint and presence, by the late 1950s and early 1960s the US and its allies had literally surrounded the Soviet Empire with hundreds of land, air, and sea bases, permanent homes for nearly a half-a-million US military personnel, with over 300,000 in Europe and about 100,000 in the Pacific.¹²⁴ The Transoceanic Phase's subsequent phase of military development is thus is best thought of as the *Garrison Era*.

Throughout the Garrison Era, as the acknowledged leader of the global coalition against the Soviet threat, the United States generally had easy access to "facilities" located on the territory of trusted allies—or at least in countries with a shared desire to contain Soviet expansionism (especially into their own territory). This easy access provided the US military with a high perceived degree of global operational independence, despite the fact that Cromwell's admonishment about "uncertain neutrals and doubtful allies" was demonstrated repeatedly over the Cold War. For example, in the 1960s, Charles de Gaulle cancelled US access to air and naval bases (and even to petroleum pipelines running from France to Germany). In 1969, the US lost access to the sprawling Wheelus Air Base in Libya when Muammar al-Qaddafi seized power. A decade later, the US lost important listening posts and base access

¹²⁴ Options for Strategic Military Transportation Systems (Washington, DC: Congressional Budget Office, September 2005), p. 1.

The term "facilities" more accurate describes the Cold War US garrisons, because the United Sates had only limited discretion over the use of a "base." The Stockholm International Peace Research Institute refers to the presence of foreign militaries on a country's territory simply as "foreign military presence." See Harkavy, "Thinking About Bases," p. 13.

Harkavy, "Thinking About Bases," p. 33.

in Iran when the Shah's regime collapsed.¹²⁷ In 1986, US punitive air strikes against Libyan were complicated by the refusal of France and Spain to grant overflight rights for the US strike package.¹²⁸

However, with the exception of de Gaulle's denial of access to French bases, each of these incidents occurred either in peripheral theaters or involved *independent* US military operations. The general perception of US defense planners was that should war erupt with the Soviet Union, forward base access could be absolutely counted upon, even in France. Whenever this perception was challenged, the US military reacted sharply. For example, in the early 1960s, angered by President Kennedy's call for decolonization throughout Africa, the Portuguese government threatened to curtail US access to the Azores, whose mid-Atlantic facilities were vital to US war plans against the Soviet Union. As a result of the alarm raised by US military officers and defense strategists, the United States government changed its position on African decolonization in 1962 in order to preserve access to the facilities.

Buoyed by a confident expectation of assured access in the potential major theaters of war, the Army and Air Force enjoyed the initial advantage in the early years of the Garrison Era—a period when the specter of nuclear warfare held much sway in American strategic and military thinking. Forward Army garrisons and Air Force tactical air bases located along the edge of the Soviet frontier would serve as a "tripwire" force while the nuclear-armed Strategic Air Command would provide the primary muscle for deterrence and warfighting. Indeed, it was the central relevance of the Air Force to the era's early national security strategy of "massive retaliation" that caused it to displace the Navy as the nation's dominant peacetime armed service. This dominance was especially evident after 1953, as the Eisenhower Administration's "New Look" defense program took effect, and as long-range airpower and atomic weapons became the primary means to project US military

¹²⁷ Alexander Cooley, "Base Politics," *Foreign Affairs*, November/December 2005, pp. 79-92.

¹²⁸ See "Operation *El Dorado Canyon*," found online at http://www.globalsecurity.org/military/ops/ el_dorado_canyon.htm.

As Harkavy writes, "For a variety of contingencies large and small, the United States operated in a permissive environment for access because numerous stable alliances and other client relationships, all underpinned by security assistance." Harkavy, "Thinking About Basing," p. 21.

¹³⁰ Cooley, "Base Politics."

power across transoceanic distances.¹³¹ By the mid-1950s, the Air Force was receiving the lion's share of US defense resources.¹³²

Through the late 1940s and into the 1950s, defenders of a strong battle fleet tried unsuccessfully to stem the Air Force's rise to dominance by arguing that the "[T]he atomic bomb may change the types of ships in our Navy, but it does not affect the mission of the Navy to control the sea and air above the sea." ¹³³ Nor would it change the requirement to step up to a new global responsibility. With Great Britain and the Royal Navy greatly weakened by the Second World War, the role of patrolling the world's sea lanes was falling to the United States. ¹³⁴ Partly to meet this new role, partly to define a new naval mission, and partly to arrest the precipitous decline of the battle fleet, Navy leaders argued forcefully that these new global patrols should be made by *combat credible* naval forces. ¹³⁵

Unlike during the Continental Era when US forward-deployed patrols consisted of small squadrons of ships designed to protect US merchantmen in peacetime and to scatter and wage independent commerce raiding during wartime, or during the Expeditionary Era when the battle fleet concentrated in home waters and less capable naval units operated forward to show the flag, these new forward patrols would consist of powerful, self-contained naval strike and maneuver groups. Naval officers argued that forward-deployed combat credible naval forces would help to deter Soviet probes or incursions beyond their established frontiers, and that they could immediately transition to war and begin to mount attacks along the flanks of the Soviet Union if deterrence failed. In this regard, the global patrols also served a new fleet *scouting* role—conducting reconnaissance, surveillance, and other

¹³¹ For a thorough description of the New Look, see Saki Dockrill, *Eisenhower's New Look National Security Policy*, 1953-1961 (New York, NY: St. Martin's Press, 1996). For a shorter, more concise treatment on the economic reasoning behind the New Look, see "John Lewis Gaddis on President Eisenhower's Military Strategy," found online at http://www.pbs.org/wgbh/amex/bomb/filmmore/reference/interview/gaddis7.

¹³² It was during this period of Air Force ascendancy that Huntington wrote his article, "National Security Policy and the Transoceanic Era."

¹³³ Rep. Carl Vinson, in 1945, as cited in Kenneth J. Hagan, *This People's Navy* (New York: The Free Press, 1991), p. 335. There are many superb one-volume histories of the Navy. I consider this book among the best of them.

¹³⁴ Hagan, This People's Navy, p. 337.

¹³⁵ The significance of maintaining "combat credible" forces forward is well captured in Swartz, *Sea Changes: Transforming US Navy Deployment Strategy*, 1775-2002, pp. 48-49.

means of ascertaining and reporting tactical information about Soviet naval, ground, and air units and forces. 136

In the event, the practice of deploying and employing rotational US Carrier Battle Groups (CVBGs) out of two or three fleet "operating hubs" came to define the battle fleet's basic operating pattern—and to provide the basis for its carrier force structure—through the end of the Garrison Era and beyond. Similarly, rotationally deployed Amphibious Ready Groups (ARGs), with embarked Marine Battalion Landing Teams (BLTs) or Marine Amphibious Units (MAUs), provided the nation with forward-deployed patrols consisting of ready, small-scale combined arms combat units. While on these forward-deployed patrolling and scouting missions, both of the naval services excelled at crisis response operations at the lower end of the conflict spectrum as well as conducting small-scale, unilateral punitive strikes.

Importantly, however, the training periods and deployments of these CVBGs and ARG/MAUs were not synchronized and the two units generally operated independently. The carrier task groups naturally focused on independent *strike operations*, while the amphibious task groups specialized in *rapid sea-based intervention operations* at the lower end of the conflict spectrum, such as non-combatant evacuation operations, humanitarian and disaster relief, and small raids. The failure of separate carrier and amphibious task groups to routinely train and operate together as a coherent combined arms seabase contributed to a gradual weakening of operational ties between the Navy and Marine Corps during the Cold War. However, this was merely a symptom of a broader underlying cause: *the emerging conditions of what would*

¹³⁶ Hughes, *Fleet Tactics*, p. 11.

¹³⁷ As described in Swartz, the first rotational hubs were in the Mediterranean and the Western Pacific. In the 1970s, a permanent Middle East Force was established. By the 1980s, the Middle East and Indian Ocean had become a third hub. See *Sea Changes: Transforming US Navy Deployment Strategy*, 1775-2002, pp. 48-45.

¹³⁸ A Marine Amphibious Unit (now know as a Marine Expeditionary Unit) is a small MAGTF consisting of a headquarters, a Marine infantry battalion, a composite squadron consisting of both rotary- and fixed-wing aircraft, and a combat logistics unit. See Norman Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition (Annapolis, MD: Naval Institute Press, 2005), pp. 45-46.

¹³⁹ As described by Hagan, in President Eisenhower's "New Look" Defense Strategy, the aircraft carrier and forward-deployed Amphibious Ready Groups played the same role for the United States in the Garrison Era as the frigate played for the British Empire during the age of sail. See Hagan, *This People's Navy*, p. 350.

today be termed "assured theater access" largely removed the operational requirement to seize and defend advance naval bases or to conduct naval maneuver—the very requirements that had bonded the two services so closely together throughout the previous strategic era.

With no fleet to fight, large standing garrisons on allied soil supported by ever-more efficient land-based infrastructure, no forward bases to seize, no continental invasions to plan for, and with naval maneuver threatened by atomic weapons, the Navy and Marines were initially the odd men out. The number of active aircraft carriers fell to seven by 1950, and the Navy's new super-carrier, the *United States*, was canceled, leading to the famous "revolt of the admirals." ¹⁴⁰ In 1949, amphibious operations were declared obsolete, and the size of the amphibious fleet was excluded from Joint Chiefs of Staff (JCS) planning guidance. ¹⁴¹ As a result, by 1950 the battle fleet had shrunk from its World War II high of 6,768 ships to 634 ships, and the Marine Corps was reduced to two skeletal divisions. ¹⁴² The impressive World War II Joint Power-projection Fleet had been effectively eviscerated.

Just one year later, the sweeping naval maneuver and amphibious landing at Inchon had turned the early tide of the Korean War. Moreover, throughout the 1950s and 1960s, the growing threat of "mutual assured destruction" made the tactical use of nuclear weapons far less likely than originally feared. Nevertheless, the basic strategic conditions caused the battle fleet's ability to mount combined arms attacks from the sea to continue a steady decline. Why? Because over the course of the Cold War, the ready global access to a vast US and allied counter-coalition basing structure gradually made *all* joint combat forces and operations more and more "access dependent." The Army and Air Force operated from numerous fixed forward bases in Europe and in the Pacific, supported by a developed and robust theater logistics infra-

¹⁴⁰ See Hagan, *This People's Navy*, pp. 339-41; Howarth, To Shining Sea, p. 485. For a longer, more detailed account of the "revolt," see Jeffrey G. Barlow, *Revolt of the Admirals: The Fight for Naval Aviation* (Washington, DC: Naval Historical Center, 1994).

¹⁴¹ Michael M. McCrea, Karen N. Domabyl, Alexander F. Parker, *The Offensive Navy Since World War II: How Big and Why?* (Alexandria, VA: Center for Naval Analysis, July 1989), p. 17; see also "Amphibious Warfare: Cold War Era," found at http://www.navy.mil/palib/cno/n75/Htm/8000PopE3.htm.

[&]quot;Marine Corps History," found at http://globalsecurity.org/military/agency/usmc/history.htm. A great recount of the trying years for the Navy after World War II is found in Chapter 12, "In Search of a Mission," in Hagan, *This People's Navy*.

structure, including numerous sea and air points of embarkation and debarkation. The Marines maintained a division overseas, supported by superb bases and facilities in Okinawa, Japan. The Navy's rotational peacetime patrols, including those made by its large fleet of land-based, ASW patrol planes, became accustomed to continuous access to forward operating bases. Indeed, these bases allowed the Navy to greatly reduce both its combat and mobile seabased logistics forces.

Just as access to a global naval basing infrastructure removed any incentive for the British Royal Navy to develop efficient underway replenishment operations in the Interwar Period, access to a large global basing structure largely removed the incentive for US armed forces to maintain the capabilities needed to either seize or establish forward naval operating bases or to create access ashore for attacking joint or allied armies. In other words, the need for a robust naval and theater forcible entry capability, for supporting Cubs, Lions, or Acorns, or even for a large "fleet train," simply disappeared.

As the Garrison Era developed, then, the pre-World War II distinction between joint overseas movements over the sea and landing attacks against shore objectives returned with a vengeance, with the emphasis squarely on the former. Rather than conceiving of the sea as a base of operations from which to project intact, *ready-to-fight* US combat units over transoceanic distances, the sea became a means to *deliver reinforcements rapidly* to forward-based ready-to-fight combat garrisons. In other words, the sea became more of an avenue for *movement* than of *maneuver*, and defense and naval planners began to emphasize seabased mobility forces over seabased forces capable of operational maneuver.

THE EVOLUTION OF THE US STRATEGIC MILITARY TRANSPORTATION SYSTEM

As the Soviet's ability to interdict the Atlantic sea lines of communication (SLOCs) became more of a threat over the course of the Cold War, the quickest way to accomplish the rapid garrison reinforcement mission was through a combination of prepositioned equipment sets and supplies maintained *on land* in forward theaters of operations; combat aircraft flown directly from the continental United States to forward main

operating bases; and troops delivered to theater from CONUS by airlift. The requirement to deliver additional equipment and supplies by sealift to distant theaters from CONUS did not disappear, but seabased reinforcements would come slower in concentrated, escorted convoys, just as they did in World War I and II. Critically, all of these complementary reinforcement operations were facilitated by a robust forward theater logistics infrastructure including numerous ports, airfields, and bases.

Consistent with this new model and with the development of new technologies—particularly air transport—the United States transformed its World War II Transoceanic Transport Fleet into an entirely new joint Strategic Military Transportation System, eventually consisting of strategic airlift forces, strategic sealift forces, and prepositioned equipment sets.¹⁴³ This new system was indelibly shaped by the postwar development of reliable long-range jet cargo and passenger aircraft. Although aircraft payloads were orders of magnitude smaller than large ocean-going cargo ships, their much higher speeds made them far better at transporting both personnel and time-critical military supplies and equipment. Moreover, personnel delivered by a transoceanic air bridge over the oceans could not be threatened by Soviet submarines tasked with severing US sea lines of communication. To take full advantage of airlift's exciting new military potential, the Military Air Transport Service was established in 1948. Renamed the Military Airlift Command (MAC) in 1966, its special-purpose strategic airlifters were soon augmented by commercial air transports and freighters found in a new Civil Reserve Air Fleet (CRAF). Over the course of the Cold War, MAC and the CRAF became the Strategic Military Transportation System's primary means to move people and high priority supplies, equipment, and parts to forward garrisons.144

The Military Sealift Transportation Service, established in 1949 and later renamed the Military Sealift Command (MSC), thus oversaw the gradual retirement of the large World War II fleet of ocean-going troop transports and began to focus on the delivery of heavy combat equipment such as tracked vehicles, rolling stock and engineering equipment, break-bulk cargo such as fuel and construction materials,

Options for Strategic Military Transportation Systems.

¹⁴⁴ Options for Strategic Military Transportation Systems, p. 2. For a thorough discussion of the CRAF, see Military Readiness: Civil Reserve Air Fleet Can Respond as Planned, But Incentives May Need Revamping (Washington, DC: Government Accounting Office, December 2002), found online at http://www.aviationtoday.com/reports/012103fleet.pdf.

and supplies. ¹⁴⁵ In the event, the MSC maintained two distinct types of sealift ships. *Surge* sealift ships were optimized for the rapid delivery to forward garrisons of the equipment and cargo for heavy armored and mechanized combat units soon after the onset of any enemy attack. *Sustainment* sealift, consisting of dry cargo ships and tankers, focused on the delivery of supplies, cargo, and spare parts needed to support sustained combat operations in forward theaters. For the first mission, eight large Fast Sealift Ships (FSSs)—high-speed merchant ships capable of transporting 150,000 pounds of cargo at speeds up to 30 knots—were procured and modified into capacious roll-on/roll-off (RO/RO) ships, and kept ready for activation in 96 hours. ¹⁴⁶. For the second mission, in 1977 the MSC created a Ready Reserve Fleet (RRF) of cargo and transport ships maintained in "inactive status" in US ports. These ships were ostensibly available for loading within four, five, ten, and 20 days of notice. ¹⁴⁷

As for prepositioned equipment sets, the system focused on establishing land-based sets located close to the forward garrisons most threatened by a Soviet attack. By the 1980s, the Army had a stated requirement for 13 brigade-equivalent equipment sets as part of Prepositioning of Overseas Material Configured to Unit Sets (POMCUS) program, most in Europe, with an unfunded goal of six complete division sets. ¹⁴⁸ For their part, the Marines maintained a brigade's set of equipment inside caves in Norway to facilitate the rapid fly-in of Marine reinforcements to the NATO northern flank. ¹⁴⁹

As should be readily apparent, then, the Strategic Military Transportation System developed during the Garrison Era rested upon an assumption of assured access to forward theater infrastructure. As a strategic hedge against this assumption proving to be wrong, the US armed forces opted to maintain two important capabilities—at least on paper. The first was an update of the MULBERRY seabased artificial

¹⁴⁵ Today, the MSC retains only two troop transports in its Ready Reserve Fleet. See "Ready Reserve Fleet" at http://www.nvr.navy.mil/stat_12.htm.

¹⁴⁶ See "Cargo—Fast Sealift-Support (FSS), Specialized," at http://www.nvr. navy.mil/stat_17.htm.

¹⁴⁷ "Logistics Fixes That Took Root," *Armed Force Journal*, October 2003, p. 46-49; see also "Ready Reserve Fleet" and "Military Sealift Command," at http://www.globalsecurity.org/military/agency/navy/msc.htm.

Options for Strategic Military Transportation Systems, p. 1.

¹⁴⁹ The Norway Air-Landed Marine Expeditionary Brigade (NALMEB), also called the Norway Air Landed Marine Air Ground Task Force (NALMAGTF), is the Marine Corps' only *land*-based prepositioned stock. See the description at http://www.globalsecurity.org/military/facility/nalmeb.htm.

harbor, which eventually became known by its acronym, JLOTS—short for Joint Logistics Over-the-Shore. The JLOTS program aimed to provide US commanders with an ability to load and unload ships without the benefit of fixed port facilities. Unlike the MULBERRY harbor, however, JLOTS was "designed for operations in friendly or non-defended territory, and, in time of war, during phases of theater development in which there is no opposition by the enemy." ¹⁵⁰ To support this capability, the Military Sealift Command maintained auxiliary crane ships (ships specifically designed to offload cargo ships "in stream" with onboard cranes); barge carriers; and an assortment of elevated causeways, "sidewarping tugs," and powered causeway ferries. ¹⁵¹

THE OPERATIONAL MANEUVER FLEET: QUO VADIS?

The second capability to hedge against the loss of forward access were forces capable of conducting operational maneuver over transoceanic or intra-theater distances and forcibly seizing access—in the form of lodgments, ports, bases, or airfields. As in World War II, the immediate post-war means to accomplish such operations were amphibious landing and airborne forces.

Even though the likelihood of an amphibious assault was relatively low, defense planners opted to maintain a viable amphibious forcible entry capability. From 1951 through 1967, the battle fleet was generally expected to maintain a capability to lift two full Marine divisionwing teams (Marine Amphibious/Expeditionary Forces) on amphibious ships—one on each coast of the continental United States, although the number dipped to one and one-third division for a time in the late 1950s. ¹⁵² After that, "amphibious lift" was increasingly described in terms

¹⁵⁰ See "Joint Logistics Over-the-Shore (JLOTS)," at http://www.globalsecurity.org/military/ops/jlots.htm.

¹⁵¹ "Joint Logistics Over-the-Shore," a Military Sealift Command PowerPoint presentation found online at http://www.lic.eustis.army.mil/FMs/Lesson%208.ppt#1.

¹⁵² Matthew T. Robinson, *Integrated Amphibious Operations Update Study (DoN Lift 2+)—A Short History of the Amphibious Lift Requirement* (Alexandria, VA: The Center for Naval Analysis, July 2002), p. 2; see also McCrea, Domabyl, Parker, *The Offensive Navy Since World War II: How Big and Why?* p. 18.

of a mix of MEF and Marine Expeditionary Brigade equivalents, with the average requirement being between a MEF plus MEB and four MEBs. 153

Moreover, there were important improvements in the battle fleet's ability to conduct amphibious assaults. First among them was the development of the helicopter, which led to the idea of *vertical envelopment* from an amphibious seabase. ¹⁵⁴ In the early years of the Cold War, a period when all of the services were trying to come to grips with the operational and tactical impact of battlefield atomic weapons, Marine planners were faced with two difficult problems. First, the amphibious landing fleet could not concentrate for fear of prompting an enemy nuclear attack. Second, Marine surface assault forces were faced with the threat of tactical nuclear attack when concentrated and stacked up against beach defenses. Marine amphibious planners thought the helicopter offered a means to solve both problems.

The initial Marine thinking was that helicopter should be conceived of as a new high-speed LCVP, with the speed and range to allow the aerial assault force to assemble from widely dispersed seabased platforms and then to concentrate the force rapidly to the immediate rear of enemy forces defending the beaches—landing so close to them that they could not employ atomic weapons for fear of fratricide. Unlike airborne troops, these helicopter-borne landing forces would arrive as intact small units, delivered precisely where needed, and ready to attack the enemy's vulnerable rear flank. Once the enemy forces defending the beach were destroyed, surface assault forces—consisting of new amphibious assault vehicles and tanks and wheeled vehicles delivered by high-speed landing craft—could traverse rapidly through the now uncontested littoral penetration point and disperse inland before being targeted with nuclear strikes.¹⁵⁵

¹⁵³ Robinson, Integrated Amphibious Operations Update Study (DoN Lift 2+)—A Short History of the Amphibious Lift Requirement, p. 2; see also McCrea, Domabyl, Parker, The Offensive Navy Since World War II: How Big and Why? p. 18.

¹⁵⁴ For a contemporary explanation of the thinking behind Marine vertical envelopment, see Lynn Montross, *Cavalry of the Sky: The Story of US Marine Combat Helicopters* (New York, NY: Harper & Brothers, 1954). See also Matthew Allen, *Military Helicopter Doctrines of the Major Powers*, 1945-1992 (Westport, CT: Greenwood Press, 1993).

¹⁵⁵ See "Amphibious Warfare: Cold War Era," at http://www.exwar.org/Htm/8000PopE7.htm; and Freidman, *US Amphibious Ships and Craft*, Chapter 12.

Although the threat of tactical nuclear warfare diminished over time, the idea of using helicopters in amphibious assaults gained traction, especially after the first demonstration of battlefield troop movements by helicopter in Korea. Indeed, the rapid improvement of helicopters in the troop transport and cargo hauling roles led to two immediate ship developments: the conversion of World War II CVEs into helicopter carriers, leading to the development of the first LPH, the first purposebuilt "big-deck" amphibious assault ship, and one optimized to support vertical envelopment/air assault operations; and the development of the new Landing Platform Dock (LPD), which combined the wet-well of the World War II LSD with new helicopter capabilities.¹⁵⁶

The development of vertical take-off and landing (VTOL) tactical jet aircraft, embodied in the Marine's new AV-8A *Harrier* introduced into fleet service in the early 1970s, led to the development of even bigger and more versatile amphibious "big decks" (first LHAs, next LHDs). At over 40,000 tons full load displacement, these new ships were about the same dimensions as, but with a larger displacement than, a World War II *Essex*-class CV, giving them the ability to carry a large squadron of helicopters, to act as a "*Harrier* Carrier," or to carry a composite squadron including both helicopters and tactical aircraft. ¹⁵⁷ Importantly, however, operations in Vietnam had clearly demonstrated the vulnerability of helicopter assault forces to enemy counter-landing tactics. ¹⁵⁸ As a result, the new ships had a floodable well deck like the LPDs, giving them both air *and* surface connector "interfaces," and enabling them to support both aerial and surface assaults equally effectively.

All of these ships, as well as the post-war updates of the LSD and the LST (both with helicopter landing spots), were designed to steam at 20 knots. Recall that speed of advance was a key determinant in a convoy's vulnerability to submarine attack. With the development of high-speed Soviet attack submarines, naval planners concluded that amphibious task forces would have to steam at 20 knots to survive any transoceanic movement to contact. This required some ingenuity on the part of naval architects. For example, the post-war 20-knot LSTs traded their World War II "clamshell" bow doors for a long supported ramp that extended over and out from the bow of the ship. 159 More importantly, it led to the demise of the Navy's huge fleet of slow intra-theater,

¹⁵⁶ Freidman, US Amphibious Ships and Craft, Chapter 12.

Freidman, US Amphibious Ships and Craft, Chapter 12.

¹⁵⁸ This point will be discussed later in the report.

¹⁵⁹ Freidman, US Amphibious Ships and Craft, Chapter 11.

beachable, connectors, which meant the burden of transporting heavy equipment ashore would fall upon the smaller, less capable landing craft carried by the fast amphibious assault forces.

With the helicopter replacing the personnel-carrying LCVP, these post-war landing craft were focused on two key types: updated versions of the smaller LCMs, themselves updates of tank lighters; and the new, and much larger, Landing Craft Utility (LCU), updates of the World War II LCT. Later, the LCMs were largely replaced by new Landing Craft Air Cushioned vehicles, whose higher speeds and ability to deliver vehicles past the surf zone added an important new ship-to-shore capability. When carried in a ship's well deck, these craft were often "pre-loaded" with vehicles, thereby maximizing the vehicle storage space available in their onboard parking garages. At the same time, the World War II LVTs were replaced by new Landing Vehicles Tracked, Personnel (LVTPs). These new armored amphibious personnel carriers, with enclosed troop compartments, could generally travel at about seven knots on water, and 40 miles per hour on land, allowing them to keep up with the tanks landed by LCU.¹⁶⁰

Despite the development of the LCAC, without question, the disappearance of the large fleet of larger, "self-deploying," beachable, intratheater assault connectors greatly diminished the battle fleet's ability to support the rapid landing of combined arms mechanized forces. The Army did retain some beachable vessels. Significantly, however, and consistent with both the reduced requirement to support naval maneuver and the evolution of the Strategic Military Transportation System, these new vessels carried only vehicles, not intact combat units. That is to say, they were intra-theater mobility assets, not assets to support operational maneuver from the sea.

Although the Office of the Secretary of Defense (OSD) consistently supported the maintenance of an Operational Maneuver Fleet in its war planning and strategy documents after the Korean War, as all of the services became more and more accustomed to assured access, and as the Strategic Military Transportation System evolved, attitudes about the character of the Joint Power-projection Fleet gradually changed within the Department of the Navy. With the rise of the Soviet Navy and with little apparent need to seize advance naval or to forcibly enter a theater, Navy officers concentrated on *independent* sea control operations, and with regard to power-projection, came to view the sea primarily

Freidman, US Amphibious Ships and Craft, Chapter 11.

as a base from which to carry out and to conduct independent air and missile attacks against targets at sea and on shore. The gradual Navy emphasis on what is now known as "strike warfare" accelerated after Vietnam, as more and more World War II veterans retired; the memory of the amphibious landing at Inchon gradually faded from the Navy's institutional experience; the memory of the Navy's largely independent air campaign against North Vietnam became indelibly imprinted on the Navy's operational psyche; and as the Soviet naval threat became ever more pressing.

The view of the sea as base for Navy strike operations extended even to strategic operations with the Cold War development of strategic ballistic missile submarines (SSBNs)—in effect, covert strategic strike seabases. The first US SSBN, the *USS George Washington*, was commissioned in 1959. It conducted its first deterrent patrol starting in November 1960, carrying with it 16 Polaris submarine-launched ballistic missiles (SLBMs) each armed with a nuclear warhead. It was at sea and underway for 67 days; 66 days and 10 hours were spent unseen, underwater. Because of its ability to hide in the world's oceans, the Navy's distributed strategic strike seabase (i.e., the SSBN force) housed a reliable and survivable "second strike" nuclear retaliatory force, which underwrote the nation's nuclear strategic deterrence posture. Forty-five years later, SSBNs continue to form the most survivable component of America's strategic deterrent forces and thereby help to protect the US homeland from state-sponsored WMD attack.

As a result of its ever-increasing ability to conduct strikes against strategic, operational, and tactical targets and the perceived ever-decreasing utility and relevance of naval maneuver, most Navy officers began to conflate the ideas of a Seabased Power-projection Fleet and a Seabased Strike Fleet. Indeed, after the Vietnam War, which saw only battalion-sized amphibious raids and operations along the Vietnam littoral, many Navy officers began to view the amphibious landing ships of the Operational Maneuver Fleet as an unneeded legacy of a by-gone era. ¹⁶² As a result, as Navy planners clamored for ever more capable sea control and strike platforms, they began to regard the amphibious land-

¹⁶¹ Norman Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition (Annapolis, MD: Naval Institute Press, 2005), p. 63.

¹⁶² For a description of amphibious operations during Vietnam, see Lieutenant Colonel H.T. Hayden, USMC, ret., "Amphibious Operations During the Second Indochina War: 1965-73," *Marine Corps Gazette*, August 2005, pp. 46-48.

ing fleet as an over-engineered and overly expensive *transport force* which took an unjustified share of DoN resources.

As for the Marines—the nation's Cold War "expeditionary force-in-readiness"—the name of the game became being constantly ready to fight and being able to get to a fight as rapidly as possible, by whatever means available. Given that forward access was generally assured, the Marines gradually worried less about fighting their way into a theater and more about the rapid arrival and assembly of their combat forces and their subsequent sustainment. As a result, Marines also began to see the sea more an avenue for prompt global movement than naval maneuver, and the amphibious landing fleet more as a rotational pool for the small, forward-deployed seabased crisis response forces rather than a force with which to conduct large-scale, combined arms attacks from the sea.

The attitudes of the two services were reflected in two developments. First was the gradual reduction in the size of the amphibious landing fleet. As discussed earlier, after the Korean War, the Eisenhower Administration settled on a landing fleet capable of lifting two division-sized Marine Amphibious Forces (MAFs), one from each coast. However, as World War II amphibious ships were retired throughout the 1950s, by 1960 the fleet was capable of lifting one MAF in the Pacific, but only half a MAF in the Atlantic. With President Kennedy's new strategy of "Flexible Response," the two MAF lift requirement was reaffirmed. But the costs of the new amphibious ships were so high that in 1963 the Secretary of Defense dropped the amphibious lift requirement to accommodate the "assault echelons" of only 1.5 MAFs. The reduction was justified by the higher transit speeds of the new 20-knot amphibious ships; the "assault follow-on echelons" would come on slower sealift ships (as will be seen, this was not the last time that improved speed of response was used to justify the reduction of seabased operational maneuver forces). By the late 1970s, President Carter further cut the lift to 1.15 MAFs, the lowest amphibious lift requirement during the entire Cold War.163

The second development was increased priority placed on access sensitive mobility programs such as the development of aforementioned NALMEB program and the Maritime Prepositioning Force (MPF), a novel variation of the idea of using prepositioned war stocks to improve the strategic deployment and reinforcement timelines for CONUS-based

¹⁶³ Freidman, US Amphibious Ships and Craft, Introduction.

forces. The MPF has its roots in the Carter Administration's decision to form a Rapid Deployment Joint Task Force (RDJTF), the forerunner of today's Central Command. The mission of the RDJTF was to deter and to respond to possible Soviet or proxy invasions of Southwest Asia, and to prevent conflict among or subversion and insurrection within the states of the region, in order to "help maintain regional stability and the Gulf oil-flow westward." ¹⁶⁴

Unlike the POMCUS and NALMEB programs, which could be confidently staged near likely battlefields, the RDJTF had to be prepared to respond anywhere within an area of responsibility that included Egypt, Sudan, Djibouti, Ethiopia, Kenya, Somalia in Africa; the People's Republic of Yemen, Oman, Saudi Arabia, Bahrain, Qatar, the United Arab Emirates, and Kuwait on the Arabian Peninsula; and Iraq, Iran, Afghanistan, and Pakistan in Southwest and Southern Asia. The solution was to put the prepositioned equipment and supplies for RDJTF combat units onboard cargo ships, which could be moved to a brewing crisis point. On warning, the ships would sail to a port near an airfield, where the supported RDJTF personnel would fly into to marry-up with their equipment and prepare for hostilities. This concept promised to save tremendous amounts of airlift and allow for much faster strategic response times to this distant theater. The concept was embodied first in the so-called *Near-term* Pre-positioning Ships (NTPS) program, signaling its eventual expansion.¹⁶⁵

Soon thereafter, the DoN pursued an improved and expanded variation of the NTPS concept, which evolved into the Maritime Prepositioning Force program. The MPF program consisted of three squadrons of commercial ships, manned and operated by civilian contract mariners from the Military Sealift Command, each pre-loaded with the equipment, supplies, ammunition, and fuel to support a single Marine Expeditionary Brigade (MEB) in sustained combat for 30 days. With squadrons located in the Mediterranean, on Diego Garcia, and on Guam, a MPF squadron was within 10-14 days steaming time from any port in Europe, Africa, in the Indian Ocean, or along the Western Pacific littoral. These ships were augmented by two Aviation Support Ships oper-

¹⁶⁴ "The Carter Doctrine and the Creation of a New Force," found online at http://www.historyofwar.org/articles/weapons_rdf.html.

¹⁶⁵ Major Douglas A. Darling, USMC, "Maritime Prepositioning Forces: Are They What They Seem?" Marine Corps Command and Staff College, 1989, found online at http://www.globalsecurity.org/military/ library/report/1989/DDA.htm.

ated by the MSC (T-AVBs), one maintained on each coast of the United States. These ships each carried an Intermediate Maintenance Activity (IMA) for fixed- and rotary-wing Marine Corps aviation units.¹⁶⁶

Unlike the amphibious landing fleet operations, which were optimized for the forcible entry mission to *create* access, MPF operations counted on *secure* access. Although the ships were ostensibly capable of off-loading their cargo equipment "in-stream," the ships were optimized for pierside offloads in a secure port—and both in benign combat environments. Like the NTPS concept, the personnel assigned to an MPF MEB would fly to a nearby secure airfield, often on leased commercial aircraft, to prepare their equipment for combat. As explained in Marine Corps doctrine:

MPF operations are a *strategic deployment option*; the salient requirement of the operation is a secure area. In addition there must be adequate strategic airlift, offload forces, arrival airfield, port/beach, and a road network between the port/beach and the airfield... *MPF deployment operations are essentially logistical in nature* (emphasis added).¹⁶⁷

The procurement of a maritime prepositioning force capable of lifting the equipment sets for three Marine brigades helped to dampen what little Navy enthusiasm remained for maintaining a more expensive amphibious forcible entry capability. Indeed, despite a new 1983 OSD and DoN requirement for an Operational Maneuver Fleet capable of lifting the assault echelons of a single Marine Amphibious Force (MAF) and a separate Marine Amphibious Brigade (MAB), by the end of the Cold War the amphibious landing fleet could lift little more than two brigades of Marines. 168 Amphibious ships comprised only 9.7 percent

¹⁶⁶ See "Maritime Prepositioning Force," at http://www.msc.navy.mil/PM3/mpf.asp.

Operational Handbook 7-6, *Maritime Prepositioning Force (MPF) Operations* (Quantico, VA: Marine Corps Development and Education Command, June 1987), pp. 1-1 - 1-3, ES-2.

is the largest MAGTF. It consists of a headquarters, a Marine division, a full Marine Air Wing, and a large logistical organization called the Force Service Support Group. It numbers between 30,000-60,000 Marines. A Marine Amphibious Brigade (now called a Marine Expeditionary Brigade) is a medium-sized MAGTF, consisting of a headquarters, a Marine infantry regiment, a Marine Air Group, and a Brigade Service Support Group. It numbers between

of the battle fleet, and the ratio of "amphibs" to surface combatants had fallen from its World War II high of three-to-one to a post-World War II low of one-to-four. ¹⁶⁹ Most tellingly, the Marines could deploy and employ twice as many brigades using access-dependent means of deployment like the NALMEB and maritime prepositioning ships (four) than they could using the access independent amphibious assault fleet (approximately two).

A QUESTION OF DEPLOYMENT AND EMPLOYMENT

The foregoing discussion should make plain one of the fundamental differences between the Expeditionary and Garrison Phases of US military development: armed forces relied upon assured forward access, and the ability of the joint force to secure that access if it was initially denied. The ultimate World War II Sea as Base Joint Power-projection Fleet reflected the basic conditions of contested or uncertain theater access, and was designed to provide US commanders with the maximum degree of operational independence and freedom of action. In sharp contrast, the Cold War Strategic Military Transportation System was an "accessensitive" garrison reinforcement system heavily dependent on the availability of deep water ports, bases, and airfields in a forward theater.

The distinction between the World War II Seabased Power-projection Fleet and the Cold War Strategic Military Transportation System is best explained by envisioning expeditionary power-projection operations as involving four basic steps: the *deployment* of combat units; the *employment* of combat units; the *sustainment* of units in combat; and the *reconstitution and redeployment* of forces. A force designed for uncertain access like the World War II Joint Power-projection Fleet considers the first two steps—the deployment and employment of combat *units*—as one seamless step, requiring that units be transported and inserted in *ready-to-fight condition*. *In other words, the units are capa*-

^{4,000-18,000} Marines. Polmar, Ships and Aircraft of the US Fleet, eighteenth edition, pp. 45-46.

¹⁶⁹ In 1945, there were 2,547 amphibious ships and 810 major surface combatants (battleships, cruisers, destroyers, and frigates). In 1987, there were 59 amphibious ships and 223 major surface combatants. See "US Navy Active Ship Force Levels, 1945" at http://www.history.navy.mil/branches/org9-4c.htm.

ble of conducting long-range operational maneuvers and transitioning from deployment to direct combat operations with little pause.

In sharp contrast, a force designed primarily for assured access garrison reinforcement missions like the Garrison Era's Strategic Military Transportation System considers the deployment and employment steps as being separate and distinct. This allows units to be broken up and deployed as separate packets of personnel, equipment, and supplies, and then reassembled for employment in a forward theater. Only after the units are reassembled are they then ready for combat. In other words, most forces transported by the Strategic Military Transportation System are **not** in a ready-to-fight condition when they first arrive in a distant theater.

The numbers help to tell the story. Recall that by the end of World War II, the Seabased Operational Maneuver Fleet could lift 13 division equivalents. These seabased assault forces could be augmented by an additional five airborne divisions, giving the US a total of 18 "access-insensitive" assault divisions out of a combined Army and Marine force structure of 96 divisions (nearly 19 percent). By the end of the Cold War, the vestigial amphibious landing fleet could lift perhaps two brigades, and the Army maintained four airborne brigades, giving the US a total of two division equivalents of access-insensitive assault divisions out of a combined force structure of 32 Army, Army National Guard, and Marine Divisions (six percent). To Moreover, the ratio of heavy seabased (amphibious) to light (airborne) access-insensitive units was completely reversed, from 2.6:1 at the end of World War II to 1:2 at the end of the Cold War.

A New Planning Focus: RSOI

As a result, planning for the *employment* of Marine units from amphibious assault shipping received precious little attention beyond Marine Corps battle staffs—and even they found little reason to do so—especially after the dissolution of standing MEB staffs. Instead, the primary

¹⁷⁰ The 1990 ground combat force structure consisted of 18 active Army Divisions, three active Marine Corps Divisions, ten National Guard Divisions, and one reserve Marine Division. For a recap of the Army and National Guard Divisions, see "1990 Divisions," at http://www.globalsecurity.org/military/agency/army/division.htm.

focus of joint planning efforts during the Cold War/Garrison Era was speeding up the *deployment* timeline of units transported by the Strategic Military Transportation System, and minimizing the time necessary to ready them for combat. In the process, planning for and constructing detailed landing plans and tables gradually lost out to plans for improving the process of marrying up personnel with either land or maritime prepositioned sets of equipment or equipment transported to theater and preparing them for combat—a process that became known as reception, staging, onward movement, and integration (RSOI). As described in joint doctrine:

RSOI encompasses all of the activities needed to receive a unit's equipment and personnel at air and sea ports of debarkation; activities necessary to reorganize personnel and equipment into cohesive units following strategic airlift and sealift; their movement forward to marshaling, staging, and tactical assembly areas; and their integration into the Combatant Commander's command and control and logistics structures.¹⁷¹

Depending on the method of prepositioning and the condition of the equipment, this process might take up to a week or longer. Naturally, then, given the priority operational requirement to reinforce rapidly forward garrisons or crisis response forces, reducing the time necessary to conduct RSOI became a key focus of service plans, exercises, and experimentation.

THE DEATH OF SEABASING?

As the Garrison Era progressed, despite the continual, gradual deemphasis of seabased power-projection and naval maneuver, the diminution of the amphibious landing fleet, and the priority focus on rapid reinforcement missions under conditions of assured access, the Marines worked to prevent the ideas of naval maneuver and the broader concept of seabasing from completely washing out of the battle force. For example, in 1971, one Marine officer wrote that:

Joint Pub 4-01.8, Joint Tactics Techniques, and Procedures for Joint Reception, Staging, Onward Movement, and Integration, available on the JDTC homepage at www.jdtc.transcom.mil. See also "RSOI" at http://www.jdtc.jfcom.mil/ DeploymentFAQ/faqpage11.htm.

The time is upon us, when we no longer are tied to the buildup on the beach as a sine qua non of an amphibious operation. We can cut the umbilical cord of shore based facilities, including beaches, beach exits, gradients, airfields, ports, etc., and operate entirely from bases afloat. Seabase is the coming era of the amphibious force...It is a way of providing an appropriate sized landing force anywhere in the world. The requirement for "stepping stones" or land bases on foreign soil is drastically reduced or in some cases eliminated...¹⁷²

Also, during the 1980s, over three decades after the Inchon landing, the Marines introduced the idea of over-the-horizon (OTH) amphibious assaults, trumpeted as "the most dramatic change [in amphibious operations] since the *Tentative Manual for Landing Operations* was published in 1934." Using new mobility systems such as the MV-22 tiltrotor aircraft, the CH-53E heavy lift helicopter, the high-speed Landing Craft Air Cushion, and new high-speed surface assault connectors, the Marines envisioned combined arms assaults being launched from ships 25 miles at sea directly toward inland objectives. Launching from overthe-horizon would provide a future amphibious force with defensive depth against guided missiles launched from the landward side of the littoral, would improve the likelihood of achieving surprise at a littoral penetration point and give the idea of naval maneuver a whole new operational dimension.¹⁷³

These new ideas about naval maneuver caused quite a bit of excitement in the Marine Corps, if nowhere else. As General P.X. Kelly, then-Commandant of the Marine Corps, wrote in 1986:

...the incremental advances we have experienced in the art of amphibious warfare will soon be giving way to an exciting era—in which the rapid pace of strategic, operational, and tactical improvements will transform the current renaissance into nothing less than an amphibious revolution.¹⁷⁴

¹⁷² Lieutenant Colonel J.W. Hammond, Jr., "Seabase: The True Amphibious Operation," Marine Corps Gazette, April 1971.

¹⁷³ Thomas C. Linn, "Over-the-Horizon Assault: The Future of the Corps," *Marine Corps Gazette*, December 1987, p. 44; see also Freidman, US *Amphibious Ships and Craft*, Chapter 16.

¹⁷⁴ General P.X. Kelley and Major Hugh K. O'Donnell, Jr., USMC, "The Amphibious Warfare Strategy," Supplement, *Proceedings*, January 1986, p. 29.

Regardless of their conceptual attractions to Marines, however, the strategic conditions of assured access in the Cold War argued against both the operational need for and the expenditure of national resources to maintain a powerful Seabased Operational Maneuver Fleet—much less grand new "seabases." It would take a change in the strategic environment on the scale that occurred between the Second World War and the Cold War to renew naval and joint interest in either large-scale combined arms attacks from the sea, or in new concepts on seabasing.

As fate would have it, this change was closer than anyone other than Marines might have thought.

IV. Back to the Future: The Joint Expeditionary Era

The whole power of the United States, to manifest itself, depends on the power to move ships and aircraft across the sea. Their mighty power is restricted; it is restricted by the very oceans which have protected them; the oceans which were their shield, have now become both threatening and a bar, a prison house through which they must struggle to bring armies, fleets, and air forces to bear upon the common problems we have to face.¹⁷⁵

Winston Churchill, 1942

THE RETURN TO AN EXPEDITIONARY POSTURE

The abrupt end to the Cold War, marked by the maintenance of powerful US forward garrisons in both Europe and Asia, took American defense planners largely by surprise. Even in 1989, in the midst of the ongoing upheaval occurring in Eastern Europe and just before the dismantling of the Berlin Wall, the Joint Chiefs still believed the Soviet Union would remain the most serious threat the United States through the 1990s.¹⁷⁶ However, Operation *Desert Shield/Desert Storm*, the 1990-91 US-led coalition action to eject Iraqi Forces from Kuwait, served to highlight the dramatic shift in the strategic environment in a way no other event might have. Heavy Army armored units, based in Germany for decades

¹⁷⁵ Benjamin W. Labaree, et al., *America and the Sea: A Maritime History* (Mystic, CT: The Museum of America and the Sea, 1998), p. 9.

¹⁷⁶ See for example Lorna S. Jaffe, *The Development of the Base Force 1989-1992* (Washington, DC: Joint History Office, Office of the Chairman of the Joint Chiefs of Staff, July 1993), p. 2.

to guard against the possibility of a Soviet attack through the Fulda Gap, were transferred from their European garrisons to Saudi Arabia to participate in the operation—an event unthinkable even five years before.

Just as significantly, during *Desert Storm*, a two-brigade Amphibious Task Force (ATF), comprised of over 30 ships carrying nearly 17,000 Marines and their equipment, stood ready to launch and support a forcible entry into Kuwait—the largest planned operational opposed landing since the 1950 landing at Inchon. Tellingly, the requirement for seabased assault shipping exceeded the amphibious lift capacity of Operational Maneuver Fleet; the shortfall was remedied by using hastily reconfigured MPF ships. 177 Although the amphibious assault never occurred because the battle fleet lacked the ability to counter Iraqi-laid mines, just the threat of such an assault was credited with diverting seven Iraqi divisions away from the main allied attack. Moreover, as implied in after action reports, such an operation might have been required despite the risks, had the Iraqis continued their initial attacks and overrun ports and airfields located in Saudi Arabia. 178

After the war, as it became clear that the implosion of the Soviet Union was irreversible, US defense planning was seized by the uncertainty that typically accompanies a shift from one strategic era to another. The entire global strategy of the United States and familiar, four-decade old planning assumptions needed to be re-evaluated. Based on the experience of *Desert Storm*, however, one thing appeared certain: the need to maintain strong US garrisons overseas would diminish over time and the US global posture would change dramatically.

Sixteen years after the reunification of Germany and fourteen years after the final dissolution of the Soviet Union, the drawdown of forces stationed overseas continues. Nevertheless, the US global posture is increasingly settled. The primary base and jumping off point for most overseas US expeditions is once again the continental United States. While these CONUS-based forces will be augmented by forward-based and rotational, forward-deployed forces, for major power-projection operations most US forces will originate from American soil. These

¹⁷⁷ For a nice overview of this planning, see Major Charles M. Herndon, USMC, "Amphibious Forces: The Gulf War (A Study in Quick Response and the Versatility of Amphibious Forces)," US Marine Corps Command and Staff College, 1992, found online at http://www.globalsecurity.org/military/library/report/1992/HCM.htm.

¹⁷⁸ The "The United States Navy in 'Desert Shield/Desert Storm'," found online at http://www.history. navy.mil/wars/dstorm/index.html.

expeditions will continue to be supported by a residual Cold War basing infrastructure, but these bases will increasingly serve as "coaling stations" for forces headed to a combat operation from the United States, or from adjacent theaters, or both.

The transition to the new strategic era and the gradual relocation of US combat forces to US-controlled territory occurred against the backdrop of a decade and a half of frenetic global military activity. In this new era, freed from the requirement to be immediately ready for full-scale war against the Soviet Union, US leaders employed the military for a variety of tasks, and operational tempo for all of the armed forces climbed dramatically. In the narrow span of 16 years, the United States fought two major wars with Iraq, conducted armed interventions in Panama, Somalia, Bosnia, Kosovo, and Afghanistan, and committed armed forces in a number and variety of places and circumstances. During this period of high "op tempo," the term *expeditionary* gradually necessarily infused the lexicon of all of the services, much to the chagrin of the Marine Corps, which felt in had cornered the (expeditionary) market during the Cold War.

Indeed, the return to an expeditionary posture was accompanied by changes of varying degrees to the organizational structures of all of the US armed forces. These changes were made to allow the services to better support frequent rotational deployments, overseas expeditions, and power-projection operations emanating from CONUS. Not surprisingly, the Navy and Marine Corps had the fewest changes to make; they simply updated the rotational patrol and scouting model they developed during the Cold War. For its part, the Air Force adopted a variation of the same model. In the mid- to late-1990s, as part of its new Aerospace Expeditionary Force (AEF) concept, the Air Force organized its forces into ten AEFs and adopted a rotational pattern in which two were always ready for immediate deployment. As for the Army, it took the embarrassment of Task Force Hawk (to be discussed later) and the stresses brought on by the "Global War on Terror" to spur its ongoing transition from a division-based organization into 42 active and 28 National Guard modular brigade combat teams, providing a rotation base capable of indefinitely maintaining up to 20 brigades in forward operating theaters.¹⁷⁹

¹⁷⁹ "Army to Slow Growth and Cut Six National Guard Brigades," *Washington Post*, January 19, 2006, p. 3.

These developments bear a strong similarity with the general conditions of Oceanic Phase of US national policy and the Expeditionary Era of US military development, when the majority of US power-projection forces were likewise stationed in the continental United States or in US home waters. As it did then, the focus of US defense strategists and military planners is now gradually shifting away from Europe and towards Asia, albeit with a wider aperture. Rather than focusing solely on Japan and China, today's national security focus is on the "arc of instability" that extends from the Persian Gulf (Southwest Asia) to North Korea (Northeast Asia).

The emerging US overseas basing network is also broadly similar to that of the Expeditionary Era. As it did then, the evolving US global basing posture relies on a backbone of sovereign bases and facilities in the Pacific, located in Hawaii and Alaska, on Midway and Wake Islands, and on Guam and Kwajalein. Although the United States no longer has sovereign Western Pacific basing hub in the Philippines, it does have strong bilateral security treaties with Japan and South Korea, trusted allies that give US forces access to major sea, air, and ground facilities in the far reaches of the Pacific. Similar arrangements with Australia, another trusted ally, gives the United States ready access to its superb ports, logistics support facilitates, and training ranges on the edge of the Indian Ocean. The main difference between the basing structures found in the current and earlier era is that the US now has permanent access to forward bases in Southwest Asia and the Indian Ocean—regions now far more important to US national security strategy than they were before World War II. Here, the naval support facilities in Bahrain and on the island of Diego Garcia are particularly important. Overlaid upon this structure is the residual Cold War basing structure in Europe, which is now considered a "strategic trampoline" for US forces deploying from the United States toward Africa and Asia.

Mirroring US concerns in the earlier era about losing forward access to both Guam and the Philippines early in a confrontation with the Imperial Japanese Navy, defense planners are increasingly worried about maintaining future forward base access when and where it is needed. This problem, merely suggested after *Desert Storm*, was first raised in a serious way by the 1997 National Defense Panel (NDP), an independent body tasked by Congress to critique the 1997 Quadrennial Defense Review (QDR) and to provide its own alternative strategic review. The panel warned that future access to forward bases would be less assured over time, for two key reasons. First, absent a compelling,

unifying threat like the expansionist Soviet Empire, political access would have to be negotiated on a case by case basis, and could not be counted upon. Depending on the crisis, even reliable allies might balk at the prospect of US forces mounting offensive combat operations from their soil. Second, the vulnerability of fixed forward bases to ballistic and cruise missiles, possibly armed with weapons of mass destruction (WMD), would likely increase over time:

Even if we retain the necessary bases and port infrastructure to support forward deployed forces, they will be vulnerable to strike that could reduce or neutralize their utility. Precision strikes, weapons of mass destruction, and cruise and ballistic missiles all represent threats to our forward presence, particularly at stand off ranges. So, too, do they threaten access to strategic geographic areas [of importance to the United States]. 180

Juxtaposed against the similarities between the current national security policy phase/military era and the Oceanic Phase/Expeditionary Era are several striking differences. *Strategically*, the key difference is that that instead of being just one of a number of competing global powers, the United States is now the sole "super power." As such, despite the implosion of the Soviet Union, US global responsibilities continue to require substantial military capacities and capabilities. The standing "peacetime" US armed forces are thus larger and far more capable than those maintained in the Oceanic Phase, particularly the land forces.

Institutionally, the US military now consists exclusively of volunteers. Adopted in 1973, the All-Volunteer Force eventually resulted in a high-quality, motivated force which proved to be without peer during Operation Desert Storm and numerous subsequent battlefield operations throughout the 1990s. However, both the costs of maintaining this force and the annual rate of cost increases began to increase dramatically after the end of the Cold War. Indeed, today the average cost for an active duty service member stands at \$112,000. 181 As a result, the force is managed, used, and designed in ways unimaginable during the Oce-

National Defense Panel, *Transforming Defense: National Security in the 21st Century* (Washington DC: National Defense Panel, 1997), p. 12. The Panel's final report can be found on the Defense Strategy Review Page online at http://www.comw.org/qdr/97qdr.html.

¹⁸¹ See Jenny Mandel, "Military Spending on Pay, Benefits Spiraling Upward," *GovExec.com*, January 18, 2006.

anic Phase/Expeditionary Era, when peacetime forces were small and poorly paid and the majority of wartime forces consisted of conscripts.

Just one example of how the volunteer force has changed US force management has been the aforementioned attempts by all of the services to create rotational deployment pools large enough to keep the high operational tempo of the past 16 years from negatively impacting force retention. Even these efforts have proven to be insufficient, forcing the Army to recently double enlistment bonuses to \$40,000 for active duty personnel and \$20,000 for reserves, to boost the maximum reenlistment benefit offered to personnel in hard-to-fill positions from \$60,000 to \$90,000, and to increase the maximum recruiting age. With costs such as these, services simply can no longer afford the "conscript mentality" of the earlier age, when labor was considered a free good. As a consequence, all of the services now substitute civilians for military personnel whenever possible, and all services—particularly the Air Force and Navy—expend an extraordinary amount of effort to substitute capital for manpower where appropriate.

Operationally, the key difference between now and then is the degree of joint collaboration now embedded in US force design, operational planning, and campaign execution. During the Expeditionary Era, joint operations involving the Navy, Marine Corps, and Army Air Corps were guided by the principle of "mutual cooperation." More often than not, in actual practice this meant the services collaborated only when it was in their own best interests to do so. Despite repeated attempts by successive Cold War Administrations to achieve "unified action of the armed forces" during the Garrison Era, the services were able to jealously guard and maintain their own independence. From the Congressional perspective, this independence did not translate particularly well into collaborative and effective operational performance. The mixed or unhappy outcomes of the Korean and Vietnam Wars, fumbled operations such as the Mayaguez Incident and the Iranian Hostage Rescue mission, and the glaring joint planning and execution failures evident during interventions in Grenada and Beirut all helped to convince Congress that improved battlefield results would never occur unless the power and independence of the individual services was curbed. As a

¹⁸² Mandel, "Military Spending on Pay, Benefits Spiraling Upward."

¹⁸³ Ridding the Navy and Marine Corps of the "conscript mentality" was a central theme of Richard Danzig's tenure as 71st Secretary of the Navy.

result, by the early 1980s, Congress moved ever closer toward legislating measures designed to do just that.¹⁸⁴

In the end, over the objections of all of the services, and particularly those of the Navy and Marines, the will of the Congress prevailed. The 1986 Goldwater-Nichols Act, enacted in the waning years of the Cold War, mandated changes designed to weaken the power of individual services, to improve the power of unified Joint commanders and their staffs, and to spur better joint battlefield operations. 185 These changes were felt during the immediate transition period between the Transoceanic Phase/Cold War to the new national security policy era. Operation Desert Storm, the US-led operation to eject Iraqi forces from Kuwait, occurring only five years after the Act's passage, was the first major war waged under the new law. While there were many reasons contributing to the decisive American victory, the operation's rapid and successful outcome was widely attributed by Congressional and political leaders to the increased power of the military's principal spokesman, Chairman of the Joint Chiefs Colin Powell, the operation's overall Joint commander, General Norman Schwarzkopf, and to the improved unified action of the armed forces that resulted from that power.

The war's successful conclusion helped to drive several nails in the coffin of service independence and to cause the idea of improved "jointness" to flourish. The war prompted continual and ever-more insistent calls from Congress for the improvements in joint equipment interoperability and operational cooperation. The positive results could be seen during the major combat phase of Operation *Iraqi Freedom* (OIF), conducted just 17 years after the passage of the Goldwater-Nichols Act and just 12 years after the Operation *Desert Storm*. OIF came as close as any operation to date to achieving the intent of the Act. American air, ground, sea, space, "cyberspace," and special operations forces operated in relatively smooth, synchronized fashion, and their actions were thoroughly integrated in a fast-moving, hard-hitting, multidimensional campaign. As explained by Admiral Edmund P. Giambastiani, then Commander of the US Joint Forces Command:

¹⁸⁴ See "The Goldwater-Nichols Act Of 1986: Resurgence In Defense Reform and the Legacy of Eisenhower," at http://www.globalsecurity. org/military/library/report/1989/PGH.htm.

¹⁸⁵ See "Goldwater-Nichols Act," at http://en.wikipedia.org/wiki/Goldwater-Nichols_Act. The definitive story about the Act's enactment is found in James R. Locher III, *Victory on the Potomac* (Texas A&M University Military History Series, No. 79, 2004).

Under this [joint] construct, the emphasis is no longer just on numbers—which remain important—but rather on harnessing all the capabilities that our Services and Special Operations Forces bring to the battlespace in a coherently joint way. Advances in technologies, coupled with innovative warfighting concepts joined together by a new joint culture, are enabling a level of coherent military operations that we have never been able to achieve before. . . . The emphasis now is on the effectiveness of joint capabilities employed at times and places of our choosing to achieve strategic effects. General Franks later remarked on this level of jointness, saying "Operation *Iraqi Freedom* was the most joint and combined operation in American history." 186

Indeed, the return to an expeditionary posture and the simultaneous emergence of an increasingly capable and integrated joint all volunteer force suggests a name for the new post-Cold War phase of military development, even in the absence of a catchy phrase to describe the post-Cold War phase of national policy: *the Joint Expeditionary Era*.

The Joint Expeditionary Era differs from the first Expeditionary Era in two additional important ways: the maturation of the Guided Weapons Warfare Regime; and the standing of the US battle fleet in the global naval competition. Both warrant more detailed examination.

THE MATURATION OF THE GUIDED WEAPONS WARFARE REGIME

Warfare throughout most of the Expeditionary Era, like all warfare since the development of gunpowder, rifles, cannon, machine guns and artillery, was fought with unguided weapons. The accuracy of a purely ballistic or unguided weapon decreases as the range to target increases. As a result, warfare in the Unguided Weapons Warfare Regime at the

Statement by Admiral Edmund P. Giambastiani, Jr., Commander, United States Joint Forces Command and Supreme Allied Commander Transformation (NATO) on Lessons Learned from Operation *Iraqi Freedom* before The House Armed Services Committee, United States House Of Representatives, October 2, 2003, found online at http://www.jfcom.mil/newslink/storyarchive/2003/pa100203.htm.

operational level emphasized mass and close battle, and tactical engagements were marked by the prolific expenditure of ammunition. ¹⁸⁷

As stated earlier, in 1943, in the waning years of the Expeditionary Era, an acoustic homing torpedo dropped from a US Navy patrol plane sank a German U-boat in the Atlantic. This was the first use in combat of a guided weapon. Guided weapons, or, to be more precise, actively guided, *non-nuclear* weapons, are conventional projectiles, rockets, bombs, missiles, torpedoes or other weapons or munitions that can actively correct their flight path, trajectory, or course after being released, fired, or launched, and guide themselves toward a particular target or to a geospatial coordinate. In essence, active guidance or trajectory correction transformed weapons and munitions that mostly missed into weapons and munitions that mostly hit—or hit close enough to have the desired effect against a chosen target—out to a weapon's maximum range. The result was an entirely new and novel warfighting regime that sparked an eventual "revolution in war" as profound, if not more so, as the one sparked by the advent of nuclear weapons.

After the Second World War, and throughout the first two decades of the Cold War that followed, guided weapons were introduced in a variety of different tactical warfare areas, particularly air-to-air combat; ground-based anti-air warfare; fleet air defenses; anti-submarine warfare; naval surface combat; and anti-tank warfare. Interestingly, it was not until Vietnam that interest in air-to-ground guided weapons manifested itself on a scale evident in other tactical combat domains, and even then the primary motivation was not to increase bombing accuracy so much as to protect air crews from increasingly accurate

¹⁸⁷ Much of my thinking on the Guided Weapons Warfare Regime has been shaped by discussions with Barry D. Watts, and especially from reading his *Six Decades of Guided Weapons: An Assessment of Progress and Prospects* (Washington, DC: Center for Strategic and Budgetary Assessments). The author used the manuscript dated July 22, 2004 for this report.

The distinct phases of the Guided Weapons Warfare Regime described in this report were inspired by the work of Watts, *Six Decades of Guided Weapons: An Assessment of Progress and Prospects*, and Michael G. Vickers and Robert C. Martinage, *The Revolution in War* (Washington, DC: The Center for Strategic and Budgetary Assessments, December 2004).

¹⁸⁹ Watts, Six Decades of Guided Weapons: An Assessment of Progress and Prospects, p. 1.

¹⁹⁰ Watts, Six Decades of Guided Weapons: An Assessment of Progress and Prospects, p. 1.

surface-to-air guided missile fire.¹⁹¹ Even during this first exploratory phase of the Guided Weapons Warfare Regime, the development of guided weapons had important strategic effects, such as driving strategic reconnaissance systems into space, out of the range of increasingly accurate and lethal continental, land-based SAMs.

The development of these early guided weapons helped to spur the expanded development of sensing, planning, targeting and fire control networks to exploit their extended-range accuracy. For example, the development of naval SAMs and long-range air-to-air missiles lead to the development of automated task force data networks; strategic SAMs lead to the development of automated and integrated continental air defense networks; beyond visual range air-to-air missiles led to new air battle management networks; and tactical SAMs and radar-controlled guns spawned integrated air defense systems (networks). To be sure, engagement networks existed before the development of guided weapons; the World War II British Integrated Air Defense and the US Navy Task Force Defense Networks were both developed to exploit the long-range sensing power of radar, not guided weapons.¹⁹² However, the desire to exploit the full potential of guided weapons over increasingly longer ranges undoubtedly accelerated the development of more and more powerful sensing, planning, targeting, and fire control networks.

Two key events marked the beginning of the second phase of the Guided Weapons Warfare Regime. The first was the sobering combat results of guided weapons warfare during the final year of air operations over Vietnam in 1972 and during the 1973 Arab-Israeli War. 193

¹⁹¹ Norman Friedman, "Fighting Far From the Sea," *Proceedings*, December 2001, p. 4.

¹⁹² I would like to thank Dr. Andrew Krepinevich for pointing this out, and in helping to craft this section.

¹⁹³ Over 28,500 air-to-ground guided weapons were dropped during the Vietnam War. However, over 10,500 of them were dropped in the last year of air operations over Vietnam. Of these, over 5,100 were assessed to be direct hits, and an additional 4,000 hit within 25 feet of their intended targets. The Egyptian and Syrian Integrated Air Defense Networks, equipped with the SAM-6 mobile surface-to air-missile, shot down 114 Israeli aircraft—most in the first three days of the Arab-Israeli War. Indeed, both air operations over Vietnam and the 1973 Arab-Israeli war indicated the daunting power of modern IADS armed with guided missiles: "Experience in Vietnam and the 1973 Arab-Israeli war indicated that highly defended targets would yield to successful attack only when protected and attacked by large 'force packages' to get strike aircraft into and out of a target area. A typical force package during the 1972 Linebacker I campaign consisted of 62 combat aircraft (less air refuelers) to get

Taken together, these two events indicated the growing lethality of operations in Guided Weapon Warfare Regime. Indeed, they helped to spur moves toward both stealth and unmanned aircraft, primarily because the survivability of manned air systems in the face of Integrated Air Defense Networks employing guided weapons appeared to be very much open to doubt.¹⁹⁴

The second key event was the development of the digital microprocessor, which occurred between 1970 and 1974. The guided weapons used during Vietnam and the 1973 Arab-Israeli War were the product of analog technology and vacuum tubes and, as a result, they were often unreliable. The development of digital microprocessors promised to make guided weapons much more reliable and accurate. Just as importantly, the microprocessors would make the sensors that provided the weapons their targeting information much more sensitive, and the sharing of data between sensors and networks more effective. The implication was that the fully mature digital phase of the Guided Weapons Warfare regime would be even more deadly to fighting forces than in the analog phase. 196

16 fighter-bombers into and out of a target area. This cut down the number of targets that could be attacked at any time." Finally, widespread Egyptian and Syrian use of guided anti-tank missiles severely bloodied Israeli armor units. See Watts, *Six Decades of Guided Weapons: An Assessment of Progress and Prospects*; Brigadier General David A. Deptula, "Firing for Effects," *Air Force Magazine* April 2001; and Robert S. Bolia, "Over Reliance on Technology In Warfare; The Yom Kippur War as a Case Study," *Parameters*, Summer 2004, pp. 46-56.

