Forward To a New Naval Future

The Marine Corps at an institutional inflection point by LtCol John Berry, USMC(Ret)

he Marine Corps is on the cusp of a major paradigm shift. The current National Defense Strategy (NDS) and associated Defense Planning Guidance (DPG) provide specific direction about deterring, and "if necessary" winning, conflicts versus peer adversaries. An emerging family of naval concepts, for Littoral Operations in a Contested Environment and Expeditionary Advanced Base Operations, align with the framework established in the NDS and the tasks assigned in the DPG.

These tasks are consistent with the enduring roles and missions established for the Marine Corps in Title 10 of the United States Code, but their successful execution will require significant changes to how Marine Corps forces are organized, trained, equipped, deployed, and employed.

Since money and manpower are always constrained, these changes will likely generate significant institutional debate over extremely difficult investment, divestment, and organizational decisions.

This debate needs to happen and key decisions must be made—*immediately*. The Commission on the National Defense Strategy for the United States recently released its congressionally mandated study, *Providing for the Common Defense*, that describes a bleak situation:

The security and wellbeing of the United States are at greater risk than at any time in decades. America's military superiority—the hard-power backbone of its global influence and national security—has eroded to a dangerous degree. Rivals and adversaries are challenging the United States

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on many fronts and in many domains. America's ability to defend its allies, partners, and its own vital interests is increasingly in doubt. If the nation does not act promptly to remedy these circumstances, the consequences will be grave and lasting.¹

We are facing an institutional inflection point, but this is not a new phenomenon. Since its inception, the Marine Corps has undergone four major

paradigm shifts. As we have successfully done in the past, we need to understand the issues, have the debate, and thoughtfully but energetically adjust how we will fulfill our Title 10 responsibilities to meet our Nation's changing strategic needs.

What Public Law Demands of the Marine Corps

The content of Title 10 is rooted in the defense unification fights of the late 1940s and early 1950s. The original language was drafted by Col (later Gen) Merrill B. Twining, LtCol (later LtGen) Victor H. Krulak, and LtCol (later BGen) James D. Hittle. These



Marines have conducted major land operations in Afghanistan and Iraq. (Photo by Sgt Ricky Gomez.)

distinguished officers were certainly well versed in Marine Corps history, but they were also forward-thinking individuals engaged in shaping future capabilities. The language they crafted was informed by all that came before, yet broad enough to be applicable into the future. Title 10 mandates that:

The Marine Corps shall be organized, trained, and equipped to provide fleet marine forces of combined arms, together with supporting air components, for service with the fleet in the seizure or defense of advanced naval bases and for the conduct of such land operations as may be essential to the prosecution of a naval campaign.²

Title 10 also tasks the Marine Corps to "perform such other duties as the President may direct," but cautions that "these additional duties may not detract from or interfere with the operations for which the Marine Corps is primarily organized."³

Historically, "such other duties" manifested in two forms: expeditionary crisis response and sustained operations ashore. Service with the fleet enabled many successful crisis response operations; consequently, in 1952 the 82nd Congress championed the value of the Marine Corps as an expeditionary force-in-readiness, "most ready when the Nation generally is least ready."4 On occasion, expeditionary crisis response transitioned into sustained operations ashore for a variety of purposes, from conventional combat to counterinsurgency to stability operations. Marines also conducted sustained operations ashore as part of a deliberate approach to major contingencies, as exemplified by recent events in Iraq and Afghanistan. Regardless, Marines have proven themselves adaptable to a variety of missions, demonstrating our value to some observers but often causing others to become confused as to the reason for our existence. This is exemplified by mis-characterization of Marines as "land forces" or as a second land army. This perspective becomes increasingly prevalent when the exigencies of the moment result in equipment changes (like the acquisition of embarkation

confounding MRAPs) that interfere with our primary purpose of service with the fleet.

From Title 10 and the intent of the 82nd Congress, we may derive three main categories—seize, defend, and such other duties—that provide a useful framework for understanding the Marine Corps' past and thinking about its future.

From Shipboard Detachments to the Advanced Base Force

From its inception until the late 19th century, the Marine Corps' primary purpose was to provide detachments aboard the ships and stations of the United States Navy. Secondarily, Marine detachments afloat led ad hoc landing forces to quell disturbances and protect American citizens and interests ashore. During these early years, the Naval Service⁵ played a supporting role in national security matters, to the extent that the Nation was primarily focused on settling the continent and disposing of any threats therein. Thus, neither the Navy nor the Marine Corps were in the forefront of national policy. In the words of historian Samuel Huntington,

All this changed in the 1890s when the United States began to project its interests and power across the oceans. The acquisition of overseas territorial possessions and the involvement of the United States in the maintenance of the balance of power in Europe and Asia necessarily changed the nature of the security threats with which it was concerned. The threats to the United States during this period arose not from this continent but rather from the Atlantic and Pacific oceanic areas and the nations bordering on those oceans. Hence it became essential for the security of the United States that it achieve supremacy on those oceans just as previously it had been necessary for it to achieve supremacy within the American continent. This change in our security policy was dramatically illustrated by the war with Spain. What began as an effort to dislodge a secondary European power from its precarious foothold on the American continent ended with the extension of American interests and responsibilities to the far side of the Pacific Ocean ...

In a little over twenty years, from 1886 down to 1907, the United States Navy moved from twelfth place to second place among the navies of the world. This dramatic change required a revolution in the thinking of the Navy, the operations of the Navy, and the composition of the Navy.⁶

These changes generated planning for "naval campaigns" that required "advanced bases" to support forward naval operations. As a result, the Marine Corps increased in size and created an Advanced Base Force focused on defense against enemy fleets.7 Between 1910 and 1914 the Marine Corps formed permanent tactical units and a formal school focused on the advanced base mission, while a group of senior leaders (including future commandants George Barnett, Ben H. Fuller, and John A. Lejeune) formed the Marine Corps Association as a forum to educate officers "on the Corps' naval value, including advanced base work."8

Even as the Advanced Base Force occupied the Marine Corps' force development focus, Marines continued to conduct expeditionary crisis response and sustained operations ashore in conflicts such as the Boxer Rebellion. Development of the Advanced Base Force continued despite the entry of the United States into World War I, although it was overshadowed by the dramatic expansion of the Marine Corps in order to conduct sustained operations ashore as part of the American Expeditionary Force in Europe. The price of participation in the American Expeditionary Force was the temporary adoption of Army organization, weapons, tactics, and even uniforms by the Marine units involved. It is worth noting that while the 4th Marine Brigade was earning accolades for its performance in France, other Marine brigades were conducting stability operations in the Caribbean. It is also important to understand that in this era Marines afloat were embarked on either surface combatants or auxiliaries adapted as troop transports rather than specialized amphibious ships.

To summarize this era in academic terms, the Marine Corps dual-majored in "defend," and "such other duties." The college catalog did not yet offer a course in "seize."



Marines pioneered large-scale employment of helicopters. (Photo by Cpl Aaron Henson.)

Going on Offense: the Fleet Marine Force

German defeat in World War I resulted in an unanticipated weakening of the U.S. position in the Pacific as the League of Nations gave the Japanese a mandate to take control of Germany's island possessions in Micronesia, to include the Marshalls, Carolines, and Marianas. Thus, the Japanese came into possession of key maritime terrain⁹ from which they could establish air and naval bases sitting astride the sea lines of communication between the United States and Asia. With Japan emerging as the pacing threat in the Pacific, U.S. naval planners began to recognize the necessity of having to seize island bases, whether for friendly use or to deny their access to the enemy. At the forefront of this recognition was Marine Maj Earl "Pete" Ellis who, in 1921, authored "Advanced Base Operations in Micronesia." A year later the Washington Naval Treaty prohibited peacetime base fortification in the Pacific, causing planners to assume that existing U.S. bases would be lost at the start of hostilities.