Ever since the development of radar, designers had considered ways by which to lower the radar cross section of aircraft to reduce their detectability. However, the 1973 Arab-Israeli War and air operations over North Vietnam spurred the first pursuit of "stealth" aircraft, which led to the development of the F-117, introduced in 1982. See "F-117 Development," at http://www.vectorsite.net/avf117_1.html#m1.

Three projects arguably delivered a complete microprocessor at about the same time: Garrett AiResearch's Central Air Data Computer, completed in 1970; Texas Instruments' four-bit TMS 1000, introduced in September 1971; and Intel's four-bit 4004, introduced in November 1971. The first eightbit microprocessor, the Intel 8008, was introduced in April 1972. It was the predecessor of the famous Intel 8080 eight-bit CPU released in April 1974. Running at 2 MHz, the 8080 is generally considered to be the first truly usable microprocessor CPU design, and is this report's benchmark for the true start of the "microprocessor revolution." See "Microprocessor," at http://en.wikipedia.org/wiki/Microprocessor#The_first_chips.

¹⁹⁶ One thoughtful officer in the Office of Net Assessment, Colonel Tom Ehrhard, USAF, often refers to the American RMA as a direct spin-off of the "microprocessor revolution."

In 1975, soon after these two events, the US defense establishment was turning its attention away from Vietnam and toward the knotty operational problem of defending NATO from large-scale, Soviet combined arms attacks. Up until this time, planners assumed that tactical nuclear weapons might be required to blunt such attacks. Thinking about the impact that more accurate and deadly conventional guided weapons might have on the NATO defense problem led planners to make two key judgments: that "conventional weapons with near zero miss" were technically possible; and that these types of weapons would lower the likelihood that tactical nuclear weapons would be needed to defeat Soviet attacks. 197

As a result, the pursuit of guided conventional weapons became an explicit US national security policy objective. Programs such as *Assault Breaker* ultimately led to the development of new sensor systems such as the Joint Surveillance and Target Attack Radar System (JSTARS), as well as new long-range air-to-ground and ground-to-ground guided weapons such as the Army Tactical Missile System (ATACMS). Their operational impact was reflected in the new US doctrine of AirLand Battle, and its NATO counterpart, "Follow-on Forces Attack." 199

By the mid-1980s, after carefully considering the impact that conventional guided weapons had and would continue to have on the conduct of warfare, Soviet military theorists concluded that the gradual combination and integration of networks designed to employ guided weapons in single operational dimensions (e.g., air-to-air, surface-to-

¹⁹⁷ Watts, Six Decades of Guided Weapons: An Assessment of Progress and Prospects.

¹⁹⁸ The DARPA Assault Breaker program aimed to develop a system-of-systems to detect and destroy concentrations of mobile tank forces behind the front line. The studies resulted in the development of stand-off airborne sensors like JSTARS, and ground-launched guided missiles armed with TGSMs (Terminally Guided Submunitions), which are guided to the target area by the long-range surveillance and control radar carried on the JSTARs. The missile ultimately became the Army Tactical Missile System (ATACMS); the Avro "Skeet" was one of many resulting submunitions. See "JSTARS," at http://www.airforcetechnology.com/projects/jstars; and "Assault Breaker," at http://www.designation-systems.net/dusrm/app4/assault-breaker.html.

¹⁹⁹ For a selected biography on the development of AirLand Battle doctrine, see http://carlisle-www.army.mil/usamhi/Bibliographies/ReferenceBibliographies/doctrine/airbatt.doc. For a discussion about Follow-on Forces Attack and the technologies necessary to make it work, see "Technologies for NATO's Follow-on Forces Attack," at http://www.wws.princeton.edu/~ota/disk2/1986/8630_n.html.

air, air-to-ground) would ultimately lead to the development of powerful conventional air-land "reconnaissance strike complexes," or *guided weapon battle networks*.²⁰⁰ In their view, because the massed employment of guided conventional weapons promised to achieve the same destructive effects as nuclear weapons, a military technical "revolution" was in the offing, one in which "close battle"—the earmark of operations in the Unguided Weapons Warfare Regime—would no longer be decisive at the operational level of war.²⁰¹

Despite the relatively small number of guided weapons employed and the rudimentary capabilities of the associated sensing, planning, targeting and fire control networks, the impressive US victory in *Desert Storm* appeared to confirm the Soviet theorists' conclusion. Accordingly, after the war, more and more US military officers began to speak of a broader "Revolution in Military Affairs" (RMA) based on better guided weapons, better sensors, better information, and improved networking of forces.²⁰² As just one of many examples, Admiral J.T. Howe, Commander-in-Chief, US Naval Force Europe, spoke for many Navy officers when he said:

Desert Storm demonstrated the necessity for...guided munitions. Laser guided bombs (and their advanced successors such as inertially-aided munitions), SLAM, and TLAM have all proven their worth, both militarily and politically. We need to maintain the technological edge these weapons give, both through continued research and development, preplanned product improvement (P3I), and in maintenance of sufficient munitions in our arsenal to cope with likely future contingencies.²⁰³

²⁰⁰ As far as I know, the Soviets did not use the term "guided weapons battle networks;" this is a convention used by me throughout the report to describe the system of system "complexes" envisioned by Soviet military theorists.

²⁰¹ Watts, Six Decades of Guided Weapons: An Assessment of Progress and Prospects.

²⁰² For a good discussion on RMAs, see James R. Fitzsimonds and Jan M. van Tol, "Revolutions in Military Affairs," *Joint Forces Quarterly*, Spring 2004, pp. 24-31.

²⁰³ In "The United States Navy in 'Desert Shield/Desert Storm'." SLAM stands for Standoff Land Attack Missile, a modification of the Navy's *Harpoon* anti-ship cruise missile. A TLAM is the widely used *Tomahawk* Land Attack Missile.

Of course, the dramatic improvement in American battlefield performance evident in the first Persian Gulf War and throughout the 1990s was not due solely to improved guided weapons or the networks that controlled them. Equally important were the improved quality of the men and women in the US all-volunteer armed forces and the "Revolution in Joint Military Affairs" sparked by the Goldwater-Nichols Act of 1986. Without question, however, the Joint Expeditionary Era saw a more aggressive pursuit of guided weapons by all US armed services, the formation of increasingly integrated and capable *Joint Multidimensional Battle Networks*, and dramatically more capable and lethal US combat operations, especially against what are now referred to as "traditional" military adversaries.

OF SHIP COUNTS AND COMMAND OF THE SEAS

Indeed, the battle fleet's early and persistent embrace of guided weapons helps to explain another key difference between the Joint Expeditionary Era and the first Expeditionary Era. Instead of being just one of several major naval powers vying for the number one spot in the global naval competition, the United States finds itself to be the most capable naval power in the world—by a wide and ever increasing margin. As a consequence, the United States no longer needs to concern itself about fighting across the world's oceans to project its power overseas. Indeed, it enjoys such a measure of naval superiority that the US and its allies can claim unchallenged command of the seas.

This important strategic development is often lost because of the shrill protestations by naval proponents over the post-Cold War reductions to the *Total Ship Battle Force* (TSBF), the ships the Department of the Navy officially counts as part of its war fleet.²⁰⁴ At first glance, the figures are troubling. Between September 30, 1989, and September 30, 1997, the size of the TSBF fell from 592 to 365 ships.²⁰⁵ That year,

²⁰⁴ The Navy operates well over 100 ships in a fleet category entitled *Local Defense and Miscellaneous Support Forces*. These are not included in the TSBF count. See "Fleet Size," Naval Vessel Register, at http://www.nvr.navy.mil/nvrships/FLEET.HTM.

²⁰⁵ The official TSBF numbers on these two dates were drawn from "US Navy Active Ship Force Levels," found at http://www.history. navy.mil/branches/org9-4.htm#1945.

the first Congressionally-mandated Quadrennial Defense Review set the post-Cold War fleet "floor" at approximately 305 ships.²⁰⁶ However, by December 31, 2005, the fleet had shrunk even further, to 278 ships.²⁰⁷ This number represents a hefty 53 percent decrease in fleet size since the end of the Cold War.

For naval proponents, the dismantling of the Cold War "600-ship Navy" has been a mistake of monumental proportions, and they make constant disparaging comparisons between the size of the smaller Joint Expeditionary Era fleet and the Cold War fleet that was designed and sized to fight and win against a powerful naval near-peer. For example:

...make no mistake: [the United States Navy] is a navy in crisis...The Reagan administration was the first since World War Two to acknowledge that a great nation needs a great navy. Navy Secretary John Lehman created a fleet of 600 ships and submarines...The 600-ship Navy has now shrunk to 288, and the number will continue to shrink as more of our ships become old and obsolete...[I]f we do not confront reality, we may be facing not just an Incredible Shrinking Navy, but shrinking American power around the world, as well.²⁰⁸

This single- and simple-minded focus on fleet numbers is a hangover caused by a century-long preoccupation with *fleet tactics*—the battle for sea control or command of the seas.²⁰⁹ After 1890, when Alfred Thayer Mahan inspired the grand transformation of the US battle fleet from a dispersed force designed for blockade breaking and commerce warfare to a concentrated battleship navy designed to take on opposing armored battle lines, the overriding goal of American naval planning was to achieve primacy over an enemy navy and to claim the sea as a secure base of operations. Except towards the end of World War II and during its immediate aftermath—when the Navy had no fleets to

²⁰⁶ William S. Cohen, Secretary of Defense, *Report of the Quadrennial Defense Review* (Washington, DC: Office of the Secretary of Defense, May 1997), found online at http://www.comw.org/qdr/97qdr.html. The QDR did not explicitly designate a TSBF target was 305 ships. This number came from the Review's supporting documentation.

²⁰⁷ "US Navy Active Ship Force Levels," reviewed on January 2, 2006.

²⁰⁸ Arthur Herman, "Our Incredible Shrinking Navy," New York Post Online Edition, June 9, 2005.

²⁰⁹ Captain Wayne P. Hughes, Jr., USN (ret), *Fleet Tactics and Coastal Combat*, second edition (Annapolis, MD: Naval Institute Press, 2000), p. 8.

fight—the fleet tactics designed to achieve this goal were attrition-oriented, and the metrics for success were numbers-oriented: numbers of ships in opposing fleets; numbers of ship casualties; numbers of ships put out of action on the two sides, etc.²¹⁰ However, with the 1991 implosion of the Soviet Union and the subsequent scrapping of much of the Soviet fleet, the US Navy found itself with no credible opposing naval power with which to compare itself against. As a result, naval proponents were reduced to *comparing the size of the current US fleet with past US fleets*.

Such comparisons are both silly and misleading. Comparing the size of today's fleet with past US fleets provides absolutely no indication of the Navy's current dominating position in the global naval competition. Consider the following:

- The US Navy alone operates a battle fleet that displaces some 2.85 million tons. The entire rest of the world (ROW) operates a combined war fleet of 3.03 million tons. Only 17 navies operate fleets with an aggregate displacement greater than 50,000 tons, and 15 of these are operated by US friends, allies, or strategic partners. At the height of its naval dominance, England strove to achieve at least a "two-navy standard." That is, British naval planners aimed to maintain a navy that was as large as the combined fleets of the closest two naval powers. In terms of aggregate warship tonnage, then, the United States enjoys a "17-navy standard." Indeed, at 94 percent of the total aggregate ROW tonnage, the warships in the US battle fleet displaces nearly as much as all other warships in the world's navies. combined.²¹¹
- Of the world's 15 ships capable of launching and landing heavy fixed-wing or short take-off and arrested landing (STOAL) aircraft, the United States operates 12 (80 percent). The French, Brazilian, and Russian navies operate one each. Of the 19 VTOL/STOVL-capable ships in the world, the United States operates 12 (63 percent). The remaining seven are relatively small CVVs operated exclusively by US allies/strategic partners: the Royal Navy operates three, while

²¹⁰ Hughes, *Fleet Tactics and Coastal Combat*, second edition, pp. 8-9.

²¹¹ These figures are derived from Robert O. Work, "To Take and Keep the Lead:" A Naval Fleet Platform Architecture for Enduring Maritime Supremacy (Washington, DC: Center for Strategic and Budgetary Assessments, 2006).

India, Spain, Italy, and Thailand operate one each.²¹² In summary, then, the *United States operates 2.4 times more aviation seabases than the rest of the world's navies combined, and it has eight times as many aviation seabases than that of the nearest ROW fleet.*

- The US surface battle line has nearly completed a two decade-long conversion to an all vertical launch system (VLS)-equipped fleet. Of the 70 guided missile cruisers and destrovers in its inventory on December 31, 2005, only one was armed with legacy rail missile launchers. The ROW surface combatant fleet is now just starting a general conversion to the VLS, which combines the magazine and launcher within the ship's hull. Not only is this arrangement more reliable and less maintenance intensive than below-deck magazines. it is far more space efficient, allowing a VLS-equipped ship to carry a far larger missile load than a similarly-sized rail- armed combatant. Because of the US head-start in the VLS conversion, the US battle line now has nearly one-and-a-half times the number of VLSequipped warships than the next 17 navies combined. Moreover, because its ships are generally bigger and can carry more payload than most ROW warships, the Navy enjoys a greater than four-to-one advantage in the total number of VLS cells. This gives the US surface fleet an enormous advantage in guided missile firepower. *Indeed, the* 70 large US surface warships can carry more guided missiles than the 366 ships in the 17 next largest navies, combined. 213
- In 1990, as the Cold War was coming to a close, the US submarine fleet numbered 93 attack submarines. Facing this fleet was a Soviet tactical submarine force consisting of 72 guided missile submarines, 64 nuclear-attack submarines, and approximately 65 conventional submarines, for a combined tactical submarine force of 201 boats. In addition, the Soviet Navy operated 63 strategic guided missile submarines.²¹⁴ Despite the resulting force ratio of one US boat for

²¹² CVV is the designator used by *Jane's Fighting Ships* to describe VTOL/STOVL carriers without a well deck. The largest of these ships is the Indian CVV *Viraat*, a converted British medium aircraft carrier, with a FLD of 28,700 tons. The smallest is the Thai CVV *Chakri Nareubet*, with a FLD of just 11,485 tons

²¹³ Work, "To Take and Keep the Lead:" A Naval Fleet Platform Architecture for Enduring Maritime Supremacu.

²¹⁴ Russian fleet numbers are taken from "Russian Warships," found at http://www.globalsecurity.org/military/world/russia/ship.htm. US numbers are taken from "Ship Force Levels, 1886-present," at http://www.history.navy.mil/nhc3.htm.

every 2.84 Soviet submarines, the US submarine fleet was confident it could take on the Soviets and win. Today, 53 US attack boats face two submarine fleets that might reasonably be considered potential US adversaries—those operated by the Chinese and Russian navies. The combined Chinese-Russian tactical submarine fleet numbers approximately 27 nuclear-powered SSGNs and SSNs, and 67 conventional boats. In addition, the Russian Navy has only about 12 operational SSBNs, and the Chinese Navy, one, for a combined submarine fleet of 107 boats.²¹⁵ This makes the current overall ratio of US to Chinese/Russian boats one-to-2.02—a dramatic improvement over the 1990 ratio. This means that the contemporary comparative submarine force ratio for two potential adversaries is much better than the force ratio against just one adversary during the Cold War. And, of course, by concentrating its fleet against any single adversary, the US fleet would enjoy a comparative force ratio of close to one-to-one, or better.

As these comparisons suggest, those that compare the current US battle fleet with past US fleets are engaged in a wasteful and destructive waste of time. Today's fleet will never fire a shot in anger against a past US fleet. Instead, it may engage in fights against future US adversaries in which *relative US combat capability* will be the deciding factor. As former Chief of Naval Operations (CNO) Admiral Vern Clark told the Senate Armed Service Committee in 2005:

²¹⁵ Current Russian submarine numbers are difficult to track, due to the general state of disrepair of the Russian fleet. Jane's Fighting Ships, 2004-2005 counts eight SSGNs (seven Oscars, one Yankee Notch), 15 SSNs (eight Akulas, one Sierra II, one Sierra I, and five Victor IIIs), and 13 SSKs (Kilo class), for a total force structure of 23 nuclear boats and 13 conventional boats. Combat Fleets of the World, 2005-2006, counts nine SSGNs (eight Oscars, one Yankee Notch), 17 SSNs (ten Akulas, one Sierra II, one Sierra I, and five Victor IIIs), and seven SSKs (*Kilo* class), for a total of 26 nuclear boats and seven conventional boats. Global Security.Org counts seven SSGNs (six Oscars, one Yankee Notch), 15 SSNs (nine Akulas, three Sierras, one Victor III, and two Yankee Is), and 18 SSKs (Kilos), for a total of 22 nuclear boats and 18 conventional boats. The disparity in Chinese submarine numbers is not as striking. Jane's counts four Han SSNs, Combat Fleets, three. Jane's counts eight Songs, four Kilos, 20 Mings, 22 active Romeos, and ten reserve Romeos, for an active conventional fleet of 54 boats. Combat Fleets counts five Songs, five Kilos, 18 Mings, and "up to 32 Romeos," with some in reserve, for a maximum active conventional fleet of 60 boats. For consistency, this report uses the numbers found in Jane's Fighting Ships.

The number of ships in the fleet is important. But it is no longer the only, nor the most meaningful, measure of combat capability. Just as the number of people is no longer the primary yardstick by which we measure the strength or productivity of an organization, the number of ships is not the only way to gauge the Navy's health or combat capability...In fact, today's Navy can deliver more combat power than we could twenty years ago when we had twice as many ships and half again as many people.²¹⁶

Admiral Clark's comparisons between past and current US naval combat power and contemporary comparisons between the US and other naval powers like those above lead to a single conclusion: despite being smaller than the Cold War US fleet *in numbers*, the current size and *capabilities* of the US battle fleet makes it the world's most powerful naval force in the world by a steadily growing margin. Indeed, since the end of the Cold War, the United States has achieved a level of global naval superiority it has not enjoyed since the decade immediately after World War II, and a command of the high seas unmatched by few great powers at any time in history.

Thus, a natural question for defense and naval strategists and planners in the Joint Expeditionary Era is: how should the United States exploit its unchallenged command of the seas?

A Renewed Emphasis on Seabased Power-projection

The first order answer to this question caused a rapid announced shift in naval planning and operational focus toward the world's littorals, or "narrow seas"—just as it did in the closing years of World War II when the US battle fleet sailed the oceans with little concern for Japanese and German naval power.²¹⁷ As early as 1992, just one year after the final

Statement of Admiral Vern Clark, US Navy, Chief of Naval Operations, before the Senate Armed Services Committee, April 12, 2005, p. 4. Admiral Clark's testimony can be found at http://www.navy.mil/navydata/cno/testimony/clark050412.pdf.

²¹⁷ As one noted naval strategist and tactician has said, however, the US Navy never truly left the littorals, except for its World War II cross-Pacific drive. The

collapse of the Soviet Union, and two years after the near-amphibious landing during *Desert Storm*, naval strategists wrote in the their first post-Cold War vision, entitled ...*From the Sea*, that:

Our ability to command the seas in areas where we anticipate future operations allows us to resize our naval forces and to concentrate more on capabilities required in the complex operating environment of the "littoral" or coastlines of the earth...As a result, our...policies can afford to de-emphasize efforts in some naval warfare areas...We must structure a fundamentally different naval force to respond to strategic demands, and that new force must be sufficiently flexible and powerful to satisfy enduring national security requirements.²¹⁸

However, saying that the battle fleet's new competitive arena had shifted from the open oceans to the world's littorals and that the fleet would have to change as a result failed in any way to capture the profound implications of having unchallenged command of the seas. The basic functions of all navies—regardless of their strength or dispositions—are captured in a tightly coupled, four-part matrix. *At sea*, navies: (1) assure that friendly goods and services are safe, and (2) that an enemy's are not. *From the Sea*, they (3) guarantee safe delivery of friendly goods and services ashore, and (4) prevent delivery ashore by an enemy navy.²¹⁹ For 100 years, from 1890 through the fall of the Berlin Wall and the subsequent dissolution of the Soviet Union, the nature of the global naval competition compelled naval strategists and tacticians to focus primarily on the first two fleet functions. In contrast, the post-Cold War advent of unchallenged US naval superiority compelled them to shift the primary focus of their attention to the latter two functions.

Continental Era saw the battle fleet operate predominately in the littorals; the Cold War was marked by persistent global patrolling and scouting operations in the littorals, as well as persistent strike operations. Even in World War II, the Solomons campaign was a littoral fight. For an expansion of the Navy's long operational experience in the littorals, see Hughes, *Fleet Tactics and Coastal Combat*.

²¹⁸ Sean O'Keefe, Admiral Frank B. Kelso II, US Navy, General C.E. Mundy, ...From the Sea (Washington, DC: Department of the Navy, September 1992), found at http://www.globalsecurity.orgmilitary/library/ policy/navy/fts. htm#INTRO.

²¹⁹ Hughes, Jr., Fleet Tactics and Coastal Combat, second edition, p. 9.

This shift in attention, and its implications for the Joint Expeditionary Era, is well explained by naval analyst and strategist Geoffrey Till:

One characteristic of the [emerging global sea-based trading system] is that it has hugely increased the level of economic interdependence and drastically decreased the importance of geographic distance—so that what happens "over there" matters far more to us "here" than it once did. Hence, navies are being required to act together in common cause to *project military power ashore, particularly in expeditionary operations at a distance from the home base.* Freed in many cases from the ...need to fight to make use of the open ocean, navies can now concentrate on exploiting that control... But this requires them, to some extent at least, to shift priorities from the sea to the land, from power at sea to power from the sea (emphasis added).²²⁰

Said another way, because of US command of the seas the US battle fleet needed to turn its attention to the efficient *movement and delivery of joint goods and services* across the high seas and into either friendly or hostile territory from waters adjacent to that territory, and on preventing an adversary from effectively denying this activity. On the other hand, ROW navies threatened by US power-projection operations were forced to emphasize the fourth function naval: denying the delivery of US goods (e.g., combat units and equipment) and services (offensive strikes, defensive fires, and joint logistics support) from and through their own coastal waters.²²¹

This discussion thus helps to highlight or explain four inter-related post-Cold War developments: first, the emergence of so-called naval "anti-access and area-denial" (A2/AD) strategies—a direct result of the US battle fleet's formidable naval strength and unfettered control of the broad "ocean commons;" second, the renewed attention that US naval officers have placed on power-projection during the Joint Expeditionary Era; third, the concomitant increased priority placed by the Navy and Marines on naval maneuver, and the increased priority that both

Geoffrey Till, "Navies and the New World Order," *Proceedings*, March 2005, p. 61.

²²¹ Hughes, Jr., *Fleet Tactics and Coastal Combat*, second edition, p. 2.

services now place on overcoming emerging A2/AD challenges;²²² and the increased joint interest in seabased power-projection capabilities.

THE EMERGENCE OF JOINT LITTORAL WARFARE

With regard to this last development, the requirement to deliver joint goods and services across the high seas, projecting naval *and* joint power in support of joint campaigns, and denying any enemy opportunity to stop these things would likely have compelled naval planers and commanders to more closely couple battle fleet operations with those of the Air Force, Army, and special operations forces than they had at any time during the Cold War—even absent the dictates of the 1986 Goldwater-Nichols Act. This was a lesson learned once before in the crucible of global combat operations from 1943 through 1945, when the Joint Sea as Base Power-projection Fleet worked hand-in-hand with all of the services to project *joint* combat power ashore. The emerging strategic conditions in the Joint Expeditionary Era seem to force all of the services to remember and relearn that hard-earned lesson.

If anything, the need to remember and relearn this lesson would be even more evident and pressing given the maturation of the Guided Weapons Warfare Regime. Given the US Navy's demonstrated capabilities in blue water operations, and because the costs for mounting an open-ocean challenge to the US Navy are beyond all but a very few nations, many of the naval sensors and guided weapons of states focused on denying the delivery of US goods and services through their coastal waters have been moved either ashore or into space. These sensors and weapons include, among other things, space-based radars and electronic surveillance systems: shore-based over-the-horizon radars: coastal aerostats equipped with maritime surveillance radars; landbased unmanned aerial reconnaissance and attack systems; land-based maritime patrol aircraft; long-range maritime strike aircraft armed with guided anti-ship cruise missiles; and shore-based, mobile cruise missile batteries. As a result, the navies of many contemporary coastal states and continental powers "are so predominately shore-based that

²²² For a complete discussion about emerging A2/AD challenges, see Andrew Krepinevich, Barry Watts, & Robert Work, *Meeting the Anti-Access and Area-Denial Challenge* (Washington, DC: Center for Strategic and Budgetary Assessments, 2003).

the true strength of [their] fleets is literally and metaphorically invisible." ²²³ Moreover, these "shore-based navies" do not face the depth of magazine problem faced by a power-projection navy at the end of a transoceanic voyage, and their sensors and weapons are unconstrained by the payload and volume constraints faced by ship designers.

Thus, naval warfare in the Joint Expeditionary Era will involve the direct collision of forces operating on the sea with forces operating ashore in ways more akin to operations at the end of World War II than anything seen during the Cold War. Moreover, due to the development of increasingly capable guided weapons and the networks that target and control them, these collisions will occur at greater and greater distances from the coastline, and they are likely to be far more lethal than in the past. For example, there are reports that by 2009 the Chinese will field new long-range anti-ship ballistic missiles armed with maneuvering reentry vehicles that can target ships at sea at ranges up to 2,500 kilometers (km), or 1,350 nautical miles (nm). The battle fleet as yet has no reliable, effective defenses against such missiles.²²⁴ As a result:

Virtually all intelligence and operational estimates suggest that war in the 21st century will require interdependence among land, sea, and aerospace forces. The services report that precision weapons will so expand the range and capabilities of systems that the tactical deadly zone, once a few hundred meters, could extend beyond 200 kilometers by 2020. Operational exclusion zones, designed to deny access to land, sea, and aerospace forces, might reach 2,000 kilometers. Each is likely to be flooded with an admixture of technologically sophisticated and relatively crude precision and area-fire weapons (including weapons of mass destruction) linked by communication systems from state-ofthe-art to relatively primitive...Thus service interdependence will be necessary at the low and high end of the conflict spectrum.²²⁵

Hughes, Jr., Fleet Tactics and Coastal Combat, second edition, p. 8.

²²⁴ Ted Parsons, "China Develops Anti-ship Missile," *Jane's Defense Weekly*, January 25, 2006.

²²⁵ Lieutenant Colonel Autulio J. Echevarria II, "Interdependent Maneuver for the 21st Century," *Joint Forces Quarterly*, Autumn 2000, p. 11.

Only the most economically advantaged and technologically savvy nations will be able to develop such multidimensional "operational exclusions zones." That said, in some theaters and against some potential adversaries, the battle fleet now can track the development of a rapidly expanding guided weapon "beaten zone" between the US's secure base of operations on the open oceans and a prospective adversary's defended coastline. The demands of operating from beyond, within, and through this zone will certainly demand increased service interdependence. Indeed, they will demand the development of new tactics, techniques, and procedures for new forms of *joint littoral warfare* in which the distinctions between sea, land, and air combat will increasingly blur. As one naval tactician has written:

The most instructive modern naval engagements for control of coastal regions have been fought by land, sea, and air forces acting in concert, with missiles as the principal weapons. *Perhaps the navies of the world should no longer refer to "naval tactics" at all. It is more reasonable to think in terms of littoral tactics that include warships* (emphasis added).²²⁶

Such thinking—in close congruence with the thinking about *maritime* strategy, an operations perhaps best espoused a century ago by noted naval strategist Sir Julian Corbett—will be a critical requirement in the Joint Expeditionary Era. Future joint littoral warfare operations will undoubtedly include Air Force counter-space operations against an enemy's space-based maritime targeting network; long-range Air Force bomber and missile strikes against shore-based space control facilities, over-the-horizon targeting radars, airfields, or missile batteries; joint special operations attacks against ocean surveillance nodes or high value coastal defense assets; and possibly Army air-dropped or air-landed operations to roll-back enemy shore-based defenses—all either before friendly naval forces come within engagement range, or in concert with naval strikes from the seas.

A RENAISSANCE FOR SEABASING

Therefore, as has been repeatedly stressed—and was convincingly demonstrated during the first Expeditionary Era—seabasing and naval

Hughes, Jr., Fleet Tactics and Coastal Combat, second edition, pp. 2-3.

maneuver in the Joint Expeditionary Era will most often be a component of *joint power-projection operations* rather than of independent naval campaigns. Once again, in the words of Geoffrey Till:

Maritime power projection...mandates a thoroughly joint force, which is much more than the sum of its parts. This requires a shift from looking at general inputs (Are carrier-based aircraft more or less useful than land-based aircraft?) to specific output (What is the required effect and how might it best be achieved in this case?) This shift toward effects-based operation[s] is both facilitated by and predicated on [joint] networkenabled capabilities that challenge traditional naval ways of doing things and some ancient naval expectations about operational independence and freedom of maneuver (emphasis added).²²⁷

The critical philosophical and conceptual distinctions between the naval and maritime concepts of seabasing will be continually highlighted throughout the remainder of this report. For now, however, it is enough to say that the transition from the Cold War/Garrison Era to the Joint Expeditionary Era; growing uncertainty over the degree and surety of overseas access; the maturation of the Guided Weapons Warfare Regime; the dominating degree of US maritime superiority; the obvious strategic need to reconsider joint seabased power-projection; and the operational impetus for joint littoral warfare compels *all* of the services—not just the Navy and Marine Corps—to begin to think anew about how to *project power* across the world's oceans rather than just *moving garrison reinforcements* over and on the seas.

In the eloquent words of Winston Churchill found at the start of this chapter, the oceans have once again become a "prison house" through which the United States has to struggle "to bring armies, fleets, and air forces to bear upon the common problems we have to face" (emphasis added). Given the natural uneasiness felt by any military force over relying on "uncertain neutrals and doubtful allies" to support this aim, and faced once again with the prospect of confronting adversaries intent on contesting the US for forward access, the joint force is thus equally compelled to once again think coherently about how to seize advance bases and forward theater access when and if necessary, possibly in the face of guided weapon or even nuclear attack. In

²²⁷ Till, "Navies and the New World Order," p. 62.

other worlds, all of the services need to once again think in terms of transoceanic expeditionary movement *and* maneuver.

Hopefully, then, the last three chapters helped put to rest any notion that seabasing is any sort of new, "transformational" concept. *It is, quite simply, a maritime concept whose time has come again.* While it is highly unlikely that any future seabase will need to support the projection of joint combat power "to a greater extent" than it did during the latter stages of World War II (as is suggested in *Sea Power 21*), the conditions of the new Joint Expeditionary Era have made updated seabasing concepts an attractive, even irresistible, option for joint and naval planners.

If true, one might reasonably expect that the Joint Staff and the four services to have by now forged a common conception of seabasing guided by the lessons of the past; a collaborative agreement on what benefits seabasing brings to the joint force in the form of global freedom of action and maritime operations; and an agreed upon prioritization of joint and service seabasing efforts. Unfortunately, however, as will be discussed in the next two chapters, while it may appear on the surface that each of these three things has occurred, the truth is anything but.

V. Seabasing Makes a Comeback: The Evolution of Seabasing through 2001

With its command of the sea it is now possible for the United States Navy to *develop the base-characteristics* of the world's oceans to a much greater degree than it has in the past, and to extend significantly the "floating base" which it originated in World War II. *The objective should be to perform as far as practical the functions now performed on land at sea bases closer to the scene of operations* (emphasis added).²²⁸

Samuel Huntington, 1954

The last chapter benefits from over a decade-and-a-half of strategic hindsight. As is common during the turbulent transition between two strategic eras, however, the strategic conditions that called for a renewed interest in seabasing were not immediately apparent to defense strategists and planners. Therefore, over the first 16 years of the Joint Expeditionary Era, all of the services began to pursue improved capabilities to project and sustain joint combat power over, across, and from the world's oceans at their own pace and in a disjointed manner—driven and shaped more by operational and institutional instinct than by any agreed upon joint conceptual framework. These instincts were linked by one key, common shared desire: to increase US operational independence and global freedom of action in a world characterized by uncertain or contested forward access. As a result, to use an old saw, the actual evolution of US seabasing thought in the Joint Expeditionary Era has resembled sausage making in that it has been sometimes ugly and messy. It remains to be seen if these thoughts form to a tasty joint conclusion.

Huntington, "National Policy and the Transoceanic Navy," p. 491.

Even with the benefit of hindsight, however, it is surprising that it took so long for US defense and service strategists and planners to begin to question the basic planning assumption of assured access that so prominently characterized the Cold War. The clues were plain to see. In the late 1980s, as it became clearer and clearer that the Soviet Union was in grave trouble, Spain refused to extend a basing agreement with the United States that would give its forces continued access to Torrejon Air Base near Madrid.²²⁹ Then, in September 1991, the Philippines Senate voted to end the nearly century-long basing relationship with the United States by rejecting a treaty that would extend US use of the naval facilities in Subic Bay and the huge airbase at Clark Field. This decision blocked further US access to two facilities had provided critical support of US operations throughout the Cold War, particularly during the wars in Korea and Vietnam. 230 And as was previously discussed, in the very first war of the era, fought little more than one year after the fall of the Berlin Wall, the US planned the largest amphibious assault since Inchon. That it didn't take place was less because of its operational irrelevancy, and more because of the ready availability of nearby land bases and the sad state of disrepair of US naval forcible entry capabilities, particularly in its mine countermeasures forces.²³¹ Taken together, these three events gave two clear hints about how different the new strategic era would be from the last: forward access would be no longer assured, even with previously reliable allies; and when access was denied, a viable naval maneuver capability might prove to be a useful thing to have.

However, as was learned by General Colin Powell, Chairman of the Joint Chiefs of Staff from October 1989 through September 1993 (the period that marked the turbulent inter-era transition between the Cold War and the Joint Expeditionary Era), getting the Joint Chiefs and the services to make adjustments to account for the rapidly changing strategic environment would prove to be a difficult task. Uncertainty, conservatism, and institutional inertia helped to convince many military officers to retain the successful planning models of the previous national security era. As a result, General Powell's efforts—which ultimately were to lead to the articulation of a new "Base Force" (not forces for military bases, but a floor for the initial post-Cold War demobilization)—were

²²⁹ Cooley, *Base Politics*, p. 83.

²³⁰ "US Bases in the Philippines," found online at http://www.wowessays.com/dbase/ae4/lmy301.shtml.

²³¹ "The United States Navy in 'Desert Shield/Desert Storm'."

marked by sharp debate and acrimony.²³² More to the point, the initial decisions made about both the Seabased Operational Maneuver Fleet and the Strategic Military Transportation System reflected much more the conditions of the Cold War than those that would ultimately mark the new Joint Expeditionary Era.

DON LIFT II, THE MRS, THE BUR, AND MRS BURU

A good example of the influence of Garrison Era thinking was the 1990 Integrated Amphibious Operations and USMC Air Support Requirements Study, now commonly referred to as the DoN Lift II Study. Informed by this study, Navy and Marine planners recommended that the battle fleet's amphibious lift requirement be set at three Marine Expeditionary Brigades—slightly less than the final Cold War goal, established in an era where the actual requirement for seizing forward access was unlikely, at best. However, soon thereafter, in anticipation of lower post-Cold War defense budgets, and reflective of the Navy's growing disinterest in paying for the amphibious lift requirement, the Secretary of the Navy decided to established a lower, "fiscally constrained goal" of 2.5 MEB amphibious lift.²³³

In other words, the first move made by DoN leadership during the Joint Expeditionary Era was to reduce the Department's ability to conduct naval maneuver and forcible entry operations from the sea—both critical capabilities for transoceanic power-projection and important guarantors of US operational independence and freedom of action. This decision reflected the still-entrenched Cold War assumptions about assured forward access—reinforced by the ready access to land

²³² See especially Lorna S. Jaffe, *The Development of the Base Force, 1989-1992* (Washington, DC: Office of the Chairman of the Joint Chiefs of Staff, July 1993), found online at http://www.dtic.mil/doctrine/jel/history/ baseforce. pdf

Robinson, Integrated Amphibious Operations Update Study (DoN Lift 2+)—A Short History of the Amphibious Lift Requirements (Alexandria, VA: The Center for Naval Analysis, July 2002). See especially pp. 24-29. See also.Lieutenant Colonel Robert C. Dickinson, Jr., USMC, "What is the Right Strategic Sealift Mix to Deploy, Equip, Supply, and Sustain Contingency and Expeditionary Forces," Executive Research Project S16, Industrial College of the Armed Forces, National Defense University, 1993, found online at http://www.ndu.edu/library/ic6/93S16.pdf.

bases negotiated during Operation *Desert Storm*; the priority placed on the transoceanic garrison reinforcement mission; and Navy antipathy toward building up the fleet's capability to conduct large-scale combined arms attacks from the sea.

All three of these conditions were again evident in the 1992 Mobility Requirements Study (MRS), which was mandated by Congress after Operation Desert Storm/Shield, initiated by the first Bush Administration, and reaffirmed in the first term of the Clinton Administration in the subsequent MRS Bottom-Up Review Update (MRS BURU). These two studies reflected the lessons of *Desert Storm* as expressed in a new post-Cold War defense strategy first outlined in the 1993 Bottom-Up Review (BUR). In essence, this "new" strategy simply regionalized the Cold War inner-German border defense problem. It required the US armed services to be ready to respond to "major regional contingencies," or MRCs, involving "an armor-heavy, combined-arms offensive against the outnumbered forces of a neighboring state" in a region outside Europe. To both hedge against adversarial opportunism and to help maintain force structure during the post-Cold War demobilization, the strategy called for a force large and capable enough of responding to two "near simultaneous" MRCs. 234

Throughout the Cold War, US defense planners expected war to break out in one of two ways—an attempted Soviet invasion of Central Europe or the Persian Gulf—and that combat operations would quickly spread to the other major theater as well as the Pacific.²³⁵ As a result, the United States fully expected to conduct major combat operations in at least two widely separated theaters. Thus the only real new wrinkle in the emerging defense strategy was that, consistent with a return to the aforementioned CONUS-based expeditionary posture, the two nearsimultaneous MRCs would be "short notice' scenario(s) in which only a modest number of U.S. forces are in a region at the outset of hostilities" (emphasis added). Central to the new strategy was a requirement "to minimize the territory and critical facilities that an invader can capture," by using quick deployment forces backed up by massed guided weapons fire to "rapidly halt" the initial invasion. The strategy then went on to say, "Once an enemy attack had been stopped and the front stabilized, U.S. and allied efforts would focus on continuing to build up

²³⁴ See the comments made in Les Aspin, Secretary of Defense, *Report on the Bottom Up Review* (Washington, DC: Office of the Secretary of Defense, October 1993), found online at http://www.fas.org/man/docs/bur.

²³⁵ Harkavy, "Thinking About Basing," p. 22.

combat forces and logistics support in the theater while reducing the enemy's capacity to fight" (emphasis added). After the build up, the US would conduct a counter-offensive to restore the *status quo ante*. ²³⁶

As is readily apparent, then, the two-MRC strategy rested on two key Cold War planning assumptions: the United States normally would be assisting an ally trying to defeat a direct cross-border attack; and the US armed forces would most often "be fighting as the leader of a coalition, with allies providing some support and combat forces." As such, the strategy implicitly rested upon a presumption of assured regional access, just as was the case during the four-decade long Transoceanic Era (i.e., the Cold War).

Not surprisingly, then, immediate post-Cold War requirement studies placed much higher emphasis on improving the mobility (movement) of reinforcements rather than on the operational maneuver of US forces In fairness, given the deficiencies in airlift and sealift highlighted during Operations Desert Shield/Desert Storm, this initial emphasis was likely well advised. For example, sealift planners learned the hard way that RRF ships in long-term inactive status suffer numerous problems when activated. Indeed, so problem-plagued were the activations that only 14 of the first 41 RRF ships reached their *loading ports* on time, causing delays in the delivery of equipment and supplies to Central Command. Problems were compounded by the fact that RRF were ships were old, generally incapable of handling containers, and ill-suited for the transport of bulky, outsized combat vehicles. As a result of all of these problems, the US was forced to initially rely more heavily on airlift than expected, and later had to charter over 300 foreign-flagged ships to support the massive transport of equipment and supplies in support of combat operations to eject the Iraqis from Kuwait. ²³⁷

The resulting emphasis on improving US transoceanic movement of reinforcements is well captured in the Secretary of Defense's 1996 Annual Report to Congress:

In the post-Cold War era, the drawdown of U.S. troop strength overseas and the increasing number of unstable situations abroad combine to place a high value

²³⁶ Aspin, Report on the Bottom Up Review.

²³⁷ See "Logistics Fixes That Took Root;" and Eric Schmitt, "US Insists it is Batter Prepared to Ship Arms and Equipment to Gulf This Time," *New York Times*, January 20, 2003.

on mobility forces...Mobility forces would be key to the *deployment and sustainment* of U.S. forces in any MRC. Should a conflict erupt with little warning, the United States would want to respond promptly and with sufficient strength *to help indigenous forces halt the aggression and restore the peace* (emphasis added).²³⁸

Thus, while the MRS, MRS BURU, and related service mobility studies recommended important improvements to US airlift, sealift, and prepositioning forces, the recommendations were made with little concern over the mobility forces' continued critical dependence on foreign ports and bases. The key recommendations made by these studies were that:²³⁹

- The Air Force should procure 120 new C-17 strategic airlifters, each capable of lifting large outsized cargo loads to austere airfields, and that the nation's Civil Reserve Aircraft Fleet be expanded;
- The eight FSSs in the surge sealift fleet, which together were capable of carrying the equipment for a full Army mechanized division, should be augmented by 11 new Large Medium-speed Roll-on/Roll-off ships (LMSRs), each capable of transporting 350,000 square feet of cargo (more than twice the capacity of the largest vessels used to support *Desert Storm*) at 24 knots. ²⁴⁰ Like the FSSs, the LMSRs would be deep-draft ships optimally designed for cargo offload while pierside;
- The sustainment sealift fleet should expand its organic RO/RO fleet to 35 ships through the purchase or leasing of available commercial ships, and that the readiness of the entire RRF should be improved by replacing RRF ships in inactive status with ships in "reduced operating status," and improving the activation process of the remaining inactive ships. Like the LMSRs, RO/ROs were generally deep-draft ships designed for pierside offload;

²³⁸ William J. Perry, Secretary of Defense, *1996 Annual Defense Report to Congress* (Washington, DC: Office of the Secretary of Defense, 1996), Chapter 21, found online at http://www.defenselink.mil/ execsec/adr96/chapt_21.html.

 $^{^{239}}$ Unless otherwise noted, the information below was drawn from the various studies mentioned.

²⁴⁰ Schmitt, "US Insists it is Batter Prepared to Ship Arms and Equipment to Gulf This Time;" and "Cargo-Fast Sealift Support (FSS)-Specialized."

- The Army's land-based pre-positioning program should be modified and reduced to retain four brigade sets of equipment in Germany; one brigade set in Italy; two brigade sets and divisional support equipment in Southwest Asia; and one brigade set of Army equipment in Korea. Moreover, the Marine Corps should retain a brigade's worth of equipment in Norway; and
- The maritime prepositioning fleet should be expanded, by:
 - Adding an additional ship to each of the Marines' Maritime Prepositioning Force squadrons to carry the equipment for a naval construction (Seabee) battalion, an expeditionary airfield, and a field hospital;
 - Creating a new Combat Prepositioning Force (CPF), a squadron of ships carrying an Army "2x2" brigade set consisting of two armored and two mechanized battalions, augmented with additional supplies and ammunition for follow-on Army units. The CPF would initially consist of leased ships, which would ultimately be replaced by eight gas-turbine powered LMSRs, resulting in an initial LMSR production target of 19 ships; and
 - Forming an expanded Logistics Prepositioning Force (LPF), including the two aforementioned Marine Corps Aviation Support Ships berthed in the United States, several container ships stationed in forward theaters carrying Air Force and Navy ammunition and supplies; and several tankers modified by the Defense Logistics Agency to serve as Offshore Petroleum Distribution Systems for joint forces operating ashore.

Notably, then, the ships in the maritime prepositioning fleet were, like the surge and sustainment sealift fleets, all large, deep draft ships optimized for unloading in deep-draft, prepared ports in benign conditions.

As will be discussed, these recommendations were ultimately implemented with little modification. The C-17 buy was later to increased to 180 airplanes; the final RO/RO count in the sustainment sealift fleet topped out at 31 ships; and a 20th LMSR was procured to be the third ship of an "enhanced" MPF squadron (MPF(E)). However, as can be seen by the nature of these recommendations, the early years of the Joint Expeditionary Era were marked by an assumption of con-

tinued assured access and a continued priority on the reception, staging, onward movement, and integration process of US reinforcements rapidly arriving in a distant theater.

LAND BASES AT SEA: THE MOBILE OFFSHORE BASE

The first indication that some were beginning to question these comfortable and reassuring Cold War assumptions was the appearance of a radically new seabasing initiative called the Mobile Offshore Base, or "MOB." The MOB was the brainchild of Admiral William Owens, Vice Chairman of the Joint Chiefs of Staff from March 1994 through February 1996, and an early and energetic proponent of the emerging American Revolution in Military Affairs. Admiral Owens saw the American RMA in terms of a system of systems being brought about by improvements in intelligence, surveillance, and reconnaissance (ISR); advanced command, control, communications, computers, and intelligence (C4I); and what he referred to as "precision force"—the operational manifestation of the rapid maturation of the Guided Weapons Warfare Regime.²⁴¹ He was instrumental in the 1996 publishing of *Joint Vision 2010*, a description of how the Joint Staff expected the confluence of these three complementary improvements would change future warfare.²⁴²

As envisioned by Admiral Owens—a nuclear submariner by trade—the MOB would take Huntington's idea about "perform(ing) as far as practical the functions now performed on land at sea bases closer to the scene of operations" to its most radical extreme by literally constructing a land base at sea. This is made clear by Owen's description of the MOB as "moveable American islands." As he first envisioned them, these "islands" would consist of large, modular ocean mega-structures that could be moved to and assembled in a Joint Operations Area to provide aviation, maintenance, supply, logistics and operational support for US and Allied forces. His original thinking envisioned a structure big enough to support 100 tactical aircraft and to support a full Army divi-

²⁴¹ James R. Blaker and Robert A. Manning, ed., *Understanding the American Revolution in Military Affairs: A Guide to America's 21st Century Defense* (Washington, DC: Progressive Policy Institute, January 1997), p. 7.

²⁴² General John M. Shalikasvili, Chairman of the Joint Chiefs of Staff, *Joint Vision 2010* (Washington, DC: Office of the Joint Chiefs of Staff, 1996), found online at http://www.dtic.mil/jv2010/jv2010.pdf.

sion.²⁴³ Later concepts were only slightly less ambitious, with completed MOBs envisioned as being two kilometers long and 120 to 170 meters wide, storing three *million* square feet of storage, ten *million* gallons of fuel, and billeting for a full combat brigade.²⁴⁴

The mere fact that such an astounding and expensive concept received such high level scrutiny and attention provided the first serious evidence that US military planners were becoming more aware of the great changes occurring in the post-Cold War strategic environment, and were beginning to question the automatic assumption of assured forward access. Huntington himself would likely have questioned the practicality or desirability of building a mobile offshore base, because he clearly viewed the sea as the base of operations and not just the things on it. Nevertheless, the strong advocacy of Admiral Owens and the undeniable lure of having what amounted to a movable sovereign land base on the sea ensured the concept would get a thorough, detailed look by the Joint staff. Also contributing to the concept's advocacy was the strong support of industry, which was itself attracted to the concept's undeniable financial lure. The result was a cottage industry of reports, studies, and technical feasibility experiments extolling the virtues of the MOB.245

It is important to note, however, that whatever else its merits, the MOB concept suffered from the prevalent Cold War thinking that separated the deployment and employment steps. As implied above, it envisioned separate MOB modules, stuffed with equipment, being transported to a JOA and being assembled into a complete MOB once there. US combat forces would be then flown to the base, where they would marry up with their equipment and prepare for combat. In other words, the concept merely moved the port and airfield necessary to conduct the RSOI function to sea, close off an enemy's coast.

Moreover, not explained by MOB advocates was why these huge offshore constructs would be any less vulnerable to attack from guided weapons or weapons of mass destruction than land bases. They also

²⁴³ Blaker and Manning, *Understanding the American Revolution in Military Affairs: A Guide to America's 21st Century Defense*, p. 19.

²⁴⁴ "Mobile Offshore Bases," at http://www.globalsecurity.org/military/systems/ship/mob.htm; and Christopher J. Castelli, "DoD Panel Mulls Seabasing Ideas, Including Mobile Offshore Bases," *Inside the Navy*, November 18, 2002, p. 1.

²⁴⁵ See Pat Towell, "Mobile Offshore Base' Proposal Has Slew of Powerful Opponents," *Congressional Quarterly Weekly*, February 15, 2003, p. 382.

ignored the operational and tactical limitations associated with conducting forcible entry operations into an enemy's defended territory if the requirement to do so became necessary. While the MOB was blessed with strategic mobility, it lacked the operational and tactical mobility of the amphibious landing fleet. Its slow erection anywhere along a coast would signal where the US intended to go, thereby robbing naval commanders from creating the state of "perpetual surprise" among enemy planners caused by rapid naval maneuver. Nevertheless, throughout the 1990s, the MOB concept garnered much attention and analysis by the Joint Staff, think tanks, war gamers, and industry. Tellingly, although the father of the concept was a Navy submariner, the service probably most unsupportive of the idea was the US Navy, which saw the MOB as a direct threat to its fleet of smaller, distributed aviation seabases—aircraft carriers.

THE DEFENSE SCIENCE BOARD TASK FORCE ON STRATEGIC MOBILITY: TOWARD GLOBAL EXPEDITIONARY MANEUVER AND MOVEMENT

In August 1996, as the Joint Staff and industry were busily studying and analyzing the MOB concept, the prestigious Defense Science Board (DSB) published the results of a Task Force on Strategic Mobility. The Task Force conducted a thorough review of the future requirements for US strategic mobility forces, and recommended that future mobility enhancements focus on several key areas, including: shaping the entire joint force for rapid response and minimizing the footprint of expeditionary forces ashore; improving the joint force's deployment architecture, planning, infrastructure and flow; improving information support for joint deployment planning and execution; improving lift and prepositioning capabilities; and improving the protection of forces entering the theater.

The Task Force made two specific recommendations: that the Navy replace the eight FSSs in the surge sealift fleet with ships at least 1.5 times faster (50+ knots), and that DoD closely monitor the commercial development of very large lighter-than-air craft with an ability

to transport 500 tons of cargo. 246 However, these modest recommendations do not convey the importance of the Task Force's good work, which in essence represented an indictment of the MRS and MRS BURU. Indeed, the Task Force's report explicitly questioned their assumptions of assured access to theater ports and airfields. As the Task Force pointedly noted, 96 percent of all cargo delivered during Operation *Desert Storm* over the sea went through just two seaports, and 78 percent of all cargo delivered by airlift went through just five airfields. Although Iraq failed to attack these facilities, allowing a smooth uninterrupted delivery of the allied invasion force, the Task Force questioned whether future adversaries would be as accommodating. 247

The Task Force therefore pounded on two key themes. First, future joint power-projection operations should strive to *minimize* the buildup of cargo, equipment, ammunition, or personnel at the sea and air ports of debarkation (POD) in a contested theater. Doing so would serve two purposes: it would help to avoid a supply backlog at a POD and decrease the vulnerability of US forces to attack. Second, joint planners had to rethink the whole issue of conducting RSOI in a contested theater. This second point was made when the report stated that "...the hand-off of personnel, equipment, and material from [US Transportation Command] to the [Regional Combatant Commander] at points of debarkation appears to be the 'critical seam' where disruption of the deployment flow is most likely to occur."²⁴⁸

These themes were both prescient and visionary. Taken together, they suggested that the Cold War Strategic Military Transportation System needed to be reshaped less to support the *movement of people*, *equipment*, *and supplies* across transoceanic ranges into uncontested and prepared theaters and more to support the *global transoceanic maneuver* and *subsequent movement of combat forces* into theaters with little developed infrastructure or against an enemy intent on denying the United States both access and operational freedom of action. This further implied that the US military needed to improve the Trans-

²⁴⁶ Jon D. Klaus, *Strategic Mobility Innovation: Options and Oversight Issues* (Washington, DC: Congressional Research Service (order code RL32887), dated April 29, 2005), pp. CRS-7 – CRS-8.

²⁴⁷ Klaus, Strategic Mobility Innovation: Options and Oversight Issues, p. CRS-8.

²⁴⁸ Defense Science Board, *Report of the Defense Science Task Force on Strategic Mobility* (Washington, DC: Undersecretary of Defense for Acquisition and Technology, August 1996), as cited in Klaus, *Strategic Mobility Innovation: Options and Oversight Issues*, p. CRS-8.

portation System's ability to support the global expeditionary maneuver of *intact*, *ready-to-fight combat forces*. In other words, it needed to be "transformed" into a *Global Expeditionary Maneuver and Movement System*.

It is important to note that the DSB Task for on Strategic Mobility did not in any sense suggest that future operations could be mounted without a reliance on forward land bases. Instead, they prudently focused on minimizing the footprint of US forces at these bases to the greatest extent possible. As will be seen, others took a different tack, suggesting that the vulnerability of land bases was such that their operational usefulness was bound to decline over time.

THE ARMY AFTER NEXT: INTRODUCING OPERATIONAL MANEUVER FROM STRATEGIC DISTANCES

The findings of the Defense Science Task Force on Strategic Mobility struck a chord with both Army and Marine planners. With regard to the Army, soon after the fall of the Berlin Wall and Operation Desert Storm—and extending throughout most of the 1990s—Army thinkers engaged in a broad experimental and conceptual development process designed to identify the "Army After Next" (AAN).²⁴⁹ The essential purpose of the AAN project was to develop new ways of thinking about projecting ready-to-fight Army combat units over long ranges. The result was a concept that became known as *operational maneuver from strategic distances*. This new concept clearly was in line with the DSB's thinking, in that its aim was to "...achieve a deployment momentum that not only permits *rapid seizure of the initiative* but also never relinquishes it" (emphasis added), by directly projecting intact combat forces into a JOA from locations outside a theater.²⁵⁰

²⁴⁹ There is a rich source of materials on the Army After Next project on the web. For a summary overview of the project, see "Army After Next," at http://www.sourcewatch.org/index.php?title=Army_After_Next.

²⁵⁰ Brigadier General Huba Wass de Czege and Lieutenant Colonel Zbigniew M. Majchrzak, US Army (ret), "Operational Maneuver From Strategic Distances," *Combined Arms Center Military Review*, May-June 2002.

The AAN Project explored both air- and seabased technological alternatives for conducting operational maneuver from strategic distances. The project's proponents for aerial maneuver options, led by Major General Robert H. Scales, Jr., drew most of the attention from observers both inside and outside the Army. These officers believed *air mechanization* operations involving the air landing of small, mobile armored combat units deep in the enemy's rear using new air maneuver transports to be the key signature of AAN operations. These operations would allow future Army units to perform "simultaneous, distributed, noncontiguous operations" involving units that would "*fight upon arrival* at multiple, austere entry points" (emphasis added).²⁵¹

Air mechanization was just another in a long line of Army concepts that can be traced all the way back to at least September 1945. In that month, the Army Air Force Scientific Advisory Group published a report entitled *Future Airborne Armies*. Its summary well captures the intent of the air mechanization school of thinking when it said:

Airborne operations will play a major part in the next war from the very beginning. Vital island bases and strategic outposts will have to be occupied and reinforced by air. Airborne operations deep in the enemy's strategic territory will not only be possible, they will be necessary. There must be developed the capability of deploying by air complete major combat units of the United States Army. It must be possible to do this at any time of day, under poor weather conditions, and at a practical operating radius of 2500 miles or more, depending on the world-political situation.²⁵²

The outspoken proponents of air mechanization were quite successful, influencing in no small way the subsequent thinking of both the Defense Science Board as well as the Office of Force Transformation. Both organizations were attracted by the lure of round-the-clock operations involving "new vertical maneuver warfighting concepts" that would

²⁵¹ Major General Robert H. Scales, Jr., USA, ret., "Operational Maneuver in 2015," an undated PowerPoint presentation.

²⁵² Major T.F. Walkowicz, Army Air Corps, *Future Airborne Armies: A Report Prepared for the AAF Scientific Advisory Group* (Dayton, OH: Headquarters Air Material Command, September 1945), p. 1.

provide a high degree of mobility at the operational and tactical levels of war and enable a force to both disperse and regroup quickly.²⁵³

While there were and are many intriguing ideas associated with air mechanization and deep vertical maneuver concepts, there were and are an equal number of troubling assertions, assumptions and omissions made by their proponents—first among them the astounding costs such an approach would entail. Moreover, the advocates have never adequately explained why these operations would be substantially less vulnerable in the Guided Weapons Warfare Regime than they were in the *Un*guided Weapons Warfare Regime, when they proved to be very vulnerable, indeed. Most alarmingly, the concept's proponents made increasingly outrageous and fanciful claims about the timeframe that these operations could be practically implemented, suggesting they could be conducted as soon as 2015 rather than in the time horizon associated with an Army *after next*.²⁵⁴ Such a timeline would be possible only if a substantial portion of the DoD topline were diverted to this cause.

Nevertheless, because of the tireless salesmanship of the air mechanization school, nearly lost in the public discussion about the findings of the Army After Next project were its references and emphasis on the development of new *seabased* maneuver options. Army planners and concept developers assigned to the AAN project were well aware of the lessons learned during the Oceanic Era and World War II, when most Army units conducting "operational maneuver from strategic distances" were carried to the fight as intact combat units *aboard amphibious ships*. It is not surprising, then, that the key recommendation made by two of the foremost strategists associated with the AAN project was that the Army should pursue a new type of *Shallow Draft High Speed Ship*, or SDHSS, as the best means to enable operational maneuver from strategic distances:

Of all air and sea, current and future, lift capabilities, shallow draft high-speed ships (SDHSS)—because of their speed, throughput capability, and capacity—most significantly impacted force closure. Air deployment remains the only way to rapidly establish the initial crisis-response presence of air expe-

²⁵³ Andrew Koch, "Boost for Sea-Basing Concept," *Jane's Defense Weekly*, August 13, 2003.

²⁵⁴ See for example Scales, "Operational Maneuver in 2015."

ditionary forces and a division equivalent of ground forces needed to preclude enemy forces' early success. But after a few days, SDHSS had a distinct advantage. It was the only strategic platform that could deliver troops and equipment together in sufficient size to bring immediate combat power to bear. While in transit, commanders could conduct en route planning and receive intelligence updates. Moreover, the SDHSS did not require a fixed port because it could discharge its combat power wherever there was at least a 10-foot draft and an acceptable beach gradient or discharge site. Troops drove the future combat system (FCS) from the ship ready to fight onward to the tactical assembly area (emphasis added).²⁵⁵

In other words, while light air landed forces had their place, "access-insensitive" heavy forces from the sea—delivered in ready-to-fight condition—would play a much more decisive role. As a consequence of this judgment, in addition to larger SDHSSs with transoceanic ranges, Army After Next planners also espoused the virtues of smaller, intra-theater range, high-speed Theater Support Vessels (TSVs). Like the SDHSSs, the TSVs were envisioned as ships able to transport and discharge either intact combat units or supplies. However, by virtue of their more compact size and shallower drafts, the TSVs could deliver their cargo through even smaller, more austere ports and across more beaches, providing Army and Joint force commanders with enormous flexibility in deploying and employing combat power. In the words of the AAN planners:

The TSV was initially used in the strategic role. Thereafter, it was another source of agility and flexibility as it allowed the [joint force commander] to insert combat power and sustainment with precision in a quickly changing environment. Not limited to ports, the TSV could operate in countless locations along the coast without losing efficiency.²⁵⁶

 $^{^{\}rm 255}$ Wass de Czege and Majchrzak, "Operational Maneuver From Strategic Distances."

²⁵⁶ Wass de Czege and Majchrzak, "Operational Maneuver From Strategic Distances."

Needless to say, the Army's (re)embrace of seabased operational maneuver and their preference for new seabased maneuver platforms both nettled and unsettled some Marines, who after the Key West Agreement of 1948 saw the province of seabased operational maneuver as theirs' alone. Their reaction was both unjustified and misplaced, however. The Army's history of amphibious operations and naval maneuver is as storied as the Marine's own; it is therefore both unsurprising and natural that in shifting from a Cold War garrison force to a force for the Joint Expeditionary Era, the Army should once again be attracted to the possibilities of seabased maneuver. Indeed, it seems clear that the Marines' petulance over the Army's perceived encroachment into their operational sanctum caused them to miss a strategic opportunity to join with the Army to develop a compelling *joint* requirement for improved naval maneuver capabilities. Nevertheless, by championing the idea of the SDHSS and TSVs, the Army provided direct support for the idea of increasing the joint force's ability to inject ready-to-fight combat units into a distant theater from the sea, and indirect support to the Marines' own emerging calls for improved seabased maneuver capabilities.

THE MARINES WEIGH IN: INTRODUCING OPERATIONAL MANEUVER FROM THE SEA AND SHIP-TO-OBJECTIVE MANEUVER

These calls were spurred by the 1992 post-Cold War and post-*Desert Storm* publication of ...*From the Sea*, the Department of the Navy's first articulation of their role in the Joint Expeditionary Era. As part of this effort, Marine planners concluded that the assumptions of assured access that had guided defense planning during the Cold War were no longer valid. One consequence was that they supported the idea of the MOB, much to the dismay of the Navy. In fact, as will be discussed later, General James Jones, confirmed as Commandant of the Marine Corps in June 1999, was one of the concept's staunchest advocates.²⁵⁷

However, Marine planners had also concluded two additional things: first, even with a MOB, any future US power-projection operation might need to be initiated with a forcible entry operation into defended enemy territory; and second, forcible entry operations and

²⁵⁷ See Christopher J. Castelli, "Navy Long-Term Budget Gets \$1 Billion for Mobile Offshore Base," *Inside the Navy*, January 20, 2003.

any subsequent joint campaign would benefit from an improved ability to conduct naval maneuver. Consequently, like the Army planners in the AAN project, they began to concentrate less on the rapid reinforcement of forward garrisons, allies, and Marine rapid response forces, and more on the deployment and employment of ready-to-fight combat units from the sea.

Interestingly, perhaps because they recognized the widespread misunderstanding of and antipathy toward the term "amphibious assault," they justified a renewed emphasis on naval maneuver forces because of a "worldwide breakdown of order"—referred to by Marines as "chaos in the littorals"—and emphasized the compelling *joint* requirement for a viable forcible entry capability:

To influence events overseas, America requires a credible, forwardly deployable, power projection capability. In the absence of an adjacent land base, a sustainable forcible entry capability that is independent of forward staging bases, friendly borders, overflight rights, and other politically dependent support can only come from the sea. The chaos of the future requires that we maintain the capability to project power ashore against all forces of resistance...²⁵⁸

The Marines' calls for improved forcible entry and naval maneuver capabilities were embodied in two new operational concepts—*Operational Maneuver From the Sea (OMFTS)* and *Ship-to-Objective Maneuver (STOM)*, published in 1996 and 1997, respectively. In hindsight, regardless of whether one agrees or disagrees with the assertion that amphibious assaults are a thing of the past or not, these two complementary concepts reflect a logical and articulate attempt to explain the advantages of seabased forcible entry and naval maneuver in the Joint Expeditionary Era. They are also effective in expanding and updating the OTH Amphibious Assault concepts developed during the final years of the Cold War, and offering an intriguing picture of how future assaults from the sea might be conducted with new, and far more capable, aerial and surface assault connectors.²⁵⁹

²⁵⁸ Operational Maneuver From the Sea (OMFTS) (Quantico, VA: Marine Corps Combat Development Command) p. 2.