Ellis envisioned the need to conduct offensive amphibious operations as the means of seizing key maritime terrain. Select locations were rapidly developed as bases to support the fleet's logistical needs as well as air and patrol boat

operations in support of sea control/ sea denial. 10 The Navy and Marine Corps immediately began a series of amphibious experiments, but these were curtailed after 1925 when new expeditionary commitments in the Caribbean consumed the manpower needed for live-force innovation. However, amphibious development continued intellectually with the publication of Joint Action, Army and Navy by the Joint Army and Navy Board in 1927. This early example of joint doctrine established the Marine Corps' role "in support of the Fleet in the seizure and defense of advanced bases and for such limited auxiliary land operations as are essential to the prosecution of a naval campaign."11 Recognizing that challenge, in 1933 the Marine Corps began developing a manual for landing force operations that was eventually adopted by both the Navy and Army—making it de facto joint doctrine. The doctrinal effort was complemented by a major organizational change. In 1933, the Advanced Base Force—always defensive in character—was replaced by the Fleet Marine Force (FMF) oriented on both offense and defense within the larger context of fleet operations. When planning against the pacing threat turned into war versus a tenacious enemy, the demand for the FMF was such that it grew to six divisions, five air wings, and

twenty defense battalions. Likewise, the Navy went through a substantial transformation. In 1941, the U.S. still had no purpose-built amphibious ships; however by the end of the war 38 percent of the fleet consisted of a dozen types of *attack* transports and *landing* ships, each optimized to perform a specific task in an amphibious *assault*.¹²

In post-war testimony the 18th Commandant, Gen A.A. Vandegrift, explained to Congress that,

our dominant position in the field of landing operations did not come about by chance. It was the logical issue of 20 years of conscientious devotion by the Navy and Marine Corps to the complexities of the amphibious subject—to the development of the detailed techniques, doctrines and equipment, which later proved of such value to the armed forces of both our own and allied nations.¹³

In this era, the Marine Corps majored in "seize" as a new field of study and continued their studies by minoring in "defend."

The significance of the Marine Corps' contribution to allied victory in World War II did not come without baggage. We must recognize that, in the popular imagination as well as in the minds of some Marines, amphibious assault remains the common perception of the Marine Corps' purpose—to the exclusion of all other roles and missions past, present, or future.

Containing the Red Menace

The U.S. Navy and Marine Corps emerged from World War II as the most powerful naval force in history, but one that initially lacked a clearly defined purpose within a bi-polar world where the United States was confronted by a nuclear-armed continental power, the Soviet Union. President Harry S. Truman's Defense Secretary, Louis Johnson, declared sea power irrelevant,

There's no reason for having a Navy and a Marine Corps. General Bradley tells me amphibious operations are a thing of the past. We'll never have any more amphibious operations. That does away with the Marine Corps. And the Air Force can do anything

the Navy can do, so that does away with the Navy. 14

Johnson was soon embarrassed (and fired) over his faith in victory through air power.

In June 1950, when North Korea came south, President Truman and his secretary of defense woke up overnight to the value of the Navy's sea-based air and amphibious assault capabilities, the special combat value of the Marine Corps, and the indispensable role of the merchant fleet. ¹⁵

The amphibious assault at Inchon by the 1stMarDiv changed the course of the Korean War, but that was not the only critical employment of amphibious capabilities in that conflict. The Navy was able to stave off disaster by successviet positions on the northern flank of NATO.

Ultimately, during the Cold War the Marine Corps dual-majored in "seize" and "such other duties" without having to worry about "defend."

Policing the Planet

During the immediate post-Cold War era, the United States did not have clear pacing threats and the maritime environment was largely uncontested. We were able to focus on power projection to deal with episodic, rapidly emerging crises and contingencies without having to fully invest in the ability to fight for sea control. The capabilities, tactics, techniques, and procedures associated with fighting at sea, along with the idea that maritime power projection might need to be conducted in support

to the FMF became quite limited, despite the workload remaining extensive.

In the twenty years following the end of the Cold War, a much reduced FMF conducted more than five sea-based crisis response operations a year—a rate more than double the Cold War annual average of 2.27. The majority of these events involved humanitarian assistance, disaster relief, and noncombatant evacuations, but there were also some combat actions. Most notable among them was the amphibious assault by Task Force 58 more than 350 miles inland to seize a desert airstrip south of Kandahar as a lodgment for the introduction of additional forces, which—by definition if not conventional perception—constituted a forcible entry operation.¹⁶

More prominent in the post-Cold War era, were the major contingencies supported by Marine Corps component commanders, to include Operations DESERT SHIELD, DESERT STORM, ENDURING FREEDOM, and IRAQI FREEDOM.