²⁵⁹ OMFTS; and Ship-to-Objective Maneuver (STOM) (Quantico, VA: Marine Corps Combat Development Command). These two concept papers can be found online at the website for N75, Office of the Chief of Naval Operations for

In this regard, OMFTS and STOM both emphasized launching intact combined arms units directly from ships at sea toward important inland objectives, and considered the beach just another phase line to track the attacking force's progress. Both concepts explicitly rejected the idea of making landings directly against or across *defended* beaches, and instead embraced the model espoused and practiced so effectively by General Douglas MacArthur during the World War II Southwest Pacific campaign and again at Inchon: that is, to use the sea as maneuver space in order to *attack an enemy from a position of exterior advantage*. Or, in different terms: to use the sea to land forces where the enemy wasn't or was weak, and to push rapidly inland toward critical centers of gravity or operational targets.²⁶⁰

It is important to note, however, that both OMFTS and STOM had a not so hidden institutional goal. In an era of declining defense budgets, they were intended to provide the conceptual foundation needed to garner additional DoN funding support for the expensive new tools required to implement OMFTS: the V-22 tilt-rotor aircraft; an improved CH-53 heavy lift helicopter; rebuilt AH-1Z helicopter gunships and UH-1Y utility and command and control helicopters; improved versions of the high-speed LCAC and Landing Craft Utility; and the high-speed Advanced Amphibious Assault Vehicle (now known as the Expeditionary Fighting Vehicle). As a result, the two concepts exhibit a clear conceptual tilt toward a more expansive and "decisive" role for future naval maneuver.

As outlined in joint doctrine, joint forcible entry operations can be used as the initial phase of a campaign or major war, in order to establish a lodgment for follow-on forces (i.e., the Normandy model); as a major operation with a joint campaign (i.e., the Inchon model); or as an independent *coup de main* that aims to achieve immediate and decisive results (no clear historical example).²⁶¹ However, the Normandy model, which may actually have garnered considerable joint support, particularly from the Army, would undercut their calls for certain platforms, notably the V-22 tilt-rotor, a high-speed people mover that was far more capable than helicopters—and much more expensive—but likely overkill

Expeditionary Warfare, found at http://www.exwar.org/Htm/ConceptDocs/NADPGR/ navyusmc.htm.

²⁶⁰ For a good synopsis of how these concepts might influence future amphibious operations, see Christian Lowe, "Beyond the Beach," *Armed Forces Journal*, January 2005, pp. 20-25.

²⁶¹ Joint Publication 3-18, *Joint Doctrine for Forcible Entry Operations* (Washington, DC: Office of the Joint Chiefs of Staff, July 16, 2001), pp. I-1 – I-3.

for operations designed primarily to seize access for follow-on forces. Therefore, the Marines instead elected to use the amphibious turning movement at Inchon as the conceptual basis for *OMFTS* and *STOM*, to highlight its potential for *decisive* operational results, and to emphasize their own independence from land bases.

In any event, OMFTS introduced several themes that Marines would repeat over and over in the Joint Expeditionary Era: the perceived vulnerability of *shore-based* infrastructure to attack; the decisive potential of operational maneuver from the sea; the reduced logistics required for a seabased maneuver force employing guided weapons; the increasing effectiveness and "unprecedented power" of small units; and the operational payoffs of providing *sea*based logistical support for Marine units operating ashore. Together, all of these themes pointed to an evolved form of amphibious assaults in which a good portion of the landing force and its support would remain at sea for the duration of the operation. As OMFTS stated teasingly, with little amplification, "seabasing will free Marines up from the need to set up facilities ashore." ²⁶²

MPF 2010 AND BEYOND AND SEABASED LOGISTICS

The formative Marine thoughts on seabasing were soon revealed in two follow-on concepts—Maritime Prepositioning Force (MPF) 2010 and Beyond and a companion concept entitled Seabased Logistics, published in succession in 1997 and 1998. Both concepts reflected the Marines' desire to improve the battle fleet's overall ability to conduct naval maneuver. Given the Navy's demonstrated reluctance to fund amphibious warships, the Marines were well aware that they were not likely going to convince the DoN to build an amphibious fleet capable of lifting more than the "fiscally constrained" goal of 2.5 MEBs—hardly a force large enough to make the "decisive" impact they sought ashore. As a result, the Marines began to think about how to "operationalize" the MPF so that it could "fully support Operational Maneuver from the Sea and allow naval forces to project prepositioned combat power and provide long-term sustainment of forces ashore." ²⁶³

²⁶² OMFTS, p. 10.

²⁶³ Maritime Prepositioning Force 2010 and Beyond.

The Marines' thinking was also spurred by the fact that the leases on their three existing MPF squadrons were scheduled to expire between 2009 and 2011. ²⁶⁴ Given the long gestation period of any major program, if future MPF ships were going to be much different in their operational use than the current ship designs, the Marines needed to start thinking about their desired capabilities sooner rather than later. *Maritime Prepositioning Force (MPF) 2010 and Beyond* and *Seabased Logistics* reflected the results of these efforts.

Three new themes were central to both new concepts, and all were congruent with recommendations of the DSB Task Force on Strategic Mobility. First, the future MPF should be *access insensitive*. That is, it should no longer be tied to a requirement to offload in a secure, deepdraft port. Second, Marine units supported by future MPF squadrons should arrive to a JOA in *ready-to-fight* condition with any RSOI activities already complete—just like the units carried onboard amphibious assault ships. Third, after landing their embarked forces, the ships in the future MPF squadron should continue to provide sustained seabased logistics support for Marine forces operating ashore, with the aim of minimizing the logistics footprint ashore.²⁶⁵

Consistent with these themes, *MPF 2010 and Beyond* outlined four new operational pillars for future maritime prepositioning force operations: MPF force closure; amphibious task force integration; indefinite sustainment; and reconstitution and redeployment. In their bid to make the future MPF squadrons less dependent on existing theater deep water ports and airfields, the Marines decreed that all future MPF operations must occur over the horizon—a requirement consistent with their thinking about amphibious operations since the mid-1980s.²⁶⁶

To facilitate over-the-horizon MPF operations and to ensure that MPF units "arrive[d] in the objective area already prepared for operations," the *force closure* pillar introduced the idea of "at-sea arrival and assembly" of MPF forces. In other words, future MPF units would be deployed directly to the MPF ships making their way toward a JOA, where the units would be "billeted while completing the process of making their equipment combat ready." MPF units would conduct their RSOI process at sea, thereby arriving at the JOA in a ready-to-fight condition.

²⁶⁴ Andrew Koch, "USA Looks to Enhance Sea-Basing Capabilities," *Jane's Defense Weekly*, May 22, 2002.

²⁶⁵ Maritime Prepositioning Force 2010 and Beyond.

²⁶⁶ Maritime Prepositioning Force 2010 and Beyond.

This challenging scheme would thereby combine the deployment and employment stages of MPF forces during expeditionary power-projection operations. By using their "selective offload capabilities," MPF ships and their embarked units could be integrated directly into amphibious task force plans and operations on their arrival in the JOA.²⁶⁷

However, MPF 2010 and Beyond and Seabased Logistics together described a concept much more expansive than just "RSOI at sea" and the injection of ready combat units into a developing fight. This is made clear in their explanations of indefinite sustainment and reconstitution and redeployment. Once amphibious and MPF units were ashore, the MPF ships would support them logistically from sea rather than dumping their cargo ashore and creating vulnerable "iron mountains" of supplies. This would be possible for two reasons: seabased support, improved technologies, and "lighter" Marine landing forces would result in reduced supply demands from the units being supported ashore; and networked-based, automated logistics systems would allow for "instride sustainment" of units ashore. The MPF ships, in turn, would be themselves resupplied by a larger seabased logistics effort. In so doing, the MPF ships would serve as "a seabased conduit for logistics support" of forces operating ashore, and thereby facilitate their indefinite sustainment without the need to move supplies ashore.²⁶⁸

This was an intriguing thought. As part of their effort to operationalize the MPF, the Marines wanted to extend the idea of "underway replenishment" to units maneuvering ashore; the MPF(F) ships would serve as the "station ships" for freely maneuvering ground combat units, and themselves would be replenished by "shuttle ships" operating from a distant intermediate support base. One can only wonder how the development of seabasing would have proceeded if this mission had been assigned to the battle fleet's combat logistics force rather than to the MPF force. However, given the sharp disagreement between the two services' world views in the mid-1990s, such a thorough integration of Navy and Marine logistics operations was simply not possible at the time.

In any event, once their mission was complete, Marine combat units would return to the ship to prepare for follow-on operations "without requirement for extensive material maintenance or replenishment at a strategic sustainment base" located on land somewhere in the the-

²⁶⁷ Maritime Prepositioning Force 2010 and Beyond.

²⁶⁸ Maritime Prepositioning Force 2010 and Beyond.

ater.²⁶⁹ This latter capability was driven by the aforementioned requirement for joint forces to be prepared to fight two "nearly simultaneous" major combat operations, and for Marine forces to be able to "swing" quickly from a major combat operation in one theater to a major combat operation in another theater. In practical terms, it meant that future MPF ships would need to have an onboard seabased intermediate maintenance capability for both major air and ground combat items, and be big enough for the embarked Marine units to spread out their gear to conduct post-combat maintenance from the first war and pre-combat operational checks and combat loading for the second.

Together, *MPF 2010* and *Beyond* and *Seabased Logistics* described a far more flexible, distributed approach to seabasing than the larger, monolithic MOB. Importantly, however, the Marines viewed the future operationalized MPF as being additive to the existing amphibious landing fleet, which would retain the mission of supporting JFEOs. While the MPF ships would "possess the versatility to reinforce the striking power of an ATF," they would *not* possess a true forcible entry capability.²⁷⁰ In essence, the Marines were trying to maintain a distinction between access-insensitive assault forces and access-insensitive assault reinforcement forces.

INITIAL NAVY RESPONSES

Throughout the 1990s, faced with the pressing need to manage a substantial battle fleet drawdown in both numbers of platforms and active duty navy end strength, and programmed by over four decades of Cold War experience, the Navy was little interested in heeding either Army or Marine calls for improved naval maneuver capabilities. Instead, it focused narrowly on honing the capabilities of its Seabased Strike Fleet, which reflected the Navy's Cold War conception of its most important contribution to joint power-projection operations.

Even while decrying the dismantlement of the "600-ship Navy," decisions made by the Navy's leadership clearly reflected their appreciation for the degree of naval superiority the United States enjoyed, as well as its implications. Given that there was no longer any threat to the sea lines of communication passing over the global commons, the oceans

²⁶⁹ Maritime Prepositioning Force 2010 and Beyond.

²⁷⁰ Maritime Prepositioning Force 2010 and Beyond.

were now a secure avenue for global movement of ships and forces. In other words, because the seas had been converted into a secure base of operations, the United States could, in practice, move forces globally *along interior lines*. As a consequence, the Navy could eliminate "protection of shipping" warships from fleet service, which comprised nearly one in five ships found in the "600-ship Navy." ²⁷¹ By the end of 1994, the Navy had decommissioned all remaining frigates, and it had begun to dramatically reduce the number of active guided missile frigates; FFG-10, the *USS Duncan*, was decommissioned in 1994 after only 14 years of active service. ²⁷²

Indeed, because of the great diminishment in the overall submarine threat to the ocean-wide base of operations, the Navy also began to remove specialized anti-submarine platforms from the fleet, including both surface ships (Spruance-class destroyers) and attack submarines. With regard to the former, after the surface fleet was fixed at 116 warships in the 1997 QDR, the Navy's initial plan was to operate a fleet of 27 guided missile cruisers and 57 guided missile destroyers, and to replace 32 residual guided missile frigates and general-purpose destroyers with 32 new DD-21 "Land Attack Destroyers. The DD-21s were to be relatively inexpensive "focused-mission" ships designed to provide both gun and missile fires in support of joint forces operating ashore. With regard to the latter, the QDR reduced the SSN force to 50 boats—a 50 percent reduction in the "600-ship Navy's" requirement for 100 nuclear powered attack boats. This reduction, while justifiable in terms of the greatly reduced threat to the US operations on the high seas, did not set well with the Navy's submarine community. Indeed, throughout the 1990s, the community conducted open guerrilla warfare against the Navy's leadership over decisions to reduce the submarine fleet, and it publicly clamored for a bigger undersea fleet.

Meanwhile, the Navy began transferring more and more of its Combat Logistics Forces (CLF) to the Military Sealift Command's Naval Fleet Auxiliary Force. While this move also reflected the general lack of a threat to the sea lanes, it was motivated by two other key force management considerations:

First, MSC ships are operated by relatively small crews of experienced civil service mariners augmented by small active duty Navy

²⁷¹ The "600-ship Navy" included a requirement for 101 frigates and seven destroyers in the "protection of shipping" role.

Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, pp. 162-68.

communications, ordnance handling, and helicopter detachments.²⁷³ For example, one type of large "Fast Combat Support Ship" that accompanies carrier battle groups were crewed by 541 active-duty Navy personnel. The same ship operated by the MSC has a crew of 176 civil service mariners and 59 active-duty Sailors. The smaller crew reflects both the experience of the civilian mariners and the MSC policy of substituting overtime for additional crew members.²⁷⁴ In other words, shifting one Fast Combat Support Ship from the active Navy to the MSC would either eliminate the overall fleet manning requirement for 500 active duty personnel, or free up these personnel for duty elsewhere in the battle force; and

• Second, civilian mariners under contract are not constrained by the personnel tempo rules that dictate the maximum amount of time active-duty Sailors are allowed to be away from their homeports. This means that MSC-crewed ships can spend nearly 80 percent of their time at sea. In contrast, Navy-crewed ships typically spend about 24 percent of their time at sea. As a result, MSC ships maintain extremely high in-service rates and operational tempos, rivaled only by TFBN SSBNs which are manned by dual crews. ²⁷⁵ The practical impact of high operational availability is that *peacetime* combat logistics support requirements can be met with a much smaller number of operational ships. ²⁷⁶ The real trick is finding the right balance between a smaller CLF fleet perfectly capable of supporting peacetime operational tempos and a fleet also capable of supporting fully mobilized battle fleet wartime operations.

Guided by these logical management goals, the Navy began to transfer all of its active CLF ships to the MSC. One operational downside of the transfer was that in the process all of the CLF ships lost their onboard armament, robbing them of any meaningful means for self-defense. Such a move made sense only if the Navy considered the open oceans as a secure base of operations.

At the same time, the Navy sought the virtual elimination of its mobile logistics forces. By the end of the decade, the Navy had decom-

²⁷³ Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, p. 50.

²⁷⁴ "MSC Commander Envisions a Sea Base With Air Express Service Into the War Zone," *Seapower*, May 2003, pp. 26-27.

²⁷⁵ See "MSC Ship Inventory," at http://www.msc.navy.mil/inventory/inventory.asp?var=PM1.

²⁷⁶ During wartime or major combat operations, personnel tempo rules are waived for all officers and Sailors.

missioned all of its repair ships; all of its destroyer tenders; all but two of its submarine tenders; and all but four of its salvage ships. In fairness, these ships were originally designed to support steam-powered ships, and the Navy's shift over to an all-gas turbine-powered surface combatant fleet made them largely obsolete. Without question, though, the decision to minimize the MLF was also motivated by the need to free up sailors to pay for the post-Cold War manpower drawdown; the ships all had very large crew, and retiring them without replacement went a long way toward covering the bill. There was a downside, however: by not replacing them with new mobile logistics force ships, the battle fleet largely lost the ability to sustain itself in forward combat theaters without ready access to forward ports. This dependence was only exacerbated by the inability of the CLF to replenish missiles fired from the now ubiquitous vertical launch missile systems found on US surface combatants; once a ship had fired its missile load, it was compelled to return to a port to rearm.277

Juxtaposed against these moves were the stunning improvements being made to the Navy's ability to deliver air and missile strikes against land targets. These improvements were reflected both in the kinds and numbers of weapons carried by both surface combatants and submarines. With no open ocean fleet to target, the Navy quickly phased out the surface- and submarine-launched versions of the long-range Tomahawk anti-ship cruise missile, replacing them both with land attack variants of the missile. Moreover, due to targeting difficulties in crowded littoral waters, by the end of the decade the Navy was building guided missile destroyers with no medium-range Harpoon anti-ship missiles, and had removed the encapsulated *Harpoon* from submarine torpedo rooms. Meanwhile, the proliferation of VLS missile cells in both the surface combatant and submarine fleets dramatically increased the battle fleet's defensive and offensive firepower. In addition, the gradual proliferation of VLS-equipped surface warships and submarines is on a track to form a vast, distributed, modular, operationally mobile guided missile field of more than 10,000 vertical launch cells that can be flexibly tailored to emphasize offensive strike power, defensive firepower, or a combination thereof. Indeed, given the practical limits of the DoN's weapons procurement accounts, the missile field is likely growing well beyond the DoN's ability to fill the entire missile field.

²⁷⁷ The Navy retains two submarine tenders and two destroyer tenders in Category B Mobilization Reserve. See the Naval Vessel Register at http://www.nvr.navy.mil/nvrships/S B 06.htm.

The battle fleet's aircraft carrier fleet also saw similar dramatic changes during the 1990s. The fleet first saw marked improvements in its ability to collaboratively plan with Air Force air operations in support of a joint land campaign—a key weakness identified during Operation Desert Storm. At the same time, all aircraft in the carrier air wings were modified to employ guided weapons—even the F-14 Tomcat, the fleet's premier Cold War air superiority fighter. As was seen in the surface combatant and submarine fleets, air-launched *Harpoon* anti-ship cruise missiles were being either augmented or replaced by the Standoff Land Attack Missile (SLAM) and its extended range version known as SLAM-ER, themselves *Harpoon* derivatives designed for "surgical strikes" against both sea and land targets.²⁷⁸ And, of course, the Navy began to gradually fill up its carrier magazines with more, and more varied, guided air-to-ground weapons, including laser-guided bombs of various sizes and entirely new families of bombs and air-to-ground missiles guided by the space-based Global Positioning System (GPS). Because of these improvements, shortly after the turn of the century, one carrier could deliver more strikes per day than could four carriers operating in support of Operation Desert Storm. By 2010, a single aircraft carrier is expected to be able to deliver nearly seven times the number of daily strikes than a 1990 aircraft carrier.

The US Navy is often accused of not shifting its focus from openocean sea control to operations in the littoral. As indicated by the above decisions, this accusation is simply not true. However, what is true is that Navy decisions made during the 1990s resulted in a wildly unbalanced Sea as Base Joint Power-projection Fleet, with a hugely powerful Seabased Strike Fleet that was being made ever more powerful; a fiscally and operationally constrained Seabased Operational Maneuver Fleet that was given the absolute minimum attention and resources possible; and an eviscerated Logistics Seabase This condition is eerily similar to the circumstances the Navy found itself in the early stages of World War II, when the Interwar offensive élan of the US surface warfare community resulted in another unbalanced fleet ill-suited for sustained operations in distant, contested theaters:

The number of combatant ships had increased materially, and it is natural to ask if the auxiliaries should not have increased comparatively. The answer is, of course, yes. But the increase of combatant ships had been visualized, and the building programs were

²⁷⁸ Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, p. 523.

undertaken before the war began. It flourished with increased momentum during the early part of the war, long before the minimum auxiliary requirements could be correctly estimated and the rush of procurement started. The original planners had done their best, but it was not until the urgency for auxiliaries developed as a vital element of the war that we fully realized what was needed, and met the demand.²⁷⁹

The very same could be said about the pre-War Operational Maneuver Fleet, which grew from *zero* (!) amphibious landing ships on December 7, 1941, to a force of over 2,500 ships by wars end, a force so large that the ratio of amphibious ships to large surface combatants (not counting protection of shipping vessels) reached three to one.²⁸⁰

In any event, and bearing the unmistakable operational imprint of the Cold War, the resulting US battle fleet is one as "rooted to substantially a system of continental support" as was the pre-World War II Navy. Interestingly, the thinking that ties today's circumstances with those of the Interwar period is a critical assumption about the expected duration of future wars made by Navy (and joint) planners. Although the Interwar period was marked by the conceptual visualization for the need for both an Operational Maneuver Fleet to seize bases and a Logistics Seabase to sustain forward battle fleet offensive action, war plans assumed that the battle fleet would fight at once upon arrival in a distant theater and either gain a quick victory or be just as quickly defeated.²⁸¹ There was therefore no perceived *programmatic* justification to develop either amphibious assault or seabased logistics capabilities in peacetime. Of course, when the assumption about a short war proved to be false, the remaining components of the Power Projection Fleet were found to be seriously wanting, and it took some time to develop the capabilities needed to account for the actual wartime conditions. As will be discussed shortly, similar assumptions about quick future wars have had similar deleterious effects on current plans for the future battle fleet.

²⁷⁹ Carter, "Beans, Bullets, and Black Oil," pp. 5-6.

²⁸⁰ "US Navy Active Ship Force Levels," found at http://www.history.navy.mil/branches/org9-4.htm.

²⁸¹ Carter, "Beans, Bullets, and Black Oil," p. 5.

In the Navy's Defense: Extenuating Circumstances

In the Navy's defense, however, Marine Corps decisions made during the late 1980s and throughout the 1990s served to undercut their own calls for improved battle fleet operational maneuver capabilities. As suggested by battle fleet experience in World War II, amphibious assaults and combined arms naval maneuver depend on a system of systems including purpose-built amphibious warships; ship-to-shore assault connectors; and intra-theater assault connectors. During the Cold War, the intra-theater assault connectors disappeared and were replaced by maritime prepositioning ships. Regardless of the specific components of the seabased maneuver system of systems, however, a key lesson learned during World War II was that decisions about one component should not be made without careful consideration of their impacts on the other components. And in this regard, the Marines repeatedly refused to consider the system-wide impacts that their equipment decisions were making on the requirements and character of the future Operational Maneuver Fleet.

In the majority of cases, despite a concerted effort to "lighten up" in the 1980s, the Marines consistently pursued equipment replacements which were larger and heavier than their predecessors. The diminutive M-151 jeep was replaced by the heavier and larger High Mobility Multi-Wheeled Vehicle, or "Humvee." The basic truck was replaced with a 7ton model—much bigger than the "deuce and a half" two-ton truck that served the Marines through most of the Cold War, or the five-ton truck bought during the 1980s. The Amphibious Assault Vehicle was to be replaced by a much larger and heavier Expeditionary Fighting Vehicle. The Marines also pursued the new High Mobility Assault Rocket System which came with a heavier (and more expensive) logistics tail. One notable exception to these examples was the lightweight 155mm howitzer, which was much lighter than the M198 howitzer it replaced. However, Marine Corps equipment decisions generally made it harder and more expensive to achieve even the "fiscally constrained" amphibious lift goal of 2.5 MEBs, especially in terms of the amount of square feet of space devoted to vehicles, or "vehicle square."

If anything, Marine decisions on their basic aviation assault connector had even more portentous impacts on the character of the amphibious landing fleet. The new MV-22 tilt-rotor, by all accounts, had the potential to be a revolutionary ship-to-objective aerial connector.

It was also quite expensive, and would put enormous upward pressure on DoN aviation procurement accounts. More to the point, however, it was much heavier and took 2.22 times the shipboard parking space than the CH-46 it replaced. However, despite demanding considerably more shipboard space than its predecessor, because it could only carry the same 24 combat-loaded Marines that the CH-46 could carry in its prime, the projected size of a medium helicopter squadron remained the same at 12 aircraft. As a consequence, the requirement for rotary wing parking space for a single MEB jumped from 48 to 107 equivalent shipboard parking spots—or over one big-deck amphibious assault ship equivalent valued at over \$2.5 billion. In other words, depending on the parking area needed for an entire MEB air combat element, each MV-22 could have a potential associated Operational Maneuver Fleet shipbuilding "tax" of up to \$50 million added on top of its \$70 million fly-away costs!

The Marines' voracious appetitive for shipboard vehicle square and their steadfast refusal to consider a connector better suited to available or more affordable amphibious landing ships helped to convince many Navy officers that Marines were either much more interested in sustained operations ashore than they were about actually executing OMFTS and STOM, or were making irresponsible decisions with little regard to their impact on the operational maneuver fleet's system of systems, or both.

The positions taken by the Navy and Marines during the 1990s reflected their widely divergent world views, a shared inability to forge a common battle fleet vision, and a reluctance to offer or accept any compromises. The Navy adamantly refused to support any major reallocation of DoN resources to operational maneuver (or seabased logistics) capabilities, despite the growing evidence that the likelihood of having to conduct and support naval maneuver in distant, contested theaters was much higher than at any time in more than 50 years. Meanwhile the Marines adamantly refused to consider the impact their equipment plans were having on the size and cost of the system of systems that composed the Operational Maneuver Fleet. One immediate result of this failure to develop any common and sensible compromise was that as soon as the Marines portrayed the improved capabilities of the future MPF as being *additive* to those found in the amphibious landing fleet, senior Navy leaders actively stonewalled the concept, burying it deep in the DoN's staffing process.

As events turned out, and as presaged by the earlier DSB Task Force on Strategic Mobility, the concepts introduced in *OMFTS, STOM, MPF 2010 and Beyond* and *Seabased Logistics* were too well suited to the conditions of the Joint Expeditionary Era for the Navy to fully ignore and suppress. In fact, most current seabasing thoughts and initiatives can be directly tied to the concepts first introduced in these four documents. Indeed, as will be seen, DoN and joint seabasing plans gradually became inextricably linked to the fate of the future MPF force—for better or worse. However, these circumstances were not yet fully revealed; it remained to be seen if the Marines' new ideas on seabasing and naval maneuver would survive the Navy's stonewalling. And it would take more than sympathetic support from the US Army to make this happen.

THE NATIONAL DEFENSE PANEL

This support came in a big way in the form of the aforementioned National Defense Panel's critique of the 1997 Quadrennial Defense Review and its alternative vision of the future strategic environment and challenges. Published in December 1997, the same month that the Marines published *MPF 2010 and Beyond*, the NDP's final report provided strong implicit support for the ideas of operational maneuver from strategic distances, naval maneuver, and seabasing.

Unsurprisingly, the second Clinton Administration's 1997 QDR had substantially reaffirmed with relatively minor revisions the first Clinton Administration's 1993 Bottom-Up Review, despite being four years deeper into the Joint Expeditionary Era. It substituted the term "Major Theater Wars" (MTWs) for MRCs, but otherwise agreed both with the BUR's two-war force planning and sizing construct and its emphasis on "increasing the capability of U.S. forces to halt or control an adversary in the initial phases of a conflict by incorporating new operational concepts and advanced technologies such as extended-range precision strikes and information operations." However, it broke with the BUR when it concluded that the joint force had to have additional forces to handle "smaller scale contingencies" (SSCs), which the BUR counted as "lesser-included" force packages drawn from forces dedicated to fighting MTWs. In other words, the QDR merely tweaked the BUR's focus on rapidly defeating "traditional" military invasions of allied territory

rather than attempting a more pointed reappraisal of the assumptions made just after the end of the Cold War.²⁸²

DoD's failure to question the basic assumptions made in the midst of the turbulent inter-era transition between the Cold War and the Joint Expeditionary Era troubled the members of the NDP, who worried that "to the extent that the QDR views major theater warfare as a traditional force-on-force challenge, this view inhibits the transformation of the American military to fully exploit our advantages as well as the vulnerabilities of potential opponents" (emphasis added). They further worried that the two-MRC/MTW construct "may have become a force-protection mechanism—a means of justifying the current force structure—especially for those searching for the certainties of the Cold War era," rather than a strategy appropriate for expected future challenges.²⁸³ In the NDP's judgment, while the two-war construct may have helped to moderate the scope and extent of the post-Cold War demobilization, its foundation of familiar Cold War planning assumptions helped to obscure the gathering rationale to question these assumptions. This, in turn, dampened any need for the services to develop new ones.

The result, according to the NDP, was that the QDR's approach to power-projection was likely fundamentally flawed. Echoing the findings of the earlier DSB Task Force on Strategic Mobility, the NDP wrote:

Power-projection will likely remain a fundamental concept of our future force. Accordingly, the need for close cooperation with our allies is an essential element of our defense and security strategies. For nearly a half a century, the U.S. military has relied upon access to forward basing and forward bases as a key element in its ability to project power...However, U.S. forces' long-term access to forward bases, to include air bases, ports, and logistics facilities cannot be assumed. Access may be granted or denied for any number of political or military reasons. Moreover, U.S. forces may find themselves called upon to project power in areas where no substantial basing structure exists. Perhaps

²⁸² The National Defense Panel: Assessment of the May 1997 Quadrennial Defense Review, found online at http://www.defenselink.mil/topstory/ndp_assess.html.

²⁸³ The National Defense Panel: Assessment of the May 1997 Quadrennial Defense Review.

most important, with the diffusion of cruise and ballistic missile technology, weapons of mass destruction, and access to space, the capability to hold at risk large soft targets at great range will likely accrue to even regional rogue states. *The QDR, in our view, accorded insufficient attention to our ability to project power under these circumstances* (emphasis added).²⁸⁴

The NDP thus believed that the assumptions underlying US power-projection had to be challenged for two reasons: increasing uncertainties over both political access to foreign facilities or even the availability of such facilities; and increasing certainty that the current US monopoly and dominant lead in the Guided Weapons Warfare Regime would undoubtedly diminish over time, making *all* future US power-projection operations more difficult and costly.

However, the NDP did a great injustice by suggesting that the future risks of guided weapons warfare would fall predominately on *land-based* facilities. As discussed earlier in the section on Joint Littoral Warfare, keeping personnel and equipment at sea will be no panacea in the Guided Weapons Warfare Regime. The same "[p]recision strikes, weapons of mass destruction, and cruise and ballistic missiles" that the NDP warned would threaten future *land* bases will pose equally severe threats to future *seabased* forces operating in coastal waters. Indeed—nuclear weapons aside—small numbers of guided missile "leakers" could have a far greater catastrophic impact on a seabase than attacks against a sprawling land base, because one hit could result in the total loss of a fully intact combat unit or a critical component of the Joint landing force.²⁸⁵

Similarly, in the case of nuclear weapons, would an adversary be less or more likely to employ nuclear weapons against US forces operating at sea or against US forces that were operating on his own territory near a city or port? Thinking during the Cold War suggested that the

The National Defense Panel: Assessment of the May 1997 Quadrennial Defense Review.

²⁸⁵ During the Falklands campaign, two Argentine *Exocet* missiles struck the *British Atlantic Conveyor*, a commercial transport taken up in trade. The missiles sent the ship to the bottom, and a good portion of the British force of troop lift helicopters went to the bottom with it. Salvage was impossible. The loss meant that the British Force had to march across the Falklands to attack the Argentine troop concentration at Port Stanley. Under different circumstances, the loss may have had a major impact on the outcome of the British invasion. See "Atlantic Conveyor," at http://www.answers.com/topic/atlantic-conveyor.

bar for employing nuclear weapons at sea was much lower than that on land. ²⁸⁶ As a result, a concentration of seabased platforms in a littoral might be too tempting a target for some nuclear-armed adversaries to ignore. Even if the attack failed to destroy all components of a distributed seabase, it would be a dramatic demonstration of the enemy's willingness to employ nuclear weapons without the collateral damage associated with an attack on his own soil.

In any event, if seabased defenses can be made "leak proof" as suggested by Sea Shield and often used in arguments to justify the replacement of amphibious warships with commercial MPF(F) ships, why can't the same level of protection be provided over a port and nearby airfield? Indeed, extending fleet defenses over allied territory, ports, airfields, and Joint forces operating ashore is one of the basic objectives of Sea Shield.²⁸⁷ If forces ashore can be protected by equally "leak-proof defenses," why accept the operational penalties associated with or pay the huge costs necessary to maintain a large ground force on an offshore base?

In the end, the debate over whether land or sea bases are more vulnerable is a false one: as everyone except the most ardent seabasing proponents recognizes, for any large-scale power-projection operation the majority of the Joint force—and their support tails—will inevitably have to move ashore. Moreover, in the Guided Weapons Warfare Regime, joint forces operating on the land, on the sea, and in the air will be subject to attack by guided weapons, and all will have their own inherent vulnerabilities to such attacks. It will be the aim of joint commanders to mask these vulnerabilities when preparing plans for an interdependent, maritime power-projection operation.

However, the damage was done. The NDP's heavy emphasis on the increasing vulnerabilities to land bases prompted naval officers and their allies to begin to assert more boldly that "...for the most part, seabasing will likely prove more...operationally useful in the emerging strategic environment than land bases." ²⁸⁸ It was a short leap in

²⁸⁶ See for example William M. Arkin, "The Nuclear Arms Race at Sea," Neptune Papers No. 1, October 1987, p. 25.

²⁸⁷ Vice Admirals Mike Bucchi and Mike Mullen, USN, "Sea Shield: Projecting Global Defensive Assurance," *Proceedings*, November 2002, at http://www.usni.org/Proceedings/Articles02/PRObucchi1.htm.

²⁸⁸ Williamson Murray, Professor Emeritus, The Ohio State University, in Under Secretary of Defense for Acquisition, Technology, and Logistics, Defense Science Task Force on Sea Basing (Washington DC: Office of the Secretary of

logic for these same officers to argue that seabases should therefore *replace* land bases in the Joint Expeditionary Era. As has been discussed, however, the likelihood of even the United States being able to absorb the huge costs with trying to completely replace land bases is close to zero. Seabasing can be used to operate without land bases in the *initial* stages of future maritime campaigns, but its ultimate goal in any major power-projection operations will be to create a "lodgment" (i.e., access) on land.

Moreover, as argued by some, the astute use of security assistance and more artful diplomatic suasion might help to ensure future access to land bases in most regions of the world at a cost much less than building a huge Sea as Base Joint Power-projection Fleet.²⁸⁹ Still, in and of itself, even if seabasing is used primarily to overcome the *temporary* lack of land bases in the early stages of a joint power-projection operation, it is a capability well worth having—as was suggested soon after the NDP's final report was published by the painful lessons of Task Force Hawk.

TASK FORCE HAWK: A SYSTEMIC FAILURE IN EXPEDITIONARY MOVEMENT

In March 1999, little more than a year after the NDP published its report, and only days after the commencement of Operation *Allied Force* (OAF)—the combined operation to eject Serbian forces from Kosovo—General Wesley Clark, then the Supreme Allied Commander for NATO, requested the deployment of an Army *Apache* attack helicopter battalion. The intent of this request was to complement NATO's ongoing medium-altitude tactical air attacks against Serb forces in Kosovo with low-altitude rotary wing attacks.²⁹⁰ The subsequent episode demonstrated both the difficulties in achieving political access in the Joint Expeditionary Era as well as the inability of the Army and the US Strategic Military Transportation System to conduct rapid expeditionary movement of forces to austere locations.

Defense, August 2003), Appendix E, p. 137. The full report can be found at http://www.acq.osd.mil/dsb/reports/seabasing.pdf.

²⁸⁹ See for example Harkavy, "Thinking About Basing."

²⁹⁰ Benjamin S. Lambeth, "Task Force Hawk," *Air Force Magazine*, February 2002, found online at http:// www.afa.org/magazine/Feb2002/0202hawk. asp.

With regard to political access, General Clark's intent was to position the Apache unit in Macedonia, which had better roads and airfields and terrain that was less challenging. However, the Macedonian government, already overwhelmed by the problem of dealing with Kosovar refugees, declined to grant NATO access to its territory. General Clark then sought access from Albania, which was not a member of NATO. While the Albanian government ultimately agreed to Clark's request, negotiations took some time to complete. It was not until the 12th day of OAF combat operations that the *Apache* battalion was given the green light to start moving.291

Experts in the Strategic Military Transportation System predicted the move would take just ten days to complete. In the end, however, the move took nearly twice as long.²⁹² The first units to arrive found "there were no roads that we could drive on ... everything was under mud." Engineers needed to bring in rocks to lay the foundation for both a road network as well as a foundation for the helicopter base itself. Moreover, the arrival of these early-arriving engineer units, as well as follow-on units, was greatly complicated because the area in which the base was to be erected was also the center of a large humanitarian effort to care for Kosovar refugees that were crossing the Albanian border.²⁹³

Further complicating the operations was the Army's evident embarrassing failure to adapt to the new strategic conditions of the Joint Expeditionary Era or to the findings of their own Army After Next program. During the Cold War, the Army seldom deployed ad hoc, task-organized combat units, instead preferring to deploy either intact combat brigades or divisions. However, the unique requirements for the OAF mission demanded just such an *ad hoc* organization. To account for the possible threat of Serbian ground or air attacks into a non-NATO country, in addition to 24 Apache helicopters, the resulting "Task Force Hawk" grew to include a tank company; a mechanized infantry company; an anti-tank company; a platoon of Multiple Launch Rocket Launchers; an intelligence platoon; a military police platoon; a 155mm howitzer battery; a construction engineer company; a short-range air defense missile section; 26 UH-

Lambeth, "Task Force Hawk."
Lambeth, "Task Force Hawk."

²⁹³ Comments by General Eric K. Shinseki, Army Chief of Staff, in "Analyses" Task Force Hawk," found online at http://www.pbs.org/wgbh/pages/frontline/ shows/future/experts/taskforce.html.

60 and CH-47 helicopters; diverse support units; and a brigade task force headquarters, numbering a total of 5,350 personnel.²⁹⁴

The Army wanted to move this impressive self-contained combat force into Albania by air. However, the C-130 tactical airlift fleet was incapable of lifting the large, heavy, and outsized combat vehicles and helicopters that belonged to Task Force Hawk. The burden thus fell on the new C-17 fleet, which was designed to carry heavy, outsized loads into forward austere airfields. It finally took more than 500 C-17 sorties to move the Task Force into place. But this huge effort proved to be for nothing; the Task Force never flew a single combat mission during the nearly 80 days of OAF.²⁹⁵

As one respected defense analyst later wrote:

The Task Force Hawk experience underscored how little the US Army, by its own leadership's candid admission, had done since *Desert Storm* to increase its capacity to get to an emergent theater of operations rapidly and with sufficient forces to offer a credible combat presence. Shortly after the Gulf War, the Army's leadership for a time entertained the thought of reorganizing the service so it might become more agile by abandoning its structure of 10 combat divisions and opting instead for 25 "mobile combat groups" of around 5,000 troops each. Ultimately, however, the Army backed away from that proposed reform, doing itself out of any ability to deploy a strong armored force rapidly and retaining the unpalatable alternatives of either airlifting several thousand lightly armed infantrymen to a threatened theater within days or shipping a contingent of 70-ton M1A2 Abrams main battle tanks over the course of several months.

On his second day in office as the Army's new Chief of Staff, [General Shinseki] acknowledged that the Army had been poorly prepared to move its *Apaches* and support overhead to Albania...He declared, "Our heavy forces are too heavy and our light forces lack staying power. Heavy forces must be more strategically deploy-

²⁹⁴ Lambeth, "Task Force Hawk."

²⁹⁵ Lambeth, "Task Force Hawk."

able and more agile with a smaller logistical footprint, and light forces must be more lethal, survivable, and tactically mobile. Achieving this paradigm will require innovative thinking about structure, modernization efforts, and spending." ²⁹⁶

However, while squarely facing the Army's own failure to adapt, General Shinseki also noted, fairly, that the Strategic Military Transportation System, dependent as it was on prepared airfields, ports, and developed theater infrastructure, was ill-suited to the task of moving equipment, much less intact combat units in ready-to-fight condition, into austere locations. The forward operating site that made the most tactical sense and that was approved by the Albanian government had poor rail connections, a shallow port, and relatively small airfields that could not accommodate the Air Force's C-5 heavy airlifter. Moreover, the task to move Task Force Hawk was beyond the tactical capabilities of the tactical air transport force. ²⁹⁷ It would make little sense to transform the Army along the lines described by General Shinseki absent concomitant changes in America's ability to transport combat units, troops, equipment, and supplies to austere theaters.

THE UNITED STATES COMMISSION ON NATIONAL SECURITY/21ST CENTURY

Soon after the Task Force Hawk fiasco, in September 1999, the U.S. Commission on National Security/21st Century published the results of its first phase of deliberations. This bipartisan commission, co-chaired by former Senators Gary Hart and Warren Rudman and including respected members across the political spectrum, was "initiated out of a conviction that the entire range of U.S. national security policies and processes required examination in light of new circumstances that lie ahead."²⁹⁸ These results, together with those developed during the Commission's second phase, were, in hindsight, remarkably prescient and insightful about the likely strategic conditions in the first several decades of the 21st century. Indeed, as indicated by the following excerpt from the Commission's report, the members stated the full

²⁹⁶ Lambeth, "Task Force Hawk."

²⁹⁷ Lambeth, "Task Force Hawk."

²⁹⁸ U.S. Commission on National Security/21st Century, found online at http://www.au.af.mil/au/awc/awcgate/nssg.

range of threats facing the United States in the coming century—including those now known as traditional, irregular, catastrophic, and disruptive challenges:²⁹⁹

As a result, for many years to come Americans will become increasingly less secure, and *much less secure* than they now believe themselves to be (emphasis in the original). That is because many of the threats emerging in our future will differ significantly from those of the past, not only in their physical but also in their psychological effects. While conventional conflicts will still be possible, the most serious threat to our security may consist of unannounced attacks on American cities by sub-national groups using genetically engineered pathogens. Another may be a well-planned cyber-attack on the air traffic control system on the East Coast of the United States, as some 200 commercial aircraft are trying to land safely in a morning's rain and fog. Other threats may inhere in assaults against an increasingly integrated and complex, but highly vulnerable, international economic infrastructure whose operation lies beyond the control of any single body. Threats may also loom from an unraveling of the fabric of national identity itself, and the consequent failure or collapse of several major countries.

Taken together, the evidence suggests that threats to American security will be more diffuse, harder to anticipate, and more difficult to neutralize than ever before. Deterrence will not work as it once did; in many cases it may not work at all. There will be a blurring of boundaries: between homeland defense and foreign policy; between sovereign states and a plethora of protectorates and autonomous zones; between the pull of national loyalties on individual citizens and the pull of loyalties both more local and more global in nature.³⁰⁰

²⁹⁹ These four challenges were highlighted formally in the *National Defense Strategy of the United States*, published in March 2005. They will be discussed later in the report.

³⁰⁰ U.S. Commission on National Security/21st Century, *New World Coming: American Security in the 21st Century: Phase I Report*, published September 15, 1999, found online at http://govinfo.library.unt.edu/nssg/ Reports/NWC.pdf.

In addition, the Commission concluded that a fundamental condition of the future security environment would be "uncertain neutrals and doubtful allies"—the same condition that bedeviled Cromwell's efforts to establish a permanent English presence in the Mediterranean. In the words of the Commission, "As the United States confronts a variety of complex threats, it will often be dependent on allies, but it will find reliable alliances more difficult to establish and sustain." As a result:

Political changes abroad, economic considerations, and the increased vulnerability of U.S. bases around the world will increase pressures on the United States to reduce substantially its forward military presence in Europe and Asia. In dealing with security crises, the 21st century will be characterized more by episodic "posses of the willing" than the traditional World War II-style alliance systems. The United States will increasingly find itself wishing to form coalitions but increasingly unable to find partners willing and able to carry out combined military operations.³⁰¹

More to the point, however, the Commission endorsed the NDP's conclusion that the two-MRC/MTW force sizing and shaping construct would not produce the required capabilities for "expeditionary interventions and stability operations." In this regard, the Commission wrote that:

Fundamental to U.S. national security strategy is the need to project U.S. power globally with forces stationed in the United States, and those stationed abroad and afloat in the forward presence role. Owing to the proliferation of new defense technologies in the hands of other states, effective power projection will become more difficult for the U.S. armed forces in the 21st century. U.S. forces must therefore possess greater flexibility to operate in a range of environments, including those in which the enemy has the capability to employ weapons of mass destruction. U.S. forces must be char-

³⁰¹ U.S. Commission on National Security/21st Century, Seeking a National Strategy: A Concert for Preserving Security and Promoting Freedom: The Phase II Report on a US National Security Strategy for the 21st Century, published April 15, 2000, found online at http://www.au.af.mil/au/awc/awcgate/nssg/phaseII.pdf.

acterized by stealth, speed, range, accuracy, lethality, agility, sustainability, reliability and be supported by superior intelligence in order to deal effectively with the spectrum of symmetrical and asymmetrical threats we anticipate over the next quarter century.³⁰²

Importantly, given these conditions, the Commission concluded the 21st century military needed to be able to "deploy rapidly, be employed immediately, and prevail decisively in expeditionary roles, prolonged stability operations, and major theater wars." ³⁰³ Their conclusion that the future joint force needed to be able to deploy forces rapidly *that could be employed immediately* was a hearty endorsement of the conclusions found in the DSB's Task Force on Strategic Mobility, the NDP, the Army After Next Program, and the Marines' Operational Maneuver From the Sea.

SPEEDBUMP: MRS 2005

Juxtaposed against the Commission's findings and the real world experiences of Task Force Hawk was the unhappy outcome of the Mobility Requirements Study for 2005 (MRS 2005), chartered in 1998 by the Deputy Secretary of Defense. MRS 2005, conducted by the Joint Staff and the Office of the Secretary of Defense, reviewed the number and mix of *mobility* systems required to support two simultaneous major theater wars in 2005. Conducted over a two year period, it was trumpeted as the most comprehensive post-Cold War mobility study yet made.³⁰⁴

In hindsight, MRS 2005 was instead one of the most damning examples of post-Cold War institutional inertia and service resistance to change, and a ringing endorsement of the Commission on National Security's conclusion that the two-MRC/MTW construct would not produce the required capabilities for 21st century "expeditionary interventions and stability operations." Indeed, the study represented a giant

U.S. Commission on National Security/21st Century, Seeking a National Strategy: A Concert for Preserving Security and Promoting Freedom: The Phase II Report on a US National Security Strategy for the 21st Century.
 U.S. Commission on National Security/21st Century, Seeking a National Strategy: A Concert for Preserving Security and Promoting Freedom: The

Phase II Report on a US National Security Strategy for the 21st Century.

304 Klaus, Strategic Mobility Innovation: Options and Oversight Issues, p. CRS-3.

step backward from the previous good work done by the DSB Task Force on Strategic Mobility and simply ignored the implications of Task Force Hawk. Instead of breaking any new ground, it mulishly focused on the *rapid reinforcement mission* for major combat operations occurring nearly simultaneously in Southwest Asia (i.e., Iraq) and Northeast Asia (i.e., North Korea), the two most geographically separated theaters with a high perceived likelihood for conflict. As envisioned first in the BUR and reaffirmed in the 1997 QDR, both projected combat operations involved defeating cross-border invasions of friendly countries and both assumed forward access.³⁰⁵

Thus, a key finding of the study was that the projected requirement for airlift—amounting to 51.1 million ton miles per day (MTM/D)—was substantially higher than either then-current capabilities (44 MTM/D) or the planned requirement developed in previous post-Cold War mobility studies (49.7 MTM/D). The study believed a force of 176 C-17s, a C-5 fleet with 65 percent mission availability, and a Civil Reserve Aircraft Fleet capable of contributing 20 MTM/D would be sufficient to meet the expanded requirement. The study paid no attention to the problem of moving these millions of tons per day through countries with airfields as few and as poor as Albania. Moreover, the study concluded that the sealift improvements recommended by the MRS and MRS BURU—augmented by aggressive use of commercial sealift and improvements in the containerization of combat force unit equipment—should be sufficient for projected US needs. Little was said about improving the sealift fleet's ability to transship cargos through denied, damaged, or austere ports.³⁰⁶

These findings led to the aforementioned expansion of the planned C-17 buy to 180 aircraft, a planned modernization and reengining program for the C-5, and improvements in the CRAF.³⁰⁷ They also temporarily quelled any discussion about changes to the US strategic sealift fleet. However, the report was so lost in solving a Cold War problem and so out of touch with the evolving conditions of the Joint Expeditionary Era that it could not squelch the calls from both the Marine Corps and the Army to improve both expeditionary transport systems and capabilities that could support global expeditionary maneuver of intact combat forces.

³⁰⁵ Klaus, Strategic Mobility Innovation: Options and Oversight Issues, p. CRS-3.

³⁰⁶ Klaus, Strategic Mobility Innovation: Options and Oversight Issues, p. CRS-4.

³⁰⁷ Klaus, Strategic Mobility Innovation: Options and Oversight Issues, p. CRS-5.

MPF(F): If You Can't Beat Them, Co-opt Them

In July 2000, just as the strategic rationale for seabasing and naval maneuver was becoming clearer and clearer, Admiral Vern Clark became the 27th Chief of Naval Operations (CNO). An ardent proponent of "jointness," he served in that position until 2005, becoming the longest serving CNO since Admiral Arleigh Burke, who held the position for six years from 1955 to 1961. His arrival was to mark an important change in US Navy attitudes towards seabasing.

Admiral Clark came into the job with an agenda packed with change. One critical item on his list was to repair relations with the Marine Corps, which as has been discussed had soured considerably over the 1990s. As implied earlier, the two services had fought increasingly contentious battles over the proper future vision for the battle fleet and the proper prioritization of naval plans and programs. Especially heated were their debates over "blue in support of green" programs such as amphibious lift, the V-22, the JSF, replacements for Marine helicopters, and, increasingly, the future of the MPF program. With regard to the latter, the Marine Corps leadership was especially incensed over the delaying tactics being employed by the Navy staff; they wanted action.

They got it, but perhaps not in a way they expected. In hindsight, it seems clear that Admiral Clark used his initial discussions and subsequent plans for the future of the MPF program as a means first to repair relations with the Marines, and second—and far more importantly—to pursue a radical departure in the direction of the future Operational Maneuver Fleet. In essence, Admiral Clark decided to support the future MPF(F) on his own terms. The Marines were fighting hard for 2.5 MEBs worth of amphibious assault lift and three improved MPF squadrons of as yet indeterminate, but likely considerable, cost. On top of this, the DoN costs for Marine aviation were climbing precipitously, due primarily to the high unit costs of the V-22 and the JSF. Admiral Clark knew that paying for all of these initiatives would be impossible without diverting money from other Navy programs and rebalancing the percentage of the DoN budget allocated for operational maneuver capabilities. This was unacceptable to Admiral Clark and Navy leadership; a compromise was needed.

However, Admiral Clark was an astute reader of the joint "tea leaves." It seems clear he anticipated that OSD would likely be increasingly drawn to the strategic rationale behind seabasing and naval maneuver, and knew the Navy could ill-afford to be seen as an obstructionist in any pursuit toward improved seabasing capabilities. Therefore, as would any good negotiator entering into a give-and-take discussion with a party with equally strong but opposite views, Admiral Clark had in mind two key objectives as he worked with the Marine Corps leadership to fashion a compromise over the future of naval maneuver capabilities in the Joint Expeditionary Era:

- First, he wanted any improvements to the MPF to compete directly with improvements to the amphibious landing force; he believed the DoN could not afford both simultaneously, and that Navy programs would suffer unacceptably if there was a shift in resources towards this end.³⁰⁸ Implicitly, this meant that the MPF would likely have to be used in the forcible entry role; and
- Second, in order to better leverage the huge investments being made in Marine aviation—especially the V-22—which was putting ever more pressure on DoN aviation accounts, he believed that the amphibious landing fleet should be gradually modified to better support the aerial maneuver of Marine ground forces. Of course, in the zero sum budget environment that Admiral Clark lived in, this meant that the amphibious fleet's ability to launch surface assaults would need to be curtailed.

As discussed earlier, these positions likely reflected both Admiral Clark's personal views as well as the majority of most Navy officers. While Admiral Clark and the Navy's senior leadership may have instinctively known that the requirement for and the importance of combined arms naval maneuver (and seabased logistics forces) was rising in the Joint Expeditionary Era, they did not want major improvements to the Operational Maneuver Fleet to crowd out other Navy programs, particularly the spectacular improvements being made to the Seabased Strike Fleet. In the telling words of one admiral, to consider the Navy's role as solely to deliver ground and air forces to a land-based battle "ignores the tremendous potential of the seabase." ³⁰⁹

³⁰⁸ See for example Andrew Koch, "US Considers Overhaul of Amphibious Forces," *Jane's Defense Weekly*, May 5, 2004.

³⁰⁹ Kim Burger, "US Navy Considers the Implications of Seabases," *Jane's Defense Weekly*, June 25, 2003.

Admiral Clark's negotiating positions were thus motivated as much by hard-nosed cost considerations as they were by measured judgments about the superiority of MPF(F) ships in the JFEO role or about the wisdom of biasing future amphibious operations toward aerial maneuver. MPF(F) ships built to commercial standards would be far cheaper, ton-for-ton, than amphibious assault ships built to warship standards. More importantly, by replacing Navy-crewed active amphibious landing ships with civilian-crewed, Military Sealift Command MPF(F) ships, the Navy would either free up manpower for other duties or reduce the battle fleet's overall manpower requirements—just as it had done with the combat logistics force ships throughout the 1990s. Therefore, since manpower costs were the single biggest contributing factor for ship operating costs, substituting MPF(F) ships for amphibious ships promised substantial recurring operations and support (O&S) savings, all of which could be diverted into Navy procurement accounts.

Admiral Clark knew that neither of these positions would be popular with Marine Corps leadership. He therefore patiently couched his arguments in ways that would co-opt the Marines to his side. With regard to substituting MPF ships for amphibious landing ships, Admiral Clark emphasized the importance of *speed of response*. As will soon be discussed, this argument struck a chord—both with the Marines, who prided themselves as being the "first to fight," and with OSD leadership, which was becoming increasingly enamored with generating higher strategic speeds. With regard to his proposed reshaping of the amphibious landing fleet to better support aerial maneuver, he enlisted the help of Major General Robert Scales, Jr., the leading AAN zealot of aerial maneuver and air mechanization, to make his case. More importantly, however, he relied upon the Marine's own aggressive pursuit of the V-22 to convince them of the wisdom of his position.

As will be seen, Admiral Clark's negotiating strategy and arguments proved to be quite effective; they indelibly shaped the subsequent development of both DoN and joint seabasing plans and programs. For the moment, however, it is enough to say that Admiral Clark's opening move—to retrieve the *MPF 2010 and Beyond* concept from the bowels of the Navy staff and to begin a formal discussion with the Marine Corps about the character of the future MPF program—both pleased the Marine Corps and started a train of events that would inextricably link the subsequent development of the seabasing concept with this new program.

The initial result of Admiral Clark's efforts to "close the loop" with the Marine Corps is now known as the Maritime Prepositioning Force for the 21st Century, or more commonly, as MPF Future (MPF(F)). Soon after he assumed the reins as CNO, he approved the formation of a "naval expeditionary working group" composed of both Navy and Marine Corps personnel to draft a MPF(F) Mission Need Statement (MNS). In the event, the MNS included the exact same pillars found in the *MPF 2010 and Beyond* concept: force closure; amphibious task force interoperability; and reconstitution and redeployment. Indeed, the "new" concept was nothing more than a copy of *MPF 2010 and Beyond*—albeit with a new, all-important, Navy stamp of approval.³¹⁰

Both sides had reason to be pleased with the MPF(F) MNS, which was approved by the Joint Requirements Oversight Counsel (JROC) in June 2001, just one year after Admiral Clark's arrival. For the Marines, the document included a requirement for the MPF(F) to be able to support a notional MEB of between 14,000-17,000 Marines; to conduct RSOI in port, in stream, or 25 miles over the horizon; to sustain forces ashore logistically; and to recover and "recock" the MEB by conducting "maintenance and 'real estate intensive'" reconstitution operations while sailing *en route* to another operating area.³¹¹ Most importantly, the MNS reflected the Marines' position that the MPF(F) would *not* have an *independent* forcible entry capability. This was reflected explicitly in the statement's text, and implicitly in the MPF(F)'s reduced survivability standards compared to amphibious assault ships and its lack of an ability to operate in a chemical, biological, and radiological environment. Instead, the MPF(F) was deemed suitable only to reinforce the amphibious assault echelon deployed on and employed off of amphibious warships—a long time MPF mission.³¹²

On the other hand, from the Navy's perspective, the approval of the MNS opened the way for a formal analysis of alternatives (AOA), which would examine and reappraise *all* previous MPF(F) assumptions. As two officers wrote in November 2001, five months after the MNS's approval:

Major John M. Curatola, USMC, and Lieutenant Commander Robert Bovey, Jr., USN, ret., "The Future Maritime Prepositioning Force," *Proceedings*, November 2001, pp. 87-89.

³¹¹ Curatola and Bovey, Jr., "The Future Maritime Prepositioning Force," pp. 87-89.

³¹² Mission Need Statement (MNS) for Maritime Prepositioning Force for the 21st Century (MPF(F)).

Although the MPF(F) mission need statement was built on the pillars of the 2010 concept paper, it is broad enough to allow for many interpretations—and to sustain the progress of MPF(F), the naval service must refine and clarify these interpretations (emphasis added).³¹³

In others words, the Navy considered the jury to still be out over where the line was between the assault and the assault follow-on echelons in future seabased maneuver operations, and the exact role that the MPF(F) would play in forcible entry operations. Indeed, the jury was still out on the entire MPF(F) program; the inter-service negotiations over the MPF(F) were just beginning. And in this early critical stage of negotiations, Admiral Clark was to receive some critical and weighty support for shaping the future Operational Maneuver Fleet around the MPF(F), and making it more central in attacks from the sea.

THE 2001 QDR

Soon after Admiral Clark's arrival, and while the Navy and Marine Corps were working on the MPF(F) MNS, the Republicans captured the White House. Even if it had not been required by law to conduct a Quadrennial Defense Review, the Bush Administration arrived with the clear intent to give the nearly decade-old military planning assumptions that guided two previous Democratic Administrations a thorough, searching review. Indeed, as indicated in a 1999 speech given by then-candidate Bush, and in terms members of both the NDP and the U.S. Commission on National Security/21st Century would undoubtedly endorse, the new Administration was intent on fashioning something even grander: a broad "transformation" of the military to help better prepare the armed forces for new 21st century security challenges. Central to this transformation was a desire to replace mass with speed, as indicated in a telling passage in candidate Bush's speech, undoubtedly influenced by the recent Task Force Hawk experience: "Our forces in the next century must be agile, lethal, readily-deployable, and require a minimum of logistical support. We must be able to project our power over long distances, in days or weeks rather than months" (emphasis added).³¹⁴

³¹³ Curatola and Bovey, Jr., "The Future Maritime Prepositioning Force," p. 87. ³¹⁴ Ronald Brownstein, "Success in Afghanistan Clouds Military Transformation Plan," *Los Angeles Times*, December 12, 2001, found online at http://www.globalsecurity.org/org/news/2001/011212-attacko3.htm.

At first blush, despite the strong talk about the need to "transform" the joint force and nine months of hard work, the "new" Bush QDR strategy seemed little more than a repackaging of the Democratic force planning and sizing construct adopted in the BUR in 1993 and reaffirmed in the 1997 QDR. Like these earlier documents, the focus of the 2001 QDR remained on defeating "traditional" military opponents. Indeed, having endorsed a strategy of "swiftly defeating attacks against US allies and friends in any two theaters of operations in overlapping timeframes," the new Republican strategy appeared to have made little change other than substituting the term "major combat operations" for the BUR's "major regional contingencies" and the 1997 QDR's "major theater wars." ³¹⁵

However, the QDR was very important in another key respect. It strove to change the way that the Pentagon, Joint Staff, and services thought about future "challenges and opportunities" and how they in turn adapted to conform to that new thinking. Said another way, the 2001 QDR aimed to break the stranglehold of Cold War planning and force development assumptions in order to prepare better the US armed forces to deal with future surprise and uncertainty—"the defining characteristics" of the Joint Expeditionary Era. ³¹⁶ To do so, the QDR initiated a series of important changes that had major impacts on the subsequent development of the joint force, and particularly joint thinking about seabasing:

• First, as modified after the attacks of September 11, 2001, the QDR strategy was amplified to reflect what was commonly referred to as the "1-4-2-1" force sizing and planning construct. This new construct called for a military force large enough and properly shaped to defend the homeland from attack (1); deter adversaries in four critical regions—Europe, Southwest Asia, the East Asian Littoral, and Northeast Asia—simultaneously (4); to swiftly defeat enemies in two of the four regions in overlapping timeframes (2); and to win one of the two conflicts "decisively" by forcing a regime change (1).³¹⁷ As will

³¹⁵ Donald H. Rumsfeld, Secretary of Defense, Quadrennial Defense Review Report (Washington, DC: Office of the Secretary of Defense, September 30, 2001).

or. Robert Herman, General Larry Welch, co-chairs, *DSB Summer Study on Transformation: A Progress Report, Volume I* (Washington. DC: Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, February 2006), p.5.

³¹⁷ Vice Admiral Mike Mullen, "Global Concept of Operations," *Proceedings*, April 2003, found online at http://www.usni.org/proceedings/Articleso3/

be seen, the combination of 1-4-2-1 with its subsequently developed planning timelines was to provide a fundamental justification for the ultimate linkage between seabasing and the MPF(F) program.

- Second, the QDR announced a shift from threat-based planning to a "capabilities-based approach" to defense planning. The 1990s was characterized by incessant planning about a repeat of *Desert Storm* and a North Korean cross-border invasion of South Korea. Plans to defend Taiwan against a Chinese attack also merited continuing attention. In stark contrast, the QDR argued that the US would be forever uncertain about which nation, group of nations, or non-state actor would threaten the United States in the future, and therefore should decouple the force development process from near-term war planning. In this regard, the QDR concluded it was possible to"... anticipate the capabilities and adversary might employ to coerce its neighbors, deter the United States from acting in defense of its allies or friends, or directly attack the United States or its deployed forces." A capabilities-based approach focused on how an adversary might fight rather than who the adversary might be therefore promised to give a broader strategic perspective to the development of future US defense capabilities.318
- Third, taking a cue from the earlier DSB Task Force on Strategic Mobility, the NDP, and the U.S. Commission on National Security/ 21st Century—as well as President Bush's stated desire to transform the military's ability to project power—the 2001 QDR outlined six specific future operational challenges designed to guide the capabilities-based transformation planning for future service and joint force capabilities. Two of these challenges included protecting critical bases of operation in the US homeland, on allied territory, and used by military forces overseas from attack; and projecting power in severe anti-access environments.³¹⁹ In other words, just as happened over the first several decades of the Oceanic Phase of national policy and the first Expeditionary Era, senior defense planners told military planners to once again be as concerned with overcoming an enemy's A2/AD defenses and seizing forward access and advance bases as they were in defending them.

PROmulleno4.htm.

Rumsfeld, 2001 Quadrennial Defense Review Report, p. 13.

Rumsfeld, 2001 Quadrennial Defense Review Report, p. 30.

• Finally, the QDR also directed a broad reorientation of the US global military posture to better support future US power-projection operations and to improve US operational independence and global freedom of action. In this regard, the QDR stole a page from the U.S. Commission on National Security/21st Century when it said:

[The] reorientation of the posture must take account of new challenges, particularly anti-access and area-denial threats. New combinations of *immediately employable* forward stationed and deployed forces; globally available reconnaissance, strike, and command and control assets; information operations capability; and *rapidly deployable*, *highly lethal*, and sustainable forces that come from outside a theater of operations have the potential for being a significant force multiplier for forward stationed forces, *including forcible entry forces* (emphasis added).³²⁰

Importantly, as part of this effort, the QDR directed that the joint force "(p)rovide sufficient mobility...and new logistical concepts of operations to conduct expeditionary operations in distant theaters against adversaries armed with weapons of mass destruction and other means to deny access to US forces." ³²¹ Not explained was the apparent dichotomy between the QDR's strong overall demand for increased speed of response and the need to project power under threat of nuclear weapons, which might argue for a more deliberate, slower attack. In any event, the QDR's heavy emphasis on speed of strategic response helped to dampen or mute concerns that the MPF(F)—which, by design, would not be able to operate in a nuclear contaminated littoral—might not be suitable for some future forcible entry missions.

In fact, the QDR's heavy emphasis on strategic response and speed implicitly strengthened Admiral Clark's negotiating position that the MPF(F) should begin to augment or even replace the amphibious landing force for future expeditionary "power projection" or forcible entry missions. It may be that his position was not a preconceived one, and Admiral Clark came to it as a result of QDR deliberations. Regardless of whether or not the 2001 QDR reinforced a preconceived notion or helped to form a new one is a moot point, however; after the 2001 QDR,

³²⁰ Rumsfeld, 2001 Quadrennial Defense Review Report, p. 25.

Rumsfeld, 2001 Quadrennial Defense Review Report, p. 26.

Admiral Clark's and the Navy's support for the MPF(F) program was consistently strong—as long as its costs were deemed bearable.

NEEDED: AN EXTERNAL STIMULUS

In summary, by 2001, two years into the second decade of the post-Cold War national security policy era, there was a growing appreciation for the era's basic strategic conditions. Moreover, a new Administration was in place intent on reshaping the US armed forces to better account for the conditions of the associated Joint Expeditionary Era. At the top of the list of the Administration's defense objectives was a thorough transformation in the way the US armed forces projected power globally. However, as General Powell learned in his tour as Chairman of the JCS, good ideas and strong leadership are often not in themselves enough to move the conservative Pentagon bureaucracy toward a new and different future. Much to its dismay, the Bush Administration learned the same lesson during the first nine months of 2001.³²²

The MRS 2005's abject failure to question comfortable Cold War planning assumptions about access and the changing nature of power projection more than a decade into the new Joint Expeditionary Era was a sobering lesson in the institutional inertia that characterized defense planning during the 1990s. What was needed for the Bush Administration's wider call for change to take hold was a sharp external prompt or galvanizing event jolting enough to convince the joint and service bureaucracies that they needed to embrace and accept a need to change. That galvanizing event occurred on September 11, 2001.

As was acknowledged in the recently published 2006 QDR, "the terrorist attacks of September 11 imposed a powerful sense of urgency to transforming the [Department of Defense].³²³ Only two weeks after the attack, as the ink was literally drying on the 2001 QDR, the US military found itself in the midst of planning the first counter-offensive of a newly declared "Global War on Terrorism" (GWOT). More than any study, artful operational concept, or commission recommendation, the

³²² Brownstein, "Success in Afghanistan Clouds Military Transformation Plan."

³²³ Donald Rumsfeld, Secretary of Defense, *Quadrennial Defense Review Report* (Washington, DC: Office of the Secretary of Defense, February 6, 2006), p. v.

direct attack on American territory and civilians by radical extremists and the hasty counterattack that followed set into motion an inexorable chain of events that would with gathering momentum begin to change Cold War thinking that infused the US armed forces.

Given this new impetus, more and more officers began to accept the views of the DSB Task Force on Strategic Mobility, the NDP and the U.S. Commission on National Security/21st Century; to embrace the general direction outlined in the 2001 QDR; and to actively pursue new means of global expeditionary maneuver and movement. One noticeable result was an ever-quickening transition from seabasing concepts to concrete supporting plans and programs—the subject of the next chapter.

VI. Seabasing Ascendant

If we get this concept of seabasing right, it might well be one of the most transformational things the Department of Defense, and our naval forces, will ever do. We will, most importantly, offer our nation a truly quantum leap over what we have today.³²⁴

Lieutenant General E. H. Hanlon, USMC, 2002

These two sentences well encapsulate the strikingly schizophrenic development of the seabasing concept since the end of the Cold War, and particularly since 2001. The first reflects a troubling reluctance to acknowledge the "transformational" impact that seabasing had on the US armed force *prior to* the Cold War. The second accurately reflects the thorough deconstruction of naval maneuver and seabasing capabilities that occurred during the Cold War. As the previous chapters suggest, General Hanlon might have more accurately said that the strategic conditions were finally conducive and the operational stage was finally set for a renaissance in US seabasing and naval maneuver capabilities—if only the Navy, Marines, and the entire joint community could rouse themselves to embrace it.

As this chapter will discuss, they largely did. As a result, even though not guided by any type of agreed upon joint vision or framework, seabasing would once again play a central role in US strategic thought and plans.

³²⁴ Opening remarks made by Gen Hanlon at the Navy-Marine Corps Seabasing Conference, held in Quantico, Virginia on February 21, 2002, as cited in Colonel Art Corbett, USMC, and Colonel Vince Goulding, USMC (ret), in "Sea basing: What's New?" *Proceedings*, November 2002.

REINFORCING FIRES: OPERATION ENDURING FREEDOM

Less than three weeks after the 2001 QDR was published, the first US counter-offensive of the GWOT, Operation *Enduring Freedom* (OEF), was launched literally half-way around the world in land-locked Afghanistan. Plans for the operations were complicated by the fact that the United States did not enjoy immediate or ready access to nearby Central Asian bases. Substantial access was subsequently negotiated to allow US forces to operate from bases in Pakistan, Kyrgyzstan, and Uzbekistan, and to arrange for refueling and overflight rights throughout Central Asia. However, as was the case with Task Force Hawk, these negotiations took some time to complete. In the interim, seabased strike and maneuver forces provided critical access and warfighting capability during both the early and subsequent phases of the operation. ³²⁶

For example, the first attacks against the Taliban were supported by the nuclear-powered aircraft carriers *Enterprise* and *Carl Vinson* operating in the Arabian Sea.³²⁷ Moreover, the first conventional ground combat unit projected into Afghanistan was a Marine unit air-landed from Task Force (TF) 58—a hastily assembled seabase off the coast of Pakistan commanded by a Marine general, and built around two forward-deployed ARG/MEUs. Although the units movement inland could not have been accomplished without supporting land bases, the fact remained that ready combined arms forces, initially located in the region on a distributed seabase unfettered by access complications, were inserted inland nearly 400 miles from the sea—and much faster than other conventional combat units being deployed from the United States.³²⁸

OEF helped to underscore—in a way no report or operational concept could—the three basic strategic conditions of the Joint Expeditionary Era: first, the United States would be forever uncertain over where its next fight would be; second, future US power-projection operations would normally require the deployment, employment, and sustainment of joint air, ground, and naval forces from the United States across great

³²⁵ Cooley, "Base Politics."

Andrew Koch, "USA Looks to Enhance Sea-basing Capabilities," *Jane's Defense Weekly*, May 22, 2002.

³²⁷ See "Operation Enduring Freedom—Deployments," found online at http://www.globalsecurity.org/military/ops/enduring-freedom_deploy.htm.

³²⁸ For a good synopsis of the Marines' initial aerial maneuver into Afghanistan, see Captain Jay M. Holtermann, "The 15th Marine Expeditionary Unit's Seizure of Camp Rhino," *Marine Corps Gazette*, June 2002, pp. 41-43.

transoceanic distances; and third, the United States would have to work harder to get both political and operational access to land bases in distant theaters. Just as the NDP had predicted, "(a)ccess may be granted or denied for any number of political or military reasons...[and] US forces may find themselves called upon to project power in areas where no substantial basing structure exists." ³²⁹

The clear implication of these three strategic realities was that for the United States to retain its global operational independence and freedom of action, the joint force had to hedge against "uncertain neutrals and doubtful allies" by increasing its types and number of accessinsensitive forces and mobility and maneuver platforms. With history as a guide, one obvious way to do this would be to increase the number and capability of seabased forces.

As discussed earlier, some strategists and analysts objected to this observation, pointing out that the United States had been able to consistently negotiate land-based access during the Joint Expeditionary Era. They argued, rightly, that political access has always been an issue, even during the Cold War when access was generally assured. While the negotiation process for political access might be more difficult and time-consuming in the Joint Expeditionary Era than it was during the Cold War, they pointed out that neither the process nor the lack of land-based access had ever threatened the outcome of any US expeditionary operation mounted since 1989. And, if they had, the US would merely have seized the bases needed. This view was perhaps best summarized by Daniel Goure of the Center for Strategic and International Studies (CSIS), who wrote in 2001 that:

The land-versus-sea argument has been going on for a long time, with no resolution in sight. It is sufficient to point out the fact that [seabasing] may be needed, if land bases are not available, does not make it the preferred solution. Indeed, when the stakes are sufficiently grave or the vital interests of the allies are threatened, it is unlikely that US military leaders will rely solely on [seabasing]. To put it bluntly, if land bases are necessary, they

³²⁹ The National Defense Panel: Assessment of the May 1997 Quadrennial Defense Review.

will be found or even seized. This is an often-overlooked lesson of the Gulf War or the Kosovo campaign.³³⁰

However, while Goure's implicit argument that seabasing and naval forward presence would never fully replace land bases in major power-projection operations is a powerful one (and likely accurate), it in no way refutes the real advantages of having *both* land bases *and* seabases, or of being able to conduct naval maneuver. Indeed, by Goure's own logic, seabased forcible entry forces might be the best—if not only—way to seize the very land bases necessary to prosecute a major campaign.

THE 2002 NATIONAL SECURITY STRATEGY

In any event, the impetus for improved capabilities for naval maneuver received a further substantial boost with the publishing of a new national security strategy. The rationale for this strategy was previewed in a powerful speech given by President Bush at West Point in June 2002, in which he declared that containment would not work against "shadowy terrorist networks [without nations]...to defend" or against "unbalanced dictators." As a result, he argued, the United States must be prepared to take "preemptive action when necessary to defend our liberty and to defend our lives." ³³¹

The subsequent *National Security Strategy of the United States of America*, published just months later in September 2002—just one year after the attacks of September 11, 2001—codified a US willingness to act preemptively, if necessary. It went on to say, "To support preemptive options we will continue to transform our military forces to ensure our ability to conduct rapid and precise operations to achieve decisive results." ³³² Left unsaid, but strongly implied, was that such unilateral preemptive operations could not depend on "uncertain neutrals and

³³⁰ Daniel Goure, "The Tyranny of Forward Presence," *Naval War College Review*, Summer 2001, p. 17, as cited by Williamson Murray in the *Defense Science Task Force on Sea Basing*, p. 113.

Hendrix II, "Exploit Sea Basing," p. 63.

³³² The Honorable George W. Bush, President of the United States, *The National Security Strategy of the United States of America*, (Washington, DC: The White House, September 17, 2002), found online at http://www.whitehouse.gov/nsc/nssintro.html.

doubtful allies." One of the key strategic rationales for seabasing had thus been indirectly embraced by the new National Security Strategy of the United States.

Just as importantly, however, the new *National Security Strategy* signaled a shift away from the planning for "traditional" (i.e., Cold War state-on-state) wars that had dominated US defense thinking during the 1990s. As the strategy said, "America is now threatened less by conquering states than we are by failing ones. We are menaced less by fleets and armies than by catastrophic technologies in the hands of the embittered few." ³³³

OA 2003: THE NEED FOR SPEED

An increased willingness to preempt attacks also implied that the US armed forces needed to be constantly ready for prompt action, and have the means to execute it. Although the US had initiated its first counter-offensive after the September 11 attacks in little less than three weeks, the President, Vice President, and Secretary of Defense Rumsfeld were dismayed by the apparent slow pace of US campaign planning and the inability to get *conventional* combat forces into theater more quickly. One result was a Joint Staff planning effort called Operational Availability 2003 (OA 2003).

The specific trigger for OA 2003 was a directive from the Secretary of Defense to the Joint Staff to review and question the metrics being used for the long entrenched two-MCO planning problem. As a result, OA 2003 reexamined the planning metrics for overlapping MCOs in the Middle East and the Northeast Asian theaters. This review occurred in 2002, after Operation *Enduring Freedom* in Afghanistan but before the March 2003 major combat operations phase of Operation *Iraqi Freedom* (the invasion of Iraq). In the event, the participating officers took into account lessons learned from OEF; improvements made to the Strategic Military Transportation System since the end of the Cold War; as well as the rapid apparent extension to the already dominant US lead in the Guided Weapons Warfare Regime.³³⁴

³³³ President George W. Bush, *The National Security Strategy of the Untied States of America*, 2002.

³³⁴ The information in this and the following paragraphs comes largely from a series of interviews the author conducted with participants of OA 2003 in

One of the original planning metrics developed for the BUR's "near-simultaneous" major combat operations was a 45-day delay between the first MCO and the second. This delay was caused primarily by the need to "swing" sealift forces from one theater to another to shift ground maneuver forces, equipment, and supplies. During OA 2003, allocation planning models suggested that the transition timing between the two MCOs could be reduced from 45 to 30 days, primarily because of the improvements recommended and implemented by the aforementioned mobility requirements studies (the MRS, MRS BURU, and MRS 2005): the procurement of 180 C-17 strategic airlifters; the addition of 11 LMSRs to the surge sealift fleet; the addition of approximately 30 RO/ROs to the sustainment sealift fleet; the expansion of the three MPF squadrons by one ship each; and the replacement of the initial ships of the Combat Logistics Force (CLF) with eight gas turbinepowered LMSRs. Moreover, the widespread use of guided weapons in US campaign planning was thought likely to reduce the overall logistics demand for the second MCO.

However, the joint staff officers participating in OA 2003 did not stop there. After being pounded and hounded for the lack of response during OEF—which in hindsight was motivated more by frustration over the conservative nature of the joint planning process than it was about the joint force's slow speed of response—they also made it their business to think about how rapidly US forces could respond to *and win* a major combat operation. In other words, they wanted to define, in specific planning terms, just how long a "swift defeat" should take.

This decision reflected the ever-increasing emphasis on achieving rapid victories that started with the US invasion of Panama in 1989. Indeed, this thinking became an explicit part of US defense strategy in the 1993 Bottom-Up Review. Recall that the BUR endorsed a force planning and shaping construct that called for the "rapid halt" of any crossborder invasion anywhere in the world. This thinking was subsequently endorsed in the 1997 QDR and later by the US Commission on National Security/21st Century, which called for a force capable of deterring wars, precluding crises from evolving into major conflicts, and winning wars "rapidly and decisively should it become necessary." ³³⁵ The 2001 QDR simply picked up on these themes, calling for a force capable of

preparation for this and other reports.

³³⁵ U.S. Commission on National Security/21st Century, Seeking a National Strategy: A Concert for Preserving Security and Promoting Freedom: The Phase II Report on a US National Security Strategy for the 21st Century.

"swiftly defeating" adversaries in two near-simultaneous major combat operations. Indeed, the assumption that strategic speed had an intrinsic value in war was a key part of Secretary Rumsfeld's view of the evolving nature of warfare. 336

This thinking ultimately infused the US military, as perhaps best captured in a joint concept entitled *Rapid Decisive Operations (RDO)*:

The essence of the concept emphasizes situational understanding, immediate response capability, speed, and massing of effects rather than forces. Distinguished from traditional operations, this approach usually will not focus on seizing and occupying territory in the battlespace except for a limited purpose, such as to generate an otherwise unobtainable opportunity for precision engagement, to secure a key decisive point, or to protect the civilian populace. Forces inserted for these purposes would have the capability to be quickly withdrawn and employed elsewhere. An RDO campaign typically will be characterized by immediate, continuous, and overwhelming operations to shock and paralyze the adversary, destroy their ability to coordinate offensive and defensive operations, fragment their capabilities, and foreclose their most dangerous options.337

For rapid decisive operations in defended or contested access scenarios, Joint Forcible Entry Operations would become just the first step of a set of "immediate, continuous, and overwhelming" operations designed to achieve decisive battlefield results and quick victory. They would be part of a series of actions designed to *seize the initiative* early in a campaign so that an enemy would never be able to consolidate his military gains. Indeed, "If the circumstances (were) right, the entry and combat operations stages could combine in a *coup de main*, achieving the strategic objectives in a single major operation." ³³⁸ Ironically, although the operational *execution* of the 1989 invasion of Panama pro-

³³⁶ This view is well captured in Michael R. Gordon and General Bernard E. Trainor, *Cobra II: The Inside Story of the Invasion and Occupation of Iraq* ((New York: Pantheon Books, 2006), Chapters 1 through 3.

³³⁷ See "Rapid Decisive Operations," found at http://www.globalsecurity.org/military/ops/rdo.htm.

^{338 &}quot;Rapid Decisive Operations."

vided the conceptual model for RDO, the *planning* for that operation was anything but rapid, taking nearly six months to complete.³³⁹

In any event, the officers involved in OA 2003 took the ideas found in the RDO concept and used them to establish notional planning guidelines for the pace and duration of America's future wars. Action officers concluded that the goal in all future wars should be for US joint forces to seize the initiative within the first ten days; to achieve all "swift defeat objectives" within 30 days; and then, in another 30 short days, to redeploy to another theater and do it all over again. Their thinking was based on professional judgment and "gut feel," egged on by outside think tanks, and backed up by decade-old analyses of war plans against potential "traditional" military opponents in Southwest Asia, the Western Pacific, and Northeast Asia.

Immediately attracted by this thinking, which was closely in line with the Bush Administration's transformation objective of fashioning a lighter, nimble, and more agile military, the Office of the Secretary of Defense explicitly endorsed this thinking by subsequently inserting what is now known as the "10-30-30" metric in the Defense Planning Guidance (DPG). Senior OSD officials often described the new metric as a "stretch goal," management short-hand for a "big, hairy audacious goal" (BHAG). BHAGs are distant institutional goals set by management to fire the imagination of an enterprise and to guide long-term transformation efforts. They generally are goals that take decades to achieve and have a high likelihood of failure. Most importantly, however, the members of the enterprise have to believe in the goal and that it can be achieved, with hard work. However, by including the "10-30-30" in the DPG, the metric became a near-term benchmark to judge the development of new joint mobility programs.

It is one thing to set up planning timelines for *force movement*, such as, "by 2015 the joint force should have a Global Expeditionary Maneuver and Movement System capable of moving v number of forcible entry brigades, w access-insensitive reinforcement brigades, and x access-sensitive reinforcement brigades to theater y within z days." It is entirely another to endorse a planning timeline that requires a force to "seize the initiative" in any potential MCO within 10 days; to "swiftly

Ronald H. Cole, "Grenada, Panama, and Haiti: Joint Operational Reform," *Joint Forces Quarterly*, Autumn/Winter 1998/99, pp. 59-61.

³⁴⁰ See Greg Jaffe, "Battle Lines: Rumsfeld's Push For Speed Fuels Pentagon Dissent," *Wall Street Journal*, May 16, 2005.

defeat" a first enemy in 30 days; and then to repeat the process in a different theater and against a different adversary 30 days after that. The former can sensibly be used to plan improvements to US mobility and maneuver capabilities; the latter essentially *mandates a short war mentality* in US defense strategy, plans, and operations.

The "10-30-30" metric represents the misguided culmination and blending of thinking about two near-simultaneous MRCs/MTWs/MCOs and rapid decisive operations. It combined a *general force planning and sizing metric* with a *theory for short wars* to describe a *strategy to achieve two, rapid successive victories over "traditional" military opponents over a span of 90 short days*. This happened after only the most cursory of analyses and was accepted without debate. Apparently, no one on the Joint Chiefs of Staff or the Office or the Secretary of Defense questioned the wisdom of a metric that implicitly assumed that most future wars would be just 30 days long and would inevitably shape the force to conduct short, intense wars. However, as was argued by a retired British general in a recent monograph prepared for the Association of the US Army's Institute for Land Warfare:

...over the last hundred years military establishments and their political masters have underestimated the length and costs of their campaigns and have frequently had little idea of the actual nature of their undertakings. A common factor in this appears to be the desire that campaigns should be short, decisive and cheap, and therefore with less risk but a greater likelihood of popular support—to be "home by Christmas." This delusion has often been reached irrespective of the historical evidence and the analysis of current capabilities to the contrary.³⁴¹

Recall that similar thinking in the Interwar period led to an unbalanced battle fleet long on surface combatants and short on the combat logistics force ships and the amphibious assault ships necessary to sustain operations in contested forward theaters. As will be seen, the adoption "10-30-30" and the short war mentality it dictated marked the unbalanced pursuit of programs to improve strategic speed in order to rapidly "seize the initiative," to "shock and paralyze" an adversary, to

³⁴¹ Major General Jonathan B.A. Bailey, British Army, ret., "'Over By Christmas': Campaigning, Delusions, and Force Requirements," AUSA Institute of Land Warfare, Land Warfare Paper 51W, September 2005, p. v.

"lock out" his options, and to enable a prompt victory—at the expense of other proven assets or forces necessary for more difficult and more prolonged wars.

Proponents of "10-30-30" could perhaps justify the metric when developing strategies to fight "traditional" opponents willing to play to US warfighting strengths in the Guided Weapons Warfare Regime, although even that proposition is debatable. As will be discussed at length in the final chapter, while speed and rapidity of action are clearly desirable goals at the operational and tactical levels of war, the historical record for emphasizing speed at the strategic level is far less encouraging. For now, it is sufficient to say that the short-war thinking that lay behind "10-30-30" likely contributed in no small way to the difficulty US forces subsequently had when they were confronted by an "irregular" adversary whose strategy was predicated on *extending and disrupting* American timelines, and to the institutional neglect and inattention to OIF's so-called "Phase IV" operations—those operations that are supposed to occur *after* the "swift defeat" objectives are met.

One can only hope the 2006 QDR will finally reject or recast this destructive strategic timeline. However, the point here is that the OSD approval of the "10-30-30" metric was to have a profound and lasting impact on the direction of both naval and joint sea basing plans, as was immediately made clear with the publishing of *Sea Power 21*.

SEA POWER 21: THE NAVY EMBRACES SEABASING—OF A SORT

As noted earlier, *Sea Power 21*, published in October 2002 just one month after the new National Security Strategy, highlighted *Sea Basing* as the *first* among the vision's three key organizing concepts, since it made the remaining two—*Sea Strike* and *Sea Shield*—operational "realities." Indeed, as mentioned in the first chapter, the vision declared that the *Sea Basing* concept "provides a valuable tool for prioritizing naval programs." As a result, the vision, proclaimed, all future naval programs would foster seabasing attributes to the "greatest extent feasible." ³⁴²

³⁴² Clark, "Sea Power 21: Projecting Decisive Joint Capabilities."

It is important to note, however, that *Sea Power 21* was a *Navy* and not a true *naval* vision. It reflected the culmination of over five years of concept development by the CNO's Strategic Studies Group (SSG), a program that brings small groups of the Navy's brightest thinkers (and a much smaller number of Marines) to Newport, Rhode Island for one year to tackle issues of particular interest for the CNO. Between 1996 and 2001, successive SSGs developed the conceptual underpinnings for Sea Strike, Sea Shield, Sea Basing, and ForceNet—the Navy's vision to create a thoroughly networked battle force. Although *Sea Power 21* was published by Admiral Clark and was written in final form by his personal staff, the vision reflected an unvarnished view of the institutional Navy's innermost thoughts.³⁴³ And, as is evident in the following extended quote, it also clearly reveals Admiral Clark's and the corporate Navy's most important beliefs about naval maneuver:

Operational maneuver is now, and always has been, fundamental to military success. As we look to the future, the extended reach of networked weapons and sensors will tremendously increase the impact of naval forces in joint campaigns. We will do this by exploiting the largest maneuver area on the face of the earth: the sea.

...As enemy access to weapons of mass destruction grows, and the availability of overseas bases declines, it is compelling both militarily and politically to reduce the vulnerability of U.S. forces through expanded use of secure, mobile, networked sea bases. Sea Basing capabilities will include providing Joint Force Commanders with global command and control and extending integrated logistical support to other services. Afloat positioning of these capabilities strengthens force protection and frees airlift-sealift to support missions ashore.

Netted and dispersed sea bases will consist of numerous platforms, including nuclear-powered aircraft carriers, multi-mission destroyers, submarines with Special Forces, and maritime pre-positioned ships, providing greatly expanded power to joint operations.

³⁴³ The key insight about the role of the SSG in developing *Sea Power 21* was made by Commander Mark Becker, Deputy Sea Base Pillar Lead (N832), Navy Warfare Development Command.

Sea Basing accelerates expeditionary deployment and employment timelines by pre-positioning vital equipment and supplies in-theater, preparing the United States to take swift and decisive action during crises. We intend to develop these capabilities to the fullest extent...Joint operational flexibility will be greatly enhanced by employing pre-positioned shipping that does not have to enter port to offload.³⁴⁴

After reading this passage, four inter-related observations stand out. First, although it acknowledges the importance of operational maneuver, it gives no explicit reference to Marines in this role. Indeed, the passage states that the global mobility of ships at sea and the extended reach of their networked weapons and sensors will provide the biggest contribution of naval forces in joint campaigns—not the deep thrusts of Marine combined arms teams or Army combat brigades launched from Navy ships and supported by Navy fires. Navy officers defend this lapse by arguing that *Sea Power 21* was a Navy vision. But in its most powerful form, *naval* operational maneuver is a *combined arms operation* involving sea, air, and ground forces, and *Sea Power 21*'s troubling failure to mention this fact left the strong impression that Navy thought about naval maneuver and seabasing primarily in terms of *Navy* capabilities.

Second, consistent with this thinking, note that the passage conceives of seabasing primarily in terms of substituting seabases for land bases. The purported reasons to do so are to increase force protection, to free up air and sealift for forces ashore, and to increase joint force operational independence by "exploiting the largest maneuver area on the face of the earth." Curiously, left unsaid was any mention of using seabasing to seize and defend joint access to land bases, a basic requirement in instances where there are no land bases to be found in a contested theater. This reflects one of two things, or perhaps both: the Navy's failure to embrace a subordinate role in maritime operations in the Joint Expeditionary Era, or the Navy's desire to highlight the Navy's unique "decisive" capabilities and contributions rather than a supporting role—much like Marines did in OMFTS.

Third, this thinking helps to explain the Navy's consistent view that the platforms that make up a future seabase *do not* include amphibious landing ships. Instead, they include only MPF ships, which will be

³⁴⁴ Clark, "Sea Power 21: Projecting Decisive Joint Capabilities."

developed to "the fullest extent" to give them the ability to employ their forces without having to enter port. Implicitly, then, amphibious ships are associated with some lesser or legacy seabasing role.

Finally, the conceptual separation of MPF(F) from amphibious landing ships—a notion seemingly at direct odds with the MPF(F) pillar of amphibious task force interoperability—is justified primarily because only MPF ships can accelerate expeditionary deployment and employment timelines, allowing the United States to take "swift and decisive action during crises"—an clear if implicit reference to the early impact the "10-30-30" metric had on the development of subsequent DoN seabasing plans.

These four thoughts were also reflected in the immediate post-Sea Power 21 changes being made to the battle fleet's organization and operations. The initial changes were outlined in Sea Power 21's supporting "Global Concept of Operations," or Global ConOps for short. The Global ConOps was specifically shaped to support the new 1-4-2-1 strategic construct, as is made clear below:

The U.S. Navy's Global Concept of Operations (ConOps) is centered on creating additional, innovative force packages to enhance deterrence and improve our ability to operate in more areas around the world. This expansion of operational power is critical because deterring adversaries in four theaters requires on-scene forces poised to project offensive and defensive power when required. In addition, swiftly defeating enemies in multiple theaters requires distributed combat-credible forces that are ready to fight and win, without gapping our presence elsewhere.³⁴⁵

Key to the Global ConOps was the formation of 12 new Expeditionary Strike Groups (ESGs), consisting of an ARG/MEU, three surface combatants, a submarine, and shore-based tactical support from maritime patrol craft. These new formations joined 12 Carrier Strike Groups (CSGs), nine Strike/Theater Air and Missile Defense surface action groups (SAGs), and four new SSGNs to give the "Global ConOps Navy" no less than 37 independent "strike groups." 346

³⁴⁵ Mullen, "Global Concept of Operations."

³⁴⁶ Mullen, "Global Concept of Operations."

The formation of the ESGs was, without doubt, a welcome development. For the first time since the Navy and Marines moved to establish rotational global patrols of combat credible forces in the immediate aftermath of World War II, Marine amphibious patrols would be escorted and supported by an organic Navy surface action group. Moreover, with TF 58 as a guide, the Navy was willing to explore different command relationships for the ESG, among them having a Marine general in charge. Although the deployments of the ESGs were still largely independent of Carrier Strike Groups, the Global ConOps also made clear that both the CSGs and ESGs, along with MPF groups and combat logistics ships, would be integrated components of a larger Expeditionary Strike Force—the modern reincarnation of the World War II combined arms Sea as Base Power-projection Fleet.

On the negative side, despite *Sea Strike* being explicitly defined to include ship-to-objective maneuver, the Global ConOps Navy declined to create 24 combined arms strike groups consisting of an aviation seabase, surface combatants, and amphibious assault ships, opting instead to distribute just Navy aviation, gun, and missile strike power. This was totally consistent with Navy thinking; while the Global ConOps Navy provided ample force structure justification for a large number of powerful surface combatants carrying additional VLS cells, it provided no such justification for an increase in additional amphibious ships capable of carrying additional Marines. Indeed, the Global ConOps Navy set the stage for a *reduction* in the number of fleet "amphibs" by including MPF(F) ships for the first time ever in the official count of the ConOps' "375-ship" battle fleet. Prior to this time, MPF ships were considered sealift ships and not counted as part of the operational battle fleet. This was the first concrete evidence that Admiral Clark intended for MPF(F) ships to compete directly with amphibious landing ships for funding.

Interestingly, in a bow to joint sensibilities and requirements, the Global ConOps Navy also included a new Afloat Forward Staging Base, or AFSB. The genesis of this idea can be traced to the first "non-traditional" use of aircraft carriers in the Joint Expeditionary Era. In September 1994, the USS *Eisenhower*—a *Nimitz*-class large deck nuclear aircraft carrier and the Army's 10th Mountain Division demonstrated a real-world application of a then-vogue joint concept called "adaptive force packaging." The division's soldiers and equipment were loaded on board the carrier, and the *Eisenhower* then headed for the Caribbean

in support of Operation *Uphold Democracy*, the US-led effort to restore the democratically elected government of Haiti.³⁴⁷

However, the AFSB model used for the Global ConOps Navy had a more contemporary genesis. In 2001, in support of Operation *Enduring Freedom*, the USS *Kitty Hawk* (an older, conventional large-deck carrier) left the bulk of her air wing in Japan, and sailed for the Indian Ocean. She was then positioned off of the coast of Pakistan, where she housed and operated Joint special operations helicopters and forces supporting operations in Afghanistan.³⁴⁸

The experience with the *Kitty Hawk* was so successful that for a time the Navy considered making an AFSB—a joint aviation seabase—a permanent part of the battle fleet:

Afloat forward staging bases are being considered as part of the sea-basing concept to further exploit the flexibility of support ships for expeditionary purposes. Such platforms could host highly capable afloat command-and-control centers, special operations forces, or civil-military disaster relief teams for example, thereby expanding tactical and operational opportunities.³⁴⁹

However, in the event, some started to argue that the AFSB might be a way to break the strong Navy lobby for 12 big-deck nuclear aircraft carriers and to increase the numbers of aviation seabases dedicated to support both Marine and joint aviation operations.³⁵⁰ Not surprisingly, this commendable idea did not survive long in direct competition with either the Navy carrier lobby or Navy shipbuilding programs, and the

³⁴⁷ See "Dwight D. Eisenhower Strike Group," at http://www.globalsecurity.org/military/agency/ navy/ batgru-69.htm.

³⁴⁸ Reportedly, the *Kitty Hawk* carried a total of eight F-14 Tomcats and F/A-18C/D strike aircraft, which eventually flew about 100 strike missions. Over 1,000 Special Operations Forces personnel were on the carrier, including the Army's 160th Special Operations Aviation Regiment, Navy SEALS, and Air Force Special Operations forces. Aircraft included a dozen special operations MH-60 Blackhawk helicopters, a half-dozen MH-47 Chinook medium-lift helicopters and several MH-53 Pave Low helicopters. See "Operation Enduring Freedom—Deployments," at http://www.globalsecurity.org/military/ops/enduring-freedom_deploy.htm.

³⁴⁹ Mullen, "Global Concept of Operations."

³⁵⁰ Email to Robert O. Work, Center for Strategic and Budgetary Assessments, from Commander Mark Becker, Deputy Sea Base Pillar Lead (N832), Navy Warfare Development Command dated February 22, 2006.

AFSB soon disappeared from future Navy shipbuilding and battle fleet plans (although, as will be discussed shortly, the AFSB was again raised during a study about future joint forcible entry operations). In its place came plans to better posture the Navy's aircraft carrier force for surge operations. As part of a new Flexible Deployment Concept (FDC) and Fleet Response Plan (FRP), the battle fleet could surge six fully ready aircraft carriers within 30 days notice, and an additional two 60 days after that. The resulting "6+2" planning metric thus well supported the "10-30-30" guidelines recently adopted by OSD.

In sharp contrast to Navy efforts to posture its carrier strike fleet for more rapid surge and massing, there were no similar plans to posture the amphibious landing fleet for more power-projection operations. Tellingly, this role would fall to the MPF(F). As a result, Navy's efforts to replace "gators"—amphibious ships—with MPF(F) ships continued with ever-increasing emphasis.

ENHANCED NETWORKED SEABASING AND THE MPF(F) AoA

With the benefit of hindsight, it seems clear that the Marines either did not fully appreciate the Navy's intent to reduce the size and capability of the amphibious landing fleet or chose not to consider such a possibility a viable threat. Instead, they welcomed the Navy's newly developed support for seabasing and the MPF(F), and worked hard to argue, advance, and protect their own most cherished negotiating positions: that an operationalized version of the MPF(F) was an additive naval maneuver capability; that MPF(F) was *not* a substitute for amphibious ships in the forcible entry role; and that the MPF(F)'s seabased logistics support of forces operating ashore-in effect, the "underway replenishment" of fast-moving combined arms teams operating deep inland—was as, if not more, important than the operational deployment and employment of its embarked forces. They adopted a "working assumption" that the MPF(F) would consist of three squadrons, replacing the legacy MPF squadrons on a one-for-one basis.³⁵¹ These would augment an amphibious landing force capable of lifting 2.5 MEBs (as approved after the DoN

³⁵¹ Andrew Koch, "USA Looks to Enhance Sea-Basing Capabilities," *Jane's Defense Weekly*, May 22, 2002.

Lift II Study), giving the future Operational Maneuver Fleet a total lift capacity for 5.5 access-insensitive combat brigades.

Throughout 2002, Marines filled the *Marine Corps Gazette* and the *Naval Institute Proceedings* with articles explaining and extolling the virtues of seabasing. Three bear mentioning:

- In the May 2002 issue of the *Marine Corps Gazette*, Major M. Scott Ballard discussed the importance that the MPF(F) would play in performing seabased aviation logistics, and highlighted the transfer of the intermediate maintenance capabilities resident in the two aviation support ships (T-AVBs)—relatively small container ships not configured for seabased maintenance—to the MPF(F).³⁵²
- In the *Gazette's* June issue, Lieutenant General Gary S. McKissock explained how the MPF(F) would operate as a maritime *intermediate support base* (ISB), defined by the Army as "a tailorable, temporary location that can be used for staging, sustainment, and/or extraction from an area of operations." Thus used, the MPF(F) would help "transition logistics measuring sustainment in terms of days of supply to creating an indefinite, uninterrupted naval sustainment capability." 353
- Finally, in the November edition of *Proceedings*, two officers introduced the term "Enhanced Networked Sea Basing" (spelling derived from *Sea Power 21's* Sea Basing), a thorough repackaging of the earlier *MPF 2010 and Beyond* and MPF(F) concepts. In this article, the officers asserted that "Enhanced Networked Sea Basing power projection (was) more than a naval core competency—it was a *national requirement*" (emphasis added).³⁵⁴

The thoughts encapsulated in each of these three articles were incorporated into a follow-on Navy-Marine Corps operational concept called Enhanced Networked Seabasing, signed by the Commanding General of the Marine Corps Combat Development Command and the Commander of the Navy Warfare Development Command. By and

³⁵² Major M. Scott Ballard, USMCR, "Maritime Prepositioning Force Future: The Future of Seabased Aviation Logistics," *Marine Corps Gazette*, May 2002, pp. 31-33.

³⁵³ Lieutenant General Gary S. McKissock, USMC, "Seabasing: The Maritime Intermediate Support Base," *Marine Corps Gazette*, June 2002, p. 12.

³⁵⁴ Colonel Art Corbett, USMC, and Colonel Vince Goulding, USMC, ret., "Sea Basing: What's New?" *Proceedings*, November 2002, pp. 34-39.

large, ENSeabasing was a well thought out inter-service document, one which tried hard to find a "sweet spot" between Navy and Marine Corps negotiating positions. As such, it well captures a broader, more expansive explanation of the operational benefits of seabasing. It articulately explains how seabasing "capitalizes on the freedom of action achieved through sea control" to provide joint forces with "physical freedom of movement, freedom of action, reduced vulnerability from attack, and increased agility of forces." Finally, it introduced an intriguing and critical distinction between *static* and *dynamic* seabasing:

Static seabasing is more about basing and logistics than operations...and is primarily an alternative to fixed strategic points of debarkation ashore. Dynamic seabasing is predicated on operational maneuver, and seeks to place an adversary in a dilemma through the conduct of distributed, dispersed operations.³⁵⁵

There were only two major problems with the concept. First, as highlighted in chapter one, ENSeabasing was much more naval than maritime in tone; it made clear that the bulk of seabasing benefits would fall to Navy and Marine forces as they operated as part of a joint force. And second, by defining Enhanced Networked Seabasing as a system of systems that enabled the long-espoused MPF(F) *processes* of phased at-sea arrival and assembly, selective offload, and reconstitution at sea, the concept tied the idea of seabasing ever more closely with the MPF(F) program.³⁵⁶

Indeed, the growing momentum behind the Navy and OSD's support for the MPF(F) program was constantly chipping away at the Marines' position that MPF(F) should not compete with or replace the amphibious assault ships. In December 2002, the Under Secretary of Defense for Acquisition, Technology, and Logistics promulgated the guidance for the MPF(F) Analysis of Alternatives (AoA). The guidance directed that the analysis address three basic alternatives: the replacement of the current maritime prepositioning and aviation support ships (T-AVBs) in kind; modifying current maritime prepositioning ships and T-AVBs to perform MPF(F) missions; and replacing the current ships with newly designed platforms to support phased at-sea arrival and assembly of forces; provide sustained logistics support of naval operations; and to support in-theater, at-sea, reconstitution and

³⁵⁵ Hanlon, Jr., and Route, "Enhanced Networked Sea Basing."

³⁵⁶ Hanlon, Jr., and Route, "Enhanced Networked Sea Basing."

redeployment support.³⁵⁷ Upon receiving this guidance, the Center of Naval Analysis—the organization charged by the Secretary of the Navy to conduct the AoA—made plain the intent of its efforts:

MPF(F) is envisioned to enable transformation of littoral power projection and be a primary sustainment element of the Enhanced Seabase...MPF(F) capabilities will enable OMFTS/STOM operations, as established in Joint and Naval doctrine—a fundamentally new and different way to conduct expeditionary operations compared to current amphibious operations (emphasis added).³⁵⁸

This was the first, but no means the last, suggestion that OMFTS/STOM operations off of MPF(F) ships would "transform" current "amphibious operations." It is a terribly misleading assertion. At best, it is just a bald argument to support the replacement of amphibs with MPF(F) ships. At worst, it is a willful obfuscation about the origins of OMFTS and STOM, whose antecedents can be directly tied to early 1980s thinking about over-the-horizon assaults *launched from amphibious ships!* Indeed, OMFTS and STOM are far more about exploiting new and more capable assault connectors than they are about MPF(F) ships. Nevertheless, as will be seen, the idea that MPF(F) ships were "transformational" and amphibious landing ships were "legacy" ships of some bygone strategic era began to catch on within the DoN and OSD.

MOB, THE SEQUEL

The only alternative material solution to a distributed seabase built around the MPF(F) that had been discussed in any serious way was the monolithic Mobile Offshore Base, which made a short-lived comeback in latter half of 2002 and early 2003. In April 2002, then-Commandant of the Marine Corps General James Jones used a speech at the Naval Academy to urge that the concept be revisited and pursued. Concerned that global politics would result in the ouster of the US military from more

³⁵⁷ E.C. Aldridge, Jr., Memorandum for the Secretary of the Navy, "Guidance for Maritime Prepositioning Force-Future (MPF(F)) Analysis of Alternatives," dated December 5, 2002.

³⁵⁸ Aldridge, Jr., Memorandum for the Secretary of the Navy, "Guidance for Maritime Prepositioning Force-Future (MPF(F)) Analysis of Alternatives."

and more overseas bases, Jones argued that MOBs—which he referred to as "fixed bases at sea"—could be used to base both military combat forces and aircraft at sea in regions vital to US interests. Jones' arguments—which, as have been discussed, represent the logical extension of a naval conception of seabasing, were later reinforced and supported by none other than the original advocate of the MOB, retired Admiral William Owens, who then served as a member of the influential Defense Policy Board. In presentations to the Policy Board, Owens argued that the United States should build three MOBs. ³⁵⁹

This was a rather unexpected development. As the 2001 QDR was progressing, the Institute for Defense Analysis (IDA), a respected Pentagon-sponsored think tank, released the findings of its cost-effectiveness evaluation of the MOB, made in response to continued queries about the concept. It concluded that a MOB would be less cost-effective than a distributed sea base made up of a combination of nuclear-powered carriers and high-speed mono-hull cargo ships. While the Marine's future MPF force was not specifically mentioned as a part of this mix, it benefited from the explicit endorsement of a distributed sea-based system-of-systems composed of a heterogeneous mix of platforms.

However, MOB proponents, undismayed, resuscitated the concept. After his speech in April 2002—and at the behest of Kellogg Brown & Root (KBR), a subsidiary of Halliburton—General Jones accompanied Admiral Clark and John Young, the Navy's chief acquisition executive, on a visit to a semi-submersible oil rig in the Gulf of Mexico. The visit was part of a KBR "awareness campaign" on a new MOB concept called the Tri-mersible. Unlike earlier MOB concepts which envisioned sections of a MOB being slowly moved to a theater and mated together, the Tri-mersible was a huge monohull platform with two semi-submersible pontoons. At 1,181 feet long and 656 feet wide, it could hold 42 large helicopters, 6,500 cargo containers, 2,000 vehicles, and up to 10,000 troops. Two linked together would provide an airfield long enough to land C-130 tactical air transports. Better yet, the structure could travel under its own power at speeds up to 12 to 15 knots—the same speed of World War II amphibious task forces (although slower than the post-war 20-22 knot task forces). The trip to the oil rig was to demonstrate that

³⁵⁹ Castelli, "Navy Long-Term Budget Gets \$1 Billion for Mobile Offshore Base."

³⁶⁰ See Pat Towell, "Mobile Offshore Base Proposal Has Slew of Powerful Opponents," *Congressional Quarterly Weekly*, February 15, 2003, p. 382; Andrew Koch, "Boost for Sea-Basing Concept," *Jane's Defense Weekly*, August 13, 2003.

the technologies and designs required to build such a platform were readily available.³⁶¹ General Jones and Admiral Clark left impressed; indeed, it appeared that General Jones had a convert in Admiral Clark. Three months later, at an appearance in Virginia Beach, Clark declared that MOBs "absolutely" had a future in the 21st century Navy.³⁶²

As a result of these developments, on January 7, 2003, the Office of the Secretary of Defense unexpectedly added \$1 billion to the Navy's outyear shipbuilding accounts for the construction of a MOB. Despite Admiral Clarks' earlier endorsement, the move took many in the Navy—which was right in the midst of the MPF(F) AoA—by surprise. Some offered a backhanded endorsement of the initiative by declaring that the MOB funding provided "an opportunity" to create "energy and discussion" and a "really earnest debate" about the direction of seabasing. ³⁶³ Behind the scenes, however, the Navy staff argued against the MOB because of its relative lack of mobility compared to either amphibious or MPF(F) ships; its inability to support naval maneuver; and its failure to meet the timelines called for in "10-30-30." ³⁶⁴

THE 2003 DRAFT SEABASING CONCEPT OF OPERATIONS

Just as results of OA 2003 were becoming known, OSD was reviving the idea of a MOB, and the Navy was welcoming the opportunity to engage in an earnest debate on the future of seabasing, OPNAV N75, the CNO's staff resource sponsor for expeditionary warfare and warfare sponsor for seabasing, started to work on a *Sea Basing Concept of Operations*. Although part of the Navy staff, N75 is headed by a Marine General, and is populated by Marines and Navy officers with amphibious experience. Moreover, the concept of operations was made in close coordination with the Marine Corps Combat Development Command, and the principal authors were two Marine Corps colonels.³⁶⁵ Therefore, just as *Sea*

Rick Barnard, "The Tri-mersible Enters the Fray as Navy Refines Its Sea Basing Concept," *Sea Power*, June 2003, p. 18.

³⁶² Castelli, "Navy Long-Term Budget Gets \$1 Billion for Mobile Offshore Base."

³⁶³ Castelli, "Navy Long-Term Budget Gets \$1 Billion for Mobile Offshore Base."

³⁶⁴ Email from Becker to Work dated February 22, 2006.

³⁶⁵ Email from Becker to Work dated February 22, 2006.

Power 21 and the Global ConOps Navy provide a mirror into Admiral Clark's and the Navy's negotiating position on seabasing, the draft Seabasing ConOps provides a mirror into the Marines.

The Seabasing ConOps viewed seabasing as a:

...concept that provides enduring forward deterrence and enables a wide range of armed responses to antiaccess crises. The sea base will give the Joint Force Commander a credible response capability, a springboard for Ship to Objective Maneuver (STOM), Operational Maneuver from the Sea (OMFTS), and Forcible Operations (FEO). Further, the sea base will enable joint follow-on forces from a mobile platform unencumbered by host-nation requirements.

Importantly, however, unlike the corporate Navy position—which, as first highlighted in Sea Power 21, clearly considered the seabase as including MPF(F) and not amphibious ships—N75 just as clearly viewed the future operational maneuver seabase as consisting of a *combination* of amphibious landing ships and MPF(F) ships assembled for specific circumstances and focused on particular tasks. In this regard, they restated the requirement for 3.0 MEBs worth of amphibious lift, and declared the "constrained" 2.5 MEB required to be "the bare minimum requirement to project power in an anti-access environment in the near to mid-term," and to support the peacetime seabasing function of global patrolling and scouting. An amphibious landing fleet capable of lifting 2.5 MEBs provided just enough ships for an ESG to be forward-based in Japan, one ESG to be deployed continuously from each coast, and for the assault echelons for two MEBs to be assembled in four- to six weeks. depending on the location of the JOA. Each MEB would be carried on 14-15 amphibious ships, after the incorporation of forward based and deployed ESGs.³⁶⁶

To rationalize how the MPF(F) would support this forcible entry force, and to support the new 1-4-2-1 defense strategy and "10-30-30" response metric, an MPF(F) squadron reinforced by a forward-deployed ESG would provide a "first response" forcible entry capability in *low threat environments* in any two of four critical theaters, with an additional MPF(F) ready to cover a brewing crisis in a third theater or to

³⁶⁶ Marine Corps Combat Development Command, *Sea Basing Concept of Operations*, draft dated January 16, 2003.

reinforce either of the other two MPF(F) responses. Forcible entry operations in a high threat environment would "require additional ESGs and/or the assembly of a 1.0-2.0 MEB [assault echelon]" on amphibious assault ships.³⁶⁷

In other words, and as described earlier, the Marines saw the optimal 21st century **Expeditionary Maneuver Fleet** as have two distinct components: a dedicated forcible entry force on amphibious assault ships and an access-insensitive assault reinforcement force on operationalized MPF(F) ships. Significantly, however, in marginal notes inserted into the draft's main text, the concept's authors wrote: "If 2.5 MEB AE and 3.0 MPF(F) are not affordable, what is the best mix of amphibious MPF, MPF(F) platforms that provides the greatest overall capability in support of the 1-4-2-1 strategy?" This question is an obvious if oblique reference to the Navy's increasingly evident negotiating position that MPF(F) ships would compete directly with amphibious ships. It provides the first concrete evidence that both N₇₅—and by extension the Marine staff—appreciated the implications of such a future, and that they recognized the need to come up with a fall-back position if they were unable to achieve their minimum desired target of 5.5 MEBs of seabased expeditionary lift.³⁶⁸

THE 2003 NAVAL TRANSFORMATIONAL ROADMAP

In context, then, the subsequent 2003 Naval Transformation Roadmap (NTR) reflects an attempt to reconcile Navy and Marine Corps thinking about seabasing and the role of the MPF(F). One thing the two services readily agreed upon was that seabasing would become the DoN's "overarching transformational operating concept for projecting and sustaining naval power and joint force," which it defined as "the concepts and capabilities that exploit our command of the seas to project, protect, and sustain integrated warfighting capabilities from the maritime domain." This was the best definition yet offered in any naval document—straight forward, accurate, and devoid of process steps.³⁶⁹ Just

³⁶⁷ Sea Basing Concept of Operations.

³⁶⁸ Sea Basing Concept of Operations.

³⁶⁹ England, Clark, and Hagee, 2003 Naval Transformational Roadmap.

as compelling was the NTR's enumeration of the strategic, operational, and tactical advantages of seabasing:

The inherent mobility, security, and flexibility of naval forces provide an effective counter to emerging military and political limitations to overseas access. Seabasing will maximize the ability of the naval elements of the joint force to conduct sustained, persistent, combat operations from the maritime domain, minimize limitations imposed by reliance on overseas shore-based support, and enable the transformed joint force to exploit our nation's asymmetric advantage in the sea space. Seabasing provides the dynamic access, speed of response, flexibility, and persistent sustainment capabilities necessary to execute combat operations ashore, exploiting the maneuver space provided by the sea to enable and conduct joint operations at a time and place of our choosing.³⁷⁰

Indeed, this passage's only glaring failure was the stubborn predilection by Navy and Marine officers to describe seabasing as a naval rather than a truly joint, maritime concept. By emphasizing that seabasing would improve the sustained warfighting abilities of only "the naval elements of the joint force," and by harping on the "enabling" aspect of naval seabasing, the NTR missed a golden opportunity to describe seabasing as an inextricable component of *maritime power projection* and *joint littoral warfare*. As one student of Julian Corbett wrote, and as highlighted in the first chapter, the idea that naval forces are a joint force "enabler" is antithetical to the principles of maritime strategy and operations, because:

Maritime strategy concerns "the principles which govern a war in which the sea is a substantial factor." It does not concern itself solely with fleet operations or even operations upon the sea, but "it regards the fleet and army as one weapon, which co-ordinates their action, and indicates the lines on which each must move to realise [sic] the full power of both." ³⁷¹

England, Clark, and Hagee, 2003 Naval Transformational Roadmap.

³⁷¹ Lindsey, "Assuming Away History: A Critical Analysis of Forward...From the Sea, by Sir Julian S. Corbett." Embedded quotes are from Corbett, *Some Principles of Maritime Strategy*.

In describing a seabase as "an inherently maneuverable, scalable aggregation of distributed networked platforms that enable the global power projection of offensive and defensive forces from the sea, and includes the ability to assemble, equip, project, and sustain those forces without the reliance on land bases within the Joint Operations Area," ³⁷² the NTR also missed an opportunity to clarify the difference between assembling bases at sea (a naval concept) and the exploiting the sea as base (a maritime concept). As discussed in the first chapter, the NTR's definition for a seabase is not so much objectionable as it is incomplete and out of context; congruent with its *naval* roots, the definition describes a seabase first in terms of things that can be assembled on the sea, and second in terms of operating without reliance on land bases.

As will be argued in the final chapter, a better taxonomy for a *maritime* concept of seabasing might be that with command of the seas, the oceans themselves become a **secure base for joint operations** for global power-projection. Using the oceans as the base of operations, networked joint platforms on, over, and under the sea can be assembled to form **functional seabases** which perform different roles in the projection of joint combat capabilities, all aimed toward providing the joint force with unprecedented operational independence and global freedom of action without an **initial** reliance on land bases. On the flip side of the maritime coin, their inherent seabasing capabilities enable the Navy-Marine Corps team, under certain circumstances, to conduct *independent* seabased operations free of land bases altogether (i.e., raids, support of humanitarian relief operations, small-scale power projection operations, or naval campaigns).

Finally, for the Marines, the NTR corrected an earlier galling omission in *Sea Power 21*, in that it espoused the "complementary characteristics" of maritime prepositioning force ships, *amphibious ships*, and various critical seabase and assault connectors in enabling seabased operations. On the other hand, for the Navy, the NTR clearly seemed to move the Marines closer to an expanded role for the MPF(F) ships in forcible entry operations, and in scenarios far beyond just "low threat" environments. In this regard, the heavy influence of "10-30-30" was clear to see:

The naval concepts for maritime JFEO support parallel—vice sequential—execution of all phases of forcible entry with a shortened time of response. They

England, Clark, and Hagee, 2003 Naval Transformational Roadmap.

provide for the simultaneous defeat of a multi-dimensional threat without in-theater host nation support. These concepts enable a rapid, scalable, pre-emptive Joint Forcible Entry capability, tailored to the threat and mission. By the 2015 time frame, naval forces employing ESGs, CSGs, Amphibious Forces, and MPF(Future)-equipped MPGs will provide the seabased assets required to ensure dominance across the joint operating area, and compress the timeline for assembling a MEB to 7-14 days. This concept will transform naval forces' ability to conduct forcible entry and will preclude the adversary's integration of his anti-access capabilities against joint and coalition efforts (emphasis added).³⁷³

This last sentence was a slightly new wrinkle. In essence, it asserts that if the US could mount a forcible entry operation more promptly, an enemy would be unable to fully prepare his anti-access capabilities to oppose a US power projection operation. This thought was an implicit nod to the ideas espoused both in "rapid decisive operations" and by leaders in OSD, who spoke approvingly of "locking out" an enemy's options by "rapidly changing initial conditions." It was also an explicit acknowledgement that the only way to meet the "10-30-30" guidelines was to give the MPF(F) or other maritime prepositioned platforms a JFEO capability.

As demonstrated as early as *Desert Storm*, the battle fleet had the ability to assemble and employ an amphibious task force using a combination of forward deployed and CONUS-based amphibious landing ships in less than 30 days. If the force was specially postured to improve its response times as the Navy did with its aircraft carrier force, it could likely improve upon this time to some degree. However, cutting the employment timeline by two-thirds all the way down to ten days using amphibious landing ships would be a difficult, if not impossible task unless the force was largely home based in forward theaters. There simply was no way to load and sail the bulk of the amphibious fleet, which was located in the United States, and to assemble the force over transoceanic distances, in much less than four weeks. *And according to the new joint planning timelines, the war would be over before they arrived!* In contrast, with three MPF squadrons anchored in the Mediterranean, Diego Garcia, and Guam, at least one squadron could

³⁷³ England, Clark, and Hagee, 2003 Naval Transformational Roadmap.

steam to any point in Europe, Africa, and Southwest, Central, Southeast, and Northeast Asia within ten to 14 days, allowing the DoN to get close to the ten-day arrival and employment benchmark called for by "10-30-30." ³⁷⁴ Therefore, as argued by Admiral Clark as early as *Sea Power 21*, an MPF(F) solution appeared to offer the only viable solution for a *rapid* naval forcible entry option.

Once again, however, one has to at least question the premise that a forcible entry operation conducted in 7 to 14 days will preclude the adversary's integration of his anti-access capabilities against joint and coalition efforts. This thinking is early similar to the thinking of major European powers on the eve of World War I, and one only has to review the grim results of that war to have reservations about its validity. In any event, it hardly seems applicable in a world in which any credible adversary of the United States, well aware of its astounding global reach and ability to move forces rapidly, would contemplate any action that might prompt a US attack without first activating and preparing its antiaccess capabilities. Or, to guard against a preemptive US attack, would not train to activate its A2/AD network to reach full capability within 7 to 14 days. And for those who do not have a credible A2/AD network, it seems equally likely that given demonstrated US performance since September 11, 2001, they might adopt strategies in which a rapid US response would neither surprise nor concern them.

In other words, a strategic attitude and operational posture that considers the start of future warfare much like a basketball game, and which puts so much emphasis on winning the opening tip rather than thinking about the strategy necessary to win the whole game, might not be so wise after all.

REINFORCING FIRES: OPERATION IRAQI FREEDOM

A better argument for a rapid response seabasing capability might have been to provide the US with global freedom of action pending the resolution of *political* access issues. Recall that in Operation *Allied Force*, it

Marine Corps Combat Development Command, "Power Projection From the Seabase: Issues, Challenges, Opportunities," an undated PowerPoint briefing presentation; and Andrew Koch, "Seabases Key to Speed," *Jane's Defense Weekly*, June 11, 2004.

took 12 days to get Albanian approval for access for Task Force Hawk, and in Operation *Enduring Freedom* it took some time for the US to negotiate access for land and air bases in Central Asia. And in February and March 2003, US plans for offensive operations against Iraq were complicated by Turkey's refusal to allow the US 4th Infantry Division (ID) the use of their territory to launch attacks into Iraq, denying the United States a northern axis of attack. Although it appears unlikely that a 4th Division attack from the north would have materially affected the outcome of Operation *Iraqi Freedom* (OIF) or the subsequent allied occupation of Iraq, the Turkish refusal unquestionably put a wrench in US war planning.³⁷⁵

Operation *Iraqi Freedom*, together with OAF and OEF, suggested that for many combat operations in the Joint Expeditionary Era, land access will likely come—sooner or later. In order to protect and increase America's global freedom of action and to preserve unilateral options in an age of "uncertain neutrals and doubtful allies," the joint force would be wise to increase its ratio of "access insensitive" rapid global response forces. As summed up by one active duty admiral in April 2003:

We saw it coming out of [OEF] and we see it even in [OIF], where there is acknowledgement at the very top of our government that seabasing answers this dilemma we face today...one that we are sure will be far more severe in the future...With all due respect to our friends, our partners, our allies in Turkey, we got a lesson, we got a glimpse of the future...where Turkey was able to...significantly alter our war plan in that they denied access. And we can be unhappy with the Turks, we can rant and rave, we can lament all we want about that situation, but it is in my view a benchmark for the future because nations that we have to deal with around the world...relative to power have very little power. But they do have the power of access and they will use that power of access to serve their interest...³⁷⁶

³⁷⁵ For a thorough discussion on the impact of Turkey's refusal to allow the 4th ID to launch attacks from its soil, see *On Point: The United States Army in Operation Iraqi Freedom*, found online at http://www.globalsecurity.org/military/library/report/2004/onpoint/index.html.

³⁷⁶ Malina Brown, "Navy Marine Officials Argue Iraq War Validates Need for Seabasing," *Inside the Navy*, April 14, 2003.

In the 1990s, many analysts might have written these remarks off as a self-serving interpretation of events made by a Navy officer made to justify an increased DoN "market share" of future defense dollars. However, by 2003, the remarks passed without comment. More and more strategists and analysts accepted the increased uncertainty over political access in the Joint Expeditionary Era, and more and more recognized the strategic rationale behind seabasing and naval maneuver as well as Army initiatives to conduct operational maneuver from strategic distances. As Arthur K. Cebrowski, late Director of OSD's Office of Force Transformation, so succinctly put it in June 2003:

There is a compelling reason to pursue operational maneuver from the sea and operational maneuver from strategic distances. In a word, it's Turkey. We're dealing with matters of strategic geography.³⁷⁷

Accordingly, Cebrowski began to refer to operational maneuver from the sea and operational maneuver from strategic distances as providing America with a new 21st century "one-two punch," representing "the dynamics of operational maneuver exploiting the exterior advantage." ³⁷⁸ However, left unsaid by Admiral Cebrowski was an important point: while this one-two combination provided the US with global freedom of action without the *initial* use of land bases, its key goal would be to set up the knockout punch by creating land access, including access to ports and airfields, so that the haymaker delivered by heavy-hitting follow-on forces could hit home.

 $^{^{\}it 377}\,$ Barnard, "The Tri-mersible Enters the Fray as Navy Refines Its Sea Basing Concept."

³⁷⁸ Shah, "Cebrowski Touts Seabasing, But Criticizes Related Misconceptions."

THE DSB TASK FORCE ON SEABASING: CEMENTING THE LINK BETWEEN THE MPF(F) AND FORCIBLE ENTRY OPERATIONS (AND CALLING INTO QUESTION THE FUTURE OF AMPHIBIOUS SURFACE ASSAULTS)

Using seabased forces to get follow-on forces into the fight was a key focus of the Defense Science Board, which published a report on seabasing in August 2003. The DSB Task Force on Sea Basing had been assembled by the Undersecretary of Defense for Acquisition in September 2002, just as the Navy was revealing *Sea Power 21* and OA 2003 was proposing the "10-30-30" metric. The Undersecretary asked the Task Force to assess how the idea of seabasing could best serve the nation's defense needs, and directed them to consider operational requirements, the role of new technologies, and the effects of "jointness" when doing so.³⁷⁹

Significantly, however, the Task Force was did *not* start with a clean sheet of music; the Undersecretary directed the Task Force to use the Navy-Marine Corps concept of *Enhanced Networked Seabasing*, which as has been discussed, was itself derived largely from *MPF 2010 and Beyond*. As a consequence, a perfect opportunity to redefine the seabasing concept more broadly and in a more coherent joint context was squandered. Indeed, one can only wonder how the Task Force's findings might have changed had the Task Force's co-chair been a former Army Combatant Commander rather than a former Vice Chief of Naval Operations. In the event, however, the Task Force's list of members was heavily stacked with active duty and retired Navy and Marine Officers and, not insignificantly, Major General Scales—the AAN's top proponent of the idea of aerial maneuver and air mechanization.³⁸⁰

In any event, the very first sentence on the very first page of the Task Force's final report, delivered in August, 2003, left no doubt about the pointed focus of effort: *forcible entry from the sea*. The following text noted that the United States, an "island nation" which needed to

Under Secretary of Defense for Acquisition, Technology, and Logistics,
 Memorandum for Chairman, Defense Science Board dated September 4,
 2002, subject: "Terms of Reference—Defense Science Board Task Force on Seabasing," found in Appendix A, Defense Science Task Force on Sea Basing.
 Defense Science Task Force on Sea Basing.

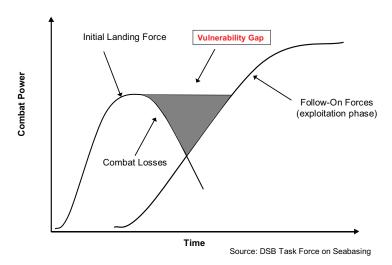
be able to project power across two great oceans, had long ago made amphibious warfare a core competency. As had many before, it argued that the emerging conditions of uncertain and contested access in the Joint Expeditionary Era made the "(t)he assumption of readily available, secure land bases...open to serious question." It therefore concluded that the US would need mobile seabases to serve as "intermediate staging bases" for attacks designed to seize access in a theater of operations. It justified this conclusion by asserting that the sea likely would be the most reliable and flexible environment from which joint forces could operate in the opening phases of a power-projection operation.³⁸¹ These were cogent, reasonable assumptions, well supported by post-Cold War operational experiences.

Importantly, the Task Force focused on the most stressing scenario—forcibly seizing access in contested theaters *in high threat environments* in which the defending adversary possessed effective antiaccess and area-denial capabilities, including the capability to attack by guided weapons fire ships at sea, aircraft operating in the airspace close to and over its territory, and forces operating ashore. In keeping with this reasoning, the study focused on the requirements for a forcible entry operation launched from a seabase involving a one or two fully "combatconfigured" independent brigades.³⁸² Key among these requirements was an ability to contend with a so-called "vulnerability gap," explained in a notional *expeditionary operations profile* (see Figure One).

³⁸¹ Defense Science Task Force on Sea Basing, p. iii-v.

³⁸² Defense Science Task Force on Sea Basing, p. vii.

Figure One: The DSB "Expeditionary Operations Profile"



This figure purports to portray what happens after early entry forces are "placed into battle *quickly to limit or shorten* (a) *conflict*" or to "capture and render useful in-theater seaports and airports of debarkation" for the introduction of follow-on forces. As can be seen, then, in keeping with its members' dispositions, the Task Force did not foreclose the possibility that a rapid forcible entry operation might, by itself, shorten the conflict. It simply prudently focused on the requirement to seize access for follow-on joint forces should the enemy not capitulate at the first sign of early arriving US forces. For missions of this kind, the delay in time between the introduction of these early entry forces and follow-on forces—during which the early entry forces continue to suffer losses due to both combat and accidents—creates a vulnerability window, or "gap," during which the landing force is most threatened by enemy counter-responses and attacks.³⁸³

This profile reflects the new thinking about land warfare that the DSB had developed since the publication of the 1993 Bottom-Up Review. As has been discussed, "rapidly halting" or "swiftly defeating" the cross border invasion of an armored-heavy "traditional" military opponent was *the* defense planning problem of the 1990s, and it consumed the conceptual and analytical efforts of organizations like the Defense

³⁸³ Defense Science Task Force on Sea Basing, p. 29.

Science Board and the RAND Corporation.³⁸⁴ The DSB expeditionary operations profile summarized its thinking on how land forces could help solve this problem. In essence, this thinking emphasized "light, rapidly deployable, maneuver forces" that could be *inserted into a theater by air* and supported by remote guided weapon fires to help an allied nation to blunt an invasion and to stabilize the situation until follow-on forces could arrive.³⁸⁵ As should be evident, this construct was heavily influenced by the maturation of the Guided Weapons Warfare Regime so evident during the 1990s. As should also be evident, this profile does *not* reflect a forcible entry operation; it instead more accurately reflects a rapid reinforcement of an ally under attack, in which light forces empowered by joint fires represented the leading edge of a more determined US response.

Despite this apparent disconnect, the Task Force on Seabasing used this notional profile as the basis for explaining a similar vulnerability gap associated with a future forcible entry operation mounted from the sea. In this scenario, the initial landing forces are not reinforcing allied forces; they are instead attacking directly into defended enemy territory (see Figure Two, next page)).

Obviously either constrained or influenced by the dictates of "10-30-30," the Task Force did not explore the logical option of delaying the start of the forcible entry operation until there were sufficient forces in theater to minimize the delay between initial landing forces and follow-on forces. Instead, the Task Force pressed ahead using the dubious assumption that an early arriving assault brigade would be employed as soon as it was able. Under these circumstances, the vulnerability gap became a very real and serious concern.