During the immediate post-Cold War era thus far, the Marine Corps has majored in "such other duties," minored in "seize," and ignored "defend."

Meanwhile, the Marine Corps pioneered the largescale employment of helicopters to expand amphibious flexibility.

fully withdrawing the U.S. Tenth Corps from Hungnam after Chinese intervention radically shifted the balance away from the U.N. forces. Ultimately, the Korean War became merely one incident within a several decades-long series of events associated with the United States' Cold War containment strategy.

Meanwhile, the Marine Corps pioneered the large-scale employment of helicopters to expand amphibious flexibility. The fleet and its FMF applied amphibious capabilities again for a major intervention in Lebanon in 1958, another in the Dominican Republic in 1965, as well as a number of lesser crisis response operations throughout the Cold War. The FMF also conducted sustained operations ashore in both Korea and Vietnam. The latter concluded with the employment of amphibious capabilities to conduct the Saigon evacuation. As the Cold War continued, development of the 1980's maritime strategy included the use of amphibious capabilities to threaten Soof sea control, were allowed to wane. Presumptive maritime superiority, along with budgetary pressure, led us to focus on efficiency at maintaining the forward posture necessary for crisis response. We created an amphibious fleet composed of just three types of large, multipurpose ships—all with great endurance, flexibility, and habitability but lacking organic defensive capabilities and, given their expense, sufficient numbers. At the end of the Cold War, amphibious ships constituted roughly eleven percent of the fleet, as they still do today.

Additionally, in the absence of clear pacing threats the DOD moved away from a threat-based force development system in favor of a more generic "capabilities based" system. Furthermore, the Goldwater—Nichols Department of Defense Reorganization Act of 1986 generated separate Service components under the combatant commands. While some of the newly created Marine Corps component commanders were dual-hatted as FMF commanders, the forces assigned

Insights from the Past

From the foregoing discussion of previous paradigm shifts, we can glean several insights pertinent to our future:

- The existing Title 10 language appears remarkably enduring, although priorities have waxed and waned based on changing national and maritime strategies.
- The Marine Corps' most successful periods of innovation were driven by a single force development focus area tied to the Navy's pacing threat and maritime strategy.
- The associated ship-mix evolved to support the Marines' role in the maritime strategy.
- Operational employment of Marine Corps forces was by no means limited to the established force development priority; Marines consistently retained the flexibility to conduct a wide variety of missions.



Marines and Navy leaders will need to be flexible as we re-examine Naval Service roles and missions. (Photo by PO2 Megan Annis.)

What Is Next?

Peer competition and pacing threats have returned. Threat-based force development is returning, although the bureaucracy and processes are not yet adjusted to that fact. The United States is increasingly challenged in all domains by potential adversaries intent upon denying us the ability to operate forward to counter their aspirations. The proliferation of pervasive sensors and long-range, precision weapons usually referred to as anti-access/area denial (A2/AD) capabilities—presents both capability and capacity challenges. These systems represent the latest instantiation of a recurring condition, wherein advances in technology make defense the stronger form of battle until such time as new operational approaches and advances in maneuver capability may counter them. The A2/AD threat has led to questions about whether or not amphibious assault operations are even feasible and, by inference, the necessity of the Marine Corps.

Such questions ignore the larger issue of how best to counter an adversary's strategy. Rather, they appear driven by comparisons of how our systems will fare against the adversary's without regard to strategic or operational context. Such questions also reveal a narrow view of the Marine Corps' roles and mis-

sions that is fixated on one aspect of our World War II incarnation despite everything that has happened before or since. This fixation is not an anomaly. More than ten years ago, Naval War College Professor Mackubin Owens noted a common misuse of the word "amphibious,"