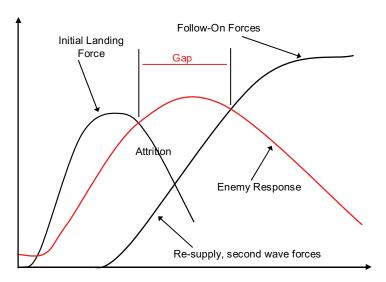
In the Task Force's view, one logical way to help mitigate the gap would be to minimize the casualties taken during the initial insertion—the time when the landing force was at its most vulnerable. In this regard, Task Force members explicitly assumed that "assaults over the shore" (e.g., surface maneuver using amphibious landing craft or vehicles) would be increasingly at risk due to the threat of mines and

³⁸⁴ For example, see RAND Research Brief, "Intervening in Short-Warning Conflicts: the Role of a Rapidly Employable Joint Force." This brief summarized work done by RAND for the National Defense Research Institute, entitled Ground Forces for a Rapidly Employable Joint Task Force: First-Week Capabilities for Short-Warning Conflicts, published in 2000.

³⁸⁵ Defense Science Task Force on Sea Basing, p. iii.

guided weapons fire. The Task Force concluded these conditions would make "amphibious operations a subset of seaborne power-projection operations," and that the initial insertion of forces would be conducted, first and foremost, by the *vertical maneuver* of ground forces from the sea base.³⁸⁶

Figure Two: The Vulnerability Gap in Seabased Operations



Time Source: DSB Task Force on Seabasing

Once these air-landed forces were safely ashore, they would need to be continuously sustained until relieved by follow-on forces. Continuous aerial logistics support from the seabase to the air-landed assault forces was thus also central to the Task Force's thinking. Members believed that "sea-based sustainment" of the initial landing force from the sea base, primarily by aerial resupply, would give a seabased force the staying power needed to persist until heavier forces arrived.³⁸⁷

This assumption was made explicit in a presentation by Dr. William Howard, member of the DSB Task Force on Seabasing, entitled "The Seabasing Dirty Dozen: Issues to be Addressed to Enable Seabasing," given at a Seabasing Conference sponsored by Raytheon, February 16-18, 2005.

³⁸⁷ Defense Science Task Force on Sea Basing, pp. 29-32.

The Task Force's conflation of "amphibious operations" and *surface*-borne assaults, as well as its implicit assumption that future aerial maneuvers would be inherently less risky than future surface assaults, clearly reflected the DSB's bias toward air landing and air assault operations. The DSB never made clear, for example, why an enemy A2/AD network capable of targeting ships at sea and smothering a surface littoral penetration point with guided weapons fire would be incapable of either detecting and directing guided weapons fire at large-scale aerial maneuvers being conducted over their own territory, or shifting its guided weapons fires to blanket helicopter or rotary-wing landing zones.

In any event, the DSB's and the Task Force's overall bias for aerial maneuver operations and against surface maneuver operations (heightened, no doubt, by General Scales' zealous advocacy of the concept) helps to explain the Task Force's tortured distinction between a forcible entry operation involving a brigade-size "amphibious operation" and a brigade-size "operation from a future seabase"—a distinction first highlighted in the aforementioned guidance for the MPF(F) AoA. As explained by the Task Force, "today's *amphibious operations* focus on assaults over the shore and into seaports, to establish footholds ashore permitting the build-up of sufficient combat power to conduct operations against inland objectives" (emphasis added). In contrast, "operations from a future sea base focus on direct assault of inland objectives (with no operational pause) followed by moves to capture seaports or safe shore lodgments for heavier follow-on forces." ³⁸⁸ As a result, the Task Force's report:

...concentrates on the *ship-to-objective maneuver role* of the seabase, since it is the most transformational application. However, the seabase will support other concepts of operations, including *amphibious*, overthe-horizon assaults (emphasis added).³⁸⁹

This remarkably bad reasoning helps to explain why and how the Task Force's final report implicitly associates *transformational* "operations from a future seabase" with OMFTS and STOM that emphasize *aerial maneuver and sustainment*, and legacy "amphibious operations" and "amphibious assaults" with *surface* maneuver and sustainment. Moreover, it implicitly associates "seabasing ships" with the former, and "amphibious ships" with the latter. The entire report and its find-

³⁸⁸ Defense Science Task Force on Sea Basing, pp. 14-18.

³⁸⁹ Defense Science Task Force on Sea Basing, p. viii.

ings are tainted by this questionable logic, which better explains the difference between World War II amphibious *tactics* using slow-speed surface assault connectors and modern amphibious *tactics* using a combination of high-speed rotary-wing and surface assault connectors than it does between *amphibious operations* and *operations involving a seabase*.

Indeed, *any* forcible entry operation involving a seabase is, by definition, an *amphibious* operation. Amphibious striking forces are defined in *The DOD Dictionary of Military and Associated Terms*, as "forces capable of projecting military power from the sea upon adjacent land areas for initiating and/or conducting operations in the face of enemy opposition," and an amphibious operation simply as "a military operation launched from the sea by an amphibious force, embarked in ship or craft with the primary purpose of introducing a landing force ashore to accomplish the assigned mission." Is this not exactly what the DSB Task Force purported to study?

Only if one associates amphibious operations with amphibious surface assaults and amphibious ships can one reach the dubious distinctions made by the Task Force. However, this is a colossal conceptual mistake. Amphibious assaults are not about the platforms from which their participating forces originate; they are about their objective intent. In this regard, and as previously discussed, amphibious assaults are simply one means to conduct a joint forcible entry operation into a contested battlespace, as is made plain by its definition, which states that an amphibious assault is "the principal type of amphibious operation that involves establishing a force on hostile or potentially hostile shore" (emphasis added). Whether the force is launched and supported from an amphibious ship, a "seabasing ship," or a combination thereof, and whether the force is established ashore using helicopters, landing craft, amphibious tractors, teleportation, or any other means, an amphibious assault is just one of three general options for a joint forcible entry operation, the others being an airborne assault and an air assault.³⁹⁰

In the end, all the Task Force's talk about "vulnerability gaps" was just a clever cover for their heavy bias toward conducting future amphibious assaults via aerial maneuver. Indeed, the Task Force's new "transformational" conception of seabasing was nothing more than a new expression of the idea of vertical envelopment, the aforementioned

³⁹⁰ Joint Pub 3-18, Joint Forcible Entry Operations, p. vii.

concept pioneered by the Marine Corps 50 years earlier, with a new twist. Recall that the initial Marine thinking was that helicopter air-landed assault forces would envelop the enemy forces defending the beaches from the rear, landing so close to them that the enemy's high command could not employ atomic weapons. Once the enemy forces defending the beach were destroyed, heavy surface assault forces could traverse rapidly through an uncontested littoral penetration point and disperse inland before being targeted with nuclear strikes. In contrast, the DSB substituted the threat of guided weapons for nuclear weapons, and a defended seaport for a defended beach. However, the DSB planned to land the force deep inland and then to attack toward the sea. The seabasing operation would end with the seizure of the port, rather than begin. As the Task Force stated, the goal of a seabased forcible entry operations involving air assaults mounted from a seabase aerial would be "to support the early stages of combat and to provide sustainment until, with the seizure of ports, heavier forces [could] arrive" (emphasis added).391

Even if one accepts the Task Force's tortured definitions to justify its bias toward aerial maneuver, it is far more difficult to explain the striking disconnect in the thinking that led to the depiction of the socalled "vulnerability gap" depicted in Figure Two. As is made plain in the report, these so-called "gaps" in forcible entry operations from the sea were based largely on a study of amphibious surface assaults conducted during the *Unguided Weapons Warfare Regime* and *before* 1944. This is quite astonishing, since there has been no apparent vulnerability gap for well-executed surface assaults after 1944. By that year, the Japanese island defenders in the Pacific had concluded that there was no exploitable operational pause between the initial landing waves and the follow-on waves of an American surface assault. They thus began to move their forces inland and to dig in, to better contest the American forces once they were ashore and moving inland. In the end, this approach proved to be no better than conducting counterattacks against surface lodgments with mobile armored forces—the approach forced upon the Germans when the allies landed at Normandy instead of Calais, as the Germans expected. As the German Army learned from bitter experience, allied air superiority kept these forces from getting to the beach, or destroyed them outright on their movement there.392

³⁹¹ Defense Science Task Force on Sea Basing, p. 21.

³⁹² Williamson Murray, "Flawed Triumph," *Military History Quarterly (MHQ)*, Summer 2004, pp. 6-15.

It seems a safe bet, then, that Figure Two has even less applicability in the Joint Expeditionary Era and six decades into the Guided Weapons Warfare Regime than it did in 1944. Any enemy that mounts a massed attack—to include ballistic and cruise missile attacks—against a US surface lodgment protected by a fully intact joint battle network will likely find it as difficult "to get to the beach" as did the Germans in 1944-45. Moreover, the gap doesn't account for a fast-moving surface assault force that is landed where the enemy isn't, or is weak, and which drives immediately inland, as was the case in MacArthur's amphibious masterstroke at Inchon in 1950. In these cases, *the vulnerability gap pertains to the enemy*, as it measures the time required for him to shift his forces to meet the unexpected surface thrust and to protect its operational target—a time surely to be widened by US joint guided weapons fire coming from both the air and sea.

Even more ironically, evidence suggests the so-called vulnerability gap continues to apply to initial attacks made by airborne or *light infantry forces air-landed deep in enemy territory.* These types of landings tend to come in intermittent, concentrated pulses of combat power at a distance, rather than the sustained pulses and momentum associated with well-planned surface maneuver operations. At extended ranges, the interval between pulses—the delay between the initial and follow-on air landed waves—would normally be substantial, and the defensive and offensive firepower of joint battle networks would be far less effective. German airborne drops on Crete, the allied air drops associated with Operation Market-Garden during World War II, as well as more recent Army air cavalry experiences in the Ia Drang valley in 1965 suggest that the success for future aerial maneuver operations will depend far less on whether the support and sustaining base for the landings are at sea or on land, and far more on the actual distance from the supporting base and the landing point and the effectiveness of enemy counter-landing capabilities.393

Operation Mercury, the German invasion of Crete, relied heavily on airborne troops. Operation *Market Garden* involved a major allied airborne drop behind German lines in 1944. Both proved costly for the air landed forces. Of 22,000 Germans in their assault force, 5,500 became casualties. And of the 10,000 men of the British 1st Airborne Division dropped at the deepest point behind German lines, only 2,300 returned. See "Operation *Mercury*, The German Invasion of Crete, 20 May-1 June 1941," at http://www.historyofwar. org/articles/battles_crete.html; and "Operation *Market-Garden*, September 1944," at http://www.worldwar2database.com/html/arnhem.htm. In 1965, the US Army 1st of the 7th Cavalry landed by helicopters in a landing zone called "X-ray." In the battle that ensued, the US force was nearly overwhelmed by

The future "vulnerability gap" will be especially severe for Marine forces air-landed by the V-22, Army air assault forces landed by helicopter, and Army airborne forces, all of which can subsequently move only as fast as their feet can take them. In this regard, Major General Scales had the right of it when he argues that *foot-mobile* infantry units air-landed deep behind enemy lines will be especially vulnerable to interdiction and attack, especially on battlefields with guided or nuclear weapons. However, his concept of air mechanization, which would give the air landed force the mobility to survive, is for cost and technical reasons decades away from fruition. For this reason, mechanized forces that can attack from the sea likely will remain useful for some time to come. Indeed, for at least the next several decades, ground combat units that can land and immediately transition to high-speed maneuver will be among the most useful joint forces available for an opposed theater entry.

In fairness, however, despite their obvious bias for aerial maneuver and against surface maneuver, the Task Force's vision was breathtaking in its scope. It was based on the assumption that there would be no intermediate staging bases within 2,000 miles of a Joint Operations Area. Due to likely anti-access threats inside the JOA, the DSB believed the sea base had to be able to support operational aerial maneuver from the sea at ranges at least 25 from an enemy's coast, and to ranges perhaps 250-300 miles inland. The seabase would continue to sustain its deep, air-landed forces throughout the arrival of heavier forces and until they were recovered onboard the base, which meant that the seabase itself had to be continuously resupplied with cargo and supplies and replenished at sea. Moreover, it had to do be able to do all of this in Sea

counter-attacking North Vietnamese troops, despite the fact that supporting helicopter and fire support bases were relatively close. This battle was described by Army Lieutenant General Harold G. "Hal" Moore and photographer Joseph L. Galloway in their superb book, *We Were Soldiers, Once... and Young* (New York, NY: Random House, 1992).

State 4.³⁹⁴ Upon hearing of the latter ambitious requirement, one British brigadier remarked dryly, "Now that would be *real* sea control." ³⁹⁵

Given the grand scope of the Task Force's vision, it is perhaps best compared to the Marines' early conceptual musings about the Advance Base Force in 1901, or, perhaps better yet, Pete Ellis's conceptual thinking about the need to seize, rather than just defend, advance naval bases between 1910 and 1913. These musings led to three to four *decades* of concept and technical development, war games, analytical study, and operational experimentation before they were tested and proven in combat. Similarly, it seems clear that the Task Force considered its vision achievable only after two decades or more of experimentation and technological development. It judged the future seabasing "system of systems" to be "well beyond" current Navy and Marine Corps operational capabilities. As one Task Force member wrote, it might be reasonable to predict that a joint seabase would be able to achieve the goals laid out in its report by the "third decade of the twenty-first century" (emphasis added).³⁹⁶

Despite the more questionable logic found in the Task Force's work, guided by this latter realistic and prudent thinking, the final report ended on a high note. It recommended the formation of a Joint Seabasing Office to oversee the development of a coordinated, spiral development effort based on the *realistic testing* of the technologies and concepts needed to make a *joint* seabase work. To guide this testing, the Task Force identified 12 key issues which required attention before their vision could be realized, referring to them as seabasing's "Dirty Dozen." When developing these 12 issues, Task Force members identified three capabilities or systems that would be absolutely critical if their concept was to be translated into an operational system. The first was an abil-

³⁹⁴ Sea states describe ocean and environmental conditions. They are measured by the Pierson-Moskowitz Sea Spectrum Table or the Beaufort Scale, which define nine sea state levels (o to 8). The higher the sea state, the more extreme the ocean conditions. Sea State 4, in the middle of the scale, is described as a "fresh breeze," with many white caps and a chance of sea spray: winds speeds of 17-21 knots; average wave heights of 3.8-5 feet. See "Military Weather" at http://www.globalsecurity.org/military/systems/ship/ weather.htm. The DSB believed that the current amphibious landing force was capable of operations only in sea states 1 and 2.

³⁹⁵ Comment made by Major General J.B. Dutton, CBE, Commander of the United Kingdom Amphibious Forces, Royal Marines, at a Conference on Seabasing, sponsored by Raytheon, February 16-18, 2005.

³⁹⁶ Williamson Murray, Professor Emeritus, The Ohio State University, "The Operational Issues of Sea Basing in the Twenty-First Century," *Defense Science Task Force on Sea Basing*.

ity to handle and transfer between ships heavy equipment and 20,000 pound Twenty-foot Equivalent Unit containers (TEUs) in Sea State 4. This would be key to sustaining the seabased "station ships" responsible for the "underway replenishment" of joint forces maneuvering ashore. The second was a heavy lift aircraft capable of vertical take-off and landings on ships at sea and lifting more than 20 tons over theater-wide ranges. This reflected the influence of Major General Scales, who had long argued that the Army's Future Combat System (FCS) must weigh no more than 20 tons in order to be transportable by C-130 intra-theater tactical airlifters. The third was new ships whose designs would incorporate all the requirements of a seabase system-of-systems.³⁹⁷

With regard to this final point, the report left no doubt that future MPF ships, as opposed to amphibious landing ships, would be the preferred "seabasing ship;" while the report's proposed "notional" seabase included only three amphibious landing ships, it would include enough MPF ships to support a complete Marine brigade.³⁹⁸ Indeed, the key legacy of the DSB Task Force was not its conceptual work, which, if anything, helped only to utterly confuse subsequent thinking about seabasing, amphibious operations, and amphibious assaults. Instead, it was its explicit endorsement of using MPF ships in a joint forcible entry operation in both *high* and low threat environments.

SEABASED LOGISTICS: PA&E (AND JFCOM) WEIGH IN

This strong DSB endorsement helped in no small way to demolish the Marines' increasingly weak position that MPF(F) ships should not replace amphibious landing ships in forcible entry operations in high-threat environments—despite the fact that the two other "critical" seabasing capabilities were likely decades away. In September 2003, one month after the DSB Task Force had published its final report, the Director of OSD's Program Analysis and Evaluation sent a memorandum to the DoN's chief acquisition executive highlighting "a potential gap between the MPF(F) Mission Needs Statement and Navy AoA efforts to date." It stated, in part, that:

³⁹⁷ Defense Science Task Force on Sea Basing, pp. ix-x.

³⁹⁸ Defense Science Task Force on Sea Basing, p. 19.

Even though the MNS states "MPF(F) will not possess a forcible entry capability," this does not preclude the AoA from evaluating MPF(F) as an augmenting forcible entry capability. The context of the AoA guidance emphasizes that a MPF(F) system should be designed to achieve applicable capabilities across the full spectrum of warfighting functions. While MPF(F) would have no independent forcible entry capability, participation in assaults was explicitly envisioned in the guidance... Failing to evaluate MPF(F) in the full context of forcible entry operations would greatly diminish the value of the AoA to the senior leadership (emphasis added).³⁹⁹

Interestingly, however, while explicitly supporting the DSB's position that MPF(F) ships should be considered for "dynamic" seabasing—operational maneuver from the sea—the PA&E Memorandum implicitly questioned the Navy's commitment to the "static" seabasing function of MPF(F). Recall that improved seabased logistics provided much of the initial impetus for *MPF 2010 and Beyond*, and had been an important part of all follow-on seabasing concepts. While applauding the efforts of the Navy's AoA, PA&E felt it necessary to chide the Navy to "ensure the MPF(F) analysis also emphasizes end to end logistics in support of forcible entry operations." ⁴⁰⁰

In this, PA&E may have itself been prodded by the ongoing work of the Joint Logistics Transformation Center (JLTC)—the Joint Forces Command's (JFCOM) center of excellence for future sustainment and deployment excellence. During 2003, the JLTC began building upon the work done by the Navy and Marine Corps to develop "a joint seabasing concept that would seamlessly sustain a projected force package for an indefinite period of time." ⁴⁰¹ Although focused on logistics, however, the action officers in the JLTC fully recognized the broader fundamental intent of seabasing. As the JLTC's military lead for concept development succinctly stated, "A seabase is mobile, and it's one method of conquer-

³⁹⁹ Memorandum for the Secretary of the Navy from the Director of the Office of Program Analysis and Evaluation, subject: "Maritime Prepositioning Force—Future (MPF(F)) Analysis of Alternatives (AoA)," dated September 25, 2003.

⁴⁰⁰ PA&E Memo, subject: "Maritime Prepositioning Force—Future (MPF(F)) Analysis of Alternatives (AoA)."

⁴⁰¹ Mair Downing, "Logistics Transformation Center Refining Joint Seabasing Concept," found online at http://www.jfcom.mil/newslink/stroyarchive/2003/pa091503.htm.

ing anti-access issues. *A joint seabase gives you the ability to still operate at will, at you choice, globally* (emphasis added).⁴⁰²

Just as importantly, the thinking of the JLTC reflected the wisdom of the DSB's call for a Joint Project Office for Sea basing. The JLTC's director was an Army logistician, while the lead concept developer was a Navy officer. Not surprisingly, then, the JLTC's thinking clearly reflected both Navy and Marine seabasing concepts as well as those developed during the Army After Next project. The result was a holistic view of the *joint* deployment-employment-sustainment process for expeditionary power-projection operations, and the nascent identification of a joint system of systems that fundamentally changed the "material-distribution" support for global expeditionary maneuver and movement. This system of systems included high-speed shallow draft vessels, seabased distribution centers, heavy ship-to-ship sustainment technologies, and cargo vessels with drafts of only 15-18 feet. In the words of the JLTC director:

If we link this type of distribution center mentality with an air and shallow draft delivery capability from the sea, then we'll have a sustainment capability that can respond to the needs of our early entry forces tomorrow.⁴⁰³

Whether aware of this good thinking or not, the PA&E implicitly endorsed it by cautioning the Navy not to emphasize the dynamic seabasing function played by MPF(F) at the expense of short-changing the static seabasing function of sustaining forces operating ashore. Unfortunately, it did not explicitly endorse the formation of a Joint Seabasing Office to make sure such a thing did not happen.

THE JFEO PDM STUDY

The publication of the DSB Task Force on Seabasing was accompanied very nearly simultaneously by the final results of the Joint Forcible Entry Operations Study, called for in a Program Decision Memorandum (PDM) signed out by Deputy Secretary of Defense Paul Wolfowitz on 12 December 2002. Reflecting, in part, the powerful galvanizing influ-

 $^{^{402}}$ Downing, "Logistics Transformation Center Refining Joint Seabasing Concept."

⁴⁰³ Downing, "Logistics Transformation Center Refining Joint Seabasing Concept."

ence of the GWOT, the PDM (which covered Department of Defense programs for fiscal years 2004-2009) called for more than 30 different studies to be conducted, of which the JFEO Study was one. Conducted during the first ten months of 2003, the JFEO Study reflected the findings of the 2001 QDR; the new Mission Needs Statement for the MPF(F); nearly two years of wartime operational experience; and, perhaps most importantly, the results of OA 2003. 404 As the study was conducted concurrently with the DSB Task Force of Seabasing, the two efforts were closely aligned.

Not surprisingly, then, a key aspect of the JFEO Study was the role of "maritime prepositioning and other Seabasing concepts," as is made plain in the study's tasking order:

The Chairman of the Joint Chiefs of Staff, in collaboration with [Undersecretary of Defense for Acquisition, Technology, and Logistics], [Program Analysis and Evaluation], and the Services, will conduct a thorough review of joint forcible entry operations, including examinations of airborne and air assaults, amphibious assaults, the role of maritime prepositioning and other Seabasing concepts. For naval forces, the review shall include Marine Corps organization and equipment, amphibious ships, maritime prepositioning and other Navy and Marine Corps Seabasing concepts, and development of air-capable ships. For the Army, the review shall include airborne and air assault force organization and equipment, as well as emerging Stryker Brigade Combat Team and Objective Force concepts for forcible entry. In addition, the study should include a review of alternative concepts for the logistic support of these forces.405

In the event, the results of the study were reported out by the Chairman of the Joint Chefs in October 2003, just two months after the DSB Task Force on Seabasing had published its final report. While

⁴⁰⁴ Email from Commander Mark A. Becker, USN, Deputy Sea Base Pillar Lead (N832), Navy Warfare Development Command, to Robert O. Work, subject: "JFEO PDM II Study," dated February 10, 2006.

⁴⁰⁵ Deputy Secretary of Defense Paul Wolfowitz, "PDM FY 2004-2009," as cited in email to Robert O. Work, Center for Strategic and Budgetary Assessments, from Commander Mark Becker, Deputy Sea Base Pillar Lead (N832), Navy Warfare Development Command, dated February 10, 2006.

finding that current forcible entry capabilities did not meet all future requirements, the "key insight" from the study was "the lack of capability to meet *emerging timeline criteria* for executing joint forcible entry operations." ⁴⁰⁶ The influence of "10-30-30" was becoming increasingly evident in all joint thinking—as it should have, given its prominent inclusion in the Defense Planning Guidance.

The JFEO Study thus added more impetus, as if any were needed, to DoN MPF(F) plans. Indeed, the same reasoning spurred the Army to develop its own prepositioned rapid forcible entry capability—a variation of the Afloat Forward Staging Base concept originally found in the Global ConOps Navy. In this instance, however, the AFSB was a distributed seabase capable of embarking an Air Assault Brigade Combat Team (AABCT) consisting of approximately 3,800 personnel and 90 helicopters of all types. This development was an acknowledgement that while Army airborne forces could meet the "10-30-30" timeline, they would be largely immobile and vulnerable to both guided weapons fires and ground assaults until heavier ground combat forces could arrive in theater and link up with them. Moreover, if not supported by a continual aerial resupply effort, they lacked the organic sustainment to survive very long in sustained combat. The AABCT AFSB idea was one way the Army might be able to more quickly reinforce its lighter airborne forcible entry forces.407

Army planners examined a variety of options to base an Air-Assault Combat Team at sea, including modified LMSRs, specially modified Maersk S-class sealift ships, and even decommissioned aircraft carriers. 408 However, because Army helicopters are not "marinized" (i.e., specially modified to prevent salt-air corrosion), they could not be prepositioned on the AFSB in a forward theater. That left two options: either prepositioning AFSB ships in CONUS in a reduced operating status, and loading the ships and having them transport the entire force across the

⁴⁰⁶ Email from Becker to Work dated February 10, 2006.

⁴⁰⁷ Major General Brian I. Geehan, and Brigadier General Kathleen M. Gainey, "Seabasing: Building the Army Contribution," PowerPoint presentation and remarks given at the Joint Seabasing Conference, held in Washington DC, February 16-17, 2005. and "Army Regional Flotillas (ARF) and Afloat Forward Staging Base (AFSB)," US Army Information Paper, DAMO-SSW, dated July 22, 2003, found online at http://hqinetoo1.hqmc.usmc.mil/ pp&o/POE/POE60/ARMY%20PREPOSITIONING%20PROGRAM%20BRIEFS/ARF%20%20AFSB%20Info%20Paper% 20LG2.doc.

⁴⁰⁸ For a good description of the S-class AFSB, see Norman Polmar, "Sea Base Ships for the Future," *Proceedings*, March 2005, pp. 104-05.

oceans to the JOA in times of crisis; or keeping the AFSB ships in theater, empty, and transporting the BCT's non-self-deploying helicopters to the AFSB along with the unit's personnel. Neither option was likely to hit the required timelines. Moreover, for the same reasons its helicopters could not be prepositioned on ships, once closed on the AFSB, the BCT would be housed there only *temporarily*; the brigade would shift its operations ashore as soon as possible after its initial forcible entry operation. Thereafter, the AFSB would continue to operate as a selective offload logistics sustainment facility and a seabased intermediate maintenance facility. In concept, then, the AFSB was more of a "lily pad" than a true operating base. ⁴⁰⁹

The problem of how to deal with non-self-deploying helicopters also bedeviled the Marines' planning for MPF(F) operations. They at least could self-deploy to the seabase the 48 V-22s necessary to support a MEB. But that still left the problem of getting 47 non-self-deployable MEB support helicopters—20 large CH-53E heavy lift helicopters, 18 AH-1Z helicopters, and nine UH-1Z command and control helicopters—to the seabase. The solution, identified during MPF(F) concept development, was a new Rapid Strategic Lift Ship (RSLS), capable of transporting a MEB's entire complement of non-self-deploying helicopters, as well as the majority of personnel associated with the MEB's air combat element, over transoceanic ranges at speeds exceeding 35 knots.⁴¹⁰

If such a ship could be built, one wonders why the JFEO PDM put such heavy emphasis on using prepositioned ships for JFEOs. The use of prepositioned ships compelled a complicated RSOI at sea involving moving forces and cargos from multiple locations from multiple theaters across multiple time zones, and transferring them across multiple platforms—all at sea! It seems likely that the troops involved in such a process would arrive at the JOA harried and tired. Why not borrow a page from the AAN and put into service several squadrons of SDHSSs which would keep the combat units intact from embarkation to debarkation and provide their personnel with more rest and more time to prepare for the operation? But the MPF(F) train had long ago left the station, and other alternatives were not looked upon favorably.

Geehan and Gainey, "Seabasing: Building the Army Contribution;" and "Army Regional Flotillas (ARF) and Afloat Forward Staging Base (AFSB)."
 Jason Ma, "Officials Drafting Requirements for MPF(F)," Seabasing Concepts, *Inside the Navy*, January 16, 2006.

In any event, in addition to putting to rest any lingering doubts over whether or not the MPF(F)—or other similar programs like the AABCT AFSB—could replace purpose-built amphibious landing ships in a joint forcible entry operation, the JFEO PDM also studied other forcible entry options, including the use of Army airborne forces and Army Stryker Brigades. Indeed, the study highlighted such a range of potential options that it implicitly seconded the DSB's recommendation for the establishment of a Joint Project Office for Seabasing. What better organization to prioritize the development of joint force forcible entry capabilities?

THE ADVANCED MOBILITY CONCEPTS STUDY

Soon after the results of the JFEO PDM were published, another implicit endorsement for a Joint Project Office for Seabasing came in December 2003, when the Department of the Army published its Advanced Mobility Requirements Study (AMCS). This study, mandated in the same 2004-2009 Defense Planning Guidance that spawned the JFEO effort, tasked the Army—assisted by the Joint Staff, the other military departments, and the Regional Combatant Commanders—to look at the advanced mobility systems needed to maintain the "strategic and operational mobility advantage" enjoyed by US forces in the 2015-2020 timeframe. Importantly, these concepts were to enable the US military to project and sustain forces in "distant anti-access and area-denial environments" and to defeat A2/AD threats. In other words, unlike the earlier MRS 2005, the study had an implicit tasking to consider both global mobility *and* operational maneuver capabilities.⁴¹¹

Not surprisingly, then, the AMCS found the components of the current Strategic Military Transportation System—optimized for the movement of personnel, equipment and cargo through developed theater infrastructure in an uncontested environment—to be seriously lacking. As a result, the study members did not focus on increasing the number of million tons per day for the strategic airlift fleets. Nor did they conclude the sealift fleet was capable of meeting future needs. Instead, they recommended eight new programs—including four airlift and four

⁴¹¹ Klaus, Strategic Mobility Innovation: Options and Oversight Issues, pp. CRS-5 – CRS-6.

sealift systems—that would better enable either global expeditionary movement, or global expeditionary maneuver, or both.

The four airlift options were:412

- A Global Range Transport (GRT), a blended wing aircraft about the same size of a C-5 but capable of carrying 2.5 times the cargo—459,000 pounds at ranges of 3,860 nautical miles (including up to 584 passengers)—at speeds of 489 knots. This aircraft would require at least a 7,000-foot runway at a fixed aerial port of debarkation (APOD);
- A Super-short Take-off and Landing (SSTOL) aircraft, a large tilt-rotor aircraft capable of taking off an landing on unimproved dirt strips less than 1,000 feet in length. Envisioned as the replacement for the venerable C-130 airlifter, the SSTOL could carry either 72,000 pounds of cargo, 80 passengers, or a combination thereof (about 50-100 percent more capacity than the C-130) over ranges of 3,100 miles at 380 knots;
- A C-17 Payload and Range Extension Program (PREP), designed to increase the C-17's capacity from 45 to 49 short tons, and its associated range from 4,600 to 6,300 nm; and
- An Ultra-Large Airlifter (ULA), a blend of a conventional take-off and landing (CTOL) lighter-than-air cargo ship and a VTOL cargo ship. The resulting ULA could transport 338 tons of personnel and cargo over ranges of 5,600 nm at speeds of 76 knots. The attractive advantage of this concept was that it could totally bypass traditional APODs and land intact combat units or cargo in any wide open field.

As for the sealift options, the study highlighted:

 A Shallow Draft High Speed Ship like the one conceived of and highlighted in the Army After Next program. As envisioned, the SDHSS would be a "cavity catamaran" with a total payload capacity of 4,400 short tons and 86,489 square feet of cargo space. It would also simultaneously carry 1,000 personnel, enabling it to transport

⁴¹² The descriptions of the eight mobility concepts are drawn from Klaus, Strategic Mobility Innovation: Options and Oversight Issues, pp. CRS-13 – CRS-27.

intact combat *units*. The ship had a projected range of 4,500 nm, a speed of 75 knots, and a draft shallow enough to enable it to discharge its cargo in austere ports;

- A Fast Sealift-Monohull, with a payload capacity of 8,000 short tons or 158,000 square feet of cargo, and a range of 6,000 nm at a speed of 38 knots. Unlike the SDHSS, designed to support operational maneuver from strategic distances, the Fast Sealift-Monohull was a pure cargo mover. However, because it had a 12-foot draft in the stern, it could discharge its cargo in austere ports while moored perpendicular to, and with its stern toward, the shore, a process known as "med-mooring;"
- A Naval Vision Tri-maran High Speed Sealift (NVTHSS), capable
 of delivering its cargo over ranges of 8,700 nm at speeds up to 55
 knots. In the operational maneuver role, it could simultaneously
 carry 1,000 passengers and 4,500 tons/88,500 feet of cargo. In the
 cargo mode, it could carry and addition 500 tons/32,599 square feet
 of cargo; and
- A Naval Vision Surface Effects Ship High Speed Sealift (NVSE-SHSS), a ship similar in concept to the NVTHSS with a different hull form. It had the same range as the NVTHSS but could travel five knots faster. When configured in the operational maneuver role, it could carry 1,000 passengers and 4,500 tons/97,700 square feet of cargo; in straight cargo mode, it could carry an additional 500tons/32,500 square feet of cargo.

A follow-on technical feasibility study, conducted by the Institute for Defense Analysis, concluded that all of the AMCS's airlift concepts and the Fast Sealift-Monohull were "feasible" in the far term (2016) with the appropriate focused research and development (R&D) and technical investments. All remaining sealift concepts were considered "marginally feasible" in the far term with focused technical investments.

The logical question following the AMCS was who or what office should decide which of these eight concepts provided the best joint payoff and warranted future focused technology investment. One logical answer, at least with regard to the sealift options, was a Joint Project

⁴¹³ Klaus, Strategic Mobility Innovation: Options and Oversight Issues, pp. CRS-33 – CRS-34.

Office for Seabasing with the charter, a staff capable of independent analysis, and an R&D funding line to make and execute the decisions.

JOINT SEABASING INITIATIVES

Yet another reason to pursue a Joint Project Office for Seabasing was the growing need to rationalize and prioritize not just long-term platform options, but also a growing number of near-term seabasing initiatives being explored and pursued by the Department of the Navy, the Department of the Army, and joint defense agencies. Four of these initiatives bear mentioning: planned improvements to the Combat Logistics Force; planned improvements to the Logistics Prepositioning Force; the new Joint High Speed Vessel program; and the Joint Enable Theater Access—Sea Ports of Debarkation (JETA-SPOD) program. Each of these initiatives will be discussed in turn.

Improving the Combat Logistics Force

By late 2003 and 2004, the Army was planning to transform its Combat Logistics Force into a far more capable Army Strategic Flotilla (ASF). Plans called for the single squadron carrying a 2x2 heavy brigade to be expanded into three, 5-ship squadrons, each consisting of one LMSR carrying a 1x1 Army brigade set of equipment (i.e., one armored battalion and one mechanized battalion) or heavy unit of action; one LMSR carrying combat support equipment; two container ships, one loaded with supplies, the other with ammunition; and a smaller, shallow draft RO/RO ship loaded with a special humanitarian/disaster relief and special operations support package. Ala Note that since the current CPF includes eight LMSRs, when the planned transition to the ASF was complete, the CPF requirement would drop to six LMSRs and the Surge Sealift Fleet would gain an additional two ships, expanding the fleet to 13 LMSRs.

Including a smaller, shallower draft RO/RO in the ASF squadron mix was an acknowledgement of the results of a 2002 worldwide survey

⁴¹⁴ Geehan and Gainey, "Seabasing: Building the Army Contribution;" and Brigadier General Jim Rafferty, USA, "Army Field Support Command (AFSC) Command Overview Briefing," found at http://proceedings. ndia.org/5650/Rafferty.pdf.

of all ports in the Central and Pacific Command areas of responsibility conducted by the Illinois Institute of Technology Research Institute. Based on this study, the survey concluded that a ship's length and draft were the key factors in determining whether a port could accommodate a given vessel, with *length* being the most important. Researchers found that a vessel with a length greater than 152 meters could access only 36 percent of the ports studied. At 290 meters, the larger LMSRs and RO/RO ships in the ASF (and in the Surge Fleet) can berth at relatively few ports around the world. A smaller RO/RO would be able to berth at considerably more ports in austere locations, a key consideration for humanitarian, disaster relief, and special operations support missions.

Like the current MPF, the three ASF squadrons would be anchored in the Mediterranean and at Diego Garcia and Guam, providing 10-14 days of closure time to any port in an arc extending all the way from Europe to Northeast Asia. Importantly, *Army planners explicitly assumed that an advance force must be sent in to secure a sea port of debarkation and the air point of debarkation before the ASF squadrons could be unloaded in a JOA.* This assumption emphasized the importance of maintaining a joint forcible entry capability. ⁴¹⁶ This thinking helps to explain the Army's aforementioned interest in including in the future CPF an Advanced Forward Staging Base large enough to embark an Air Assault Brigade Combat Team. Recall that this concept would provide the Army with a heavier seabased air assault forcible entry option to complement its lighter airborne forcible entry forces.

As attractive as these plans might be, it is not clear the Army will have the necessary funds to fund all three of its desired ASF squadrons, much less the much more expensive AFSB. Mounting costs for "resetting" the Army forces coming out of Iraq have already forced planners to reduce the number of ASF squadrons from three to two, or possibly even to one full "full capability" squadron and one "reduced capability" squadron. ⁴¹⁷ If this capability was deemed important enough, perhaps a Joint Project Office would be able to argue for, or even provide, some supplemental funding to restore the ASF to its full capability.

⁴¹⁵ John H. Williams and William K. Thomas, "Worldwide Port Survey 'Quick Look'," Illinois Institute of Technology Research Institute (IITRI), December 10, 2002; and "Army Regional Flotillas (ARF) and Afloat Forward Staging Base (AFSB)."

⁴¹⁶ Geehan and Gainey, "Seabasing: Building the Army Contribution."

⁴¹⁷ Geehan and Gainey, "Seabasing: Building the Army Contribution."

Improving the Logistics Prepositioning Force

A similar argument can be made with regard to the future Logistics Prepositioning Force (LPF). As suggested by the DSB Task Force on Strategic Mobility as early as 1996, a key goal of future power-projection operations should be to minimize supply footprint ashore to the maximum extent feasible. Keeping supplies at sea and delivering them to units operating ashore—a process know as selective offload of equipment and supplies—is thus a desirable capability for all future sealift and naval maneuver ships. Accordingly, the idea of selective offload of forces, equipment, and supplies should by no means be linked solely to the MPF(F) concept. Indeed, in keeping with this thinking, both the Defense Logistics Agency (DLA) and the Army are considering enhancements to the current seabased Logistics Prepositioning Fleet (LPF) in order to improve their ability to provide sustained seabased logistical support to forces operating ashore.

The DLA sees seabasing as an integral part of its Global Stock Prepositioning Strategy. This strategy relies on seven dispersed Joint depots in Germany, Italy, Kuwait, Guam, Japan, Korea, and Hawaii; a deployable land-based distribution depot, or "depot in a box;" and *DLA Afloat Distribution Centers*, or DADCs. The DADCs are designed to fill the gap between the long-range delivery of supplies by air, which is fast but expensive (averaging \$4.50 per pound), and long-range delivery of supplies by sea, which is cheap but slow (averaging 22 cents per pound). The DADC, a floating warehouse with selective offload capability, is designed to provide *immediate* sustainment until the logistics sea bridge can be established and expeditionary shore-based deployable distribution depots are up and running. 418

This highlights an important point: since the DLA considers shore-based distribution much more efficient than sea-based distribution, the DLA's future supply strategy is to continue to distribute supplies from ships *only as long as is necessary*. As a consequence, the DADC will focus on providing heavy supplies that would be prohibitively expensive to ship by air, but that would take a relatively long-time to arrive by

Fred Baille, Executive Director, Distribution and Reutilization Policy, Defense Logistics Agency, PowerPoint presentation given to the SDDC Conference, April 26, 2005, at http://www.sddc.army.mil/EXTRACONTENT/Symposium2005/SDDC%20Symposium%20Baillie.ppt#1; and Fred Baille, "DLA and the Seabasing Concept," PowerPoint presentation given at the Joint Seabasing Conference, Washington DC, February 16-17, 2005.

sea, such as bulk liquids, construction materials, and major subassemblies and repair parts. The DLA already operates two tankers converted into offshore petroleum distribution systems; lacking are new selective offload cargo ships capable of carrying and selectively offloading the construction materials and repair parts.⁴¹⁹

Similarly, the Army is pursuing a Supply Support Activity Afloat (SSAA), designed to provide selective offload of cargo to early arriving Army units until the Joint theater logistics infrastructure is established ashore. In other words, both the Army and DLA presume that any major Joint power-projection operations will require the establishment of permanent bases and logistics infrastructure ashore. This is also the position of the Air Force. 420

This is a critical point. It points to the fact that while ballistic and cruise missiles may make forward land bases vulnerable to preemptive attack, just as was suggested by the 1996 DSB Task Force on Strategic Mobility and the 1997 NDP, this does not suggest in any way that defense planners are contemplating future major power projection operations without using land bases—at least for decades to come. They are instead contemplating access insensitive forcible entry and maneuver options and programs that make up for the *initial* lack of land bases, either for political or operational reasons. They fully anticipate that these forces will be used to seize the ports and airfields necessary for the introduction of follow-on forces. However, they do intend to minimize the footprint of supplies ashore to the greatest extend possible. All this suggests that while the duplication of land bases at sea is a noble conceptual goal, the higher near- to mid-term payoff would be the development of access-insensitive forcible entry and assault follow-on forces and a fleet of common selective offload cargo ships that would logistically support the entire early entry force until a land-based distribution system is established. After that, the seabased logistics ships would then augment the land-based distribution centers, helping to minimize the supplies built up ashore.

In "supply speak," these are Class III, IV, and IX supplies, respectively. There are eleven different classes of supplies. See "Logistics," at http://www.globalsecurity.org/military/library/policy/army/fm/90-31/Ch9.htm.

⁴²⁰ Geehan and Gainey, "Seabasing: Building the Army Contribution;" Rafferty, USA, "Army Field Support Command (AFSC) Command Overview Briefing;" and Brigadier General Mike Worden, USAF, "Joint Services Perspectives on Seabasing Logistics," comments made at the Joint Seabasing Conference, Washington DC, February 16-17, 2005.

One possible option for this new sustained seabased logistics role has already been discussed: assigning the function to the Combat Logistics Force. Another option would be to assign the function to a restructured LPF that included an expanded force of tankers as well as selective offload cargo ships, filled primarily with supplies, food, ordnance, and engineering supplies, and a modest amount of vehicles (most of which would be delivered via the future amphibious landing, maritime prepositioning, and surge sealift fleets). The stores would be kept either in containers or in holds, meaning the ships would need to be capable of handling both containers and break bulk cargo.

Regardless of whether or not the function of seabased logistics is assigned to the MPF(F), CLF, or LPF, there is an obvious need for a joint fleet of common selective offload cargo ships that are optimized for the support of joint forces operating ashore. The DoN once built and operated cargo ships with substantial selective off-load cargo capability—the Charleston-class LKAs. These ships were the first class of post-World War II landing force cargo ships purpose-built for the rapid unloading of cargo via both surface and air connectors. All of the World War II APA attack transports from which they were derived were converted from or built to merchant standards. With 33,000 square feet of vehicle space, 70,000 cubic feet of cargo space, five high-speed elevators, two cranes, and ten booms, the *Charlestons* were designed-from-the-keel-up to rapidly move bulk munitions, supplies, and provisions ashore. In keeping with the long battle fleet requirement to transport troops and cargo on separate ships, the LKAs did not double as troop transports, having accommodations for little more than 200 Marines—only those required to drive off embarked vehicles and to run supply operations. 421

The five *Charleston* were all decommissioned between 1992 and 1994, long before the end of their expected 35 to 40-year service lives. They remain in Category B reserve, ready for reactivation in 180 days. 422 The likelihood of this ever occurring is low. Since they were built, containers have become the preferred mode of intermodal transport of cargo and supplies. This circumstance, along with the emerging logistics requirement to conduct the "underway replenishment" of freely maneuvering joint ground forces operating ashore, is driving planners to consider a new type of "Joint LKA," which combines the selective cargo offload capability of the LKA with an ability to retrieve supplies *from*

Polmar, *Aircraft of the US Fleet*, fourteenth edition, pp. 195-96.

⁴²¹ For information about this class, see Polmar, *Aircraft of the US Fleet*, eighteenth edition, p. 199, as well as the fourteenth edition, pp. 195-96.

containers. A likely candidate for this new logistics role is a variant of the *Lewis and Clark*—class Auxiliary Dry Cargo/Ammunition ships (T-AKEs) now in serial production. These are large ships (35,400-ton full load displacement, nearly twice that of the *Charleston* LKAs) that are built to commercial standards and are capable of carrying nearly 6,000 tons of dry cargo or containers and an additional 3,000 tons of fuel. To assist in the selective offload of their cargo, the ships have no less than eight internal cargo elevators, a total of five underway replenishment stations (three to port, two to starboard), and four ten-ton capacity extendable cranes. 423

Initial DoN plans were to build 12 *Lewis and Clark*—class T-AKEs in the dedicated battle fleet CLF. However, the new 313-ship plan includes 11 of the ships in the combat logistics force role and three more in the MPF(F) squadron in the seabased logistics role. Should the DLA and Army proceed forward with their plans for their DADCs and SSAAs, respectively, it is logical to assume that they, too, will opt to build additional T-AKEs. However, there are no apparent plans for additional T-AKEs in current shipbuilding plans to account for such requirements. Once again, a Joint Project Office might be able to rationalize a plan to meet all joint seabased logistics requirements.

The Joint High Speed Vessel Program

A third important seabasing initiative is the Joint High Speed Vessel (JHSV) program, the combination of the Theater Support Vessel concept developed in the Army After Next project, and the High Speed Vessel concept developed by the Navy and Marine Corps.

Recall that the Army TSV concept envisioned a high-speed intratheater connector that could be used either to inject small intact combat units or to deliver supplies and cargo through small, underdeveloped ports, or even onto a beach given a favorable gradient. The early conceptual version of a TSV was based on a high-speed tri-maran, with seats for 970 troops, and 1,900 square meters of vehicle stowage space. The ship could deliver a payload of 500 tons to a range of 750 nautical miles at speeds of 38 knots; by dropping both its speed (to 23 knots) and payload (to 355 tons), the ship could extend its range to 3,000 nm. 424

 ⁴²³ Polmar, Ships and Aircraft of the US Fleet, eighteenth edition, p. 267.
 424 Ian Bostock, "Austral Details High-Speed Sealift Tri-maran Designs,"
 Jane's Defense Weekly, December 8, 2004, p. 30.

The final TSV requirements are for a ship with a range of 1,250 nautical miles, a top speed of up to 40 knots, a fully loaded draft of 15 feet or less, and capable of carrying "combat ready units of 350 people plus equipment" (i.e., a reinforced company combat team).⁴²⁵

In comparison, as first envisioned by officers at the Naval War College and the Naval Warfare Development Command, the HSV would perform the role of high-speed logistics connector for a seabase, transferring personnel equipment from theater land bases to the seabase; between ships in the seabase; and from the seabase to shore. However, by virtue of its modular design, the HSV could also perform additional battle force roles, such as mine warfare or support of special operations forces. ⁴²⁶ In other words, Navy planners envisioned the HSVs as modular, multi-functional components of a seabased power-projection force.

Starting in 2001, the Army, Navy, and Marines started to test and further explore their respective visions for these new intra-theater connectors by leasing modified, high-speed commercial car ferries for operational experimentation. Since then, no fewer than four different types of these vessels have been in service. Notably, one of the vessels was used to support Operation *Iraqi Freedom*, and another continues to provide logistical support to Marines on Okinawa as part of the Logistics Prepositioning Fleet. The results of the experiments proved promising enough to prompt both the Department of the Army and Navy to launch formal procurement programs for high-speed, intra-theater connectors.⁴²⁷

In late 2004, with the overlaps between the two programs increasingly evident, the Departments of the Army and Navy signed a Memorandum of Intent to merge the TSV and HSV programs into a single Joint High Speed Vessel program. 428 The logical intent was to develop a common hull form to keep the ship's unit procurement costs as low as

⁴²⁵ Lieutenant Colonel Stephen R. Trauth, US Army, ret., et al, "Army Transformation at Sea: The New Theater Support Vessel," *Military Review*, November-December 2005, pp. 51-56.

⁴²⁶ See "High Speed Vessel (HSV)," at http://www.nwdc.navy.mil/Concepts/Sea_Basing/ConceptsHSV.aspx.

For a description of the different TSVs and HSVs, see Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, pp. 626-27. See also William Cole, "Navy Shows Off Speedy New Vessel at RIMPAC," *Honolulu Advertiser*, July 13, 2004; Lorenzo Cortes, "High-Speed Catamaran Performing the Lift Mission Well, Marine General Says," *Defense Daily*, July 9, 2004, p. 3; and "High Speed Vessel (HSV)."

⁴²⁸ Lieutenant Colonel Lawrence S. Ryder, "Joint High-Speed Vessel," *Marine Corps Gazette*, March 2005, pp. 22-25.

possible and to ensure interoperability between the two vessels. Importantly, the JHSV is to retain both an ability to mate with ships at sea and to inject intact combat units or cargo from a seabase or theater intermediate support base directly into an enemy's defended territory (but not across a defended beach). Or, as is explained by Army planners, the aim of the program is to:

...provide high speed intra-theater surface connector capability to rapidly deploy selected portions of the Joint Force that can immediately transition to execution, even in the absence of developed infrastructure, and conduct deployment and sustainment activities in support of multiple, simultaneous, distributed, decentralized battles and campaigns. The primary missions include: support to Theater Cooperation Program and Global War on Terrorism, littoral maneuver, and sea basing (emphasis added).⁴²⁹

As such, the shallow-draft JHSVs are to be built to "simultaneously move troops and their equipment as combat-ready units...with little or no reception, staging, onboard movement, and integration (RSOI) activities at underdeveloped ports." In concept, then, the JHSVs represent the modern return of the intra-theater assault connectors that played such a heavy role in World War II, but which disappeared over the course of the Cold War because they lacked the speed to keep up with 20-knot amphibious convoys. Unlike their World War II predecessors, the JHSVs are not required to completely beach themselves. However, given their speed and ability to mate with other ships in the seabase, they will by much more than the "one-way, one-shot" connectors used during World War II. Indeed, they will be able to continuously shuttle personnel, equipment, or units between an assault seabase and the shore. Moreover, because of their improved communications, the vessels will provide continuous "Battle Command On-the-Move" for their embarked combat units, which will allow their unit commanders to have constant access to the developing common operational picture, an ability to update their mission planning, and an ability to contact and

⁴²⁹ See "Army RDT&E Budget Item Justification (R2 Exhibit)," dated February 2005, found online at http://www. dtic.mil/descriptivesum/Y2006/Army/0208058A.pdf.

to collaborate with adjacent and higher units prior to landing, allowing distributed and adaptive seabased maneuver operations and tactics.⁴³⁰

As of now, the Navy's 30-year shipbuilding program includes only three JHSVs. Given the flexibility these vessels will provide to both naval and joint commanders, this number seems to be on the low side. Would a Joint Seabasing Office recommend the same number? It is only possible to speculate at this point. However, it seems safe to say that a joint commander planning a power-projection or forcible entry operation would likely wish that he add access to many more than three ships.

The Joint Enable Theater Access—Sea Ports of Debarkation (JETA-SPOD) ACTD

JETA-SPOD was a candidate for a Fiscal Year 2006 Advanced Concept Technology Demonstration (ACTD) proposed by the Army and sponsored by the US Pacific Command. The ACTD is designed to showcase the capabilities needed to allow the more flexible deployment of maritime prepositioning, surge, and sustained sealift to austere forward sea ports of debarkation. ⁴³¹ In concept, this ACTD might be best viewed as demonstration program for a 21st century MULBERRY mobile seabased harbor that would improve the ability of the joint force to move equipment, cargo, and forces into theaters where deep draft ports are denied, destroyed, or insufficient for the logistical throughput needs of a projected joint campaign.

The justification for the ACTD reflects an accurate picture of the limitations of the current Strategic Military Transportation System as it pertains to sealift: "Joint Force Commanders cannot fully exploit multiple austere sea ports of debarkation to support warfighting requirements for the rapid throughput of combat power and sustainment into the theater of operations and intra-theater operational maneuver," primarily because:

⁴³⁰ Trauth, et al, "Army Transformation at Sea: The New Theater Support Vessel," pp. 51-53.

⁴³¹ Dr. Donald Resio, *et al*, "JETA-SPOD," a PowerPoint demonstration delivered to the Joint Seabased Theater Access Workshop on February 10, 2005, found online at http://chl.erdc.usace.army.mil/library/conferences/jlots2005/2-10-2005/Resio-Waild/JETA-SPOD%20for%20Duck%20-%202%20Feb.ppt.

- Current databases and planning tools do not include characterization of austere sea and river ports in many potential operating theaters;
- Although many of these austere SPODs might be operationally useful to joint force commanders, they are not accessible by current and planned intra-theater sealift vessels because of their lengths and deep drafts;
- New forms of medium/heavy high speed sealift lack the means to rapidly discharge combat power and sustainment at austere SPODs or with JLOTS operations due to bulky and complex causeway systems that can only be delivered on medium to deep draft, slow-moving vessels. Especially troubling is that existing causeway systems are not transportable or employable by the Joint High Speed Vessel (JHSV); and
- Early entry distribution of cargo and supplies needed to sustain a major combat operation is too slow across current causeway systems.⁴³²

To help overcome these limitations, the JETA-SPOD ACTD program was designed to demonstrate a new SPOD planning tool, a new lightweight modular causeway system (LMCS), and a LMCS Container Handling System (LMCS-CHS). Significantly, a key goal of the ACTD is to demonstrate that both the both the LMCS and the LMCS-CHS can be deployed by Joint High Speed Vessels and emplaced using rubber-hulled inflatable boats (RHIBS) carried by the JHSVs.⁴³³

What is most surprising about the JETA-SPOD ACTD, approved in December 2005, is why it is an ACTD at all rather than a standing, priority joint program. ⁴³⁴ The Army proposed to spend a paltry \$25 million over five years to demonstrate the planning tool, one 120-150 foot long LMCS, and one Container Handling System, to solve a problem that is both manifestly obvious and a key deficiency in the Cold War-designed Strategic Military Transportation System. This is just one stunning bit of evidence that absent some sort of Joint Project Office, some high-priority seabasing initiatives with enormous pay-offs for the joint force are likely to lose out in service programming priorities.

⁴³² Resio, et al, "JETA-SPOD."

⁴³³ Resio, et al, "JETA-SPOD."

⁴³⁴ Phone call between Chris Sullivan, Center for Strategic and Budgetary Assessments, and Dr. Donald Resio's office on February 27, 2006.

THE NATIONAL RESEARCH COUNCIL WEIGHS IN

If the implicit logic behind establishing a Joint Project Office were not enough, in 2005 the prestigious National Research Council (NRC) of the National Academy of Sciences, under the auspices of the Naval Studies Board (NSB), explicitly endorsed the recommendation made by the DSB Task Force on Seabasing when it recommended that a "Joint Sea Base Planning Office" be formed under the Office of the Secretary of Defense. In April 2004, the DoN had requested that the NRC convene a workshop to "assess the science and technology base, both inside and outside the Department of the Navy, for developing Sea basing..." The Terms of Reference for the workshop clearly reflected the findings of recently completed DSB Task Force on Seabasing, in that it requested a technology roadmap with anticipated time horizons for the realization of a capability to handle cargo in heavy sea states; a seabased, longrange heavy-lift aircraft able to transport more than 20 tons; and ship classes that support future seabasing operations. 435 The NRC released the results of its workshop in an 85-page report in 2005.

In its final report, the NRC concluded that:

Sea Basing concept documents, both Service and joint, have been issued or are in draft. While they have much in common, there are significant differences among them. Tactical and programmatic planning is under way, but it lacks a unified vision and coordination among the myriad elements, and although discussions between the Army and Marine Corps have begun, the approach does not yet involve joint entities outside the [DoN] in any significant way.⁴³⁶

As a result, the NRC recommended the immediate establishment of a Joint Sea Base Planning Office with the responsibility of "procurement, doctrine development, war gaming, and any other activity with the potential to effect the attainment of this transformational goal." The

⁴³⁵ Committee on Sea Basing, Naval Studies Board, National Research Council of the National Academy of Sciences, *Sea Basing: Ensuring Joint Access From the Sea*, p. xi and 4.

⁴³⁶ Committee on Sea Basing, Naval Studies Board, National Research Council of the National Academy of Sciences, Sea Basing: Ensuring Joint Access From the Sea, p. 3.

office would take "immediate steps to involve the other Services, the combatant commanders, and the appropriate defense agencies in the development of the Sea Basing capabilities." 437

THE GLOBAL DEFENSE POSTURE REVIEW AND CONTINUED ACCESS PROBLEMS

Setting aside for the moment the arguments in favor of the development of a Joint Project Office for Seabasing, the strategic rationale for seabasing was once again vividly highlighted and demonstrated in 2004-2005. In 2004, the Pentagon published the results of the Global Defense Posture Review (GDPR) called for by the 2001 QDR. In essence, the GDPR recommended that US expeditionary power projection operations be supported by just a few residual and consolidated Cold War bases and logistics hubs on the soil of America's most trusted allies. The relatively small number of "major operating bases" would have "permanently stationed combat forces and robust infrastructure" including command and control facilities, facilities for the families of the combat forces stationed on the bases, and enhanced "force protection measures." 438

These major bases would be augmented by a large, much more informal, globally distributed, expeditionary basing structure that harkens back to the one erected by the Navy in the 19th century. Instead of naval warehouses, however, the updated basing structure will include numerous Forward Operating Sites (FOSs) and even far more numerous Cooperative Security Locations, or CSLs (facilities shared with a host nation). A FOS is defined as "an expandable warm [i.e., kept in ready condition] facility with limited US military support presence and possibly prepositioned equipment" that "support rotational rather than permanently stationed forces and [will] be a focus of bilateral and regional training." CSLs, on the other hand, are "facilities...with little or no permanent presence." 439 The CSLs would be used primarily for periodic reconnaissance and logistics support and would not be operated by any

⁴³⁷ Committee on Sea Basing, Naval Studies Board, National Research Council of the National Academy of Sciences, Sea Basing: Ensuring Joint Access From the Sea, pp. 4-6.

Harkavy, "Thinking About Basing," p. 25.Harkavy, "Thinking About Basing," p. 25.

permanent caretakers, instead being maintained with "periodic service, contractor, or host-nation support." 440

In theory, this globally distributed structure would provide a menu of available bases, FOSs, and CSLs that joint planners could select from to build up the needed air, sea, and logistics bridges necessary to support any particular US power-projection operation. As such, the new informal posture is designed to:

...have maximal operational flexibility with minimal political downsides and few limitations on US access. The hope is that maintaining a lighter footprint. Washington will avoid some of the problems that have periodically arisen in connection with large US deployments in South Korea and Okinawa, Japan, such as traffic accidents and crimes involving US military personnel (emphasis added).⁴⁴¹

Guided by this new vision, US defense planners hope to negotiate access to new FOSs and CSLs in all theaters of US strategic interest. Planners are particularly keen on negotiating access in Central Asia, Eastern Europe, and Africa. Importantly, congruent with the new US emphasis on spreading democracy and in monitoring terrorist activity in "ungoverned areas," a considerable number of new facilities are planned in relatively poor countries with weak or non-democratic governments. The thinking here is that the nations would welcome the economic incentives for providing base access, and that even a small US presence might help to stabilize the governments the host nation, to help keep track of the global movement and locations of known terrorists, and to guard US interests—goals which would have undoubtedly been recognized and appreciated by the designers of the Navy's 19th century informal "expeditionary" basing structure (once substituting pirates for terrorists). 442

The problem, of course, is that these weak nations fall squarely into the camp of "uncertain neutrals and doubtful allies." For example, in October 2001, the US hastily "purchased" access to Karshi-Khanabad air base—commonly referred to as K2—in southern Uzbekistan. Although the Uzbek government was anything but democratic, based on its easy promise to reform, the US negotiated an access extension to

⁴⁴⁰ Cooley, "Base Politics," p. 85; and Harkavy, "Thinking About Basing," p. 25.

⁴⁴¹ Cooley, "Base Politics," pp. 86-87.

⁴⁴² Cooley, "Base Politics," pp. 86.

K2 in March 2002. The price: \$217 million dollars, sweetened with \$55 million in credits from the US Export-Import Bank. By the summer of 2004, however, the US policy community was becoming increasingly troubled by the direction of Uzbek "reforms." Then, in May 2005, the Uzbek government fired indiscriminately into a crowd of demonstrators, killing as estimated 700-800. For fear of losing access to K2, the Bush Administration initially withheld criticizing the government. But international outrage forced Secretary of State Rice to back an international inquiry over the government's handling of the demonstrations. In July 2005, outraged by the US moves, the Uzbek government angrily executed a termination clause in the access agreement forcing the US to cease its activities in 180 days.

As noble as is the goal to negotiate CSLs and FOLs with "maximal operational flexibility [and] minimal political downsides and few limitations on US access," the K2 incident proves the old maxim that no plan survives contact with the enemy—in this case a country's prerogative and authority to subordinate the needs of the United States to its own. Ironically, in addition to the uncertainty associated with dealing with weak or non-democratic countries, the spread of democracy is likely, if anything, to further bedevil US attempts to guarantee assured access in the future. As previously discussed, since 1989, Spain, the Philippines, and Turkey—all democratic allies of the United States—have voted at various times to restrict US access to basing facilities; in every case, the decisions reflected the popular will of their people, and not necessarily the desires of the leaders of their governments.

Therefore, regardless of the final number of CSLs and FOLs negotiated, the Joint Expeditionary Era will demand that the US military retain the ability to initiate and sustain operations until land-based access can be secured, or seize access when required, or both. Under any circumstances, then, seabasing and naval maneuver will likely remain an important and attractive capability in the future joint military toolkit.

⁴⁴³ Cooley, "Base Politics," pp. 86-88.

"SEA SWAP:" EXTENDING SHIPS ON GLOBAL PATROL AND SCOUTING MISSIONS

As the results of the JFEO PDM, the Advanced Mobility Concepts Study, and the Global Defense Posture Review were becoming known, and as more and more joint seabasing initiatives sprung up, Navy and Marine officers were considering how the amphibious landing fleet would fit into the DoN's future seabasing plans. In these discussions, because they controlled the shipbuilding budget, the Navy usually held the initiative, and they exercised this initiative by making both subtle and overt arguments to effectively shape the direction of the future amphibious fleet. The first, more subtle argument was that the amphibious landing fleet might be made smaller but no less effective through the use of an innovation fleet manning concept called "sea swap." 444

As was the case during the Cold War, seabasing operations in the Joint Expeditionary Era would rely on a mixture of platforms/capabilities that were either *based* at permanent overseas main operating bases; on *rotational forward deployments*; or *surged* from the United States during crises or contingencies. However, it was accepted that over time, fewer and fewer naval units were likely to be based overseas. This would make the "combat credible" forces conducting the global patrolling and scouting function ever more important in responding quickly to any brewing crises, and "holding the fort" until surge forces could arrive from US home waters.

However, because of the distances involved, ships on rotational forward deployments from the United States could spend up to half their deployed time transiting to and from their patrol areas. For example, the sailing time from continental US ports to the Persian Gulf can take up to six weeks, each way—nearly half the time of a typical 6-month deployment. To eliminate the time spent in transit, to maximize the amount of on-station time for rotationally-deployed platforms and their crews, and to increase the number of immediately employable forward patrol forces, the DoN began to experiment with keeping *ships* forward in theater for longer periods of time, while manning them with continuous *crew rotations*, or "sea swaps"—in effect, a kind of RSOI of crews for warships in distant theaters.

⁴⁴⁴ For a thorough discussion about the origins and problems associated with "Sea Swap," see Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, pp. 57-58.

Polmar, Ships and Aircraft of the US Fleet, eighteenth edition, p. 58.