> In 1960, the British military writer B.H. Liddell Hart argued that "Amphibious flexibility is the greatest strategic asset that a sea power possesses." But over the past 30 years, the term often has been used in roles and missions debates to 'box' the Marine Corps into 'amphibious assault.' But the meaning of amphibious is much broader. It is derived from a classical Greek word meaning to live 'all around' or 'on both sides,' i.e., in two worlds-land and water ... given the evolution of the word and its current narrow connotation, it might be best to employ the splendid British term, 'amphibiosity.'17

Recent national strategy and guidance documents make it clear that the United States must be able to persist forward in order to protect our citizens and interests, reassure our overseas partners, counter fait accompli gambits, as well as deter and defeat overt aggression. Since the United States' network of large, fixed overseas bases is critical to those ends, it

is little wonder that potential adversaries are pursuing the A2/AD capabilities that will render those bases ineffective. Similar to the interwar period of the 1920-30s, the viability of our overseas bases—as well as potential alternatives to fixed bases—is once again central to our planning efforts.

The Navy and Marine Corps are working on an application of amphibiosity that focuses on defeating potential opponents' strategies, as opposed to focusing on the subordinate task of defeating their systems. Rather than generating a force optimized to fight its way across the ocean in the event of war, as we did nearly a hundred years ago, we need to design a force capable of persisting forward and applying mobile sensors, weapons, and logistics capabilities from a series of temporary sites within key maritime areas in order to "turn the A2/AD table."

The underlying premise driving this innovative application of amphibiosity is that it will be more strategically effective—and more economical in terms of lives and treasure—to "hold the access door open" instead of having to "beat the door down" to regain access after it is lost. Likewise, it will be more desirable to remain forward and compete below the threshold of combat to effectively deter conflict rather than actually having to fight one—especially versus a peer adversary. The Commission on the National Defense Strategy has arrived to the same conclusion, "Of the five competitors and adversaries named in the NDS, four—China, North Korea, Russia, and terrorist groups—are active in the Indo-Pacific region. Deterring aggression in this region requires establishing a forward-deployed defense-indepth posture."18

Given the fundamentally maritime nature of the Indo-Pacific region, at this moment in history the Marine Corps needs to major in "defend" and minor in "seize" and "such other duties." Toward that end, a revitalized and redesigned FMF must contribute to a modular, scalable, and integrated naval network of seaward and landward sensors, weapons, information warfare capabilities, and sustainment capabilities postured to compete, deter and suc-

ceed in "high end" combat versus a peer adversary.

Amphibious capabilities will remain a critical enabler for this approach, however, the amphibious team that has been optimized for *efficiency* in an era of presumptive maritime superiority needs to be re-designed for *effectiveness* in a contested environment.

Working with our Navy counterparts, we need to think through the details of how we deploy and employ new formations that provide the requisite characteristics, capabilities, and capacities. This will entail complementing the existing family of big, multipurpose ships with smaller, specialized, less expensive vessels to improve capacity, resilience, dispersion, and the ability to operate in complex archipelagoes and contested littorals without incurring unacceptable risk.¹⁹

We also need to develop a host of mobile, low-signature, manned and unmanned sensors, weapons, and shoreto-shore landing ships/craft to increase lethality, capacity, and sustainability. Force design and capability development must be conducted as an integrated naval effort to ensure that Navy and Marine Corps initiatives and investments are mutually supporting. Furthermore, we must orient our security cooperation activities on establishing the force posture, international partnerships, and operational conditions that are essential to countering the range of aggression by potential adversaries.

Conclusion

Samuel Huntington's observation about threats to the United States emanating from the "oceanic areas and the nations bordering on those oceans" remains as true today as in the 1890s. The Marine Corps is once again at an institutional inflection point, trying to evolve to meet new challenges in a manner consistent with our Title 10 responsibilities. As our history demonstrates, during each strategic era our force development activities may have focused on one aspect of those responsibilities, but our force commitments have usually demanded the versatility to do multiple missions effectively. We therefore need to evolve in a manner