The general idea of using crew rotations to increase ship availability for global patrols was nothing new; since the 1960s, the SSBN force has assigned separate Blue and Gold crews to each ballistic missile submarine in order to achieve a 66-70 percent patrol availability rate. 446 Importantly, these "sea swaps" occurred in ports on US soil, US territories (i.e., Guam), or on the soil of trusted allies (e.g., the United Kingdom and Spain). More recently, the Navy had rotated crews on small, forward-deployed mine warfare vessels in forward ports, but the program was cancelled for efficiency and cost reasons. 447 However, soon after he had become the CNO, and as part of a broader effort to reduce fleet operating costs and to gain the most efficiency out of a smaller number of ships, Admiral Clark ordered a series of "sea swap" experiments designed to see if the concept of crew rotations could be expanded to include large complex surface combatants. 448

Even given their limited experimental objectives, the results were encouraging. Using four "sea swap" rotations per ship, the Navy maintained a general purpose destroyer overseas for 22 continuous months, and a guided missile destroyer for 18. The Center for Naval Analysis estimated the crew rotations had increased by one-third the number of days the ships would have effectively been at sea over the experimental time period.⁴⁴⁹

Based on these results, Admiral Clark felt comfortable enough to start talking of extending the concept to entire task groups, specifically the ESG. Indeed, in March 2005, he submitted to Congress two alternative 30-year shipbuilding plans: one plan, based on a general assumption of one crew per ship (with exceptions like the SSBN fleet), had 325 ships; the other, which assumed the widespread adoption of "sea swaps," had only 260 ships, 65 fewer ships than the baseline one-ship, one crew plan—representing a fleet-wide ship reduction of 20 percent. As part of this second plan, the amphibious landing fleet would be reduced to just 17 ships, justified, in part, by the notion that entire ESGs, including the crews of the ARG and the entire complement of the MEU, could

Polmar, Ships and Aircraft of the US Fleet, eighteenth edition, pp. 58 and 63.

⁴⁴⁷ Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, p. 228.

⁴⁴⁸ Dale Eisman, "Navy Officials Are Hoping to Get 'Sea Swap' Program Under Way," *Norfolk Virginia-Pilot*, March 30, 2004.

⁴⁴⁹ Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, p. 58. See also Otto Kreisher, "Navy Sea Swap Test Leaves Ship 'In Really Good Shape'," *San Diego Union-Tribune*, March 30, 2004.

be swapped out in forward theaters.⁴⁵⁰ This reflected the Navy's belief, supported by Cold War experience, that "amphibs" remained valuable tools in the global patrolling and scouting function.

However, it seems clear in hindsight that even offering the 260-ship plan as an alternative was premature, primarily because the limited experiments conducted by the Navy left so many unanswered questions about the *long-term* impact of widespread crew rotations on overall battle fleet capabilities. For example, there remained some important unknown second-order effects, such as the concept's long-term impact on crew morale, retention, and the material conditions of the ships. Among the most important question marks were:

- What would be the long-term impact of crew rotations on crew readiness and retention? If the scheme decreased retention or increased force-wide training requirements, it could cause trade-offs that might not be worthwhile;⁴⁵¹
- What would be the long-term effect on the material condition of ships that are kept on station for longer periods of time? In the current budget climate, if crew rotations wear ships out faster and help to create a future "building deficit," their adoption might cause more problems that they solve; 452 and

⁴⁵⁰ "Interim Report to Congress on Annual Long-Range Plan(s) for the Construction of Naval Vessels for FY 2006," (Washington, DC: Department of the Navy, March, 2005). For good summaries of this report, see Christopher P. Cavas, "US Navy Sets 30-year Plan," *Defense News*, March 28, 2006; and David Ahearn, "Navy Carrier Force Drops to 10 in 2014, But Surge Ability Unchanged," *Defense Today*, April 5, 2005.

⁴⁵¹ There is some anecdotal evidence that the crews on "sea swap" ships have a higher maintenance burden than on non-"sea swap" ships. See Cavas, "US Navy's 'Sea Swap' Hit by Report." If true, long-term retention trends could be problematic. See also James W. Crawley, "Sea Swap Program May Hurt Retention," *San Diego Union-Tribune*, August 2, 2004.

⁴⁵² Some preliminary reports in this regard have been encouraging. See Otto Kreisher, "Navy Sea Swap Test Leaves Ship 'In Really Good Shape'," *San Diego Union-Tribune*, March 30, 2004. However, the Government Accountability Office had a far more pessimistic view. See Dale Eisman, "Some Question Navy's 'Swap' Savings," *Norfolk Virginia-Pilot*, November 11, 2004; and Christopher P. Cavas, "US Navy's 'Sea Swap' Hit by Report," *Defense News*, November 15, 2004.

• Given that the primary driver of fleet O&S costs are people, are the costs of keeping "extra" crews for a given number of ships worth a one-third increase in the number of deployed ship-days?

In addition to these general questions about the concept, Marines questioned whether the concept could really be expanded to include forward-deployed Expeditionary Strike Groups. Simultaneously swapping out all crews in an entire task group was a much more difficult proposition than swapping out a crew of 80 on a small minesweeper or 300 on a destroyer.⁴⁵³ Indeed, the Navy's own analysis indicated an ESG "sea swap" would take 21 days instead of the 30 days normally required to relieve a deployed ESG with another rotationally deployed task group. Were the complications associated with the swap worth a nine-day improvement in deployed time?⁴⁵⁴ Moreover, sea swapping the task group would make the global patrolling and scouting function more, rather than less, dependent on assured forward theater access.

Indeed, the answers to these questions appear to have caused the new CNO, Admiral Mike Mullen, to step away from Admiral Clark's enthusiastic embrace of "sea swaps"—or at least the notion that they can be used to justify a major reduction in the size of the battle fleet. He recently revealed a 30-year shipbuilding plan to build the battle fleet toward a steady-state requirement of 313 ships—a fleet much closer to Admiral Clark's 325-ship plan than to the 260-ship plan based on widespread crew rotations. Crew rotations will still be pursued for some ships, notably the Littoral Combat Ship (LCS) and the DD(X) destroyer, increasing their availability for global patrolling and scouting. At this time, the idea of sea swapping ESGs appears to have been put on hold.⁴⁵⁵

But that is now. Then, Admiral Clark and Navy staff officers used the promise of "sea swaps" to help justify potential reductions to the amphibious landing fleet to help pay for MPF(F) ships, since crew rotations would allow a smaller force to provide the same coverage for global patrolling and scouting. Of course, the smaller force would be

⁴⁵³ At least one ESG commander is concerned about "Sea Swapping" an entire ESG. See Christopher P. Cavas, "Small Sea Swap Works for US," *Defense News*, November 2004.

⁴⁵⁴ Email from Becker to Work dated February 22, 2006.

⁴⁵⁵ Interview with Dr. Eric Labs, Congressional Budget Office, on February 22, 2006.

less capable in wartime, but Navy officials argued the loss in amphibious capability would be made up for by MPF(F) ships.

Making a Run on Amphibious Surface Assaults

Recall that in addition to replacing amphibious landing ships with MPF(F) ships, Admiral Clark also desired to reshape the residual amphibious landing fleet to better support aerial maneuver, despite the fact that the DSB's recommended seabased airlifter capable of transporting 20 tons over intra-theater ranges was nowhere in sight. Two implications naturally followed: Marine Corps combat units needed to be lightened up dramatically; and resources devoted to the transport of heavy equipment across the shore needed to be increasingly diverted to capabilities that improved the Marines' ability to conduct aerial maneuver.

Both implications suggested that a radical restructuring of current Marine Air Ground Task Forces (MAGTFs) was in the offing. An analysis conducted in late 2003 concluded that in any near-term amphibious operation, 76 percent of the current Marine landing force would be delivered by surface means (i.e., LCACs or improved LCACs, LCUs, or Expeditionary Fighting Vehicles).⁴⁵⁶ A shift to operations that emphasized aerial maneuver would necessarily change this percentage in a major way, with associated major changes to MAGTF organization and equipment. The intent of this shift was outlined in straightforward way by Admiral Clark. He described the seabasing "revolution" as providing the nation with "a *raiding-party kind of capability*" (emphasis added).⁴⁵⁷

This was a debate worth having. It cut right to the future role that the Marine Corps would play in joint littoral warfare; the envisioned future for forcible entry operations and naval maneuver in the Joint Expeditionary Era; and the design of the future 21st century Expeditionary Maneuver Fleet, particularly its ability to inject ready-to-fight mechanized and motorized combined arms forces into an enemy's defended territory from the sea. Such a debate would also have helped to

⁴⁵⁶ Commander Mark Becker, et al, "Sea Base Mission Capability Package," a N6/N7 PowerPoint briefing dated August 28, 2003.

⁴⁵⁷ Admiral Vern Clark, as quoted in Dale Eisman, "Navy's Changing Tide," *Norfolk Virginia Pilot*, March 7, 2005.

better frame the direction of the new Marine Corps concept of Distributed Operations, and better illuminate how that concept might influence the future character of both the future Marine landing force and the ships designed to deploy and employ them.⁴⁵⁸ Unfortunately, however, the debate never occurred, at least in an open and transparent manner. Instead, it was hidden from plain sight by a debate over the planned replacements for the five ships of the big-deck *Tarawa*-class assault ships, which would all reach the end of their 35- to 40-year expected service lives between 2011 and 2020.

In July 2002, the Center for Naval Analysis completed an analysis of alternatives for the so-called LHA(R)s (for LHA Replacements). Among the alternatives CNA considered were a new 69,000-ton "dual tram line design" capable of supporting simultaneous MV-22 and JSF operations;⁴⁵⁹ an expanded, "plug-plus" version of the LHD, the sole big-deck amphibious ship still in production; a minimally modified repeat of the LHD, with improved aviation capabilities; and distributed approaches using smaller, stretched amphibious landing ships such as stretched versions of the LPD-17. Tellingly, every one of the ship alternatives studied by CNA included a well deck.⁴⁶⁰ In February 2004, CNA identified the LHD "plug-plus" as the "best value" battle force solution. The "plug-plus" was 77 feet longer and had a flight deck ten feet wider than the baseline LHD—as well as a full-size well deck.⁴⁶¹ Although they longed for the larger dual tram design, Marine Corps leadership endorsed this finding.⁴⁶²

However, buoyed by the heavy emphasis on aerial maneuver found in the DSB Task Force on Seabasing, Admiral Clark and the Navy staff began to argue that the LHA(R)s should give up their well decks in order to save money and to capitalize on the investments made in the V-22.

⁴⁵⁸ See for example Lieutenant General Edward Hanlon, Jr., "Distributed Operations: The Time is Now," and Brigadier General Robert E. Schmidle, "Distributed Operations: From the Sea," *Marine Corps Gazette*, July 2004, pp. 37-41.

⁴⁵⁹ A good picture of the 70,000-ton full load displacement "dual tram" design can be found in Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, p. 183.

⁴⁶⁰ David A. Perin, Peter B. Strickland, Denise B. Anderson, and Jason E. Thomas, *The LHA(R) Analysis of Alternatives Summary Report* (Alexandria, VA: Center for Naval Analysis, July 2002).

⁴⁶¹ Dale Eisman, "Navy Tilting Toward Enlargement of *Wasp*-class Ships For Sea Bases," *Norfolk Virginia-Pilot*, December 4, 2002.

⁴⁶² Michael Bruno, "Navy OKs Aviation-Heavy, Smaller Amphibious Assault Ship," January 23, 2006.

In the end, although this position did not comport with the Navy's own analysis of alternatives, Admiral Clark successfully convinced Assistant Secretary of the Navy John Young to cut "desirement" out of the ship to get a first-ship price of \$2.8 billion in FY 2007 dollars. 463 This minimal-cost conversion of the LHD would, in essence, extend the LHD's hanger bay forward, and the displaced shops and spaces, along with expanded cargo and ammunition magazines, would be relocated to the space freed up by closing the well deck. The removal of the well deck would allow the ship to carry 23 STOVL JSFs or 28 MV-22s, or a combination thereof, plus two MH-60 helicopters. 464 These design changes would make the LHA(R) the first amphibious assault ship of any size commissioned since 1970 to be without a well deck.

Marine ground officers were shocked by the ship's loss of its well deck, which eliminated the ship's potential contributions to a major surface assault. In their eyes, the removal of the ship's well deck made the LHA(R) nothing more than a repeat of the earlier failed experiment known as the LPH, which disappeared from battle fleet service precisely because it was designed to support only aerial maneuver. 465 On the other hand, in the Navy's eyes, the ship represented the future of amphibious assault envisioned by the DSB. As described by one admiral in a briefing on March 1, 2005, the well deck of the LHA(R) was closed "to force a cultural shift" in the Marine Corps toward "air delivery." 466 The next day, Vice Admiral Joseph Sestak told Congress: "I believe the biggest change that, if someone were to ask me, we have brought about in the global war on terror and why I think things bode well for us in the future is the LHA(R). We closed a well deck. What a monumental decision. What a cultural change. We brought the [Marine air combat element] increasingly back to sea." 467 As Admiral Clark had long counted on, this

⁴⁶³ "Desirement is a term used by Navy officials to describe "nice to have" requirements on ships. See Bruno, "Navy OKs Aviation-Heavy, Smaller Amphibious Assault Ship."

⁴⁶⁴ See Donald G. Gellar, Jr., "LPD-17 and LHA(R)," a PowerPoint presentation dated June 23, 2005, found at http://64.233.167.104/search?q=cache: qDHsNQjLGlYJ:hqinetoo1.hqmc.usmc.mil/AVN/ASL/Ordnance/Documents/LPD17_LHAR_Aviation_Ordnance_Overview.ppt+lpd-17+and+LHAR&hl=en.

⁴⁶⁵ See for example Captain Juan M. Ortiz, "LHA(R)," *Marine Corps Gazette*, March 2006, pp. 41-42.

⁴⁶⁶ Rear Admiral John C. Harvey, Jr., US Navy, Deputy for Warfare Integration (N7F), at a conference on Alternative Fleet Platform Architectures sponsored by the Center for Strategic and Budgetary Assessments, March 1, 2005.

⁴⁶⁷ Vice Admiral Joseph A. Sestak, Jr., USN, Deputy Chief of Naval Operations for Warfare Requirements and Programs, in testimony before the House Armed

move was fully endorsed by Marine aviation officials, who had fought so long and so hard for the V-22. As one said, the "LHA(R) is exactly the ship for where we are going with seabasing." ⁴⁶⁸

Whatever side one comes down on over the future of amphibious surface maneuver, it is hard not to conclude that the decision to give up the LHA(R)'s well deck was made in relative haste with little intra-Departmental debate or comment. To get an idea of how shallow the debate, imagine if Marine ground officers had tried to convince the Navy's acquisition executive to save costs on the \$14 billion CVN-21 aircraft carrier by removing its catapults and arresting gear and optimizing the ship to support just Short Take-off and Vertical Landing (STOVL) versions of the Joint Strike Fighter. Their argument would be as meritorious as the one used by the Navy, and would lead to as radical a change in the nature of naval aviation as Admiral Clark and his admirals were recommending for Marine amphibious assaults. Is there any doubt that such a recommendation, if not rejected out of hand, would not have sparked a thorough and lengthy debate? Of course not! But the decision to close the LHA(R)'s well deck passed caused no such debate.

It is not clear why the Marines elected to let this decision pass unopposed, or why they didn't widen the debate over the LHA(R)'s well deck to include the future of battle force amphibious assault capabilities. It is one thing to cut \$300 million in "desirement" out of a \$3.3 billion *destroyer* and quite another to save money by cutting a capability that would fundamentally alter a ship's ability to conduct its stated mission.⁴⁶⁹ However, the decision to close the well deck triggered no noticeable reaction.

Perhaps emboldened by the Marines' ready acquiescence to the closure of the LHA(R)'s well deck, the Navy next moved to further reduce or remove the battle fleet's ability to conduct combined arms surface maneuver from the sea. In March 2005, the Navy published the aforementioned "interim" report to Congress on its 30-year shipbuilding plan. As stated earlier, the plan actually contained two alternative plans.

Services Projection Forces Subcommittee on FY 2005/06 Navy/Marine Corps R&D in Support of the GWOT and Future Naval Capabilities, March 2, 2005.

⁴⁶⁸ Weinberger, "LHAR To Be More Aviation Capable, Official Says," p. 8.
⁴⁶⁹ The first of the Navy's 14,000-ton DD(X) destroyers is estimated to be \$3.3 billion by Navy officials, and much higher by outside analysts. To reduce costs, the Navy cut some \$300 million of "nice to have" requirements off of the ship to get the cost down to \$3 billion—still \$300 million more than the 45,000-ton LHA(R).

One did away with *all* LSDs, the amphibious landing force's primary carrier for the high-speed Landing Craft Air Cushion; the other reduced the LSD force by one-third, cutting it from 12 ships to only eight. Both plans reflected in the most telling way Admiral Clark's ardent belief that amphibious *surface* assaults were a thing of the past (as well as his concern over the long-term costs associated with maintaining the amphibious assault fleet). The only thing that remained to be seen was whether or not the Marines would accept these proposals as willingly as they accepted the loss of five big-deck well decks.

In other words, then, the debate over the envisioned character of amphibious assaults and seabased forcible entry operations never occurred. It was instead obscured by arguments over the ships in the Navy's shipbuilding plan. Said another way, instead of designing the future seabased Expeditionary Maneuver Fleet after having a debate over the future desirability of being able to inject ready-to-fight combined arms teams into an enemy's territory by means of surface assaults, a debate over ship designs and the makeup of the future amphibious landing fleet was dictating the direction of future amphibious surface assaults.

THE FOX IN THE HENHOUSE: THE SEABASING JIC

As the foregoing review suggests, by 2004-2005 the strategic conditions of the decade-and-a-half old Joint Expeditionary Era were increasingly settled and understood. Moreover, as a result of more than a decade's worth of conceptual development, operational experience, and a relentless stream of studies and reports, new joint seabasing initiatives were gathering an inexorable momentum. As mentioned in the first chapter, the term "seabasing"—even if imperfectly understood by the majority of those who used the term—had become an accepted defense "buzzword" within OSD the Joint Staff, which spoke approvingly of the concept's relevance to a broader defense-wide transformation.

Generally not said, however, was that seabasing was in the *third* phase of its long historical development in US strategic thought and operational plans—the first being associated with an earlier expeditionary era when access was either uncertain and denied; the second being associated with a "garrison era" when access was generally ready and plentiful;

and the third being associated with the emergence of a new expeditionary era in which access was once again a question mark and the maturation of guided weapons made the prospect of future power-projection operations and joint littoral warfare daunting, at best. Given the new strategic environment, it was not at all surprising that the concepts of global expeditionary maneuver, naval maneuver, seabased power-projection and forcible entry, and seabased combat support and combat service support had assumed a level of attention and focus not seen in US military thought for over six decades. Indeed, the only thing surprising was the general reluctance among those who extolled the "transformational" impact of seabasing to draw lessons from the first great seabasing transformation that occurred before and during World War II.

In any event, as time passed and the influences of the Cold War receded, a bevy of seabasing initiatives were being developed by the Navy, Marines, Army, and Defense Agencies. As has been discussed, the development of these seabasing initiatives remained rather disjointed, driven more by service instincts and preferences rather than by any guiding joint framework. As a consequence, within the Department of the Navy itself, changes and decisions made during the first 15 years of the Joint Expeditionary Era were leading toward an unbalanced Sea as Base Joint Power-projection Fleet, skewed heavily in favor of improvements to an already superb Seabased Strike Fleet, with far less attention and priority on either the Seabased Expeditionary Maneuver Fleet or the Logistics Seabase.

With regard to the Seabased Expeditionary Maneuver Fleet, its development was hamstrung by three inter-related problems:

- First, the Navy had a clear incentive in terms of resources and manpower to trade off MPF(F) ships for amphibious landing ships, regardless of any other merits or demerits associated with the trade. Although the Marines tirelessly supported an expanded MPF(F) capability based on the hope and assumption that these capabilities would be additive to those found in the amphibious landing fleet, their enthusiastic embrace of the MPF(F) supported the Navy's push to cut the amphibious landing fleet and to build up the MPF(F) fleet;
- Second, spurred on by a new OSD emphasis on increased strategic speed, material solutions for future "seabasing" capabilities were racing ahead toward a preordained solution based on the MPF(F) or other maritime prepositioning programs; and

• Third, as a result, the MPF(F) had become largely synonymous with DoN and joint seabasing plans. Indeed, much of the original thoughts and wording found in *MPF 2010 and Beyond* had found its way into all subsequent seabasing concepts and documents.

Any defense program is driven, first and foremost, by its initial assumptions. The DSB Task Force on Seabasing had been the first opportunity for an outside entity to question the assumptions that were linking MPF(F) so inextricably with seabasing programs. However, having been directed by OSD to use the Navy-Marine Corps Enhanced Networked Seabasing concept as its point of departure (which itself had close links to MPF 2010 and Beyond), guided by the requirements of "10-30-30," aware of the importance being placed on operationalized maritime prepositioning programs in the JFEO PDM, and being dominated by Navy and Marine officers, the DSB had neither the charter nor the inclination to challenge the assumptions. As a result, as has been discussed, the Task Force did a good job in actually reinforcing them linking MPF(F) and seabasing plans and concepts even more closely together.

That said, the Task Force had fairly recommended a way in which these assumptions might be challenged or at least reviewed in a new and unbiased way: by creating a Joint Seabasing Project Office. A truly **joint** Seabasing Office, organized along the lines of the JLTC, with the freedom to conceive of seabasing in terms of joint maritime operations and joint littoral warfare, and able to prioritize and pursue promising alternatives guided by a *long-term* experimental and development period, might have reviewed all of the assumptions driving seabasing steadily toward an MPF(F) solution and might have led to the development of a very different joint seabasing construct. Whether or not this would have been the case is just idle speculation, however; in the event, the Secretary of Defense decided not to stand up the Joint Project Office, with fateful consequences.

As late as January 2004, it appeared that the joint office was the preferred OSD approach. In November 2003, the Under Secretary of Defense for Acquisition, Technology, and Logistics (AT&L) tasked his Director of Systems Integration to develop the Terms of Reference (TOR) for a "Joint Sea Basing Requirements Office" no later than January 2004. In the process of developing the TOR, the recommended title of the office changed to the Joint Expeditionary Force Projection/ Seabasing Office, an apt reflection of seabasing integral role in expeditionary movement and maneuver. According to published reports,

by January the TOR indicated the new office would focus on developing joint sea/air/land expeditionary force projection capabilities in the near-term (one to three years), mid-term (four-five years), and long-term (five to 15 years). While these three "bins" made sense in terms of Pentagon programming, they considerably shortened the timeline for the Department's seabasing development efforts (halving the DSB's recommended two-three decade effort), suggesting a desire to make quick moves toward material solutions—long before any concerted experimental effort could be designed and completed.⁴⁷⁰

Then, in July 2004, after heavy lobbying by Marine Corps Lieutenant General James E. Cartwright, the Joint Staff's Director for Force Structure, Resources and Assessment (J-8), the four service chiefs decided to delay (if not forego) the establishment of the Joint Project Office and to instead pursue seabasing within the new Joint Capabilities and Integration and Development System.⁴⁷¹The JCIDS was the new joint capabilities process, developed in response to the 2001 QDR's call for a shift away from threat-based planning and toward capabilities-based planning. Only a year old, it was still in its infancy. General Cartwright, the chief lead and designer of the process, argued forcefully that the JCIDS needed to be supported by all of the services, and that assigning responsibility for developing seabasing capabilities to a Joint Project Office operating outside the process would work against this end.⁴⁷²

General Cartwright's arguments carried the day. As a result, and as described in the first chapter, the idea of a Joint Project Office disappeared and seabasing became one of seven capstone Joint Integrating Concepts within the Family of Joint Operational Concepts. As such, the Seabasing JIC would guide the follow-on Capabilities-Based Assessment of seabasing requirements and lead to a Capabilities Development Document which would then be transformed by service planners into

⁴⁷⁰ "Dawson: OSD to Create New Joint Seabasing Concept Office," *Inside the Navy*, January 19, 2004; Christopher J. Castelli, "OSD to Create New Joint Seabasing Concept Office," Inside the Navy, January 19, 2004; and "Joint Expeditionary Force Projection/Sea Basing," draft point paper dated December 19, 2003.

⁴⁷¹ Email from Becker to Work dated February 22, 2006; "JROC Green Lights Effort To Integrate Joint Seabasing Concepts," *Inside the Pentagon*, July 29, 2004, p. 3; and John T. Bennett, "Fusing Concepts Will Culminate in Joint Seabasing Capability Plan," *Inside the Pentagon*, August 12, 2004, p. 1.

⁴⁷² Interview with Commander Mark Becker, USN, Deputy Sea Base Pillar Lead (N832), Navy Warfare Development Command, conducted on February 6, 2006.

specific programs.⁴⁷³ In the event, no doubt shaped by OA 2003 and guided by the "10-30-30" metric adopted in Defense Planning Guidance, the JROC decided that the Seabasing JIC should be focused on the "seize the initiative phase of a major combat operation around the 2015-2025 timeframe." It also decided that the Navy would be the lead service for the effort.⁴⁷⁴

The impact of these two JROC decisions was profound. First, as discussed above, by focusing on *near-term* operational requirements needed within ten years, the JROC diverted the idea of seabasing effort away from the long-term experimental and technological development effort recommended by the DSB Task Force and toward solving a new near-term operational requirement. This decision preordained a search for quick material solutions rather than a more measured and broader examination of how to exploit US command of the seas and to use the world's oceans as a secure base for joint power-projection operations. Second, by focusing on one specific operational goal, seizing the initiative of a major combat operation—within the first ten days of the start of the war—the JROC drastically narrowed the field of possible material solutions for the future seabase to maritime prepositioning solutions. Third, by assigning responsibility of the JIC to the Navy, the JROC ensured there would be no thorough or unbiased reappraisal of emerging seabasing concepts. In effect, the JCIDS process would turn into little more than the joint validation of DoN seabasing concepts, plans, and programs.

Predictably, then, the subsequent Joint Integrating Concept for Seabasing, approved in August 2005 plowed little new conceptual ground—although it was quite effective in repackaging and explaining seabasing to Army and Air Force officers, and in outlining and explaining the potential joint payoffs for seabasing. In this regard, it helpfully highlighted seven seabasing "principles:" using the sea a maneuver space for superior mobility or the speedy "interruption of the enemy's incomplete mobilization;" leveraging forward presence of naval forces; expanding access options by reducing dependence on land bases; creating uncertainty in the minds of an adversary; protecting joint forces;

⁴⁷³ For a good overview of how sea basing fits into the JCIDS process, see Colonel Greg Cook, USAF, "Joint Seabasing and the JCIDS Process," a PowerPoint presentation found at http://www.dtic.mil/ndia/2004expwarfare/cook.ppt#1.

⁴⁷⁴ Interview with Commander Mark Becker, USN, Deputy Sea Base Pillar Lead (N832), Navy Warfare Development Command, conducted on February 6, 2006.

providing scalable, responsive joint power-projection; and sustaining joint operations. Unquestionably, then, the Seabasing JIC made a major contribution in advancing a common understanding of seabasing among the service chiefs. Indeed, in a statement both refreshing in its candor and depressing in its implications, General Richard B. Myers, then-Chairman of the Joint Chiefs of Staff, remarked in 2005—16 long years into the Joint Expeditionary Era—that, "I now understand seabasing where I did not before." ⁴⁷⁵

However, as good as it is, few people will likely ever read the Seabasing JIC. What they instead will likely see is its definition for seabasing, which is, in essence, a restatement of concepts outlined in *MPF 2010 and Beyond* and *Enhanced Networked Seabasing*, with the required pinch of jointness:

Sea basing is the rapid deployment, assembly, command, projection, reconstitution, and re-employment of joint combat power from the sea, while providing continuous support, sustainment, and force protection to select expeditionary joint forces without reliance on land bases within the Joint Operations Area (JOA). These capabilities expand operational maneuver options and facilitate assured access and entry from the sea.⁴⁷⁶

As described in Chapter I, this definition is a fair one, as it attempts to blend Seabasing's naval roots with the steadily increasing joint interest in the concept. It usefully highlights the key distinction between naval maneuver (dynamic seabasing) and sustained support of joint forces operating ashore (static seabasing), and artfully captures two of the key contributions of Seabasing in maritime operations—facilitating or forcibly seizing land access, and providing a commander with expanded maneuver operations. Unfortunately, however, it marked a return to defining seabasing primarily in terms of the process steps—and, at that, process steps applicable to *any* power projection operation, different only in that they take place on the sea. Second, it emphasized that seabasing would provide "continuous support" without reliance on land bases within the JOA. The definition thus comes across far more naval than maritime in character (although in fairness, the text of the JIC has a strong, positive maritime flavor).

⁴⁷⁵ Becker, "Seabasing Joint Integrating Concept Update."

⁴⁷⁶ Becker, "Seabasing Joint Integrating Concept Update."

More problematic (but perfectly understandable, given the guidance given to the authors of the JIC) was the way that the seabasing processes themselves reflected the overriding focus on "seizing the initiative" in a major combat operation—the "10-30-30" codeword for having to responding within ten days of an execution order. This is evident in the JIC's "top level measures of performance," which called for capabilities to:

- *Close* joint seabased capabilities, including joint command and control, to a JOA to support major combat operations with 10-14 days of executions order;
- Assemble and integrate joint capabilities from the sea base to support major combat operations within 24-72 hours of arrival in the JOA;
- *Employ* over-the-horizon from the seabase at least one brigade for a Joint Forcible Entry Operation within a period of darkness (8-10 hours);
- Sustain joint seabased logistics, maintenance, and medical support for up to two joint brigades operating ashore for an indefinite period, using secure advanced bases up to 2,000 nm away; and
- *Reconstitute* one brigade from the shore to the seabase and reemploy with 10-14 days of execution order.⁴⁷⁷

Reviewing this list of top-level requirements, one is struck by several things—first among them just how conceptually linked these requirements are with those developed over time for the MPF(F) program. The JIC takes pains to emphasize that it "contains titles or language similar to existing or future programs, solution sets, etc. which are intended to create a common understanding of future joint concepts and capabilities...Programs, solution sets, etc used in [the JIC's Annex describing illustrative Concepts of Operations] *are not intended to justify future programs and solution sets* or constrain the Capability Based Assessment (CBA) but to illustrate the concept" (emphasis added).⁴⁷⁸ Whether intended or not, however, the dual decisions not to stand up an independent Joint Project Office in favor of consigning seabasing to JCIDS process and to assign the Navy as the lead service for

⁴⁷⁷ Becker, "Seabasing Joint Integrating Concept Update;" email from Becker to Work dated February 22, 2006.

⁴⁷⁸ Email from Becker to Work dated February 22, 2006.

the seabasing JIC made just such a likelihood a foregone conclusion. Indeed, it put a joint stamp of approval on the DoN's aggressive pursuit of the MPF(F)—whose squadron makeup was approved two months *before* the final approval of the JIC.

Second, given the competition for scarce dollars in all of the services—as perhaps best indicated by the small amount of money the Army was requesting to improve the ability of the expeditionary sealift fleet to offload cargo in austere SPODs—by not opening up a Joint Project Office and by giving the Navy the lead in developing the document that would drive the joint CBA, OSD more or less guaranteed that future seabasing efforts would became more DoN-centric and naval in focus and less joint-centric and maritime in focus. As master of both the joint concept *and* its own plans and programs for the development of the battle fleet, DoN leadership could pursue its own vision of seabasing without undue restraint or joint oversight.

A cynic might say that this was always the DoN's intent, as suggested by a remarkably candid statement made in April 2003 by retired Marine colonel and original author of *MPF 2010 and Beyond*:

It has unfortunately—in my opinion—become vogue to talk about the Seabase in joint terms. Seabase is not a joint requirement. Seabase is a joint force enabler, and there is a critical difference. Seabasing is a [naval] core competency and we need to keep it one (emphasis added).⁴⁷⁹

He went on to say that if the Navy and Marine Corps allowed the other services to have too much influence in how the seabase evolved, the result would be something either unusable or so expensive it would never happen. As a result, "seabasing is and must remain a naval joint expeditionary capability, not an intermediate staging base" for joint operations. ⁴⁸⁰ While this view is perfectly understandable coming from a naval officer, it points out how important it is for seabasing to be controlled by a joint entity to prevent a narrow pursuit of *naval seabasing capabilities* from interfering with or foreclosing capabilities

⁴⁸⁰ Brown, "Navy Marine Officials Argue Iraq War Validates Need For Seabasing," p. 1.

⁴⁷⁹ Colonel Vince Goulding, USMC, ret., as cited in Malina Brown, "Navy Marine Officials Argue Iraq War Validates Need For Seabasing," *Inside the Navy*, April 14, 2003, p. 1.

that might be more applicable in the conduct of a *maritime operation* or *joint littoral warfare*.

Third, Admiral Clark's patient negotiating strategy had paid off, in spades. If there was any doubt that MPF(F) ships should particulate in a Joint Forcible Entry Operation for a major combat operation, the JIC put that thought to bed, once and for all.

Fourth, one wonders if the requirement to support JFEOs from intermediate support bases up to 2,000 nm away from the JOA has also been incorporated into the remaining six JICs. This is a daunting task; recall that the seabase assembled off of Okinawa was supported from a major ISB located only 800 miles away on Guam. One would expect that the requirement to be able to sustain initial JFEOs from such a distance would also apply to the Army, Air Force, surface Navy and special operations forces participating in the JFEO, with concomitant dramatic impacts on the design of their early entry and forcible entry forces. However, there is little indication that this is the case.⁴⁸¹

Fifth, the requirement to land forces in one period of darkness reflects the questionable assumption that the current lead of the US in the Guided Weapons Warfare Regime will not erode over time. If faced with an adversary with a capable A2/AD network, operations at night will provide little protection; fighting under conditions of "battle network parity" will allow an enemy to "turn night into day" in the same way that US forces now can. Operations in the mature Guided Weapons Warfare Regime will put at risk *any* operating platform or location in the JOA—whether located at sea or on shore—24 hours a day.

Finally, because the current definition and conception of seabasing is so narrowly focused on the process of assembling a seabase primarily for the purpose of employing ground forces in a JFEO or during the seize the initiative phase of a major combat operation, they both miss the forest for the trees. As has been repeatedly highlighted, seabasing is about leveraging command of the seas by using the oceans themselves as a secure base of operations for joint power projection operations—in the broadest sense. While the sea itself is a secure base for joint operations, functional seabases are formed to support these power projection operations. As has been reviewed over the course of

⁴⁸¹ Perhaps the distance can be explained by the fact that Guam is located 1,696 miles from Taipei, Taiwan http://www.timeanddate.com/worldclock/distances.html?n=241.

the preceding five chapters these functions include, but are not limited to: Functional seabases can be formed to perform the following types of roles: strategic/prompt global conventional strike operations; global patrolling and scouting; persistent surveillance of coastal areas of interest; overt and covert special operations support; unwarned unilateral punitive strikes and raids; rapid global movement of goods, services and personnel along interior lines; naval maneuver, including forcible entry operations, which use the sea to exploit an exterior advantage; and sustained combat, combat support, and combat service support of joint and combined forces operating afloat and ashore.

However, because of its focus on only one type of functional seabase, the JIC forestalls any need to considering the requirements or priorities for the other functional seabases. Similarly, it forestalls identifying those high-payoff seabased platforms that can be used for different seabasing functions—precisely the types of platforms that should be most aggressively pursued. Said another way, by aligning seabasing so closely to just one of at least six readily identifiable seabasing functions, current seabasing plans optimize one component without any regard to the blend of platforms that optimize the entire seabasing effort and enterprise.

This helps explain why, after nearly a decade of conceptual development, the entire conceptual focus for seabasing in the Department of the Navy (and, by extension, to a large degree in OSD) is to close a single Marine brigade into a JOA within 10-14 days of an execution order; to assemble and prepare the entire brigade for combat within 24-72 hours of arrival; to employ one air landed battalion and one surface battalion from over the horizon within one period of darkness; to sustain the Marine brigade and an additional Army brigade (normally assumed to be an airborne brigade, a Ranger battalion or Regiment, or perhaps Stryker Brigade Combat Team) with supplies, ammunition, fuel, spare parts, joint maintenance, and level III medical support indefinitely from the sea; and to re-embark and re-employ the Marine brigade operating ashore within 10-14 days of an execution order.

In other words, OSD's failure to establish a Joint Planning Office for Seabasing; a relatively narrow emphasis on generating improved strategic speed; the JIC's shortened conceptual timeline; and unfettered DoN control of the overall seabasing effort meant a decade or more of good thinking about the strategic and operational implications of uncertain access and the need to improve the joint force's ability to conduct global expeditionary maneuver and movement, naval maneuver, and seabasing

operations had come down to this: a single-minded effort to launch and sustain a two-brigade forcible entry operation in ten to 14 days.

ALL AHEAD, FLANK: PURSUING THE MPF(F) SOLUTION (OR: WHEN CONCEPTS AND REALITY COLLIDE)

Empowered by the growing strategic rationale for improved US operational independence, the findings of the DSB Task Force and their endorsement by the Director of PA&E, and the substitution of a Navyled Seabasing JIC for a Joint Planning Office, DoN seabasing efforts kicked into high gear. Unsurprisingly, and as discussed previously, these efforts included material solutions that emphasized "transformational" MPF(F) ships at the expense of "legacy" amphibious ships. Despite the Marines' initial hesitation about using MPF ships as a substitute for amphibious ships in forcible entry operations and earlier Navy misgivings about the high potential costs of advanced MPF ships, both services worked to fashion new MPF (F) squadrons that could conduct rapid forcible entry operations.⁴⁸²

Indeed, any Marine hesitation and misgivings about using the MPF(F) in forcible entry operations were swept aside as seabasing's alluring promise of total independence from land bases left them positively giddy. Two Marine officers wrote, "Even when secure ports and airfields are available...Seabasing [will be] the preferred means of engagement" (emphasis added). Indeed, General Michael Hagee, Commandant of the Marine Corps, thought that future seabases would allow the Marines to launch a 2020 Operation Iraqi Freedom without using Kuwait as a staging base. This view well reflected the more narrow naval conception of seabasing, in which seabasing remained a naval core competency rather than an integral part of joint littoral warfare, and in which seabases substituted for land bases.

⁴⁸² Andrew Koch, "USA Looks to Enhanced Sea-Basing Capabilities;" Cook, "Sea-Basing and the Maritime Pre-Positioning Force (Future);" and Curatola and Bovey, Jr., "The Future Maritime Prepositioning Force."

⁴⁸³ Colonel Art Corbett, USMC, and Colonel Vince Goulding, USMC (ret), "Sea Basing: What's New," *Proceedings*, November 2002.

⁴⁸⁴ "JROC Green Lights Effort To Integrate Joint Seabasing Concepts;" and "Sea Basing Would Speed US Marines to Trouble Spots," *DefenseNews.com*, August 2004.

Any other hesitations fell away in the face of the MPF(F)'s promise of improved speed of response. From the very beginning of his tenure, Admiral Clark had long argued that the key to future expeditionary operations was "to [size] the force for speed of response," ⁴⁸⁵ and that seabasing initiatives should be designed to "deliver more combat capacity to the fight much faster, [with] much more lethality and much more agility." ⁴⁸⁶ This argument was highly seductive to both the Marines, who considered themselves the "first to fight," and OSD leadership, which had endorsed the "10-30-30" planning metric. As General Hagee said, "when you are able to respond that fast, it is going to change the calculus of the battlefield...You might be able to get there so quickly that you may not need large follow-on forces." ⁴⁸⁷ This was the ultimate seabasing objective for all naval officers—to become *the* decisive joint force.

The rare shared Navy and Marine enthusiasm for the MPF(F) concept caused a rapid thaw in the normally glacial inter-service planning process, and the concept began to move forward quickly within the DoN. This process was spurred further still by the completion of the aforementioned MPF(F) analysis of alternatives by the Center for Naval Analysis. This effort outlined several possible options for the way ahead, ranging from a replacement-in-kind of current MPF ships with LMSRs, to an eight-ship squadron with ships capable of supporting a MEB, all of its 30 JSFs, and all of its rotary-wing and LCAC requirements. Inevitably, DoN planners—especially Marine planners—argued for the widest array of capabilities possible, firm in their conviction that requirements, not budget, should drive the development cycle.⁴⁸⁸

Recall that in April 2003, the author of *MPF 2010 and Beyond* cautioned that if seabasing was turned into a joint program, it would become "so expensive that it will never happen." ⁴⁸⁹ By the summer of 2004, it was becoming clear that the DoN was in danger of committing the same sin. The DoN's sheer enthusiasm for the program, coupled with the proclivity of both of its services to seek ever-more-capable (and expensive) ships, was threatening to break the DoN's entire shipbuilding budget. Total operating costs for squadron options including full tactical

⁴⁸⁵ Cavas, "New Missions Will Rely on Sea Basing," p. 4.

⁴⁸⁶ Jason Sherman, "A Cargo Ship With a JSF Runway?" *Defense News*, March 15, 2004, p. 8.

⁴⁸⁷ Donna Miles, ^aSeabasing to Transform Marine Deployments, Commandant Says," *American Forces Press Service*, June 9, 2005.

⁴⁸⁸ Sherman, "A Cargo Ship With a JSF Runway?"

⁴⁸⁹ Brown, "Navy, Marine Officials Argue Iraq War Validates Need for Seabasing."

aviation support capabilities (i.e., JSF runways) were estimated at \$28 billion, far more than the expected budgets could support. Estimated costs for individual ships rose to between \$2 and \$4 billion apiece. 490 As General Hagee wryly noted, "You design the perfect ship, then all of a sudden you get sticker shock as to what the ship could cost." 491 The seabasing dream was becoming a DoN programmer's nightmare, and those developing the program's requirements were clearly in need of a "wake up call." 492

The first wake-up call came in July 2004, when 25 top DoN officials met to try to "de-scope" the ever-expanding list of desired capabilities for MPF(F) squadrons and ships. During the meeting, the participants agreed, among other things, to remove JSF runways from the squadron; to remove the ability of MPF(F) ships to arm or de-arm helicopters; to limit the ships' ability to withstand damage by building them to enhanced commercial rather than combatant standards; and to lower the sea state in which the ships could externally load and unload cargo from the Sea State 4 to Sea State 3.493

Despite these moves, projected costs for the new MPF(F) squadrons continued to climb. The Congressional Budget Office estimated that DoN plans for its future Operational Maneuver Fleet (including both amphibs and MPF(F) ships) would cost more than twice as much per year, on average, than the DoN spent on similar capabilities between 1980 and 2003. 494 While this goal was perhaps perfectly defendable given the emerging conditions of the Joint Expeditionary Era, it was not welcome given likely \$10-12 billion yearly shipbuilding budgets. The Navy's long intent to compete MPF(F) ships with amphibious ships thus progressively became a more overt part of the Navy's plans for the future battle fleet.

⁴⁹⁰ Squadron costs are found in Sherman, "A Cargo Ship With a JSF Runway?" Ship estimates are found in Jason Ma, "Navy Aims to Balance Industrial Base Needs In New Seabasing Plan," *Inside the Navy*, May 2, 2005.

^{491 &}quot;Washington Report," *Seapower*, June 2005, p. 8.

⁴⁹² For one critic's analysis of seabasing, see Commander John P. Patch, US Navy. "Chasing the Dream." *Proceedings*. May 2005.

Navy, "Chasing the Dream," *Proceedings*, May 2005.

493 Christopher J. Castelli, "Meeting of Top Navy Officials Sheds Light on Prepositioning Ships," *Inside the Navy*, September 6, 2004, p. 1.

⁴⁹⁴ CBO, *The Future of the Navy's Amphibious and Maritime Prepositioning Forces*; for a concise summary of the report, see John T. Bennett, "CBO Study: Navy Amphibious Ship, MPF(F) Plans May Prove Too Costly," *Inside the Pentagon*, November 11, 2004, pp. 3-4.

Indeed, even before the July 2004 meeting, DoN officials had started to informally float the idea that the number of ESGs needed to be reduced in order to fund the MPF(F). These reductions—motivated by the Navy's view that the proper place for amphibious ships was in the global patrolling and scouting role and that MPF(F) would provide support in JFEOs—were first defended by explaining that the smaller amphibious fleet would see no decrease in global scouting coverage because "sea swaps" of entire ESGs—the aforementioned exchanging the crews of forward-deployed ARGs and the their embarked Marine Expeditionary Units without returning the ships to the United States would allow the smaller force to maintain the same number of ships on rotational deployments.⁴⁹⁵ Of course, this implicitly meant that the wartime amphibious lift for Marine forces would decline, made up for by the MPF(F). Tellingly, the argument for reducing the number of ESGs did not apply to the surface combatants in the ESGs; these would be retained without reduction.

These arguments had long been either ignored or not taken seriously by the Marines. As has been discussed, from the time they first published *MPF 2010 and Beyond*, their consistent position was that the conditions of the Joint Expeditionary Era argued for an overall *increase* in the battle fleet's ability to support naval maneuver, and therefore the dramatic enhancements they were recommending to the MPF fleet should be *additive* to the capabilities of the amphibious landing fleet. They apparently never anticipated that their ardent support for the MPF(F) program would result in a major reduction in the number of purpose-built amphibious ships. 496 While Navy officials argued that such cuts were necessary to "transform [the Marine Corps] to the next level of speed," as the extent of their proposed reductions became clear, the serious unrest caused among senior Marine officers threatened to disrupt the seabasing alliance that they had formed with the Navy. 497

Groups to Fund MPF(F)," *Inside the Pentagon*, July 12, 2004, p. 1.

⁴⁹⁵ Trading amphibious ships for the MPF(F) has been a constant Navy position. See Christopher J. Castelli, "Navy Wants to Cut the Number of Strike Groups, Slash LPD-17 Shipbuilding," *Inside the Navy*, April 26, 2004, p. 1; Christopher J. Castelli, "ESG Cut Would Be Gradual; Carrier Group Cut Possible, But Harder," *Inside the Navy*, May 3, 2004, p. 1; John T. Bennett, "Navy May Cut Number of Expeditionary Strike Groups to Fund MPF(F)," *Inside the Pentagon*, July 12, 2004, p. 1; and Roxana Tiron, "Ship's Costs Could Sink Plans For Floating Military Bases," *National Defense*, January 2005.

 ⁴⁹⁶ This is evident by reviewing the PowerPoint presentation entitled "MPF(F)
 Concept of Employment." In this presentation, Marine planners argue for a
 36-ship Amphibious Landing Fleet *plus* three \$14.2 billion MPF squadrons.
 ⁴⁹⁷ Christopher J. Castelli, "Navy May Cut Number of Expeditionary Strike

The breaking point occurred when, in March 2005, the Navy published the aforementioned "Interim Report to Congress on Annual Long-Range Plan(s) for the Construction of Naval Vessels for FY 2006." 498 Recall that the report actually included two fleet plans, one with 325 ships, and the other with 260. The former included 24 amphibious landing ships and 25 "seabasing" ships, including 20 MPF(F) ships; the latter only 17 "amphibs" and 19 "seabasing" ships, including 14 MPF(F) ships. These plans thus reflected in no uncertain terms the major shift away from amphibious ships and toward MPF(F) ships long pursued by the Navy. Indeed, by separating amphibious ships from "seabasing" ships in the shipbuilding plan—an idea first explicitly introduced by the DSB Task Force on Seabasing—the plan made clear that amphibious ships were not a key part of the Navy's conception of seabasing.

The Marines finally roused themselves, objecting furiously to these plans and their associated implications. They pointed out that under the best of circumstances, the 325-ship plan, the battle fleet would be able to transport only about 1.9 MEBs on amphibious shipping, down from the 2.5 MEB "fiscally constrained" goal established the early 1990s, which was itself down from the stated requirement of 3.0 MEB lift found in the DoN Lift II Study. The 260-ship plan reduced battle fleet amphibious ship lift further still. The Marines' position, which was supported by the results of the JFEO PDM Study, was that the battle fleet had to include a minimum of 30 "operationally available" amphibious ships. Given the normal availability rate of 85 percent, this implied the need for a combined fleet of 35-36 "gators"—essentially the 2.5 MEB lift program of record. The Marines also firmly rejected the Navy's overt moves to further reduce the amphibious fleet's ability to support a surface assaults. They argued strenuously for the continuing need for LSDs in the amphibious fleet and also for the need to maintain some well decks in the MPF(F) squadron design.

These vigorous Marine protests bore fruit. First, they were able to convince Assistant Secretary of the Navy John Young to include at least one "big deck" amphibious assault ship with a well deck in the new MPF squadron. Second, they successfully convinced Admiral Mullen, the new CNO who took over from Admiral Clark in July 2005, to include 31 total amphibious ships in his first 30-year shipbuilding plan—a significant

⁴⁹⁸ "Interim Report to Congress on Annual Long-Range Plan(s) for the Construction of Naval Vessels for FY 2006;" Cavas, "US Navy Sets 30-year Plan;" and Ahearn, "Navy Carrier Force Drops to 10 in 2014, But Surge Ability Unchanged."

increase over both of the plans submitted by Admiral Clark just a year previously. Also, in a subtle shift welcomed by the Marines, Admiral Mullen's plan described amphibious warfare ships as "expeditionary warfare ships," and described MPF(F) ships not as "seabasing ships," but by their program name. 499

According to Navy and Marine officials, the 31 amphibious ships are to be organized into nine, 3-ship ESGs, with four additional ships in a common user pool that can be used for "GWOT tasks." With regard to the MPF(F), the new shipbuilding plan reflects the squadron design approved in June 2005 by the John Young. Interestingly, and emblematic of the entire development of the MPF(F) program, this squadron makeup bears no resemblance to any of those examined in the MPF Analysis of Alternatives, reflecting instead a balance between affordability, industrial base needs, and operational needs.

The planned MPF(F) squadron will include 14 ships: two big-deck LHA(R)s, with MEB command and control suites; one big-deck LHD with a MEB air combat element command and control suite and a well deck; three LMSR cargo ship variants, three T-AKE dry cargo/ammunition ship variants; three new "mobile landing platforms;" and two "dense-packed" legacy MPF ships. 500 The total cost for the squadron is estimated to be \$14.5 billion in FY05 dollars. 501 As indicated in the recent 30-year shipbuilding plan, this squadron would also be supported by four new seabase connectors: a single High Speed Ship (HSS)—formerly called the Rapid Strategic Lift Ship—which would deliver non-deployable helicopters and personnel to the squadron's three big-deck amphibious ships; and three Joint High Speed Vessels. 502 These four

⁴⁹⁹ Report to Congress on Annual Long-Range Plan for the Construction of Naval Vessels for FY 2007 (Washington, DC: Department of the Navy, February 2007).

⁵⁰⁰ John J. Young, Assistant Secretary of the Navy for Research, Development, and Acquisition, "Report to Congress, Maritime Prepositioning Force, Future, MPF(F)," prepared by Program Executive Officer for Ships, Washington, DC, June 2005. See also "Naval Leaders Finalize Plan for Maritime Prepositioning Ships," Inside the Navy, June 7, 2005; and Christopher P. Cavas, "Big Changes for Sea Base: Large-Deck Amphibious Ships Added to Pre-Positioning Squadron," Navy Times, August 1, 2005

⁵⁰¹ Information on the MPF(F) squadron is found in Young, "Report to Congress, Maritime Prepositioning Force, Future, MPF(F)." Squadron costs are also found in "Maritime Prepositioning Force (Future) Shipbuilding Requirements," a PowerPoint presentation to Hill staffers by the Marine Corps Combat Development Center, dated June 2005.

⁵⁰² Ma, "Officials Drafting Requirements for MPF(F), Seabasing Connectors."

new connectors add an estimated \$1.7 billion to the squadron cost, raising the total expected outlay for the MPF(F) to over \$16 billion, not counting the equipment stored inside the ships.⁵⁰³

The letter notifying Congress of plans for the new MPF(F) squadrons—fittingly, dated June 6, 2005, the 61st anniversary of the amphibious invasion of Normandy—makes clear the impetus behind the new squadron design when it says, "MPF(F) will support the key capability of rapid response in support of the 1-4-2-1 strategy executed in the '10-30-30' timeline." ⁵⁰⁴ Later, the main body of the report states:

MPF(F)'s inherent capability is speed: speed in closing forces at the seabase, speed in at-arrival and assembly, speed in striking objectives deep inland through ship-to-shore maneuver, speed in sustaining forces ashore, and speed in reconstituting forces to the seabase and readying for the next fight.⁵⁰⁵

In other words, the joint obsession with improved strategic speed is pushing the DoN toward spending over \$16 billion dollars to be able to perform a MEB-sized forcible entry operation in 11 to 17 days—a 13-to 19-day improvement over the battle fleet's demonstrated ability to perform a MEB-size amphibious assault from purpose-built amphibious *war*ships in about 30 days. Perhaps more importantly, at least in terms of "transforming" the future Expeditionary Maneuver Fleet, the scheme will also improve the fleet's ability to sustain two brigade-size combat units operating ashore.

It is hard to square the tradeoffs necessary in battle fleet's overall future *Expeditionary Maneuver Fleet* in order to pursue this single MPF(F) squadron. The final stated requirement for Expeditionary Maneuver Fleet in the Navy's recently published 313-ship plan includes

⁵⁰³ Report to Congress on Annual Long-Range Plan for the Construction of Naval Vessels for FY 2007 For information on the JHSV, see Andrew Koch, "US Navy Explores Joint High-Speed Cargo Ship," Jane's Defense Weekly, August 10, 2005.

⁵⁰⁴ Letter from John J. Young, Jr., Assistant Secretary of the Navy for Research, Development and Acquisition, forwarding a report on the Maritime Prepositioning Force (Future) (MPF(F)) to the Honorable John Warner, Chairman, Committee on Armed Services, United States Senate, dated June 6, 2005.

⁵⁰⁵ Program Executive Officer, Ships, Report to Congress entitled "Maritime Prepositioning Force, Future (MPF(F))," June 2005, p. 3.

a amphibious landing fleet capable of lifting and supporting a maximum of 1.9 MEBs, a maritime prepositioning future squadron capable of lifting and supporting one MEB, and presumably two "legacy" MPF squadrons capable of moving the equipment sets for an additional two MEBs. 506 The resulting expeditionary lift capacity of 4.9 MEBs worth of combat units and equipment will represent the lowest total battle fleet expeditionary maneuver/movement capacity in well over two decades. Moreover, because there will be only 27 amphibs in the normal operational pool, the total operationally available amphibious lift will be well below 1.9 MEBs. Furthermore, due to the unfunded costs associated with "resetting" the Marine equipment base to account for war losses in Iraq—recently put at \$12 billion by the Commandant of the Marine Corps—it is unclear if the Marines will have the money to fully fund two seabased MEB equipment sets for the legacy MPF(F) squadrons.⁵⁰⁷ As a result, the battle fleet's total lift capacity might fall by another brigade's worth of combat equipment, to 3.9 MEB equivalents.

In other words, in an era where the requirement to conduct naval maneuver is higher than at any point in over six decades, the final DoN plan **reduces** the battle fleet's overall expeditionary maneuver capability by between 11 and 30 percent! These reductions stand in stark contrast to the dramatic improvements in the battle fleet's ability to deliver air and missile strikes against land targets.

BEEN THERE, DONE THAT: THINKING ABOUT THE PENTOMIC TRANSFORMATION

Upon reflection, the evolution of DoN (and therefore joint) thinking about seabasing is not unlike the flawed thinking which led to the Army's Pentomic Division in the 1950s. During this unsettled and unsettling transition period between the Oceanic and Transoceanic Eras, Army war planners—responding to the advent of atomic weapons and acting to preserve their shrinking DoD budget share—developed a conceptual framework that justified a wide-ranging, force-wide, Army transformation. They envisioned a world in which tactical nuclear war-

Ma, "Officials Drafting Requirements for MPF(F), Seabasing Connectors."
 Geoff Fine, "Marine Corps Needs \$12B for War-Damaged Aircraft, Equipment," *Defense Daily*, February 16, 2006.

fare was not only a possibility, it was a certainty.⁵⁰⁸ As a consequence, Army planners forecast that future Army Corps would employ over 400 nuclear weapons *per day*.⁵⁰⁹ In this world, lieutenant colonel battalion commanders would need nuclear release authority, and small nuclear-tipped rockets to exercise it.⁵¹⁰

The proven Army division was deemed to be too slow and too ponderous for the future atomic battlefield. After all, "words like 'fast,' 'quick,' 'speed,' and 'now' [would] inevitably dominate the language describing the techniques of conducting atomic warfare." 511 The triangular division structure division had to become more nimble, with larger numbers of "self-contained" and "self-sustaining" organic units. Therefore, the division's three regiments would be broken up; in their place would be five smaller battle groups that would be like "amorphous biological cells" whose loss would not impair the rest of the division from fighting on.⁵¹² Of course, to be operationally effective, the new division organization would depend on dramatic future improvements in tactical air and ground mobility, and a much more responsive logistics infrastructure that would deliver supplies directly to the fast moving battle groups dispersed widely over the atomic battlefield. But why wait? Change the division's proven organization and structure and the required technology would surely follow.

Of course, the enthusiastic pursuit of the new division organization proved to be premature. The world envisioned by Army leaders did not come about; the assumptions upon which they based their transfor-

⁵⁰⁸ For a thorough treatment of the Pentomic Division and Army thinking on battlefield nuclear operations in the 1950s, see A.J. Bacevich, *The Pentomic Era* (Washington, DC: National Defense University Press, 1986); and John J. Midgley, Jr., *Deadly Illusions: Army Policy for the Nuclear Battlefield* (Boulder, CO: Westview Special Studies in National Security and Defense Policy, 1986). For a more detailed and fascinating look at the Pentomic Division, see Major John H. Cushman, "Pentomic Infantry Division in Combat," *Military Review*, January 1958, pp. 19-30.

⁵⁰⁹ See "Tactical Nuclear Warfare on Land," Strategic Studies lecture notes from Political Science 419, Concordia University, found online at http://artsandscience. concordia.ca/poli419n/pdf_word_excel/lecture 16/P_419n Lect_16_ Mar_4_ 04_Tac_Nukes_Land_student.doc. These notes provide a fascinating discussion about the planned use of tactical nuclear weapons in Europe.

⁵¹⁰ The *Davy Crockett* missile was designed for direct-fire nuclear warfare *at the battalion level*. It was a stubby, 150-pound rocket that looked like a large mortar. See Bacevich, *The Pentomic Era*, pp. 95-96.

⁵¹¹ Colonel Edward L. Rowny, "Ground Tactics in and Atomic War," *The Army Combat Forces*, August 1954, p. 19.

⁵¹² Bacevich, *The Pentomic Era*, pp. 103-08.

mation plans were utterly wrong. Even so, many of the design goals for the Pentomic Division—creating a combat unit with more but smaller subordinate elements, all capable of rapid massing and de-massing on the battlefield—were sound and enduring; they were simply too far ahead of the available technologies. Indeed, after comparing the desired organization and structure of the Pentomic Division with the modern Army's newly planned "modular division" with it four "units of action" equipped with the Future Combat System, one must conclude that the designers of the Pentomic Division had the right vision—they were simply seven decades ahead of the technology curve. In the intervening period, with improvements to equipment, training, and tactics, it turned out the triangular division structure had a lot of life left in it, after all.

It may indeed turn out that the United States will find a future in which its ability to "seize the strategic initiative" within 10-14 days will be decisive. In this future, being able to project one or two combat brigades deep into an enemy's territory according to this rapid timeline, with little time to prepare the battle space or to suppress the enemy's A2/AD network, will be a valid battle fleet goal—and the MPF(F) will provide the logical means to achieve it. Although these two brigades will be supported by joint fires, they will initially operate alone, in hostile territory, some 2,000 miles away from the nearest intermediate support base, and supported logistically from the air from large, slow, and vulnerable commercial ships steaming 25 to 50 miles offshore or airbases located outside the theater. Thankfully, however, the enemy will be so stunned by their arrival that he will not be able to fully activate his A2/AD defenses and thus be unable to exploit the "vulnerability gap" associated with US forcible entry forces. As a result, he will surely lose the initiative—and soon thereafter, the war.

In this world, the proven, legacy amphibious landing fleet, designed specifically to operate off of a defended shore and in an environment contaminated by nuclear, biological, or chemical weapons, and to deliver combat forces ashore efficiently and rapidly both by air and surface using special-purpose interfaces for air and surface assault connectors, will be far too slow to be useful. The war will be over before they arrive! Moreover, surface assaults will be too vulnerable and ponderous to enemy mines and guided weapons fire. After all, "[w]ords like 'fast,' 'quick,' 'speed,' and 'now' will inevitably dominate the language describing the techniques' of rapid decisive operations from a seabase, and surface assaults simply do not apply.

Thus, the operational requirement for amphibious lift can confidently and safely be reduced from 2.5 to 1.9 MEB equivalents, the overall battle fleet lift requirement can be reduced by upwards of 30 percent, and the remaining ships can trade their ability to support surface assaults with capabilities optimized for aerial maneuver. Of course, the sea base will require aerial transportation and logistics capabilities well beyond those of the current force—such as a vertical take-off and landing intra-theater airlifter capable of carrying 20 tons over a 350 mile operating radius; an ability to transfer up to 20,000-pound containers from ship-to-ship in Sea State 3; improved techniques for underway replenishment, such as skin-to-skin transfer of heavy equipment; and stabilized, motion-compensating cargo cranes—all of which are "at least ten years away from system development" (emphasis added). ⁵¹³ But why wait for technology to catch up? Change the organization now and the technology will surely follow.

Of course, this line of thinking is likely to prove to be as faulty as it was five decades ago. Even if there is merit in the operational concept, and there surely is, the technological timelines to develop the associated tactical capabilities necessary to make it happen are extended ones. For example, the aforementioned report of the National Research Council concluded that the timeline for the development of capabilities for ship-to-ship cargo transfer in high sea states would be sometime between 2012 and 2022. More importantly, the earliest that a seabased heavy-lift aircraft of new design in the 20- to 23-ton payload class would be available was after 2025.514 Both are needed to ensure the viability of the seabasing concept. What evidence is there that the current ships in the MPF(F) squadron can accommodate either of these critical new capabilities? The answer is: none. It is therefore far past time for OSD, the Joint Staff, and the DoN to stop, take a deep breath, and, guided by the recent publication of the 2006 Quadrennial Defense Review, to re-engage in a vigorous institutional debate over the current trajectory of seabasing.

This debate should begin with the development of a new definition focused less on processes like *deployment*, *assembly*, *command*, *projection*, *reconstitution*, *and re-employment* and more on the different functions associated with seabasing. It should continue by challeng-

⁵¹³ Vergun, "Outfitting the Operating Force," p. 37.

⁵¹⁴ Committee on Sea Basing, Naval Studies Board, National Research Council of the National Academy of Sciences, *Sea Basing: Ensuring Joint Access From the Sea*, p. 5.

ing the assumptions that now drive seabasing. It should be based on a thorough review of the seabasing enterprise—which already exists, if only in nascent or ill-developed form—and a reasoned articulation of its deficiencies. Only in this way can the full range of emerging joint seabasing initiatives be discretely disaggregated, debated, and prioritized, and can the joint community rationally determine the highest payoffs from the pursuit of near-term, mid-term, and far-term seabasing programs. Based on these payoffs, a Joint Project Office, with a hefty R&D technology line, and the authority to choose among competing seabased maneuver and mobility plans, could then work toward implementing them.

The purpose of the next chapter is to help set the stage for just such a follow-on effort.

VII. Developing a New Way Ahead

Transformation is a continuous process with no fore-seeable end point. To meet 21st century challenges, the Department of Defense will need capabilities that are constantly evolving and improving. Transformation demands changes in the DoD culture, process, and capabilities; changing the way the Department conducts combat operations, conducts business, and interacts with other agencies and nations.⁵¹⁵

DSB Summer Study on Transformation, February 2006

It may seem incongruous to recommend a zero baseline joint seabasing review after a decade and a half of concept and programmatic development, so soon after the publication of the 2005 National Defense Strategy and the completion of the 2006 Quadrennial Defense Review, and just as the Department of the Navy has revealed a new 30-year shipbuilding plan which reflects, in large part, the considered judgments made about seabasing since the 2001 QDR. Indeed, the 2006 QDR explicitly states that the "[MPF(F)] family of ships will advance the capability of seabasing to support a wide spectrum of joint force operations." 516 However, as is evident by the Department's own views toward transformation, changes to joint seabasing capabilities should be viewed as a continuous process with "no foreseeable endpoint." The implication of this view—reinforced by the Secretary of Defense's own aggressive pursuit of changes to both military structures and organizations and the process by which capabilities are developed—is that all elements of the Department of Defense should constantly question their own assumptions and plans.

 $^{^{515}\,}$ Herman and Welch, co-chairs, DSB Summer Study on Transformation: A Progress Report, Volume I, p.1.

⁵¹⁶ Rumsfeld, 2006 Quadrennial Defense Review Report, p. 47.

This view helps explain the recent decision made by General Hagee, Commandant of the Marine Corps, to initiate a new *service*-sponsored study to consider the correct size of the 21st century Marine Corps. Before the ink had even dried on the 2006 QDR, General Hagee made it known that he did not agree with the QDR's decision to stabilize Marine Corps' end strength at approximately 175,000—5,000 Marines below where he believed the Corps' end strength should be. He therefore ordered an internal Marine Corps review of the QDR's position. When asked how the Marine Corps would reconcile the difference between the QDR's recommendation and what he believes is needed, Hagee said, "We're going to do that within OSD," implying that he had the Secretary of Defense's blessing to question the assumptions and decisions made by the QDR.⁵¹⁷

The idea for a zero baseline seabasing review appears to be supported by the findings of the *DSB Summer Study on Transformation: A Progress Report*, published very nearly simultaneously with the 2006 QDR in February 2006. Among the report's findings was that:

...the [Joint Capabilities Integration and Development System] has attempted to encompass a wide range of programs to ensure that the entire investment portfolio makes the best investments in needed capabilities. While this is a noble purpose, there are already processes in the DoD that do that, however imperfectly, and attempts to add a JCIDS contribution to that worthy purpose has only rendered the JCIDS so unwieldy as to make it ineffective in its intended purpose of focusing intensely on key challenges faced by warfighters in integrating and employing Joint Forces (emphasis added).⁵¹⁸

With regard to the final point, the DSB Task Force concluded that the "ponderous" Joint Capabilities Integration and Development System had not resulted in "...increased warfighter influence, as it continues to be dominated by the Force Providers [i.e., the services] and the Joint Staff.⁵¹⁹ Because of this, the Task Force recommended that the

⁵¹⁷ Christopher J. Castelli, "QDR's Call to Shrink Force Spurs Marine Corps to do its Own Study," *Inside the Navy*, February 20, 2006.

⁵¹⁸ Herman and Welch, co-chairs, DSB Summer Study on Transformation: A Progress Report, Volume I, p. 19.

For an interesting and unflattering perspective of the JCIDS process, see "Van Riper's E-mal to Pace, Hagee, and Schoomaker Regarding JCIDs," *Inside*

Chairman provide direct support to the Combatant Commanders "to analyze and assess solutions to needs offered by the services," and that all concepts "be validated by experiments and/or operational experience" (emphasis added).520 It therefore seems likely that the DSB Task Force on Transformation would welcome and endorse an opportunity to review current seabasing concepts and plans, which have to date been so dominated by Navy and Marine Corps thinking, are based more on untried concepts of operations and preconceived biases rather than any operational precedent or experience, and which have yet to be validated by anything other than small, limited objective experiments.

Moreover, aside from the JIC's focus on improving the Joint Force's ability to "seize the initiative" in the 2015-2025 timeframe, there is no pressing need to move rapidly forward in pursuit of specific seabasing material solutions, particularly those for the MPF(F). The Department of the Navy intends to buy out the leases of the three legacy MPF squadrons regardless of the direction of MPF(F), and these ships have decades of life left in them.⁵²¹ Indeed, as has been discussed, the Navy's own plan is to retain two legacy MPF squadrons. Therefore, unlike a situation in which the current MPF ships were nearing the end of their expected services lives and had to be replaced, the quick move toward a new MPF(F) squadron is completely discretionary. Similarly, Army plans for its CPF involve the reallocation of ships on hand or perhaps the charter of new ships; and DLA plans for its afloat distribution center have yet to coalesce. Therefore, any delay caused by a zero baseline review would have little impact on current joint capabilities. Delays would have an impact on the shipbuilding industrial base planning, but there are easy modifications to the shipbuilding plan to keep the industrial base "hot" until final seabasing material solutions can be identified.⁵²²

the Navy, January 23, 2006.

⁵²⁰ Herman and Welch, co-chairs, DSB Summer Study on Transformation: A Progress Report, Volume I, p. 19, 41.

The DoN has already bought out the lease for one MPF (E) squadron. On February 13, 2006, the Navy listed the \$487.4 million needed to buy out the nine ships still under lease as an unfunded requirement for FY 2007. See Letter from Admiral M.G. Mullen, USN, Chief of Navy Operations, to the Honorable Ike Skelton, House of Representative, subject: US Navy FY 07 Unfunded Program Requirements, dated February 13, 2006.

⁵²² Industrial base planning had a major impact on the makeup of the final MPF(F) squadron. See Ma, "Navy Aims to Balance Industrial Base Needs in New Seabasing Plan."

The bottom line: \$16-17 billion is a lot of money to spend on getting *one* MPF(F) squadron and being able to conduct a MEB-sized JFEO in 10-14 days, even in a defense budget that is nearing nearly half a trillion dollars per year. It would therefore behoove both the Department of Defense (and the Department of the Navy) to conduct a thorough and dispassionate review of all *joint* seabasing initiatives, with the aim of achieving the maximum return on investment for this sizeable chunk of money, and of preventing any premature foreclosure of other promising (and higher priority) seabasing options.

THE 2005 NATIONAL DEFENSE STRATEGY AND THE 2006 QUADRENNIAL DEFENSE REVIEW: ESTABLISHING A NEW DIRECTION FOR THE FUTURE OF SEABASING

Of course, such a review should be guided by the precepts of the *National Defense Strategy of the United States of America*, published in March 2005, and the 2006 Quadrennial Defense Review, submitted in February 2006. Both reflect the momentous changes in the post-Cold War strategic environment, as well as the changes in US strategic thinking, that have evolved since the attacks of September 11, 2001. More to the point, both provide explicit guidance on the future direction of seabasing.

The National Defense Strategy "builds upon efforts in the 2001 [QDR] to develop an adaptable, global approach that acknowledges the limits of our intelligence (in all senses of the term), anticipates surprises, and positions us to handle strategic uncertainty." It seeks this end by outlining an "active, layered approach to the defense of the nation and its interests," guided by four key strategic objectives: establishing favorable global security conditions; strengthening alliances and partnerships; securing the United States from direct attack; and securing strategic access and retaining global freedom of action. 523

⁵²³ Donald H. Rumsfeld, Secretary of Defense, *National Defense Strategy* of the United States of America (Washington, DC: Office of the Secretary of Defense, March 2005).

Significantly, the strategy retains the "1+4+2+1" force planning and sizing construct introduced soon after the 2001 QDR, which calls for a military capable of "swiftly defeat(ing) adversaries in overlapping military campaigns while preserving for the President the option to call for a more decisive and enduring result in a single operation." However, in the process of doing so, it introduces new definitions for "swift defeats" and "decisive wins:"

Campaigns to 'swiftly defeat' the efforts of adversaries are undertaken to achieve a circumscribed set of objectives aimed at altering an adversary's behavior or policies, swiftly denying an adversary's operational or strategic objectives, preventing attacks or uncontrolled conflict escalation, and/or rapidly re-establishing security conditions favorable to the United States and its partners...Campaigns to 'win decisively' are undertaken to bring about fundamental, favorable change in a crisis region and create enduring results. They may entail lengthy periods of both major combat and stability operations; require regime change, defense, or restoration; and entail significant investments of the nation's resources and time. 'Win decisive' campaigns will vary significantly in size and scope but will be among the most taxing scenarios.524

Picking up on the thought perhaps first expressed by the bi-partisan US Commission on National Security/21st Century, and then subsequently endorsed in the 2002 National Security Strategy, the National Defense Strategy explicitly acknowledges the US military's predominance in state-on-state, force-on-force, warfare. As such, it sets the stage for a reshaping of the joint force to allow it to better respond to a wider range of potential adversaries and campaigns. Besides traditional threats posed "by states employing recognized military capabilities and forces in well understood forms of military competition and conflict," the strategy highlights three particular threats of concern: irregular threats from those employing "unconventional" methods to counter the traditional advantages of stronger opponents; catastrophic threats from those whose possess or seek weapons of mass destruction, and intend to use them; and disruptive threats from

Rumsfeld, National Defense Strategy of the United States of America.

adversaries "who develop and use breakthrough technologies to negate current U.S. advantages in key operational domains." ⁵²⁵

To help guide the direction of defense transformation to respond to this broader range of threats, the *National Defense Strategy* modifies and expands the six operational challenges highlighted in the 2001 QDR by outlining eight desired operational capabilities: strengthened intelligence; protecting critical bases of operations; operating from the global commons, including the oceans; projecting and sustaining forces in distant anti-access environments; denying enemy sanctuaries; conducting network centric operations; improving proficiency against irregular challengers; and increasing the capabilities of both domestic and international DoD partners.⁵²⁶

With a particular view toward seabasing, the dramatic change between its contributory role in the Cold War/Garrison Era and its role in the Joint Expeditionary Era—as well as the striking similarity between seabasing's contemporary role and the one it played in the first Expeditionary Era—is readily evident in the new strategy:

We will promote the security, prosperity and freedom of action of the United States and its partners by securing access to key regions, lines of communication, and the global commons...Our ability to operate in and from the global commons—space, international waters and airspace, and cyberspace—is important. It enables us to project power anywhere in the world from secure bases of operation. Our capacity to operate in and from the strategic commons is critical to the direct defense of the United States and its partners and provides a stabilizing influence in key regions...Such capacity provides our forces operational freedom of action. Ceding our historic maritime advantage would unacceptably limit our global reach (emphasis added).⁵²⁷

The 2006 Quadrennial Defense Review, published less than a year after the new *National Defense Strategy*, is strongly influenced by the Strategy's direction and tenor. However, it would be a mistake to assume that the 2006 QDR reflects a "new beginning" in the Bush

Rumsfeld, National Defense Strategy of the United States of America.

⁵²⁶ Rumsfeld, National Defense Strategy of the United States of America.

⁵²⁷ Rumsfeld, *National Defense Strategy of the United States of America*.

Administration's approach to defense transformation. Instead, it should be viewed as the next signpost along a process of continuous change started by the 2001 QDR—a process modified by five years experience in an expected "long war...against a global network of violent extremists." ⁵²⁸ That said, it represents an even more marked shift away from a focus on major conventional combat operations toward "multiple, irregular, asymmetric operations...against 'rogue powers, terrorist networks, and near-peer competitors.'" ⁵²⁹ In this regard, it expands the *National Defense's Strategy*'s definition of catastrophic threats from beyond a singular emphasis on nuclear proliferation and the use of WMD by terrorists to include the use of WMD by rogue states. It similarly expands the definition of disruptive threats, which now include threats to the "United States' ability to maintain its qualitative edge *and to project power*" (emphasis added). ⁵³⁰

In keeping with these expanded definitions, and to "operationalize" the *National Defense Strategy*, the QDR focuses on the required capabilities needed to respond to the following four priority challenges:

- Defeating terrorist networks;
- Defending the homeland in depth;
- Shaping the choices of countries at strategic crossroads—especially
 those facing China—the one country among all the major and emerging powers with "the greatest potential to compete militarily with
 the United States and field disruptive military technologies that
 could over time offset traditional US military advantages;" and
- Preventing hostile states and non-state actors from acquiring or using WMD.⁵³¹

In tackling these four challenges, the QDR highlights four "lessons learned" since the September 11 attacks. These are: having the authorities and resources to build partnership; increasing freedom of action; taking early preventive measures; and shifting cost balances.

⁵²⁸ For a positive view of the QDR's influence on change within the military, see Newt Gingrich, "A Leaner, Meaner Military," The Washington Post, March 4, 2006, p. A17.

⁵²⁹ Rumsfeld, 2006 Quadrennial Defense Review Report, pp. v-vii.

⁵³⁰ Rumsfeld, 2006 Quadrennial Defense Review Report, p. 3.

⁵³¹ Rumsfeld, 2006 Quadrennial Defense Review Report, p. 3. The embedded quote on China is found on p. 29.

The Department "applied these lessons over the course of the QDR as it identified changes to the mix of joint capabilities and the enterprise-wide reforms needed to fight the long war." ⁵³²

The emphasis on building partnership capacity and strengthening alliances expands on one of the *National Defense Strategy's* four key objectives by arguing for a more indirect strategic approach—an approach that reflects the "critical importance of being organized to work with and through others, and of shifting emphasis from performing tasks ourselves to enabling them." ⁵³³ This important lesson learned, first among all others listed in the QDR, implies that a *National Defense Strategy* and an operational predilection for rapid, unilateral military intervention might work against the US in the long run in a number of ways, particularly in the "Long War" against violent extremists. Unilateral action is, of course, the prerogative of any great power, and the United States will always have the freedom and ability to exercise that prerogative. However, the tone of both the 2005 *National Defense Strategy* and the 2006 QDR clearly embraces the wisdom and importance of adopting a more measured "indirect approach to achieve common objectives." ⁵³⁴

The emphasis on an indirect strategic approach is also echoed in the lesson learned about increasing America's global freedom of action. In this regard, the QDR identifies four things that increase *strategic* freedom of action: operational readiness; global reach; building partnership capacity; and strengthening alliances. To further improve *strategic and operational* freedom of action, the QDR highlights the value of a more "indirect approach" emphasizing stealth, persistence, flexible basing, and strategic reach.⁵³⁵

In keeping with this theme, even as the 2006 QDR highlights the importance of taking preventive action, it hints at a more nuanced approach when doing so. Subtly, but importantly, in an era "characterized by uncertainty and surprise" and marked by a shift from "static defense, garrison forces [to] mobile expeditionary operations," the 2006 QDR places much more emphasis on *agility of response* rather than *speed of response*. It seeks "tailored deterrence" by shifting "[f]rom responding after a crisis starts (reactive) to preventive action so that problems do not become crises (proactive)." This requires a "truly inte-

Rumsfeld, 2006 Quadrennial Defense Review Report, pp. 16-18.

Rumsfeld, 2006 Quadrennial Defense Review Report, p. 17.

Rumsfeld, 2006 Quadrennial Defense Review Report, p. 17.

Rumsfeld, 2006 Quadrennial Defense Review Report, p. 18.

grated joint force that is more agile, more rapidly deployable, and more capable *against a wider range of threats*" (emphasis added).⁵³⁶

The QDR's shift in emphasis from speed to agility is accompanied by a concomitant shift in emphasis from *rapidity of responses* to more *moderated responses*. In placing less emphasis on this traditional military challenge, the QDR points out that "operational end-states" defined in terms of "swift defeats" or "winning decisively" may be less useful for some operations, including irregular warfare campaigns. ⁵³⁷ As a result, the QDR emphasizes that speed of action should be tempered by "a clear understanding of the situation, including the way potential adversaries make decisions," and that the future joint force "will balance speed of deployment with desired warfighters effects to deliver the right capabilities at the right time and at the right place" (emphasis added). ⁵³⁸

Moreover, the report goes on to say that although US forces have demonstrated "time and again" their agility in responding to crises, this operational agility:

...has not yet been matched by the availability of sufficiently broad authorities to the processes and procedures needed to support the warfighter. In a number of recent operations, the lack of needed authorities hindered the ability of US forces to act swiftly, and the processes to get appropriate authorities has often taken months to achieve.⁵³⁹

Taken together, these two points seem to indicate that future defense planning guidance may measure strategic speed of response less in terms of "10-30-30," and more in terms of *moderated speed of response*. Moderated speed focuses less on the rapidity of the first response and more on the rapidity of fashioning the correct response. Such an approach would take the time necessary to fully understand the underlying causes and potential solutions to an emerging or breaking crisis; to identify the best *military tools* to apply to the problem; to identify

The emphasis on improved agility is evident throughout the *2006 Quadrennial Defense Review Report*. The quotes embedded in this paragraph can be found in pp. vi-vii and on p. 7.

Rumsfeld, 2006 Quadrennial Defense Review Report, p. 36.

⁵³⁸ Rumsfeld, 2006 Quadrennial Defense Review Report, p. 17 and 53.

Rumsfeld, 2006 Quadrennial Defense Review Report, p. 18.

the best *national tools and authorities* needed to apply to a problem; and to line up all of these levers of national power as rapidly as possible.

Finally, the QDR makes plain that the US needs to do a better job at imposing "unsustainable costs" on potential adversaries. The United States and its allies can do this "taking actions and making investments that complicate an adversary's decision-making or promote self-defeating actions." ⁵⁴⁰ Just as the US investment in stealth technology put at great risk the Soviet Union's huge investment in continental air defenses, so might an investment in forcible access capabilities cause a potential adversary to divert resources away from regional offensive weapons to defensive capabilities.⁵⁴¹

The QDR's emphasis on building partner capacity, achieving greater global freedom of action, pursuing an indirect strategic approach; fashioning a joint force characterized by great strategic agility, responding to crises with more moderated efforts, and imposing costs on a potential adversary provides a compelling implicit endorsement for seabasing. The QDR makes several additional points which either explicitly or implicitly support the development of improved seabasing capabilities. For example:

• The QDR emphasizes that "the essence of capabilities-based planning is to identify capabilities that adversaries could employ and capabilities that could be available to the United States, then evaluate their interaction, rather than over-optimize the joint force for a limited set of threat scenarios." ⁵⁴² In other words, rather than simply pursuing a capability to land a MEB in 11-17 days in the hopes of "seizing the initiative" or precluding an adversary from activating his A2/AD network, a better, moderated approach might be to determine how an adversary might work to exploit or unhinge a hasty US forcible entry operation, and how the joint force could react if an early entry force was hit hard or put under intense, sustained pressure. Such an approach might support a more robust forcible entry operation conducted a week or so later, once the entire joint force had been marshaled in support, thereby facilitat-

⁵⁴⁰ Rumsfeld, 2006 Quadrennial Defense Review Report, p. 18.

⁵⁴¹ I would like to thank Frank G, Hoffman from the Center for Emerging Threats and Opportunities in Quantico, Virginia for highlighting to me the important cost balancing potential of seabasing initiatives.

Rumsfeld, 2006 Quadrennial Defense Review Report, p. 4.

ing an attack with no discernable "vulnerability gap" between the early arriving and later arriving joint forces.

- An important goal in the QDR is to better prepare the United States to "deter [WMD] attacks; to locate, tag, and track WMD materials; act in cases where a state that possesses WMD loses control of its weapons, especially nuclear devices; detect WMD across all domains; sustain operations even under WMD attack; help mitigate the consequences of WMD attacks at home or overseas; and eliminate WMD materials in peacetime, during combat; and after conflicts." ⁵⁴³ This will require "a growing emphasis on WMD elimination operations that locate, characterize, secure, disable and/or destroy a state or non-state actor's WMD capabilities and programs in hostile and uncertain environments." The implication here is that future seabased assault forces must be able to support counter-proliferation operations while under the threat of nuclear attack, and be able to operate in a littoral contaminated by radiological fallout.
- The QDR directs the pursuit of capabilities that enable US special operations forces to conduct "low visibility, persistent presence missions and a global unconventional warfare campaign." 544 The QDR notes that in 2003 the Navy started to convert four older SSBNs into conventional guided missile and special operations submarines, and that all four of these new platforms will enter fleet service by 2007. These converted submarines—which are, in effect, covert undersea forward operating sites—will enable SOF personnel to penetrate denied areas and conduct direct action missions.⁵⁴⁵ The QDR builds on this initiative by directing an expansion of Afloat Forward Staging Bases for special operators, to "provide more flexible and sustainable locations from which to operate globally." 546 This helps to explain the inclusion of four "extra" amphibious warships in the Navy's new 313-ship Navy; amphibious warships with both well decks to support SOF insertion craft and fight decks to support SOF helicopters are ideally suited for a SOF AFSB role. It also helps to explain reports that the new Littoral Combat Ship will add a "GWOT Support Module" to its previously planned suite of anti-submarine warfare, mine warfare, and anti-surface warfare modules.547

 $^{^{543}\,}$ Rumsfeld, 2006 Quadrennial Defense Review Report, pp. 33-34.

Rumsfeld, 2006 Quadrennial Defense Review Report, pp. 33-34.

⁵⁴⁵ Rumsfeld, 2006 Quadrennial Defense Review Report, p. 48.

⁵⁴⁶ Rumsfeld, 2006 Quadrennial Defense Review Report, p. 47.

⁵⁴⁷ Richard R. Burgess, "Changes to Littoral Combat Ship Components May Speed Reassignments of the Multi-mission Vessel," *Seapower*, February 2006.

- The QDR directs the Navy to expand the capabilities of its strike seabase by introducing within two years new conventionally-armed ballistic missiles capable of being fired from patrolling SSBNs in support of prompt global strikes.⁵⁴⁸ Although the Congress shot down a similar Navy proposal in FY 2003 and 2004, the Congress now appears willing to consider the proposal provided the dangers of provoking an inadvertent nuclear response from either Russia or China can be eliminated.⁵⁴⁹
- The QDR makes clear that the effectiveness of the future Global Expeditionary Maneuver and Movement System ("mobility forces" in QDR-speak) will be measured not only by the quantity of material it moves, "but also the operational effects [it] helps to achieve." As such, this system, capable of transporting intact combat units as well as personnel, equipment, and supplies, "will underpin the transition from a Cold War-era garrisoned force to a future force that is tailored for expeditionary operations" with only modest US forward presence and relatively few main operating bases. This new system and posture—along with a shift toward *long-range* aerospace forces—will help to "reduce the forward footprint of the joint force" (note that the QDR makes no mention of eliminating the forward footprint). In support of this effort, the QDR directs the Department to pursue the "enabling technologies for transformational logistics and innovative operational concepts such as seabasing." ⁵⁵⁰

CONDUCTING A ZERO BASELINE SEABASING REVIEW

Together, the 2005 *National Defense Strategy* and the 2006 QDR provide a new lens through which to examine current seabasing initiatives. They provide guidance that, while quite specific, is broad enough to facilitate a thorough and independent zero baseline seabasing review that is free of any preconceived notions or concepts. In this regard, while such a review should consider all concept work and program definitions to date, it is important that the review be in no way constrained by them. Said another way, OSD should not make the same mistake it

⁵⁴⁸ Rumsfeld, 2006 Quadrennial Defense Review Report, pp. 6 and 50.

⁵⁴⁹ Nick Brown and Katy Glassborow, "US Navy Looks for Global Strike Capability," *Jane's Defense Weekly*, February 1, 2006, p. 30.

⁵⁵⁰ Rumsfeld, 2006 Quadrennial Defense Review Report, pp. 53-54.

made in 2002, when it directed the DSB Task Force on Seabasing to use the *Enhanced Networked Seabasing* concept as its start point. It should instead direct the group conducting the review to start from a clean sheet of paper, and to recommend the seabasing program with the highest *joint* payoff in the Joint Expeditionary Era.

Which brings up the first key question facing OSD leaders: what organization should conduct the review? This is not a trivial question, and it deserves more than a reflexive answer. As for the organization that should conduct the review, the recommendation made by the DSB Task Force on Seabasing for a Joint Seabasing Project Office remains an attractive one. Another option might be to form an independent joint panel, perhaps with former Combatant Commanders, to consider joint seabasing requirements, and to form the Joint Seabasing Project after its deliberations to implement it recommendations. A third, undesirable option would be to assign a service to be the "lead" agency. Seabasing is a pressing joint requirement in the Joint Expeditionary Era. The organization conducting the review should be thoroughly joint and independent.

The second key question facing OSD leaders is then: what type of officers should lead the review? The default position since 2001 seems to be that a naval officer should lead any study on seabasing. However, recall that in World War II, maritime operations designed to influence events ashore in continental theaters were led by an Army officer. As the good work of the Joint Logistics Transformation Center suggests, perhaps an Army officer assisted by a naval deputy is an equally compelling option. The best of both worlds might be to have an independent body composed of former Combatant Commanders from all services to preside over two independent efforts, one led by a naval officer assisted by an Army officer, the other led by an Army officer assisted by a naval officer. The Combatant Commanders could then choose the best recommendations of both efforts. The point here is that the choice of leader for any review will subtly influence the tenor of the subsequent efforts and recommendations; therefore, the choice should be made only after careful consideration.

Once a group and its leaders have been identified, they should be given free rein to develop a notional joint seabasing construct that would guide the subsequent development of joint seabasing capabilities. Relieved of any pressing requirement to decide whether or not to pursue the MPF(F) program in its current form—or any other seabasing initiative—the review would start with a clean slate. While there is any number of ways such a review might be structured, at a minimum it should include four key steps:

- Establishing new overarching definitions for seabasing and seabases that highlight their contributions in maritime operations;
- Questioning the assumptions that now drive the development of joint seabasing programs—and developing new ones;
- Reviewing current seabasing plans and initiatives, diagnosing the most pressing joint seabasing deficiencies, and coming up with alternative plans to address them; and
- Establishing a set of principles to guide follow-on debates and discussions and to help prioritize required and desired joint seabasing capabilities.

Each of these steps will de discussed, in turn.

STEP ONE: ADOPTING NEW MARITIME-FOCUSED DEFINITIONS

As discussed in the first chapter, there have been a number of definitions for seabasing and seabases. What possible motivation would drive a recommendation to develop another one? The first would be a desire to make a clean break with the development of seabasing to this point, which has been driven more by institutional instinct, service equities, and preconceived biases rather than an overarching conceptual framework. A second would be the recognition that definitions are important, if for no other reason that so few people will ever read an entire concept paper or a Joint Integrating Concept. Accordingly, care must thus be taken to develop a definition that conveys to the greatest extent possible what seabasing is all about and what it is not about. Said another way, a good definition for seabasing should strive not to address the processes and technical details related to seabasing; instead, it should provide a coherent vision of seabasing and its vital role in the Joint Expeditionary Era.

In this regard, the QDR highlights the need to develop the capability "to deploy rapidly, assemble, command, project, reconstitute, and re-employ joint combat power from all domains to facilitate assured access." ⁵⁵¹ These words, of course, are nearly an exact match with those that make up the definition for seabasing found in the Seabasing JIC. They can be used in a different context because they outline the processes that characterize *any* power projection operation. Therefore, the only thing the QDR authors had to do was to substitute "from all domains" for "from the sea." Why, then, should any service outside the Department of the Navy care about seabasing? Why not focus instead on the processes associated with their own primary domain of operations?

A new definition for seabasing should thus eschew process steps and terms like at-sea arrival and assembly and the like, and instead aim to convey the fundamental importance of seabasing in an era of uncertain and possibly contested access. As Admiral Cebrowski so aptly pointed out, the importance of seabasing is explained by strategic geography. Until there is a technological breakthrough in the transoceanic transport of forces and cargo, seabasing will provide the foundation for the US military's ability to conduct rapid global expeditionary maneuver of forces and movement of joint goods and services. One way to convey this important point is to emphasize in its definition that seabasing is not an end in itself, it is a means to an end: *achieving global freedom of action*—one of four overarching strategic objectives outlined in the new *National Defense Strategy*.

Building on this point, and in order to help capture the attention of the widest possible joint audience, the new definition for seabasing should first stress its *maritime* character. As such, the definition must help to:

... enable each service to realise [sic] the better the limitations and the possibilities of the function with which it is charged, and how and when its own necessities must give way to a higher or more pressing need of the other.⁵⁵²

A maritime definition of seabasing would never include terms or hints of terms like "enabling;" "projecting sovereignty;" or "projecting

⁵⁵¹ Rumsfeld, 2006 Quadrennial Defense Review Report, p. 31.

⁵⁵² Corbett, Some Principles of Maritime Strategy, pp. 10-11.

joint operational independence." Such words and phrases, while perhaps attractive to naval audiences, are antithetical to the idea of an *interdependent* joint force and truly joint maritime operations. In other words, a good definition for seabasing must explain what seabasing does for the entire joint force—and not just its "naval elements."

In this spirit, and as this paper repeatedly argues, anything that contributes to a naval concept of seabasing, which is first about *creating bases at sea*, and detracts from a maritime concept of seabasing, which is about *using the sea as a secure joint base of operations for global power-projection* is a bad thing. The conceptual difference between the two views, while perhaps subtle, is nonetheless important:

- A concept that focuses on the **Sea as Base** is first about supporting
 the conduct of a joint campaign or power-projection operation; a
 concept that strives to build **Bases at Sea** is first about making the
 "naval elements" of the joint force more relevant and "decisive;"
- Sea as Base is about overcoming a *temporary lack of land bases*; Bases at Sea is about using naval forces to *replace land bases*. As even the Commandant of the Marine Corps recognizes, "Putting a [Marine Expeditionary Brigade] ashore is extremely important to our nation, but Marines and the Navy don't win wars. Armies and air forces with their eventual mass—and effects, increasingly in the future—really need to be brought forward, if they're not already there." ⁵⁵³ Sea as Base is thus, at its maritime core, about initiating operations when faced with an *initial* lack of supporting land bases;
- Following this line of reasoning, Sea as Base is all about using the
 world's oceans and littorals seas to provide the joint force with
 global freedom of action, while creating Bases at Sea is all about
 the *process* of rapid deployment, assembly, command, projection,
 reconstitution, and re-employment of joint combat power on and
 from the sea;
- Sea as Base is about using the sea to move joint forces rapidly to successive positions, the loss of which would put the enemy at a disadvantage; Bases at Sea is about naval forces "using 70 percent of the world's surface as maneuver space;" and finally,

⁵⁵³ Christopher J. Castelli, "Admiral Sees Need For More Dialogue Between Services on Seabasing," *Inside the Navy*, April 18, 2005.

The ultimate 21st century expression of the Sea as Base, as was suggested in the latter two years of World War II, is a Sea as Base Joint Power-Projection Fleet, backed up and operating in conjunction with a Global Expeditionary Maneuver and Movement System. In contrast, the ultimate expression of Bases at Sea is a Mobile Offshore Base.

Although both perspectives have their place, by their very nature maritime concepts are much broader and more inclusive than naval concepts, and far more applicable to the notions of joint global power-projection, joint interdependence, and joint littoral warfare. Creating Bases at Sea is a suitable concept for *independent* naval campaigns, and relatively small scale crisis response operations, such a raids or humanitarian/disaster relief operations. However, in the mature phases of the Guided Weapons Warfare Regime, in which seabased power-projection forces will increasingly be marked by a direct collision between forces operating at sea and forces operating ashore at steadily increasing ranges, the term "naval warfare" is increasingly anachronistic. Indeed, as was earlier noted, "...navies of the world should no longer refer to "naval tactics" at all. It is more reasonable to think in terms of littoral tactics that include warships."

That said, the naval task of achieving *command of the seas* is an absolutely critical requirement for seabasing in its most potent form, since it is the key providing the unobstructed global maneuver of joint forces and movement of joint goods and services along interior lines. Therefore, this important fact also should be embedded in any definition for seabasing.

Bearing these thoughts in mind, and combining their themes, a tentative working definition for **seabasing** might be:

In maritime operations and joint littoral warfare, leveraging command of the seas by using the world's oceans and littoral waters as a secure base of operations for global power-projection. Seabasing provides for the rapid transoceanic expeditionary maneuver of ready-to-fight combat units and the rapid movement of personnel, goods, and services, thereby providing an interdependent joint force with a high degree of global freedom of action and initial operational independence from forward land bases.

Building upon this more expansive maritime definition of seabasing, care should be taken so as to not confuse the ideas of the sea itself being the base of operations and assembling platforms to perform a particular function on the sea. Equally important is to avoid limiting the term "seabases" to platforms assembled to support just JFEOs or operational maneuver from the sea. One way to do this might be to define **functional seabases** as:

Special-purpose platforms and equipment assembled on, over, and under the seas to accomplish a specific function that would otherwise need to be accomplished on land or from the air. Functional seabases can be formed to perform the following types of roles for an interdependent joint force: strategic/prompt global conventional strike operations; global patrolling and scouting and rapid crisis response; unwarned unilateral punitive strikes and raids; persistent surveillance of coastal areas of interest; overt and covert special operations support; rapid global movement of personnel, goods, and services along interior lines; naval maneuver, including forcible entry operations, to exploit an exterior advantage; sustained combat, combat support, and combat service support of joint and combined forces operating afloat and ashore.

One advantage of listing all of the different types of functional seabases is that it will help to subsequently prioritize the spending for both joint and naval seabasing initiatives. For example, the return on investment for spending \$16-17 billion on an ability to conduct a single brigade-size JFEO in 11-17 days can be weighed against the opportunity costs associated with not spending a similar amount on improvements to supporting special operations forces in the Global War on Terrorism, or moving large amounts of joint forces through an austere port, or any other potential joint seabasing requirement. Similarly, it can also help to prioritize spending within the Department of the Navy, which views seabasing as its overarching "transformational concept" and as a "valuable tool for prioritizing naval programs."

STEP Two: QUESTIONING OLD ASSUMPTIONS, AND MAKING NEW ONES

As any analyst knows, the answers to questions are most indelibly influenced by the assumptions made before the start of an analysis. The second and perhaps most vitally important step in any zero baseline review must therefore be a thorough reappraisal and questioning of the assumptions that have driven the development of seabasing to this point. For illustration, this paper examines three of them: that joint and DoN seabasing efforts should focus first and foremost on the "seize the initiative phase" of a joint power projection operations against a traditional military opponent; that "operationalized" maritime prepositioning force ships should be part of the "assault echelon" of any seabased joint forcible entry operation; and that the amphibious landing fleet should be optimized for aerial maneuver.

Old Assumption #1: Joint and DoN Seabasing Efforts Should Focus on the "Seizing the Initiative Phase" of a "Traditional" Powerprojection Operation

The first obvious reason to question this particular planning assumption is to account for the change in strategic direction found in the 2005 *National Defense Strategy* and the 2006 QDR.

The assumption that the first priority for seabasing should be to seize the initiative in a military campaign is derived from the 2001 QDR's "1+4+2+1" strategy and its associated "10-30-30" timelines. However, these metrics were developed primarily with *traditional* military problems in mind—particularly a repeat of *Desert Storm*, perhaps this time defending Saudi Arabia instead of Kuwait; and an invasion of South Korea by a xenophobic and dangerous North Korean army. Today, one of the two "major combat operations" referred to in the strategy should be properly viewed as the ongoing war against violent extremists which the President, Secretary of Defense, and the commander in the war's principal theater of operations have described as the "Long War." One would think that the first primary goal of seabasing would be to first help to win the war that we find ourselves in, rather than potential future wars that have not yet been declared.

In any case, the 2006 QDR makes clear that preparing to confront traditional opponents will take a back seat to preparations for fighting irregular opponents like those we are fighting in Iraq; catastrophic opponents who threaten to use or use weapons of mass destruction; and disruptive opponents who challenge the United States' qualitative superiority and ability to project power. While a clear QDR objective is to maintain a qualitative "overmatch" against traditional foes, it is equally clear that the current level of US overmatch is secure against any conceivable traditional opponent in the foreseeable future. These facts alone argue for a thorough reappraisal of the current focus of joint seabasing programs, which are currently focused rather narrowly on major combat operations.

A second key reason to question this assumption is a need to carefully reconsider the impact of the "10-30-30" planning metric. US armed forces already are the most agile, *globally* responsive military force in history. After the surprise attacks on September 11, 2001, they initiated a military counter-attack in a land-locked country located halfway around the world in less than four weeks. Later, in preparation for Operation *Iraqi Freedom*, the DoN was able to "put 60-70,000 Marine and Sailors into Kuwait, with all their equipment, ready to cross the line of departure in less than 60 days." ⁵⁵⁴ It is not at all clear what improving these already impressive strategic reaction timelines will provide the joint force, other than a general sense that "faster is better" and that "early measures" and quick action will help to "rapidly alter initial conditions" and "lock out" enemy options and strategies. ⁵⁵⁵

Any good commander wishes for a short and decisive outcome in any military confrontation. However, there is much wisdom in the old military maxim to "hope for the best, plan for the worst." Indeed, this maxim suggests why developing hard and fast *strategic* planning timelines for wars—be they "stretch goals" or not—is likely a foolhardy and destructive step. As discussed earlier, over the last hundred years or so,

⁵⁵⁴ Donna Miles, "Seabasing to Transform Marine Deployments, Commandant Says," *American Forces Press Service*, June 9, 2005.

See, for example, comments by Admiral Joseph Sestak, in Sharon Weinberger, "Navy Officials Outline Changing QDR Focus," *Defense Daily,* January 12, 2005; and comments made by Ryan Henry, Principal Deputy Undersecretary of Defense for Policy, in Jaffe, "Battle Lines: Rumsfeld's Push For Speed Fuels Pentagon Dissent." The ideas of "rapidly changing initial conditions" and "lock out" of enemy strategies are central to network-centric warfare theory. See Cebrowski and Garstka, "Network Centric Warfare: Its Origins and Future."

both military and political leaders all too often hope *and* plan for campaigns that are decisive, short, and cheap.⁵⁵⁶ The desire to seize the initiative in ten days and plans for two successive month-long wars against "traditional" military opponents over a span of 90 short days is just the most recent manifestation of this circumstance. However—and setting aside for the moment the destructive short-war mentality such thinking inculcates throughout the joint force—the four assumptions four assumptions upon which "10-30-30" is itself based—that the primary future threat will be traditional military challengers; that the primary force structure and planning scenario should be for two near-simultaneous traditional combat operations; that US dominance in guided weapons warfare will remain unchallenged; and that US adversaries will not adapt to this dominance—are all open to serious question.⁵⁵⁷

Moreover, while higher operating speeds are often vitally important in tactical encounters, and operating at a faster force tempo has enormous benefits at the operational level of war, the value of speed at the strategic level of war is far less clear. Why? Because the distinction between speed and time is much different at the strategic level, and prescribing *rapidity of action* as the best way to leverage time in war is often a recipe for strategic disaster. An emphasis on strategic speed contributed to the tragedy of World War I; doomed Japanese and German war planning for World War II; and likely contributed greatly to the lack of post-war planning for Operation *Iraqi Freedom*. All three examples provide evidence that an:

Obsession with speed denies the fundamental truth that in strategy, everything is contextual, and circumstance is paramount...In the end, the current think-

Jonathan B.A. Bailey, "Over By Christmas': Campaigning, Delusions, and Force Requirements," p. v.

⁵⁵⁷ Interestingly, OSD leaders are well aware that the "10-30-30" planning metric refers to traditional military challenges—a domain that the US already dominates. See "A Framework for Strategic Thinking: Building Top-Level Capabilities," PowerPoint brief to the DoD Senior Level Review Group, August 19, 2004, found at http://www.fas.org/irp/agency/dod/framework.pdf.

⁵⁵⁸ As just one contemporary example, see Arthur P. Brill, Jr., "Corp Combat Assessment Team Cites Need for Speed in Iraq," *Seapower*, February 2004, pp. 22-26.

⁵⁵⁹ Dr. Thomas Hughes, "The Cult of the Quick," *Aerospace Power Journal*, Winter 2001, found at http://www.airpower.maxwell.af.mil/airchronicles/apj/apj01/win01/hughes.html.

ing about speed mistakes an important and expensive capacity for an inherent and intrinsic advantage.⁵⁶⁰

Interestingly, this thought was explicitly captured in the Army's decade-long Army After Next project. As described by two of the project's leading thinkers:

One consistent study finding in the Army's series of war games has been that the crucial measure of successful force projection is not the speed with which the first combat element engages. Rather, it is the rate at which the United States and its allies achieve decisive operational superiority, depriving an enemy of freedom of action and making its ultimate defeat both inevitable and irreversible (emphasis added).⁵⁶¹

In other words, rather than injecting one or two combat brigades into a fight early and accepting a "vulnerability gap" in the hopes of seizing the initiative, perhaps a better way is to posture the force for an inexorable serial and parallel attack in which there are no exploitable vulnerability gaps. This statement seems especially apt considering the likelihood that future joint forces may have to confront a regional power armed with nuclear weapons, or which posses a hardened, redundant A2/AD network employing guided weapons. In both instances, speed of the initial combat response will likely be less important than the pace of deliberate counter-force and counter-network operations designed to achieve "decisive operational superiority."

Even more importantly, there is no evidence whatsoever that improved strategic speed will be decisive against "irregular" challengers, who will often rely on strategies that try to expand the strategic timeline in order to outlast the United States. As one official said, "I hate '10-30-30' because it forces us to get better at the things we are already good at and prevents us from dealing with irregular warfare where we are weak." ⁵⁶² As another strategist presciently wrote before Operation *Iraqi Freedom*:

⁵⁶⁰ Hughes, "The Cult of the Quick."

⁵⁶¹ Wass de Czege and Majchrzak, "Operational Maneuver From Strategic Distances."

⁵⁶² Jaffe, "Battle Lines: Rumsfeld's Push For Speed Fuels Pentagon Dissent."

...the fast, overwhelming and decisive application of maximum force in minimum time...may produce effective short term results [but it may] be irrelevant, probably even counterproductive, when matched against the very difficult internal problems that form the underlying problems in target countries.⁵⁶³

Given the unhappy outcome of the neglected Phase IV in Operation *Iraqi Freedom*, the distinct but subtle shifts from an emphasis on strategic speed to strategic agility and from rapidity of response to more moderated responses that are evident in both the *National Defense Strategy* and the 2006 QDR are indeed welcome. They suggest an Administration that is willing to alter its basic strategic approach. As one analyst recently wrote:

The greatness of a policy is not measured by the breadth of a geopolitical vision or the boldness of its goals and objectives; ultimately, it is measured by the mastery of the chronopolitical dimension in the course of policy implementation. For the past four years, time, in all its manifestations—duration, sequencing, timing, tempo, but also memory—has been the single most neglected strategic dimension of the Bush administration.⁵⁶⁴

The National Defense Strategy and the 2006 QDR take the first steps toward correcting the Bush Administration's neglect of the aspect of time in its strategic calculations. One would hope that the military would follow suit and jettison the baggage associated with "10-30-30." Instead of focusing on conducting a JFEO in 11-17 days, the zero baseline review of seabasing initiatives should be focused on the "rate at which the United States and its allies achieve decisive operational superiority." Such a move would be wholly consistent with the 2006 QDR's emphasis on agility and its more nuanced emphasis on strategic speeds of response. Even if the decision is ultimately made to retain "10-30-30," the development of an alternative seabasing plan unconstrained by this planning metric would help to identify what is being given up to get a two-week improvement in amphibious assault timelines and to thus help judge if the opportunity costs are worth it.

⁵⁶³ Hughes, "The Cult of the Quick."

⁵⁶⁴ Tony Corn, "World War IV as Fourth Generation Warfare," *Policy Review*, January 2006.

Old Assumption #2: "Operationalized" Maritime Prepositioning Ships Can Replace Amphibious Ships in the Assault Echelon of an Attack From the Sea

If there are questions about the assumption that seabasing should focus on the seize the initiative phase in a major combat operation against a traditional military opponent, then one must also question the assumption that an operationalized MPF(F) squadron should be included in the assault echelon of a JFEO. Recall that the Marines' original conception of the future maritime prepositioning force was that it should be able to support operational maneuver from the sea and ship-to-objective maneuver and conduct the underway replenishment of Marine forces maneuvering freely ashore. They were clear that the MPF ships should have nothing more than a supporting role in a joint forcible entry operation—delivering assault follow-on forces and providing logistics support. In other words, the Marines saw future maritime prepositioning forces as providing access-insensitive rapid reinforcement forces. Having such a force would eliminate the RSOI seam highlighted by the 1996 DSB Task Force on Strategic Mobility and help to close any "vulnerability gap" highlighted by the DSB Task Force on Seabasing. While these capabilities would allow MPF(F) ships to conduct independent operations in *low threat environments*, they were never intended to replace amphibious warships in the JFEO role in contested littorals.

During the course of concept development for the MPF(F), these thoughts gradually were ignored, rejected, or set aside. The Navy had a strong financial incentive to replace active crewed amphibious warships with commercially designed, MSC-crewed MPF(F) ships. Unquestionably, however, it was the adoption of the "10-30-30" metric that more or less mandated that MPF(F) ships be considered as providing the initial landing waves of a JFEO. Soon after "10-30-30" was incorporated into the DPG, the DSB Task Force on Seabasing endorsed the use of MPF(F) ships in forcible entry operations across the spectrum of operations. PA&E quickly seconded such a notion, although it couched its endorsement in terms designed to assuage Marine concerns when it wrote, "Even though the MNS states 'MPF(F) will not possess a forcible entry capability,' this does not preclude the AoA from evaluating MPF(F) as an augmenting forcible entry capability." Finally, after the JFEO PDM, the Joint Seabasing JIC envisioned maritime prepositioning force assets as having prominent roles in future forcible entry operations, primarily

because they could be used to get a brigade into a developing fight in as little as 11-17 days.

All this has a familiar ring to it. The idea behind Jackie Fisher's battle cruisers was that they would be fast enough to run away from any threat that could sink them and they could outgun any ship they could catch. In battle line operations, the lightly armored ships were supposed to race ahead and to scout ahead of the slower, more ponderous, but more well protected battle line consisting of heavily armored battle-ships, and to provide supporting fires when an enemy's battle line was engaged. Of course, the dividing line between a ship designed to operate as part of the battle line and a ship designed to support the battle line proved to be much greater than the dividing line in wartime between using an asset on hand and not using it. As a result, the battle cruisers played a much more direct role in the Battle of Jutland than intended by their designers, with disastrous results.

Sending a MPF(F) squadron racing ahead of an advancing joint multidimensional battle network into a contested littoral runs the very same risks. In trying to "seize the initiative" and shorten a war, the MPF(F) may find itself in a situation in which it is clearly overmatched. As one British general officer has written:

The desire and conviction that campaigns should, ought and in fact will be [short and decisive] has often led to the creation of forces to fight on terms other than those which prove optimal in the event. The result is that those seeking a short, decisive and cheap campaign have very often laid the foundations for the opposite. Their unpreparedness and delusions have abetted costly attrition, and the resulting bill in international calamity, casualties and materiel has been shocking. ⁵⁶⁵

Here's the bottom line: the notion that commercially designed, MSC-crewed ships should be part of the assault echelon of a JFEO in a contested littoral may be a potentially dangerous one. It is a notion based on concept studies and Power-Point briefings prepared primarily by people with no experience whatsoever in amphibious operations or seabased forcible entry operations in littorals defended by guided weapons. The idea of an "operationalized"

⁵⁶⁵ Jonathan B.A. Bailey, "'Over By Christmas': Campaigning, Delusions, and Force Requirements," p. v.

MPF(F) fleet may have some merit, but given the lack of operational experimentation to back it up, even this conclusion is very much open to question. The current squadron design is more the result of an engineering exercise, focused on solving the problem of transferring cargo in high sea states, transferring people and rolling stock between ships in high sea states using cranes and ramps, and shuttling cargo ashore from the ships to units ashore—and seasoned by industrial base concerns. Missing has been a broader, obvious question: even if envisioned MPF(F) operations are in the realm of engineering possibility, do they make sense in the context of a potential forcible entry operation in the Guided Weapon Warfare Regime?

It is clear, for example, that the makeup of the MPF(F) squadron will make the execution of any MPF(F)-supported amphibious assault far more complicated and risky than one using combat loaded, purposebuilt amphibious landing ships with built-in interfaces for both air and surface connectors. Before landing his force from an MPF(F) squadron, a MEB commander faces the prospect of conducting ship-to-ship transfers of both men and equipment among ships at night and in sea states 3 or 4, injecting further friction into one of the most complicated military operations imaginable. Indeed, the Naval Research Advisory Committee, after considering the difficulties involved in ship-to-ship transfers of heavy vehicles such as tanks and amphibious assault vehicles on ramps at night in heavy seas, recommended that future seabase ships have transverse side-hull openings for LCACs to enter the ship to be loaded and unloaded, just as they are in the well decks of amphibious ships.⁵⁶⁶ Instead, the MPF(F) squadron introduces a new "mobile logistics platform" which will mate with the larger LMSRs (making a huge, slowmoving target); receive equipment stored onboard the LMSRs slowly via ramps and cranes; combat load the equipment onto the LCACs carried by the MLPs; and then deliver the LCACs to their launch points.

While there have been some limited "proof of concept" experiments involving the transfer of equipment from one ship to another using ramps, there has been nothing like the pre-World War II amphibious experiments conducted between 1936 and 1941 which might reasonably be assumed to have proven the entire MPF(F) concept of operations. Indeed, it is hard to imagine General "Howling Mad" Smith accepting the assertions of PowerPoint briefings over the actual experimental results involving the transfer of a brigade's worth of equipment between

⁵⁶⁶ Polmar, "Sea Base Ships for the Future," p. 105.

ships, at night, in the rain, in high sea states, with tired Marines using night vision goggles, and without having the benefit of a rehearsal.

Moreover, does it make sense to tie two large cargo ships together when operating under the threat of guided missile or nuclear attack? The ships would be, for all intents and purposes, a giant, immobile target. If this were not enough, unlike the amphibs, the MPF(F) ships will carry no onboard armament, will be built to less stringent survivability standards, and will not be able to venture into a littoral contaminated by radiological, biological, or chemical fallout. Indeed, damage control on the MPF(F) ships will be the responsibility of the embarked Marines, since the small crew size of the MSC-manned MPF(F) ships will not be up to the task of ship-wide damage control on their own.

Additionally, the entire status of civilian mariners on an operationalized sealift ship is open to some question. While civilian mariners manning fleet auxiliaries and sealift ships have long enjoyed a protected status in international law during times of war, the status of civilians participating directly in the ship-to-shore maneuver of combat forces ashore from a civilian-manned ship in a JFEO is a gray area not previously considered. While the Navy is recommending a pilot program that assigns civilian mariners to a special reserve component that can be activated in times of conflict, the final direction of this issue remains very much open to conjecture.⁵⁶⁷

Recall also that in addition to supporting OMFTS and STOM, the MPF(F) squadron will perform as "station ships" for maneuvering forces ashore. Accordingly, the entire MPF(F) concept has been influenced heavily by logisticians. However, as was learned in the first Expeditionary Era, combining the maneuver support function and the heavy logistics function in one ship is a bad idea: the former demands heavy compartmentation for better survivability; the latter less compartmentation for better storage and accessibility for supplies. Might not the same notion of not combining maneuver and logistics functions apply to the maritime prepositioning force squadron as a hole? Said another way, might not a MPF(F) squadron designed to support OMFTS and STOM call for a different design than one focused on the logistics support function? As suggested earlier, and as will be discussed further in a moment, new "J-LKAs" (T-AKE variants) need not be tied directly to a MPF(F) program. Instead, they could easily operate as part of an

⁵⁶⁷ See Jane G. Dalton, "Future Navies-Present Issues," *Naval War College Review*, Winter 2006.

expanded Combat Logistics Force or Logistics Prepositioning Force. Indeed, it seems highly unlikely that these ships will not be used to augment CLF operations in support of the fleet.

This brings up yet another unresolved issue. It is hard to imagine that three ships as expensive and capable as the two LHA(R)s and single LHD, or three ships as versatile as the MLP in the delivery of cargo ashore in austere environments, or three CLF ships as capable as the T-AKEs will not find themselves being routinely diverted to support global joint and naval missions, such as serving as AFSBs, responding to disaster relief operations, or just supporting the forward operations of the fleet. If this likely occurrence takes place, just how quickly can the single MPF(F) squadron be assembled and prepared for combat? Any delay in reconstituting the MPF(F) squadron would simply shave off any of the already narrow advantage the squadron would have over an amphibious task force.

In summary, in addition to the not insignificant monetary costs, the wartime price paid to "operationalize" the MPF(F) se improvements may be quite high. *May* be, because unlike the two-decade plus experimental process used to identify both how naval aviation might be best integrated into battle fleet, which included the development of operational prototypes to determine the best design characteristics for the naval aviation seabases themselves (i.e., aircraft carriers), the DoN is charging after a MPF(F) squadron organization and an MPF(F) role with no operational precedent and having conducted no *operational* experiments that confirm the squadron's platforms can even perform their envisioned role in wartime operational scenarios. The entire move toward MPF(F) should thus be delayed pending a thorough review of the operational concept. In the meantime, the current MPF leases should be bought out.

Old Assumption #3: The Future Amphibious Landing Force Should be Optimized for Aerial Maneuver

The assumption that future amphibious operations should emphasize aerial maneuver, and the associated assumption that the amphibious landing force should be optimized to support aerial maneuver, likewise needs to be challenged and subjected to close scrutiny. Recall that these particular assumptions were introduced by the DSB Task Force on Seabasing. In fairness, however, the DSB assumption was based on a long developmental planning timeline. This important caveat was subsequently overlooked by Admiral Clark and the Navy staff, who successfully argued for the removal of the well deck from the LHA(R) design, a "desirement" cut justified on the basis of saving money.

As mentioned earlier, the genesis of the DSB's air maneuver concepts can be traced to US Marine thinking about the impact that atomic weapons might have on amphibious operations in the late 1940s. These musing led to the idea of using helicopters to vertically envelop shore defenses in order to open up high-speed avenues of advance for surface assault elements. After the Marines' successful battlefield use of helicopters in the Korean War to move troops along the "main lines of resistance," these early ideas for vertical envelopment were expanded to include the idea of direct aerial ship-to-objective maneuver and quick-hitting vertical assaults during sustained operations ashore. ⁵⁶⁸ Indeed, this new line of thinking spurred DoN experimentation throughout the 1950s with helicopter carriers—converted World War II CVEs and CVs—and ultimately led to the development of the Landing Platform Helicopter, or LPH, an improved World War II CVE design with accommodations for a full Marine battalion and a squadron of helicopters. ⁵⁶⁹

Although the US Army Air Force had acquired helicopters well before the Marines in World War II, post-war budgetary constraints and inter-service squabbles with the newly formed US Air Force limited early Army use of helicopters to casualty evacuation, aerial resupply, and other light aviation tasks. However, toward the end of the Korean War, the Army acquired several Marine-developed CH-19 *Chickasaws* and subsequently used them to carry out a small number of battlefield troop movements of their own. The promise of helicopter-borne troop movements caught the attention of 1950s Army leadership, which included a large number of World War II airborne officers. These officers were mightily attracted to the emerging idea of helicopter-enabled "air mobility"—the "New School" of airborne thinking—because it held the promise of solving two of the biggest problems associated with airborne drops: wide dis-

⁵⁶⁸ For a good contemporary description of US Marine combat helicopter operations during the Korean War, see Montross, *Cavalry of the Sky*.

⁵⁶⁹ Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, p. 190; and Freidman, *US Amphibious Ships and Craft*.

persal and tactical disorganization of the air-landed force; and a severe lack of tactical mobility for paratroopers once they had landed.⁵⁷⁰

Moreover, Army leaders were as concerned about atomic weapons as the Marines. The advent of atomic weapons had rendered massed parachute drops all but impossible. Indeed, atomic weapons seemed to present Army leaders with a tactical dilemma: while nuclear devastation would make the speedy maneuver of ground forces very difficult, rapid tactical movement was necessary for ground force survivability. Generals like Matthew Ridgeway and James Gavin saw the helicopter as the means to solve this dilemma, and increasing extolled the role of the helicopter in battlefield reconnaissance, screening, exploitation, and pursuit—the traditional roles of cavalry. As a result, the Army enthusiastically pursued the idea of helicopter-borne Air Cavalry and pioneered the use of helicopter gunships to provide these units with their own organic close air support. Original plans were to organize no less than five helicopter assault divisions.⁵⁷¹

Army and Marine enthusiasm for air cavalry, air assault, and vertical envelopments was tempered somewhat by their experience in the Vietnam War, which proved that rotary-winged aircraft operations in the face of even light defenses were risky propositions. Over the course of the Vietnam War, US forces lost approximately 5,000 helicopters out of a total of 11,827 that operated in theater—a combined loss rate of over 40 percent.⁵⁷² During Operation Lam Som 719, the last major Army air assault operation of the Vietnam War, 100 helicopters were lost and another 400 damaged in just four weeks—and these losses came *before* the April 1972 battlefield employment of man-portable guided anti-helicopter weapons like the US *Redeye* or Soviet SA-7 *Strela*.⁵⁷³

⁵⁷⁰ Major Rodney Propst, USMC, "The Marine Helicopter and the Korean War," found at http://www. globalsecurity.org/military/library/report/1989/PRN1. htm; Matthew Allen, *Military Helicopter Doctrines of the Major Powers*, 1945-1992 (Westport, CT: Greenwood Press, pp. 1-6.

⁵⁷¹ Allen, *Military Helicopter Doctrines of the Major Powers, 1945-1992*, p. 6; and "Helicopters at War," found at http://www.centennialofflight.gov/essay/Air_Power/Heli_at_War/AP42.

⁵⁷² One estimate for losses was 5,086 helicopters; see "Helicopter Losses During the Vietnam War," found at http://www.vhpa.org/heliloss.pdf. Another source puts the losses at 4,869. See "Helicopters at War."

Future Force: Building a Better Army," *Parameters*, Winter 2003-04, p. 25.

Based on the hard-learned lessons of Vietnam, DoN and Marine planners made two major course corrections—one during and one after the war. First, they rejected further LPHs, opting instead for the bigdeck amphibious assault ships that combined both the aviation support capabilities of an LPH and the wet well deck of a LSD or LPD. This provided the ships with interfaces for both air and surface "connectors," giving them far more flexibility in amphibious landing operations, and enabling them to modify the landing plan based on the primary threat ashore. Second, after being rebuffed by OSD in their attempts to pursue a replacement for their battered Vietnam-era helicopter fleet, they decided to pursue tilt-rotor aircraft for the vertical envelopment mission. Because of its greater speeds and higher operating ceilings, a tilt-rotor promised to have greater operational reach and survivability than any helicopter, and faster troop build-up times, especially over long ranges.⁵⁷⁴

After Vietnam, Army planners also pursued a different direction for their air assault units. Generally satisfied with the capabilities of the helicopter, they concluded that only their concept of employment needed to be changed. As a result, they gradually moved away from the concept of air assault and toward the "New, New School" of airborne thinking—aerial maneuver, landing forces deep behind enemy lines where the enemy wasn't, and deep attack, attacking enemy armored concentrations with helicopter gunships. The deep aerial maneuver of the 101st Air Assault Division during Desert Storm was a clear demonstration of the idea of aerial maneuver.⁵⁷⁵ The development of the AH-64 Apache, an armored gunship armed with stand-off guided weapons, and its successful employment during Operation Desert Storm, embodied the Army's new ideas about deep attack.⁵⁷⁶

See the sections entitled "V-22 History: HXM," and "V-22 History: JVX," at http://www.globalsecurity.org/military/systems/aircraft/v-22.htm.

During the ground war phase of Operation *Desert Storm*, the 101st lifted more than 2,000 men, 50 transport vehicles, artillery, and tons of fuel and ammunition 50 miles into Iraq to set up Forward Operation Base (FOB) Cobra. Subsequently, the 101st was tasked to seize Highway 8, which was used to resupply the Iraqi Army from Baghdad. To accomplish this, the division conducted the largest Air Assault in history. The division lifted by helicopter from FOB Cobra to set up FOB Viper, which was used as a base of operations to attack Iraqi Army units withdrawing from the Kuwait border. See "101st Airborne Division (Air Assault)," at http://www.globalsecurity.org/military/agency/army/101abn.htm.

⁵⁷⁶ See "AH-64 *Apache*," at http://www.fas.org/man/dod-101/sys/ac/ah-64.htm.

During the 1990s, leaders associated with the Army After Next project began to combine the thinking of aerial maneuver with the emerging ideas of operational maneuver from strategic distances to form an even broader vision: air mechanization. As has been noted, the leading proponent of this "New, New, New School" was Army Major General Robert H. Scales, Jr. In his judgment, while landing foot-mobile forces where the enemy wasn't might be good for setting up static blocking positions, it was far less suited for offensive operations or operations designed to maintain pressure on an enemy. As a result, General Scales envisioned the insertion of light, mobile, armored combat units directly into an enemy's defended battlespace from intra-theater bases located 500 miles from the enemy's defended territory. The means for insertion would be either C-130s tactical transports or advanced "Air Maneuver Transports."577 Indeed, the requirement that the Army's new Future Combat System (FCS) must be transportable by C-130 tactical transports was driven both by strategic deployability concerns and the promise of air mechanization.⁵⁷⁸

Despite the concept's attractions, the size and cost of a tactical transport force designed to support the aerial maneuver of even one large armored combat unit from bases more than 500 miles away would be substantial. However, much more troubling is the recent combat experience gained in Somalia, Afghanistan, and Iraq, which suggests that air maneuver and air mechanization operations in the maturing phase of the Guided Weapons Regime promise to be every bit as risky as airborne drops were in the earlier Unguided Weapons Regime.⁵⁷⁹

⁵⁷⁷ Wilson, et al, "An Alternative Future Force: Building a Better Army," p. 25. See also, Major General Robert H. Scales, Jr., "Operational Maneuver in 2015," an undated PowerPoint presentation.

⁵⁷⁸ Andrew Koch, "Boost for Sea-Basing Concept."

movie), helicopters are especially vulnerable near the ground. The book tells of the harrowing aftermath of a "snatch and grab" operation in downtown Mogadishu, Somalia, after several helicopters were shot down. See Mark Bowden, Blackhawk Down: a Story of Modern War (New York, NY: Grove Atlantic, 1999). A version of the story can be found online at http://inquirer. philly.com/packages/somalia/sitemap.asp. During Operation Anaconda in Afghanistan, Army helicopters that were inserting Special Operations and Army combat units were ambushed in their landing zones. One helicopter was shot down and another forced to land. Enemy units surrounding the landing zone kept American units pinned down for some time, and inflicted numerous casualties. For a gripping account of Operation Anaconda, see Sean Naylor, Not a Good Day to Die (New York, NY: Penguin Group, 2005). See also "Operation Anaconda," found online at http://www. globalsecurity.org/military/ops/oef-anaconda.htm. British Royal Marines thought the operation

Proponents of aerial maneuver and air mechanization would undoubtedly object to this conclusion, countering that these experiences were all with more vulnerable helicopters rather than with more modern tilt-rotor aircraft or advanced air transports, and that the idea of aerial maneuver is to land where the enemy isn't, and not on top of prepared positions or defenses. However, the fact that all of these aforementioned losses occurred in unsophisticated, non-guided weapon tactical environments, and the absurdity of thinking that an aerial insertion force will never be surprised by the unexpected appearance of defenders in a landing zone undercut both these two counter-arguments. As a recent RAND study on lessons learned from Operation *Iraqi Freedom* concluded:

Though planned, no air assault operations were undertaken, primarily because the risks outweighed the expected benefits...The experience in Iraq involving the employment of attack helicopters raises questions about some of the emerging concepts that place high reliance on so-called vertical envelopment operations deep into enemy territory.⁵⁸⁰

As other RAND analysts make clear, a rapid aerial *deployment* capability remains an enviable goal. However, the recent relaxation in the Future Combat System's weight requirements from 20 to 24 tons makes its transport in a C-130 increasingly unlikely, and points to the technical challenges associated with developing an air mechanization system of systems. Indeed, the tale of the FCS and its C-130 transportability supports their opinion that, greater emphasis needs to be placed on pre-positioning options in different theaters and increased exploitation of *high-speed sealift technologies*. This was the same conclusion reached by the Institute for Defense Analysis, which concluded that sea lift would be the fastest mode of global transportation for future FCS Brigade Combat Teams, anywhere and anytime.

to be a "disaster;" see discussions about the operation at http://en.wikipedia. org/wiki/OperationAnaconda #March12.2C2002. And in Operation *Iraqi Freedom*, all air assault operations were cancelled because the risks were judged greater than the expected benefits. RAND, "Iraq: Translating Lessons Into Future DoD Policies," transmitted to Secretary of Defense Donald Rumsfeld via a letter dated February 7, 2005.

⁵⁸⁰ RAND, "Iraq: Translating Lessons Into Future DoD Policies."

Wilson, et al, "An Alternative Future Force: Building a Better Army," p. 24.
 Cynthia Dion-Schwarz, et al, Future Combat System (FCS) Vehicle Transportability, Survivability, and Reliability Analysis (Alexandria, VA: Institute for Defense Analysis, April 2005). This study was made before the

On the other side of the coin, a future combined arms force landing from the sea will be able to generate tactical speeds unheard of in previous eras. To get an idea of the potential problems a defender might face against a future combines arm maneuver force operating from a secure seabase, think of Operation *Iraqi Freedom* as a breakout from an amphibious lodgment area. US Marine columns, using the same equipment they would have used in an amphibious surface landing, were able to move over 400 miles inland in little more than three weeks. They accomplished this impressive feat of arms by concentrating a relatively small number of tanks at the heads of their columns; screening the columns' flanks with airpower; disrupting enemy blocking movements by massed guided weapons fire; and using high volume artillery fire to suppress enemy forces encountered in meeting engagements. By-passed enemy forces were able to harass the supply lines of these fast-moving columns, but never enough to threaten the momentum of their advance.

Recall that the DSB's rejection of future surface maneuver derived from their belief that mines and precision fires would prevent surface "amphibious operations." However, it is highly unlikely that an enemy will be able to plant minefields that are equally strong along his entire coast. By using the sea as a base for maneuver, a seabased maneuver force can probe the enemy's defenses to determine where they are the weakest, and then land its forces ashore after opening a littoral penetration point covered by its formidable defensive and offensive fires. As the Japanese demonstrated when they attacked Singapore by land rather than by sea, the preferred way to attack a land-based "fort" is to envelop or attack it from an unexpected direction. Using OIF as a model, a future Marine surface assault could land via amphibious tractor and landing craft up to 400 miles away from a defended littoral penetration point and, covered by battle fleet guided weapons fire, move quickly to attack the forces located there in less than a month. Future improvements to current ship-to-shore surface connectors, such as improved LCACs (which now can travel at 40 knots, traverse 70 percent of the world's beaches, and deliver tanks, artillery, and other protected armored vehicles beyond the surf line and beach), and new surface assault platforms like the new Expeditionary Fighting Vehicle (the Marines' high-speed replacement for their old amphibious assault tractors), will provide 21st

Army concluded that the weight of the Future Combat System would need to climb to 22,000 kilograms—about 5,000 kilograms more that can be lifted by the C-130—to meet all survivability requirements. See Joshua Kucera, "FCS Planners Opt For Heavier Vehicles," *Jane's Defense Weekly*, June 29, 2005, p. 4.

century battle fleet with means to conduct even more effective, distributed, high-speed surface attacks from ships at sea.⁵⁸³

This discussion is not meant to imply that aerial maneuver should be completely abandoned. It is offered instead only to make the case that the DSB vision, subsequently accepted by the Navy, likely over emphasizes the importance and capability of aerial maneuver operations in the Guided Weapons Warfare Regime, and that battle fleet transformation plans need be careful about under-emphasizing the effectiveness of surface maneuver. It is the balance of aerial and surface maneuver capabilities that will give future sea-based maneuver forces their enormous flexibility. Aerial maneuver will be especially valuable for the raids and counter-sanctuary operations consistent with the Global War on Terror; for carefully planned raids and screening operations in defended and contested access scenarios; and for supporting attacks during major combat operations. However, for the foreseeable future, the joint force likely will benefit from having a capability to insert mobile combined arms teams from a mobile seabase. Therefore, the future Expeditionary Maneuver Force should be designed to support aerial and surface assaults equally effectively. If true, the aforementioned decision to close well decks on the LHA(R) should be carefully reconsidered; and untested landing schemes like those associated with the MPF(F) should be subjected to major operational testing and evaluation before pursuing them.

If questioning old seabasing assumptions is an important part of any zero baseline review, so too is developing new assumptions. As the foregoing discussion suggests, however, great care must be taken when making these new assumptions, since they will have as important an influence as did the assumptions that seabasing should focus on the "seize the initiative phase" of a traditional power-projection operation, and that the future amphibious landing fleet should be optimized to support aerial maneuver. Based on a thorough review of the guidance found in the 2006, one possible new assumption stands out: that the future Expeditionary Maneuver Fleet must be prepared to operate under threat of nuclear attack.

⁵⁸³ See "Expeditionary Fighting Vehicle," at http://www.efv.usmc.mil; and Hunter C. Keeter, "EFV Brings Improved Range, Lethality to Marines," *Sea Power*, November 2003, p. 20.

New Assumption #1: The Future Expeditionary Maneuver Fleet Must be Prepared to Operate Under Threat of Nuclear Attack

Recall that the 2006 QDR calls for "a growing emphasis on WMD elimination operations that locate, characterize, secure, disable and/or destroy a state or non-state actor's WMD capabilities and programs in hostile and uncertain environments." Moreover, the QDR directs the services to be prepared to sustain operations even under WMD attack—a requirement consistent with current joint doctrine.⁵⁸⁴

This new emphasis on being able to mount counter-proliferation operations, to posture one's forces to be able to absorb attacks involving a small number of nuclear weapons, and to be able to sustain operations thereafter is an unfortunate new requirement in the Joint Expeditionary Era, explained, in part, by the awesome overmatch enjoyed by the US armed forces in the Guided Weapons Warfare Regime. As suggested by the stunning swiftness of the major combat operations phase of Operations Enduring Freedom and Iraqi Freedom, US joint battle networks employing large numbers of guided weapons have changed the calculus on the "traditional" battlefield, or in any battlefield scenario where an adversary chooses to mass, stand, and fight. Potential US adversaries have taken note, and many are pursuing nuclear weapons to deter US attacks. As one noted strategist has written, "In Iran and North Korea...the invasion of Iraq appears to have convinced leaders in those countries that they must have a nuclear capability of their own. Far from deterring them, the United States may have pushed them into finding ways to deter it." 585

Should countries like North Korea and Iran acquire nuclear weapons, and these weapons are perceived as having protected these countries from US interventions, more countries may also opt to pursue them. Indeed, Paul Bracken argued in 2000 that the world was on the verge of a "second nuclear age" in which nuclear weapons are acquired by as many as ten Asian nations from Iran to North Korea with the aim of reversing

⁵⁸⁴ For example, "The threat of [weapons of mass destruction] extends across the range of military operations...In all cases, friendly forces should *be prepared to conduct and sustain operations* in such environments" (emphasis added). Joint Publication 3-12-1, *Doctrine for Joint Theater Nuclear Operations* (Washington, DC: Joint Staff, 9 February 1996), p.III-8.

⁵⁸⁵ In Gaddis, "Grand Strategy in the Second Term," p. 10.

the centuries of Western domination that began with Vasco da Gama's landing in India in 1498.⁵⁸⁶ Another expert, Dr. Andrew F. Krepinevich, agrees, worrying that the US may soon face a 5,000-mile "Arc of Atomic Instability" stretching from the Persian Gulf to North Korea.⁵⁸⁷

The conventional wisdom is that no responsible or even irresponsible nation would actually employ these weapons. But in the words of strategist John Gaddis:

States that have acquired nuclear weapons have so far handled them carefully. To take comfort in this pattern, however, is like trying to find reassurance in an extended game of Russian roulette: sooner or later the odds turn against you.⁵⁸⁸

Conventional wisdom also relies on the notion of nuclear retaliation to forestall attacks involving nuclear or other weapons of mass destruction. However, in the words of one expert:

...it is entirely unlikely that Pyongyang's or Tehran's calculations, let alone al Qaeda's, hinge on whether the United States has 6,000, 3,500, or 2,200 deployed strategic weapons (the numbers permitted under the last three rounds of US-Russian nuclear arms agreements), retains tactical nuclear weapons deployed in Europe, forswears nuclear retaliation for chemical or biological weapons use, or develops new types of nuclear weapons.⁵⁸⁹

Indeed, analysts at the Army's Institute for Land Warfare have concluded that a future enemy might not believe that the United States would decimate an entire country in retaliation for a single nuclear strike, and thus would be *more* apt to attempt such a limited strike. ⁵⁹⁰ No wonder, then, that a group of RAND analysts recently wrote that:

Paul Bracken, "The Second Nuclear Age," *Foreign Affairs*, January/February 2000, pp. 147-49.

⁵⁸⁷ Dr. Andrew F. Krepinevich, Testimony before the House Armed Services Committee on the 2005 Quadrennial Defense Review," September 14, 2005, found online at https://ucso1.hq.navy.mil/n7/webdoco1.nsf/lookup/CC27A11FED910C2085257084004D1D9E/\$file/Krepinevich9-14-05.pdf.

⁵⁸⁸ Gaddis, "Grand Strategy in the Second Term," p. 11.

⁵⁸⁹ Carter, "How to Counter WMD," p. 81.

⁵⁹⁰ "The Return of Nuclear Weapons: Threats, Proliferation and the United States," p. 3.

Following the end of the Cold War, the United States military placed emphasis on planning for wars against regional opponents who lacked nuclear weapons. A key assumption on the part of the United States was that middle-sized regional powers such as Iraq or North Korea would not have nuclear arms. However, the emergence of a nuclear-armed Korea has rendered this assumption obsolete...This will change how the United States plans and executes combat operations against such nations...All the Services will need to come to grips with the realities of fighting in a military environment where there could be limited use of nuclear weapons. The joint operational concept of any future large-scale forcible entry operation and the ensuing campaign of regime change will have to be redesigned to minimize the vulnerability of those forces to nuclear attack (emphasis added).591

Even setting aside a possible nuclear confrontation with a middlesized regional power, the US might be forced to adopt a more aggressive counter-proliferation posture. As Henry Kissinger wrote in March 2005:

... the spread of nuclear weapons, especially in regions of revolutionary upheaval, will produce a qualitatively different world whose perils will dwarf the worst nuclear nightmares of the Cold War. Such a world is all too likely to culminate in a cataclysm followed by an imposed international regime for nuclear weapons (emphasis added).⁵⁹²

An "imposed international regime" would likely include: threats or acts of intervention to prevent some regimes from acquiring nuclear weapons; threats or acts of intervention against nuclear-armed states suspected of selling nuclear weapons technologies to rogue states or extremists; and operations designed to seize or destroy nuclear weapons in a failed nuclear-armed state. Add to these threats or acts of intervention against a regional power using nuclear weapons to blackmail

⁵⁹¹ F. Stephen Larabee, John Gordon IV, and Peter A. Wilson, "The Right Stuff: Defense Planning Challenges for A New Century," *The National Interest*, Fall 2004, p. 52.

⁵⁹² Henry A. Kissinger, "Iran: A Nuclear Test Case," *The Washington Post*, March 8, 2005, p. A15.

local powers. Any or all of these operations would likely be vigorously opposed by the respective regimes.⁵⁹³

US use of nuclear weapons, or even a declared policy of potential "first use" of nuclear weapons in any of these circumstances, would likely be counter-productive to its own interests. As explained by one expert:

To the extent that international support for these US-led [counter-proliferation] efforts is influenced by nuclear policy...a growing reliance by Washington on nuclear weapons for its security would complicate its efforts to marshal international cooperation against WMD terrorism and overhaul nuclear arms control regimes....So Washington should carefully weigh the marginal benefits of new nuclear capabilities for deterrence and destruction against their diplomatic costs to the overall counter-proliferation effort....The costs of crossing the nuclear threshold would be high [for the United States].

...DOD should seek to widen the already huge gap between its conventional military capabilities and those of other nations, develop better non-nuclear counters to WMD, and use transformational technology to narrow the range of circumstances in which the United States would resort to nuclear weapons. With such an approach, nuclear weapons would play an enduring but background role as a deterrent of last resort (emphasis added).⁵⁹⁴

This entire discussion suggests that the US armed forces consider the tactics, techniques, and procedures necessary to project conventional power under the threat of nuclear attack. In this regard, seabasing would likely be a critical part of any operational plan that relied on con-

supported by their populations, which consider nuclear weapons are often supported by their populations, which consider nuclear weapons an important prerogative of national sovereignty. The issue of nuclear sovereignty is especially evident in Iran (a nation seeking nuclear weapons) and Pakistan (a nation that possesses them). For example, Munir Akram, Pakistani Ambassador to the UN, during debates over a UN Resolution to criminalize the proliferation of nuclear materials, stated in April 2004 that "Pakistan will not accept any demand for access, much less inspections, of our nuclear and strategic assets, materials and facilities."

⁵⁹⁴ Carter, "How to Counter WMD," p. 82.

ventional forces armed with guided weapons to take on nuclear-armed states or actors. Indeed, given the associated risks and dire consequences of such operations, the threat of nuclear attack seems to be one of the very few circumstances that might dissuade every country within a theater of operations from allowing US forces base access. The ability to project power from the sea in these instances will thus likely be a critical joint capability.

As a result, DoN planners would do well to pursue new capabilities and to change fleet operational and tactical approaches in order to improve the fleet's ability to operate in and from littoral waters threatened from attack by a relatively small number of nuclear warheads or other weapons of mass destruction. ⁵⁹⁵ This might suggest an increased emphasis on assault seabases composed entirely of amphibious warships.

Step Three: Reviewing Current Seabasing Capabilities, Diagnosing Deficiencies, and Developing Alternative Plans

Once having scrubbed and either accepted or rejected old assumptions, and having developed new assumptions, the participants of a joint zero baseline review should next conduct a thorough review of current seabasing capabilities, diagnose the most pressing seabasing deficiencies, and develop some reasonable alternatives. While there are many ways to structure such a process, one logical approach might be to analyze capabilities associated with different **seabasing functions**. By so doing, planners can then engage in a meaningful discussion of operational and resource tradeoffs across all seabasing initiatives. The following section provides a quick example of how such a diagnosis might be conducted.

⁵⁹⁵ See "CBRN Defense—Still Required After the Demise of the East-West Confrontation?" *Naval Forces*, No. III, 2005, pp. 29-34.

Strategic/Prompt Global Conventional Strike Operations

The US has used the sea as a base for strategic (i.e., nuclear) strike operations since 1960. Indeed, SSBNs have long been considered the most survivable of US nuclear forces, thereby underwriting the nation's deterrence policy and posture. Until very recently, the strategic strike seabase consisted of 18 *Trident*-class SSBNs.

These 18 submarines, by themselves, could carry a maximum of 3,456 warheads, much more than the maximum of 2,200 warheads called for in the most recent arms reduction agreements, and twice again as many as the maximum number of allowable submarine launched warheads (1,728).⁵⁹⁶ Therefore, the strategic strike seabase had excess capacity for its nuclear warfighting mission. To reduce this capacity and to align the strategic strike seabase with established arms control limits, the DoN removed four SSBNs from service and, at their regularly scheduled mid-life engineering refueling overhaul, converted the SSBNs into SSGNs—cruise missile and special forces transport submarines armed with up to 154 *Tomahawk* land attack cruise missiles and capable of carrying up to 102 special operations personnel, their equipment, and delivery systems (to be discussed in more detail in a moment).⁵⁹⁷

Even after removing these four submarines from service, however, the strategic strike seabase retained excess warfighting mission capacity. As a consequence, and hastened along by an emerging operational requirement to strike fleeting high-value targets anywhere in the world within 30 minutes, OSD and DoN officials are discussing the aforementioned possibility of removing two of the 24 nuclear-tipped missiles carried by *Tridents* and replacing them with *conventionally* armed ballistic missiles. This would, in effect, transform the nuclear strategic strike seabase into a multi-mission strategic/prompt global conventional strike seabase.

Setting aside the obvious arms control issues such a mixed load might raise with other nuclear-armed powers, particularly Russia and China, there still remains a question about the proper size for this

⁵⁹⁶ Each Trident submarine carries 24 Trident D-5 SLBMs, for a class total of 432 missiles. Each D-5 can carry as many as eight Mk5 reentry bodies, for a maximum total of 3,456 warheads. See Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, p. 531.

⁵⁹⁷ For a description of the SSGNs, see Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, pp. 72-74.

multi-mission seabase.⁵⁹⁸ Assuming 22 nuclear-armed *Trident* D-5 SLBMs per boat, with each missile capable of carrying up to eight Mk 5 reentry warheads, the force could still generate an attack consisting of 1,848 warheads. With 450 single warhead Minuteman III intercontinental ballistic missiles in the nuclear strike force, the force would still have excess capacity, even before considering warheads carried by the nation's bomber forces. As a result, future D-5 missiles could be "downloaded" to carry only 4 warheads apiece, and the force's patrol rate ("optempo") may be reduced.⁵⁹⁹

Another option might be to maintain a high force patrol tempo but to further reduce the number of *Tridents* in the multi-mission strategic/prompt global conventional strike seabase. This would free up additional excess boats to convert into other seabasing platforms. In this regard, interviews with officers from the Navy staff and US Strategic Command indicate there would be little problem in reducing the fleet to 12 boats. However, there was much disagreement over whether the force could be reduced to ten boats, and unanimous agreement that the force should not be reduced below ten boats.

Accordingly, two major questions to be answered in the zero baseline review for seabasing should be whether or not to reduce the size of the multi-mission strategic/prompt global conventional strike seabase, and what to do with the excess SSBNs should a decision be made to do so.

Global Patrolling and Scouting and Rapid Crisis Response Operations

The US Navy and Marine Corps have exploited the world's oceans for a base for global patrolling and scouting since the birth of the Republic—long before the US could claim command of the seas. In the Continental Phase of national policy, these patrols were to provide protection for American merchantmen and to guard US interests in distant theaters. They also positioned the force to transition to commerce raiding should

⁵⁹⁸ For a pessimistic view that the arms control issues of operating SSBNs with mixed loads of nuclear and conventionally-armed SLBMs, see Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, p. 62; see also Steve Andreasen, "A Misguided Missile Proposal," *Philadelphia Inquirer*, March 14, 2006.

⁵⁹⁹ Polmar, *Ships and Aircraft of the US Fleet*, eighteenth edition, p. 62 and p. 531.

war break out against another power. During the Oceanic/Expeditionary Era, these forward patrols were normally carried out by small, less capable fleet units as the battle line was concentrated in home waters. During the Transoceanic/Garrison Era, however, the battle fleet took to manning rotational naval "garrisons" around the periphery of the Eurasian landmass with "combat credible" global patrols. Throughout the Cold War, and owing to their politically unfettered global mobility, these combat credible naval task forces served as rapid response forces to brewing crises. As such, they represented the leading edge of a more determined battle fleet surge operation should one become necessary, serving in a valuable advance force and scouting role.

The "600-ship Navy," the ultimate Cold War fleet, was designed around a requirement to maintain the continuous presence of one carrier battle group and one amphibious ready group with a battalion-sized Marine Air-Ground Task Force (MAGTF) embarked in each of three major patrol hubs: the Mediterranean, the Persian Gulf/Indian Ocean. and the Western Pacific. This requirement was often described in terms of maintaining a 3.0/3.0 presence forward (one carrier for each patrol hub, one amphibious group for each patrol hub). These regional patrols were to be augmented by the periodic deployment of one battleship surface action group (BB SAG), consisting of a modernized World War II *Iowa*-class battleship and several modern combatants. The "600-ship" Navy thus included a carrier force of 16 big-deck carriers; 14 three-ship ARG/MEUs; and four BB SAGs. 600 Despite this requirement, however, the average size of both the post-World War II carrier and amphibious landing fleets often precluded maintaining a 3.0/3.0 CVBG and ARG/ MEU forward patrol presence, resulting in periodic "gaps" in naval patrol coverage.

During the 1990s, both the Navy and the Marines generally remained wedded to the idea of conducting global patrols with CVBGs and ARG/MEUs. The only adjustments made to the Cold War patrolling pattern were forced by a reduction in the carrier force to 12 carriers, the retirement of the battleships (for the third time since World War II), and the retirement of large numbers of amphibious landing ships. As a consequence, the Navy took to covering CVBG patrol gaps with seven *Tomahawk*-armed surface action groups composed of three sur-

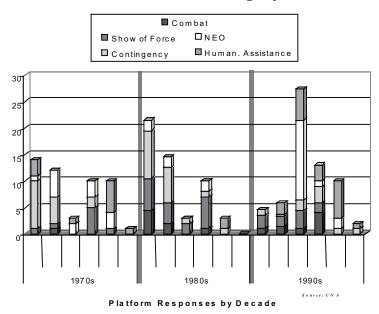
⁶⁰⁰ One stationed in Japan to provide a continuous presence in the Western Pacific; a rotational pool of eight to provide a continuous "1.0 presence" in the Gulf; a rotational pool of six to provide a "1.0 presence" in the Med; and one carrier in long-term maintenance overhaul.

face combatants, and the ARGs were reduced in size from four or five ships to a standard mix of three ships (one big-deck amphibious assault ship, one LPD, and one LSD). The only substantive innovation in patrolling schemes was the practice of conducting "split ARG operations," in which the LPD separated from the amphibious big deck and the LSD and conducted independent missions. Indeed, the new LPD-17 design was explicitly designed for these independent split-ARG missions.

In contrast, since 2001, reflecting both the accelerated pace of change brought about by the arrival of the Bush Administration as well as the galvanizing effect of the September 11 attacks and the subsequent GWOT, there have been no fewer than four alterations to the battle force's global patrolling and scouting plans. These have included distributing Navy missile strike power by taking three combatants away from the CVBG and giving them to the ARG/MEU, resulting in the formation of 12 Carrier Strike Groups and 12 Expeditionary Strike Groups; adopting a new Flexible Deployment Concept and Fleet Response Plan to vary the timing of CSG deployments and to better posture the carrier fleet for surge operations; converting four SSBNs to SSGNs to provide the special operations forces with global covert patrol bases; and transitioning from *Tomahawk* SAG patrols to Theater Air and Missile Defense/Strike Groups patrols, reflecting a new fleet mission: providing ballistic/cruise missile and air defense not only for naval task groups, but also for joint forces operating ashore. Note that the formation of the ESGs reflects a desire to distribute Navy guided missile striking power and the decreased open-ocean threat to the carriers; in the process, it helps preserve surface combatant force structure.

Despite these welcome steps, more variation in the battle force's global patrolling and scouting plans and operations is likely warranted. As Admiral Clark commented later in his tenure as CNO, the predictable nature of battle force rotational deployments was out of place in an unpredictable world. Additional changes might include varying the types of aviation patrol platforms (to be discussed in more detail in a moment); increasing the number of SOF patrol bases—both overt and covert; and varying the types and makeup of amphibious patrols. With regard to this latter point, the last three decades of fleet responses (spanning the last two decades of the Cold War and the first decade of the Joint Expeditionary Era) is quite illuminating with regard to highlighting the operational utility of conducting global patrols and scouting missions with amphibious landing ships (see Figure Three).

Figure Three: Fleet Responses by Battle Force Platform Category⁶⁰¹



CV	Carriers
CV/ARG	Carrier(s) + Amphibious Ready Group(s)
ARG	Amphibious Ready Groups
SC	Surface Combatants
L	Amphibious Landing Ships
AUX	Auxiliary Ships

Note that in the latter stages of the Cold War, most responses were conducted either by carrier battle groups or carrier battle groups plus ARGs; the number of independent ARG responses was relatively low. Compare this circumstance with the 1990s. ARG responses dwarfed those of all other categories. Indeed, when factoring in the number of responses using amphibious landing ships and combined carrier/ARG

⁶⁰¹ D0002763.A2, *U.S. Naval Responses to Situations, 1970-1999,* December 2000, Copyright © 2000. The CNA Corporation, www.cna.org.

responses, the amphibious landing fleet comes across as the battle force component most in demand in the Joint Expeditionary Era. Should one expect anything else? With no fleet to fight and when shifting to operations in the littorals, the Marines become a natural part of the battle force's main battery—just as did the Royal Marines and Army during *Pax Britannia*.

Indeed, amphibious landing ships have proven to be among the most fungible and versatile battle force platforms when it comes to the littoral patrolling mission. Their embarked MEU is trained for a variety of missions ranging from humanitarian relief and disaster response operations, to permissive and non-permissive non-combatant evacuation operations, to raids. Their built-in interfaces for both surface and air interfaces provide flexibility in dealing with a variety of circumstances. Moreover, the combination of ESGs is more than enough to handle most conceivable crisis response or GWOT tasks; as was discussed, two ARG/MEUs collapsing together formed Task Force 58, and together they projected the first medium-weight *conventional* combat units into Afghanistan during OEF. Based on this compelling operational data, a key question to be answered during the zero baseline seabasing review is whether or not plans to reduce the number of amphibious ships from 36 to 31, and the number of ESGs from 12 to nine, is a wise one.

Unwarned Unilateral Punitive Strikes and Raids

TF 58 highlights the power of using the sea as a base of operations for global patrolling and scouting and forming combat credible mobile patrol bases. Together, they provide the US political and military leaders with a ready forward means to conduct prompt, unilateral raids and punitive strikes against fleeting targets in the GWOT, or against states sponsoring terrorism, or against a variety of other potential targets. One of these other potential targets will be WMD facilities, infrastructure, and means, especially those found in the hands of terrorists. As the 2006 QDR states, there should be "a growing emphasis on WMD elimination operations that locate, characterize, secure, disable and/or destroy a state or non-state actor's WMD capabilities and programs in hostile and uncertain environments."

The emerging requirement to be able to conduct prompt counterproliferation strikes and raids might argue for bolstering the forward presence of amphibious landing ships, given that they are specifically designed to operate in a potential nuclear environment. Indeed, the LPD-17 has special features to help mitigate the blast and overpressure damage caused by a nuclear burst, and its crew and embarked Marines are protected from radioactive fallout or biological and chemical contamination by a collective overpressure system. The ship even has a triage center designed to accept and treat contaminated casualties. Bolstering the presence of amphibious landing ships on patrol could be accomplished in a number of ways, including either increasing the number of ESGs on patrol, or in increasing the number of LPD-17s in the ESGs to provide a more capable counter-proliferation raiding capability.

Two other means exist to improve the US ability to conduct prompt unwarned unilateral strikes. One is to increase the number of SSGNs in the patrolling and scouting seabase. These submarines are an ideal unwarned conventional strike platform. Moreover, because they are specifically designed for dual—crew operations they have a very high patrol availability rate, on the order of 66-70 percent. Increasing the SSGN fleet to six boats would thus provide a ready patrol force of four boats, and an on-station stealthy strike force consisting of as many as 616 *Tomahawk* land attack cruise missiles.

As second means to improve the US ability to conduct prompt unwarned unilateral strikes is to increase the global strike coverage of naval aviation by increasing the total number of aviation strike platforms, with a goal of having more platforms on patrol. With a planned fleet of 11 big-deck nuclear-powered carriers, only ten will normally be available for tasking (the eleventh being in long-term overhaul). Even when postured for global surge, the size of this force means that at there will seldom be more than two carriers on station at any given time. While the ESGs will normally operate with four to six VSTOL or STOVL jets, these would provide only a minimal strike capability. One solution might be to convert the LHA(R)s—which, owing to their lack of well decks, are poor multi-purpose amphibious assault ships—into Joint Escort Carriers (J-CVEs), and to trade one CVN for four of these vessels. This would increase the number of readily available aviation strike platforms from ten to 12-13. The idea of making a more varied mix of aviation support seabases will be discussed further in the section on providing persistent combat and combat support to Marine and joint forces operating ashore.

Persistent Surveillance of Coastal Areas of Interest and Overt and Covert Special Operations Support

As part of the Global War on Terror, the US is currently engaged heavily in two countries: Iraq and Afghanistan. Unfortunately, al Qaeda operates in some sixty countries—countries with which the US is not at war with. Counter-proliferation concerns compel the US to monitor certain countries which actively seek to deny US information and access to their nuclear facilities. A desire to ensure the steady flow of oil and gas to global energy markets compel the US to monitor certain strategic resource areas. These responsibilities, as well as many others that come with being a global superpower, demand that the US maintain a persistent but unobtrusive watch on critical areas of interest. One way to do this without causing an international uproar is to conduct surveillance operations from the global commons.

However, no single navy is capable of conducting persistent surveillance operations in every global region or area of interest. Such a requirement would exhaust even the mightiest of naval powers. Consistent with the ideas of building partner capacity and strengthening alliances, one way to handle this problem is to involve the community of freedom-loving nations in policing the global commons and sea lanes. Admiral Mullen's recent idea of a combined "1,000-ship" *global maritime network* is a powerful one, and one that has evoked a strong positive response by navies around the world. Balanced leadership and wise investments in maritime security assistance may allow the United States to leverage the voluntary participation of navies as part of this global maritime network.

Either as a part of the network or of an independent US operation, battle fleet platforms will thus routinely settle into particular regions or areas to monitor happenings in the maritime domain and to the landward side of the littoral. The battle fleet employs a variety of means to erect regional surveillance seabases, including both covert and overt platforms. Chief among the covert means are nuclear attack submarines (SSNs). Indeed, the primary force structure driver behind a 1999 Joint Chiefs of Staff study on future submarine requirements was intelligence, surveillance, and reconnaissance (ISR) mission days, not warfighting

⁶⁰² See for example "The Commanders Respond," *Proceedings*, March 2006, pp. 34-51, in which no fewer than 25 chiefs of navies respond to the idea of a "1,000-ship" global maritime network.

requirements. At over \$2 billion apiece, however, the Navy has given up on achieving the JCS study's recommended force structure goal of 55–72 SSNs, opting instead for a force of 48 SSNs and four SSGNs. As indicated above, however, by increasing the SSGN force to six boats, the Navy would be able to establish a persistent covert ISR seabase in four theaters, freeing up the SSNs for ASW tasks and to conduct covert surveillance operations in the most sensitive or denied waters.

Converting additional SSGNs would also be in line with the requirement in the 2006 QDR for services to develop capabilities that enable US special operations forces to conduct "low visibility, persistent presence missions and a global unconventional warfare campaign." Also in line with this tasking is: the earmarking of four "extra" amphibious landing ships for GWOT support missions; the development of "GWOT Support Modules" for the newly developed Littoral Combat Ship; and the recent conversion of the *GySgt Fred W. Stockham*, one of 16 legacy MPF ships, into an Irregular Warfare Maritime Support Base. The ship was given a new 54-foot flight deck capable of handling two MH-60 helicopters; a commercial type aviation refueling system; a medical module; communications upgrades; and far more watercraft than normally assigned to the ship. For a conversion cost of just \$3 million, the *Stockham* "is off doing real good stuff that we can't talk about." ⁶⁰³

This innovative use of an MPF ship is a sensible one. Under most conceivable circumstances, an Irregular Warfare Maritime Support Base would operate in conditions of unimpeded or perhaps guarded access for which the ship's commercial construction is optimized. Moreover, although the ship is quite large, its appearance—that of a cargo vessel—is ideal for unobtrusive support missions being conducted in littoral waters. Additionally, the ship's large size affords the Maritime Support Base with a high degree of passive protection against suicide boat attacks such as the one that nearly sank the *USS Cole*.

Indeed, it would seem a prudent step to provide all of the ships in two of the three MPF squadrons with similar, if not even more extensive modifications, to enable them to perform as an Irregular Warfare Maritime Support Base. These modifications might include expanded rotary wing support capabilities and increased watercraft and lighterage. Most importantly, however, the ships would be modified to house, feed, and sustain up to a reinforced rifle battalion. For planning purposes, these modifications are projected to cost approximately \$25 million per ship.

⁶⁰³ Richard R. Burgess, "Keys to the Future," Sea Power, May 2005, p. 31.

Total conversion costs for ten ships would come to \$250 million. As an added benefit, by increasing the ship's complement of onboard watercraft and lighterage, the ships would become better able to support offload of cargo in austere ports.

For even more unobtrusive missions, the new Littoral Combat Ship will provide an entirely new type of platform for the persistent surveillance of coastal regions. Although displacing less than 3,000 tons full load displacement, both LCS designs now in production will have an impressive capability to establish littoral sensor networks. Both have superb aviation facilities capable of supporting H-60 class helicopters and vertically launched tactical unmanned aerial vehicles (UAVs); can carry a minimum of two 11-meter and two 7-meter rubber hulled inflatable boats (RHIBs); and a variety of unmanned surface and unmanned underwater vehicles (USVs and UUVs, respectively). The General Dynamics version has one of the largest useable internal payload volumes of any US surface combatant—the equivalent of 58 High Mobility Multi-wheeled Vehicles (HMMWVs). With containerized habitability modules, these vessels will be able to support small units operating for extended periods in the littoral. Indeed, special operations forces would do well to experiment with using LCSs for surveillance seabases. Similarly, the Marines might experiment with "micro-MAGTFs" designed to operate from these platforms.⁶⁰⁴

When considering the ongoing "Long War," or perhaps a wider "clash" or "crash" of civilizations, it seems likely that the battle fleet will be compelled to perform persistent surveillance simultaneously in numerous areas around the world. As a result, the DoN might do well to steal a page from the 19th century Navy and establish several "fleet stations" designed to maintain a persistent US seabased presence in critical regions. These permanent, distributed surveillance seabases, a part of the broader global maritime network, would consist of a constantly changing mixture of platforms and temporary and permanent functional seabases. One notional station laydown would be to have five fleet stations: a West African Station, perhaps supported by a fleet support base on Ascension Island (assuming approval of the British govern-

⁶⁰⁴ See for example James E. Baskerville, Robert P. Draim, and Rear Admiral Robert G. Sprigg, USN, ret., "The Littoral Combat Ship," *Marine Corps Gazette*, March 2006, pp. 39-40. For a thorough discussion of the LCS, see Robert O. Work, *Naval Transformation and the Littoral Combat Ship* (Washington, DC: Center for Strategic and Budgetary Assessments, February 2004).

⁶⁰⁵ Niall Ferguson, "The Crash of Civilizations," *LATimes.com*, February 27, 2006.

ment); a Mediterranean/North African Station supported from current naval support facilities in Italy; an Indian Ocean Station supported by a fleet support base on Diego Garcia, and access to allied facilities in Bahrain and Singapore; a East Asian Station, perhaps supported by a fleet support base in Palau and access to allied facilities in Australia; and a Western Pacific Station, supported by a fleet support base in Guam and access to allied facilities in Japan and South Korea. Augmenting this permanent presence would be the rotational mobile patrols of more capable, "combat credible" patrol and scout seabases.

Rapid Global Movement of Joint Goods and Services Along Interior Lines and Naval Maneuver, Including Forcible Entry Operations, to Exploit an Exterior Advantage

The QDR calls for changes to strategic mobility systems to help underpin the transition from "a Cold War-era garrisoned force to a future force that is tailored for expeditionary operations" In other words, the QDR seeks to transform the Cold War Strategic Military Transportation System into a Global Expeditionary Maneuver and Movement System (GEM2S) capable of supporting the transoceanic projection of ready-to-fight combat units, personnel, equipment, and cargo into theaters with only modest theater infrastructure. Seabasing will be a critical linchpin of this GEM2S.

Viewing this as a holistic system, the GEM2S should have a mix of systems capable of supporting at least five distinct categories of maneuver and mobility forces:

- Category One: Access-insensitive forcible entry forces, optimized for the opposed theater entry role, and consisting of forces capable of operating under threat of nuclear attack;
- Category Two: Access-insensitive assault reinforcement forces, optimized to inject ready-to-fight combat units as part of the assault follow-on echelon;
- Category Three: Access-sensitive rapid combat reinforcements, designed to deliver rapidly the equipment and supplies asso-

ciated with personnel deploying from the continental United States to a forward theater, in order to facilitate a rapid RSOI process;

- Category Four: Access-sensitive combat reinforcements, designed to offload equipment and cargo ashore in support of a land-based RSOI process, through both developed and austere ports; and
- Category Five: Access-sensitive sustaining forces, designed to offload equipment and cargo ashore in support of extended joint campaigns, through both developed and austere ports.

A key objective for the zero baseline seabasing review would be to review all current seabasing initiatives within such a holistic framework, which should have as its first operational priority not the speed with which the first combat element engages, but the rate at which the GEM2S allows the United States and its allies to achieve decisive operational superiority. This framework would allow the development of an easy to understand, system of systems goals. For example, one option would be to choose joint seabasing efforts that support the following enterprise objectives: gradually shifting more forces from Categories Four and Five to Categories One and Two, and improving the speed with which Category Three Forces can get into the fight.

Following this line of thinking, current plans for the GEM2S call for less than two brigade equivalents of seabased Category One forces (i.e., on amphibious landing ships); one Category Two brigade equivalent on a single MPF(F) squadron; seven to eight brigade equivalents of Category Three forces (i.e., two legacy MPF brigades; two CPF brigades; and three Army heavy BCTs delivered to theater via Fast Sealift Ships); perhaps ten brigades of Category Four equivalent lift on the 13 LMSRs (the 11 ships now in the surge fleet augmented by two LMSRs released after the proposed reorganization of the CPF); and a Category Five force composed of 31 large RO/ROs. 606

Reviewing these plans, one might make the following observations:

⁶⁰⁶ The eight FSSs are credited with carrying the equipment of a legacy Army mechanized division. For the purposes of this report, they are credited with carrying approximately three of the Army's new modular Brigade Combat Teams. Each LMSR is credited with carrying .75 BCTs, for a force capacity of 9.75 BCT equivalents.

- A strong case can be made that the Marines' original conception for the future MPF was the correct one; that is, as a Category Two improvement, MPF(F) ships should *not* compete with amphibious landing ships, which remain the best solution for the forcible entry role, especially in the presence of nuclear weapons. It is sobering to realize that in an era where there is nearly unanimous agreement that the potential for a forcible entry operation is higher than it has been at any time in over five decades, the requirement for Category One forces is at the lowest point it has been at any time since the end of World War II. As a consequence, one decision might be to increase the amphibious landing force up to the full 3.0 MEB lift goal established in the DoN Lift II Study.
- The Category Two MPF(F), with its complicated ballet of at-sea arrival and preparation followed by pre-assault ship-to-ship transfers of personnel and equipment, should instead competes head-to-head with the Shallow Draft High Speed Ship, which trades some speed of response for a more efficient at sea RSOI conducted *en route* to the JOA, and a far less complicated offloading scheme. Moreover, the same SDHSS can also be used to transform Category Three and above forces to Category Two by replacing the Fast Sealift Ships that require deep draft ports and subsequent RSOI processes with ships capable of transshipping intact combat units through austere locations. *Thus, by pursuing the SDHSS before the MPF(F) squadron, there would be a far more dramatic increase in the number of Category Two forces*;
- The current and planned GEM2S sees the vast majority of forces in Categories Three through Five—all access-sensitive forces supported by deep draft ships optimized for cargo through developed ports. This is one of the most obvious current deficiencies of the current GEM2S. An immediate improvement to the system would thus be to expand the recently approved JETA-SPOD ACTD into a MULBERRY 21 program overseen by US Transportation Command, with an objective of developing two mobile seabased MULBERRY harbors for use in future US power-projection operations (one prepositioned in Diego Garcia; another in Guam or Japan). These harbors would be supported by two expeditionary air base sets now carried on MPF(E) squadrons, thereby allowing the offload of equipment and an RSOI in an austere forward theater. Like the MULBERRYS in World War II, this capability would let joint planners think in a different geographical box than they are now accustomed to,

allowing them to decouple future US transoceanic maneuver and movement from a prepared port and airfield. Indeed, given the huge investment on deep draft ships made in the 1990s, the highest priority near-term improvement to the GEM2S would be an improved ability to transship the equipment and cargo carried by these ships through austere ports.

Sustained Combat, Combat Support, and Combat Service Support of Joint and Combined Forces Operating Afloat and Ashore

In a maritime operation, and particularly in a seabased forcible entry operation, seabases support combat forces that can be used by a joint force commander to conduct aviation, guided missile and weapon, and electronic attacks against enemy forces arrayed throughout a littoral battle space and at ranges beyond 1,000 miles from the coast. Of course, they can also launch ground combat forces from the sea directly into an enemy's defended battlespace. Once these combat forces are ashore, the seabase provides them both combat support and combat service support. This section will highlight two important issues relating to these latter two seabase functions: bringing US Marine tactical aviation back to sea; and providing sustained logistics support to joint forces operation ashore.

During the Cold War/Garrison Era, Marine aviators generally assumed that they would have immediate access to airbases to the landward side of the littoral, or that their vertical take-off and landing *Harriers* would be able to operate off of austere expeditionary airfields close behind Marines engaged in ground combat. Now, in the Joint Expeditionary Era, and faced with the prospect of having to operate initially without access to land bases, Marine aviation planners have started to

⁶⁰⁷ Combat support: fire support and operational assistance provide to combat elements. Combat service support: the essential capabilities, functions, activities, and tasks necessary to sustain all elements of operating forces in theater at all levels of war. JCS Pub 1-02, Department of Defense Dictionary of Military and Associated Terms, pp. 98-99.

⁶⁰⁸ There are other important issues that are worth exploring, chief among them the requirement for naval surface gunfire support. However, in the interest of time, these other issues are left for the zero baseline seabasing review.

think once again about operating their tactical aircraft from aviation seabases, and maintaining them there for as long as possible.

It is important to separate the problems of operating Marine fixedwing tactical aircraft from a seabase and Marine rotary-wing aircraft from a seabase, although both Marines and Sailors often conflate them. The former is a design problem that relates to the naval strike seabase; the latter a design problem that relates to the expeditionary maneuver seabase. Remember that helicopters, and the follow-on MV-22s, are simply the modern day equivalent of the LCVP—special-purpose ship-to-shore assault connectors designed primarily to deliver personnel ashore in support of OMFTS and STOM. The reason why so many conflate the two problems is that both Navy and Marine aviators have heretofore preferred either all-Navy or all-Marine air wings. Moreover, Marine Corps aviators have long assembled composite fixed- and rotarywing squadrons for the amphibious global patrolling and scouting mission, which has led to the development of grossly overpriced concepts such as the aforementioned 70,000 ton "Dual –Tram" LHA(R) capable of conducting simultaneous JSF and MV-22 operations.

The preference for all-Navy and all-Marine air wings is now purportedly changing with the recent implementation of the Navy-Marine Corps Tactical Air Integration Plan. This plan consolidated the separate unaffordable requirements for future Navy and Marine Corps tactical aircraft into a single, more affordable (some might say "less unaffordable") Departmental plan. 609 Part of this plan called for each of the ten active duty carrier air wings to include a single, ten-plane Marine fixed-wing squadron (first composed of F/A-18Cs and later JSFs). In return, the Navy would provide three "expeditionary tac-air squadrons" to be integrated into Marine Unit Deployment Programs for its tactical aviation squadrons.

The Tac-Air Aviation plan reduced the total number of aircraft the Navy and Marines planned to buy from 1,637 to 1,140 aircraft, saving an estimated \$28 billion in procurement costs over the next 18 years. See Government Accountability Office, *Department of the Navy's Tactical Aviation Plan is Reasonable, But Some Factors Could Affect Implementation* (Washington, DC: GAO, 2004). As Lieutenant General Robert Magnus, USMC, the Deputy Commandant for Programs and Resources remarked, "The plan clearly recognized the fact that we couldn't afford to buy all of the things we wanted to buy." See Interview, LTGEN Robert Magnus, in *Jane's Defense Weekly*, May 22, 2002. See also Andrew Koch, "Cash-strapped USN, USMC Look to Integrate Aircraft," *Jane's Defense Weekly*, April 3, 2002, p. 3; and "US Scales Back JSF, Super Hornet Buys," *National Defense*, March 2003, p. 21.

These were welcome steps that were long overdue. However, this plan was driven first by the need to rationalize the Department's tactical aviation procurement plans and less the need to design a naval tactical aviation seabase capable of supporting the majority of Navy and Marine tactical aircraft. Therefore, a follow-on Navy-Marine Corps Tactical Aviation Seabase Plan is in order. Such a plan would be well guided by the lessons learned in the first Expeditionary Era in 1943-1944. For the first several years of the Second World War, Marine aviation was heavily committed in the Solomons campaign, and its planes operated primarily off of land bases. Meanwhile, carrier air wings on the CVs were composed of all-Navy squadrons. As the Solomons campaign moved towards its successful conclusion, and with the decision having been made to bypass the Japanese base at Rabaul, Navy and Marine planners wrestled with the issue of how best to sea-base Marine aviation for the final drive across the Pacific. The logical options were to integrate Marine squadrons into the large deck carrier air wings, to have all-Marine air wings on CVEs, or a combination thereof. In 1944, the decision was made to form six all-Marine air wings on Commencement Bay-class CVEs, and to augment CV carrier air wings with Marine squadrons only when necessary. A total of four Marine CVEs made it to the Pacific before war's end, and ten Marine fighter squadrons augmented large deck carrier air wings as the Kamikaze threat became more intense. 610

This decision helps to illuminate a similar approach to the problem of seabasing Marine tactical aviation in the 21st century, as well as help to solve the dilemma now faced by Navy and Marine Corps aviation planners. Because of the demands generated by the Global War on Terror and the new Fleet Response Plan, the Marines have been released, at least temporarily, from the requirement to assign a Marine squadron to each of the ten active air wings. Similarly, Navy "expeditionary" squadrons are no longer "hard-wired" into the deployment schedule. Additionally, the current plan is for all Marine Corps F/A-18C squadrons to transition to STOVL JSFs. It is not entirely certain that the STOVL JSF can be easily incorporated into carrier deck operations with catapult-launched Navy aircraft. By looking anew at the problem facing Navy and Marine Corps planners in terms of designing

⁶¹⁰ Robert Sherrod, History of Marine Corps Aviation in World War II (Washington, DC: Combat Forces Press, 1952), pp. 324-33. See also "History of Marine Aviation, Central Pacific Operations," at http://www.acepilots.com/usmc/hist10.html; and "History of Marine Aviation, the Philippines," at http://www.acepilots.com/usmc/hist11.html.

Richard R. Burgess, "The Power Tool," Seapower, August 2005, p. 28.

a tactical naval aviation seabase for all DoN tactical aviation assets, many of these problems might be solved.

By looking at the LHA(R) as an updated version of the *Commencement Bay* CVE, the battle force will gain a capability not seen since the Korean War: a small aviation power-projection platform, capable of keeping up with amphibious task forces, with an ability to carry more than one-third the number of tactical fighters found on the decks of larger CVNs. Assuming 85 percent aircraft availability, and six days of surge operations followed by nine days of sustained operations, a CVE carrying 23 STOVL JSFs could launch 1,115 sorties, or an average of about 75 sorties a day.⁶¹² While nowhere near the number of sorties capable of being generated by a large-deck aircraft carrier, this represents a substantial number of close air support sorties in direct support of a MEB operating ashore, and would likely be more than enough for normal air support operations associated with the global irregular war. Moreover, the STOVL JSF promises to be as capable, or nearly so, to the aircraft flying off the decks of large deck carriers.

By trading one of 11 CVN-21s for four J-CVEs (so-designated because the ships could also support Air Force STOVL JSF squadrons, if desired), and assuming an fleet-wide availability rate of .85, the battle force would be able to seabase a minimum of 69 JSFs—nine more than the 60 required to support two MEBs operating ashore. By further assigning a Marine augmentation squadron to each of the surge carriers, the DoN would be able to seabase all available Navy tac-air squadrons and two-thirds of Marine tactical aviation squadrons. This is a nearly revenue neutral plan, and one consistent with official Navy pronouncements that they intend to move toward smaller aircraft carriers. 613 It is also a low-risk plan, even though the STOVL JSF is nearly a decade away from service, and still faces many technological challenges. While these challenges could cause a delay in the aircraft's service date, or result in further performance trade-offs and limitations, if the JSF turns out to be less capable than expected, the J-CVEs could be reverted to AFSBs or LPHs for joint rotary wing aircraft.⁶¹⁴ More-

⁶¹² Gellar, Jr., "LPD-17 and LHA(R)."

⁶¹³ Christopher J. Castelli, "Navy Secretary Anticipates 'A New Navy' with 'Smaller Deck Carriers," *Inside the Navy*, March 7, 2005.

⁶¹⁴ The British are facing this very problem; their first future aircraft carrier, the *HMS Queen Elizabeth*, will be delivered *at least* two years before it will receive its STOVL JSFs. See Michael Evans, "Jet Delay Leaves Navy's Carriers All At Sea," *London Times*, March 7, 2005.

over, with their large internal troop spaces, the J-CVEs could also be modified to be auxiliary joint command and control ships.

Turning to the issue of providing sustained logistics support to forces ashore, the zero baseline seabasing review should consider the advisability of separating the maneuver and logistics functions in the MPF(F) program, by transferring the logistics mission to an expanded Logistics Prepositioning Force, renamed the Joint Offshore Logistics Support Base (JOLSB). The JOLSB would be designed by logistics professionals to provide common sea-based logistics capabilities for the Army, Navy, Air Force, Marine Corps, and the Defense Logistics Agency.

A JOLSB would be a 21st century reincarnation of the massive fleet logistics seabase developed over the last two years of World War II. The key difference would be that the JOSLB would include an updated "ServRon Six" for the underway replenishment of joint forces operating ashore, and an updated "ServRon Ten" for the sustained logistics and maintenance support for joint ground and land-based aviation units. The JOSLB would consist of a combination of tankers, offshore petroleum distribution systems, container ships, and a new class of selective offload and breakbulk cargo ships—tentatively dubbed the T-JLKA. The JOLSB would be sized to support Category One and Category Two access-insensitive forcible entry and assault reinforcement units until the joint theater logistics infrastructure could be established ashore. Thereafter, the JOSLB would support sustained operations ashore with the intent of minimizing the total joint force logistics footprint to the greatest degree possible. Of course, the JOLSB would also be ideally suited to support humanitarian and disaster relief operations when the ashore infrastructure has been destroyed.

The idea for a LPF/JOLSB is inspired by the new British Military Afloat Reach and Sustainability (MARS) program, which is to replace the major part of the Royal Fleet Auxiliary Fleet—the British equivalent of the Military Sealift Command's Naval Fleet Auxiliary Force. As described by British planners, the MARS vessels will be required "to deliver bulk consumables (fuels, oils, lubricants, ammunition, food,

⁶¹⁵ McKissock, "Seabasing: The Maritime Intermediate Support Base," *Marine Corps Gazette*, June 2002, pp. 12-15. For ideas how the DLA, Army, and sea basing logistics requirements might be met, see Jonathan Kaskin, Director of Strategic Mobility and Combat Logistics, "The Challenge of Joint Seabasing Logistics," a PowerPoint presentation given to the Joint Seabasing Conference, Washington, DC, February 17, 2005.

water, and air stores) to embarked forces, provide logistics support from afloat to joint forces ashore, including supporting air formations, and offer forward-aviation support to maritime rotary-wing squadrons." ⁶¹⁶

The requirement for the JOLSB to "offer forward-aviation support to maritime rotary-wing squadrons" suggests that replacement plans for the two T-AVB aviation support ships now in the LPF be modified. Recall these ships carry cargo containers with the Intermediate Maintenance Activity for Marine aircraft. Although the ships have the provision to support some operations at sea, they are optimally designed to offload their containers ashore. To provide for a true offshore aviation logistics capability, these two ships need to be replaced with more capable ships designed to service and repair aircraft *at sea*.⁶¹⁷

Provided Congress would approve the purchase of a foreign-designed and built hull, the logical replacement for these two ships might be modified Maersk S-class container ships, discussed in the chapter concerning aviation power-projection platforms. Recall that these ships also have very large flight decks, with operating spots for 15 Marine CH-53 or Army CH-47 heavy-lift helicopters or 12 MV-22 tilt-rotor aircraft. These ships can lift 72 CH-46 equivalents during transit, can support every rotary-wing aircraft in the Joint inventory, and have room for 200 TEU containers and 1,000 personnel. Two ships, manned by civilian crews from the Military Sealift Command, and ready to be activated in 96 hours, would provide the TFBN with an additional 144 CH-46 equivalent parking spots, and a mobile Joint rotary-wing aviation support facility. These new T-JAVBs would also have an inherent ability to operate as an auxiliary AFSB, further increasing the flexibility of the DoN's aviation seabase.

Another advantage of pursuing these ships is that they are one of the same ships considered by the Army for its Air Assault BCT Afloat program. Should the Army free up the funds to pursue this capability, having a common ship would lower the average acquisition costs for both the Army and the DoN. Interviews with representatives from

⁶¹⁶ Richard Scott, "MARS Program Passes Initial Gate Milestone," *Jane's Navy International*, September 2005, p. 15.

⁶¹⁷ See Major M. Scott Ballard, USMCR. "Maritime Prepositioning Force Future: The Future of Seabased Aviation Logistics," *Marine Corps Gazette*, May 2002, pp. 31-33.

⁶¹⁸ Polmar, "Sea Base Ships for the Future;" Carmel, "A Commercial Approach to Sea Basing—Afloat Forward Staging Bases;" and Maersk Line, Limited information brochure entitled "Afloat Forward Staging Base Transformation."

Maersk indicate that the ships might be bought and modified for less than \$400 million a ship based on a six-ship buy (two T-JAVBs and four Army Afloat Forward Staging Bases).⁶¹⁹

The operations of the LPF/Joint Offshore Logistics Support Base, especially its ability to selective offload of cargo, will be greatly facilitated by the development of the Joint Modular Intermodal Distribution System (JMIDS), a Joint program sponsored by the US Transportation Command, led by the Army, and supported by the Navy. The goal of the program is to develop common sustainment modules that could be shared by the four Services and transported across different modes of transport without repackaging. With embedded asset tracking technology, the JMIDS would also help to support all Joint sea-based logistics efforts, and set the stage for floating Joint automated warehouses with common logistics transfer equipment and selective discharge capabilities. 620

The JMIDS and Joint sea-based selective discharge capability would do well to take into account the long experience that the DoN has with its MPF fleet. The first major offload of the MPF fleet, which during the 1990-91 Gulf War, was "agonizingly slow, tedious, and disorderly." ⁶²¹ This spurred a decade-long logistics innovation program that paid huge dividends during Operation *Iraqi Freedom*. These innovations included the development of storage and transformation frames (STFs), five of which fit snugly inside a standard 8x8x20 foot shipping container; small vehicle storage and transformation frames (V-STFs), designed to fit in the back of a High Mobility Multi-wheeled Vehicle ("Humvee"); a repair parts carousel container, which has a motorized conveyor belt of part shelves built to fit inside a standard shipping container; and widespread use of scannable packing labels on containers and STFs. As a result of these innovations, ships that had taken a week to offload during *Desert Storm* in 1990 were offloaded in an average of 48 hours in 2003. ⁶²²

Recall that the Air Force currently has four ships filled with ammunition and supplies, and the Navy one. DoN planning analyses suggests

⁶¹⁹ These were estimated costs. Final costs would depend on DoN and Army specifications as well as other contractual agreements.

⁶²⁰ Alan Galonski, Chief, Future Concepts Division, Army Logistics Research and Engineering Directorate, "Providing Logistics Support to Our Warfighters," a PowerPoint presentation at http://www.dtic.mil/ndia/ 2005armaments/galonski.pdf; and Geehan and Gainey, "Seabasing: Building the Army Contribution."

⁶²¹ Vergun, "Outfitting the Operating Force."

⁶²² Vergun, "Outfitting the Operating Force."

that a selective offload container ship with the capacity to carry 600 TEUs and a selective offload breakbulk cargo ship based on the aforementioned T-AKE cargo ship would provide 14-15 days of supply for a five-battalion combat brigade operating ashore and the ships supporting them. A single T-AO would provide 2.5 days of supply for ships in the sea base and five battalions ashore. 623 For tentative planning purposes, then, the initial Joint Offshore Logistics Support Base might include two selective offload container ships and two T-JLKAs (based on the T-AKE) for the Marines; one T-JLKA to support Navy shipboard ordnance requirements; and six tankers. This 11-ship package would provide 14-15 days of ordnance, supplies, fuel and water to support two forcible entry MEBs in combat for 14-15 days. DLA, Army and Air Force requirements would add to these numbers. It is easy to see how these numbers could rise dramatically. For example, two selective offload container ships and two T-JLKAs for the Army might support two airborne brigades for 14-15 days. The Air Force now has four ships in the LPF; it seems unlikely that these numbers would go down. DLA requirements are also certain to include several ships. And these numbers do not include the tanker requirements to support early entry Army and Air Force forces.

Although the DoN would incur the non-recurring engineering costs to design the ships for the Joint Offshore Logistics Support Base, the actual procurement costs for Air Force, Army, and DLA ships would either be borne by a Joint Seabasing Office or the respective Departments or Agency. Final size of and anchorages for the JOLSB would be determined by follow-on operational analysis in the zero baseline seabasing review.

STEP FOUR: ESTABLISHING GUIDING PRINCIPLES

The next step in the zero baseline review for seabasing would be to establish a set of principles to guide follow-on debates and discussions and to help judge the potential joint payoffs of particular seabasing concepts and initiatives and to prioritize the funding of joint seabasing programs.

These principles would be well shaped by considering the seabasing lessons learned in the Oceanic/Expeditionary Era, updated to

⁶²³ Kaskin, "The Challenge of Joint Seabasing Logistics."

account for the new strategic environment; the maturation of the Guided Weapons Warfare Regime; the strategic planning guidance found in the 2006 QDR; and new technologies. The following reflects a notional list of seabasing principles. It is intended to be neither prescriptive not exhaustive, only illustrative.

In maritime operations, seabasing is less about achieving speed of strategic response and more about achieving operational freedom of action and favorable cost balances. As this paper has argued, seabasing is an idea whose time has come once again. The strategic environment is characterized by "uncertain allies and doubtful neutrals" and politically and operationally constrained forward access. Seabasing is a key means to accommodate these conditions. Therefore, given a choice between improving a land-based capability and improving the joint force's ability to employ current capabilities from the sea, the second choice is likely a better one in the near future. Seabasing—along with long-range aerospace power—will provide the future joint force with the greatest global freedom of action and initial operational independence from land bases—requirements now either implicitly or explicitly a part of the National Security Strategy, the National Defense Strategy, and the 2006 QDR.

In addition, if history is any guide, seabasing capabilities will work to the joint force's favor in cost imposing competitions. An ability to conduct combined arms naval maneuver imposes disproportional costs on a defense since it must either strive to be strong in all places along a coastline or include high percentages of expensive mobile response forces or long-range guided weapons. Seabasing capabilities therefore appear to be a sound strategic investment.

Seabasing is much more than improving seabased forcible entry capabilities, although these capabilities may become increasingly important in the Joint Expeditionary Era. With respect to the members on the DSB Task Force on Seabasing, forcible entry operations from the sea are just one of many important seabasing functions. As has been seen, seabasing functions include strategic/prompt global conventional strike operations; global patrolling and scouting and rapid crisis response operations; unwarned unilateral punitive strikes and raids; persistent surveillance of coastal areas of interest; overt and covert special operations support; rapid global movement of joint goods and services along interior lines; naval maneuver, including forcible entry operations, to exploit an exterior advantage; and

sustained combat, combat support, and combat service support of joint and combined forces operating afloat and ashore. Focusing on only one particular function rather than on all functions together may lead to inappropriate choices. For example, even if one accepts the assumption that MPF(F) ships can replace amphibious landing ships in the assault echelon of a rapid JFEO, are they better than amphibious landing ships in the global patrolling and scouting mission? Or in performing rapid counter-proliferation raids? Or in performing a joint forcible entry operation in a littoral threatened by nuclear or guided missile attack? If not, then it might be better to accept slower response times for JFEOs using amphibious ships in order to have more platforms better suited for these other missions.

Operational fungibility should be a determinative factor in choosing seabasing platforms. As the foregoing discussion suggests, one way to approach each seabasing function or task is to design platforms optimized for each function. While effective, such an approach is both inefficient and costly. A better approach is to pursue platforms that can be used for a variety of seabasing functions. A SSGN can be part of a prompt global conventional strike seabase; perform unilateral punitive strikes; perform persistent surveillance of a coastal area of interest; provide special operations forces with a covert forward operating base; and provide sustained combat support of joint forces ashore. Amphibious landing ships can perform the global patrol and scout mission; support prompt punitive raids, counter-proliferation operations, and JFEOs; and serve as Irregular Warfare Support Bases. J-CVEs can support the same missions, and also be formed together to serve as a distributed AFSB. A seabasing platform's operational fungibility can be easily translated into operational agility.

Because of their operational fungibility, amphibious landing ships have higher strategic value in the Joint Expeditionary Era. Amphibious landing ships are among the most versatile seabasing platforms imaginable. However, instead of increasing their numbers, the DoN is cutting them. This seemingly incongruous action appears to be motivated in large part by the following logic: because the US has not conducted a seabased forcible entry operation since Inchon, amphibious landing ships are a relic of a bygone strategic era. At best, this befuddled thinking is itself the relic of a bygone strategic era; at worst, it is patently ridiculous. As has been discussed, just because the requirement declined over the course of the Cold War/Garrison Era does not mean it will not be an important requirement in the Joint Expedi-

tionary Era—an era in which there is a "projected lesser availability of land bases in an ambiguously evolving global political environment" (emphasis in the original). Indeed, using the same logic, the Navy should cut its submarine force even more dramatically than it already has; the fact that it may find itself in a maritime competition with the Chinese Navy should matter less than the fact that a US submarine has not fired a torpedo in anger since 1945.

This paper argues that betting that the future expeditionary maneuver fleet can replace Category One amphibious landing ships with Category Two commercially-designed MPF(F) ships may be a bad one. Set that particular argument aside for the moment. Until proven otherwise, there simply is no better platform for supporting ground forces on and from littoral waters, or conducting forcible entry operations or operational maneuver from the sea, than a purpose built amphibious ship with interfaces for both air and surface ship-to-shore connectors (i.e., flight decks and well decks). This is by no means an unsubstantiated assertion; one needs only to observe what is happening in navies around the world to understand its truth. As the US is in the process of reducing its amphibious landing fleet and deemphasizing its ability to conduct surface maneuver, there has been a striking world-wide renaissance in amphibious shipping, centered on the big-deck LHD and LPD. Moreover, these navies are giving up surface combatants and submarines to buy them. While some of these ships are being built to commercial standards, they are unmistakably amphibious in design, with both flight decks and well decks.

Instead of now spending \$16-17 billion on a single MPF(F) squadron, perhaps a better return on investment would be to buy 15 LPD-17s on top of the nine now in the 313-ship shipbuilding plan and to retain three legacy MPF squadrons. At the same time, the Joint Seabasing Office could initiate a thorough program of operational experimentation and technological development for future MPF capabilities. This would result in an interim Expeditionary Maneuver Fleet consisting of 36 amphibious landing ships (four J-CVEs; eight LHDs; and 24 LPD-17s) and 16 MPF(E) ships providing 3.0 MEB equivalents of Category One access-insensitive assault forces and 3.0 MEB equivalents of Category Three access-sensitive combat reinforcements. For a modest additional price, some of the MPF ships could receive the modifications to allow them to function as Irregular Warfare Support Bases. Moreover, another readily available option would be to convert the LSDs being

⁶²⁴ Harkavy, "Thinking About Basing," p. 36.

replaced by new LPD-17s into auxiliary LSDs maintained in reduced operating status and manned by MSC crewmen; or into additional Irregular Warfare Support Bases; or into multi-purpose fleet tenders for the forward-deployed LCS fleet; or other platforms such as seabases for UUVs or USVs. By so doing, the battle fleet could increase its total number of readily available amphibious ships as well as its overall seabasing flexibility for a relatively modest price.

In determining joint seabasing priorities, shoot for maximum benefit for minimum cost. As the foregoing discussion suggests, only by approaching the joint seabasing enterprise in a holistic manner will a zero baseline seabasing review be able to determine the highest joint return on seabasing investments. For example, as has been discussed, given the billions of dollars spent to improve the Strategic Military Transportation System during the 1980s and 1990s, including three MPF squadrons, the MPF Enhancement program, the eight gasturbine powered LMSRs for the Combat Prepositioning Program, the 11 LMSRs for the surge sealift fleet, and the 31 RO/ROs for the sustained sealift fleet, it seems quite clear that one of the highest joint seabasing payoffs would be the procurement of one or two mobile seabased harbors that would allow these large deep draft ships to deliver and offload their cargos in austere anchorages. It seems clear that having two MUL-BERRY 21 harbors would likely provide a far greater payoff than spending \$16 billion to get a two-week response advantage for a *single* combat brigade on ships suitable only for a narrow range of scenarios.

Mix seabasing functions only as appropriate. A guiding design principle since the first Expeditionary Era has been that ships optimized to support maneuver functions require different features than ships optimized to support sustained logistics functions. Mixing these functions on the same platform is likely unwise. Mixing the functions in a single "operationalized" MPF squadron may also be unwise, given the operational penalties incurred when doing so. Perhaps a better way would be to design a MPF(F) squadron to provide a Category Two access-insensitive assault reinforcement capability (after having competed against other like capabilities), and a separate Joint Offshore Logistics Support Base to provide for the "underway replenishment" of joint ground forces maneuvering ashore and sustained logistics support of a joint campaign.

Fly before buy—especially for radically new operating concepts. It is one thing to replace a particular platform with a

new platform designed to perform an old mission more effectively. It is quite another to pursue a radical new operating concept—such as using MPF(F) ships in a JFEO or optimizing the amphibious landing fleet for vertical maneuver without a long period of technological exploration and operational experimentation. It seems astounding that the DoN would contemplate designing a MPF(F) squadron and incorporating it into a shipbuilding plan based on so little *operational* experimentation. The few experiments that have been conducted to date have involved small proof of concept experiments, generally focused on just one or two steps of the complicated ballet associated with the at-sea arrival and assembly of forces and the employment of forces from ships without traditional assault connector interfaces.

As discussed earlier, the development of MPF(F) concepts and the MPF(F) squadron design stands in stark contrast to the successful pathway followed for the development of naval aviation and aircraft carriers, which was marked by over two decades of war games, operational analysis, operational experimentation, technological development, and platform prototyping. Recall that before the battle force could count **one** purpose-built amphibious warship among its numbers, it performed six years of increasingly complicated amphibious landing exercises, ultimately involving one under-strength Marine and one under-strength Army *division*. It is not as if there is a pressing wartime requirement for the MPF(F) squadron; *why not slow down and perform more detailed experiments and technological developments before proceeding?*

A JOINT SEABASING PLAN OF ACTION AND MILESTONES

Guided by the 2005 National Defense Strategy and the 2006 QDR, new maritime definitions for seabasing and functional seabases, and a list of principles like the ones suggested above; having questioned old assumptions and made new ones; having diagnosed the most pressing joint seabasing deficiencies; and having reviewed the full range of joint seabasing options available—unfettered by service equities or preconceived notions and biases, the outcome of the zero baseline seabasing review should be a plan of action and milestones (POA&M) for joint seabasing programs. The POA&M could be implemented by a Joint Sea-

basing Project Office; alternatively, the Project Office could oversee the development of service capabilities for the Department of Defense.

As this report has argued, there is a pressing need for improved joint seabasing capabilities, and a broad range of options open to the Department. Hopefully, this report will assist in follow-on efforts to pursue them.