Recommended Naval Reading

The last five Commandants of the Marine Corps have increasingly called for a greater degree of "naval integration." Surprisingly, however, the current Commandants' Reading List does little to promote understanding of maritime strategy, naval operations and tactics, or of the Navy itself. Of the more than 100 titles on the present list, less than ten address naval topics. Of these, two are the most pertinent today. Neptune's Inferno: The U.S. Navy at Guadalcanal, by James D. Hornfischer, demonstrates that anti-access/area denial is not a new problem and integrated air-sea-land operations are not a novel solution. In describing the sacrifices the Navy made in the waters around Guadalcanal and the skies above, Hornfischer also gives Marines reason to shut up about "the Navy running away." Ghost Fleet, by P.W. Singer and August Cole, provides a sobering prediction of the potential outcome of future U.S. naval combat versus a peer adversary. Five more titles that ought to be on the list include:

To Rule the Waves: How the British Navy Shaped the Modern World, by Arthur Herman. Mahan and Corbett may have been the prophets of sea power, but their prose may be tough for 21st century readers. Herman provides a highly readable primer on sea power and how evolving economic interests, strategic objectives, technology, and resources drive capability, capacity, organization, doctrine, and application.

One Hundred Years of Sea Power: The U. S. Navy, 1890–1990, by George W. Baer. There is no reason to have a Marine Corps without a Navy, yet few Marines today understand why and how U.S. sea power has evolved or what part Marines have played in it. If we do not understand these things, how can we understand the emerging demands and keep ourselves relevant? Baer's history should be read by every Marine officer.

Testing American Sea Power: U.S. Navy Strategic Exercises, 1923–1940, by Craig C. Felker. The interwar period is looked upon as the hallmark of successful naval innovation—although it was far from perfect. Felker explains the context for innovation during the interwar period and how the different naval warfare communities interacted. Marine readers will gain a better understanding of the Navy, how the fleet drives innovation, and how to make ourselves understood by, and relevant to, the Navy.

Fleet Tactics, by Wayne Hughes. The author lays out a conceptual framework for understanding naval operations based on both historical and technical analysis. Hughes explains six cornerstones of maritime warfare, followed by an examination of the "great trends" and "great constants" of naval combat. The original edition was published in 1986, with second and third editions published in 2000 and 2018 to incorporate additional material on missiles and information warfare.

One Hundred Days: The Memoirs of the Falklands Battle Group Commander, by Admiral Sandy Woodward. A personal account of the decisions and associated rationale for them by the senior officer present afloat fighting a naval campaign in the missile-age. Woodward provides great insights regarding the effects on terrain and hydrography on naval operations in the littoral.

that optimizes our capabilities and capacity versus the pacing threat while retaining the operational flexibility to perform "such other duties" when called upon.

We need Marines who understand and embrace the idea that being "naval" requires envisioning a new future rather than trying to replicate past—and often bloody—achievements. We need a spirit of innovation that explores the military potential of robotics, autonomous vehicles, artificial intelligence, nanotechnology, quantum computing, biotechnology, 3D printing, the Internet of Things, and other emerging technologies. We need money to be judiciously invested. We need a sense of urgency. We also need to explain to Congress and to others in the DOD what we are trying to achieve in order to garner the necessary support.

As in previous paradigm shifts, there will be friction in execution. Individuals who share steadfast loyalty and genuine concern for the future of the Marine Corps may passionately disagree over the changes ahead—just as John A. Lejeune and Smedley D. Butler once argued over amphibious warfare or small wars as our institutional focus. Some Marines will view the coming changes as essential to ensuring our relevance while others will fear they spell the death knell of the Service. Unlike the Lejeune-Butler era, however, our senior defense officials-to include Marine generals of great repute—have defined the new direction for us. Experts commissioned by Congress to assess that direction have not only endorsed it, they highlighted the looming dangers to our Nation that demand rapid and decisive corrective actions. Rather than arguing the merits of the new direction, our institutional debate must focus on the best means of its implementation. We have our orders ... it is time to move out.

Notes

1. The Commission on the National Defense Strategy for the United States, *Providing for the Common Defense*, (Washington, DC: United States Institute of Peace, November 2018), available at https://www.usip.org.

- 2. Title 10, United States Code, Armed Forces. 112th Congress, 1st Session, (Washington, DC: As amended through 7 January 2011).
- 3. Ibid.
- 4. U.S. Congress, *Congressional and Administrative News*, Volume 2, Legislative History. 82nd Congress, Second Session, (Washington, DC: 1952).
- 5. By long-standing Department of the Navy policy, "The Naval Service" (as opposed to "the Naval Services") is the official term that refers to the Navy and Marine Corps collectively. It is commonly found in the closing line of personal award citations.
- 6. Samuel P. Huntington, "National Policy and the Transoceanic Navy," *U.S. Naval Institute Proceedings*, (Annapolis, MD: May 1954).
- 7. Jeter A. Isely and Philip A. Crowl, *The U.S. Marines and Amphibious War*, (Princeton, NJ: Princeton University Press; 1951).
- 8. Allan R. Millet, *Semper Fidelis*, (New York, NY: The Free Press, 1980).
- 9. Key maritime terrain consists of any landward portion of the littoral that affords a force controlling it the ability to significantly influence events seaward.
- 10. Sea control: The condition in which one has freedom of action to use the sea for one's own purposes in specified areas and for specified periods of time and, where necessary, to deny or limit its use to the enemy. Sea control includes the airspace above the surface and the water volume and seabed below. Sea denial: Partially or completely denying the adversary the use of the sea with a force that may be insufficient to ensure the use of the sea by one's own forces (NTRP 1-02 Navy Supplement to the DOD Dictionary Of Military and Associated Terms; Nov 2018).
- 11. Robert D. Heinl, Jr., Soldiers of the Sea: The United States Marine Corps, 1775–1962, (Annapolis, MD: Naval Institute Press, 1962).
- 12. These included types (numbers) such as: Attack Cargo Ships (108); Attack Transports (233); Landing Ships, Dock (19); Landing Ships, Medium, (500); Landing Ships, Medium, Rocket, (58); Landing Ships, Tank (964); Landing Ships, Vehicle (6); Support Landing Ship/Craft (130); and Fast Attack Transports (127). See Norman Friedman, U.S. Amphibious Ships and Craft: An Illustrated Design History, (Annapolis, MD: Naval Institute Press, 2002) and

- Naval History & Heritage Command, available at http://www.history.navy.mil.
- 13. Gen Alexander A. Vandegrift, "The Bended Knee Speech," Commandant of the Marine Corps testimony to the Senate Committee on Naval Affairs, (Washington, DC: 6 May 1946).
- 14. Paolo E. Colleta, *The United States Navy and Defense Unification, 1947–1953*, (University of Newark, NJ: Delaware Press, 1981). Secretary Johnson's comments were made to VADM Richard L. Conolly. VADM Conolly's reaction is worth reprinting here, "I will say without reserve that Bradley doesn't know what the hell he's talking about. I know a hell of a lot more about amphibious operations than Bradley does, and I've commanded a number of them when Bradley was either a passenger or witness ... and I tell you that it is a technique we can't afford to abandon."
- 15. CAPT Wayne Hughes, USN (Ret), "Implementing the Seapower Strategy," *Naval War College Review*, (Newport, RI: Naval War College, 2008).
- 16. Data in this paragraph was drawn from "US Amphibious Operations, 1990–2016 (as of 15 June 2016)," a working document compiled from open sources by the Concepts and Plans Division, Marine Corps Warfighting Laboratory, and Gen A. M. Gray's "Reduction in Seapower" Memorandum for the Secretary of the Navy dated 15 November 1989.
- 17. Mackubin Thomas Owens, "Iwo Jima and the Future of the Marine Corps." Foreign Policy Research Institute, (Online: 1 February 2005), available at https://www.fpri.org. The Liddell Hart quote was inaccurately transcribed in an anthology of famous military quotations, which appears to be the source used by Owens. Liddell Hart actually wrote, "Amphibious flexibility is the greatest strategic asset that a sea-based power possesses."
- 18. Providing for the Common Defense.
- 19. Today's LSDs, LPDs, LHD/As are respectively 15,939, 24,900, and 40,650-43,745 tons full load displacement. In contrast, a World War II landing ship, tank (LST) was 4,000 tons while an attack transport (APA) was up to 14,000 tons. These smaller, cheaper, platforms provided risk-worthy and resilient capability and capacity suitable for a contested environment.

