PROJECT MUSE®

First to Fight: Advanced Force Operations and the Future of the Marine Corps

Major B. A. Friedman

Journal of Advanced Military Studies, Volume 11, Number 2, 2020, pp. 119-140 (Article)

Published by Marine Corps University Press

➔ For additional information about this article

<https://muse.jhu.edu/article/796340/summary>

[Access provided at 26 Apr 2023 10:04 GMT with no institutional affiliation]

This work is licensed under a Creative Commons Attribution 4.0 International License.

First to Fight

Advanced Force Operations and the Future of the Marine Corps

Major B. A. Friedman, USMCR

Abstract: General David H. Berger's tenure as Commandant of the Marine Corps has set the stage for drastic change toward a Marine Corps more focused on maritime operations. The Commandant has called on these changes to be concept driven and capabilities tested, driving experimentation, wargaming, analysis, research and development, and acquisitions. The Marine Corps is pursuing or developing a number of concepts but lacks an overarching concept that provides context and coherence for conceptual exploration. The author proposes advanced force operations, a concept designed to be broad enough to link together modern concepts like expeditionary advanced base operations and distributed operations, while building on the Marine Corps' traditions and strengths. Advanced force operations envision Marine Corps forces acting as a vanguard force, competing for maritime access, shaping naval campaigns, and enabling the introduction of Joint forces.

Keywords: amphibious operations, expeditionary advanced base operations, *National Defense Strategy*, Marine Corps concepts

The Marine Corps is in the process of its most drastic reform since the publication of *Warfighting*, Fleet Marine Force Manual (FMFM) 1, in 1989.¹ Commandant of the Marine Corps General David H. Berger's

Maj B. A. Friedman is a field artillery officer and the division cell office in charge, 6th Air Naval Gunfire Liaison Company, and a civilian military analyst in support of the Marine Corps Warfighting Lab. He is the author of several books, including *21st Century Ellis: Operational Art and Strategic Prophecy* (2015), *On Tactics: A Theory of Victory in Battle* (2017), and the forthcoming *On Operations* (2021). He holds a BA in history from The Ohio State University, an MA in national security and strategic studies from the U.S. Naval War College, and is pursuing a doctorate in nineteenth century naval strategy and amphibious operations through King's College London.

Journal of Advanced Military Studies vol. 11, no. 2

Fall 2020

www.usmcu.edu/mcupress

<https://doi.org/10.21140/mcu.20201102007>

vision, captured in the *Commandant's Planning Guidance* and *Force Design 2030*, is in response to the 2018 *National Defense Strategy* (NDS) and 2019 *Defense Planning Guidance*, both overseen by then-secretary of defense James N. Mattis.² These documents reshaped Marine Corps priorities, clarified the Marine Corps' role regarding the Joint force, and aimed the Service at a specific threat: the People's Republic of China (PRC). These priorities, the majority of which are classified, require a forward-deployed, highly mobile, highly distributed, combat-credible force able to integrate with and fight alongside the Navy during naval campaigns. After extensive research, experimentation, wargaming, and analysis, the *Commandant's Planning Guidance* and *Force Design 2030* have begun the process of creating just such a force to meet the expectations set by former secretary of defense Mattis, while ensuring that it can still address other potential adversaries mentioned by the NDS: the Russian Federation, the Islamic Republic of Iran, and the Democratic People's Republic of Korea.

In his planning guidance, General Berger has also set the conceptual foundation of the Marine Corps in the form of six current and future concepts: the Navy's distributed maritime operations (DMO); the Navy/Marine Corps concepts littoral operations in a contested environment (LOCE) and expeditionary advance base operations (EABO); and three pending concepts: stand-in forces (a concept for Marine Corps forces operating within the range of enemy stand-off capabilities), crisis response, and a Navy/Marine Corps/Coast Guard capstone concept.³

While the force design efforts have received most of the attention, the establishment of these six concepts as a conceptual foundation is just as important. Concepts are theories of innovation. A military force can never know with certainty exactly what tactics, capabilities, and platforms it will need in the future. Conceptualizing that future is a form of intellectual reconnaissance, driving experiments, wargames, prototyping, analysis, and assessments. The lessons and conclusions of concept-driven analysis can then inform doctrine, structure, and acquisition.

While these concepts cover various important aspects of Marine Corps operations, what is still missing is an overarching Marine Corps Service concept. The six concepts mentioned above all address aspects of Marine Corps operations, or how Marine Corps forces will fight in certain situations. *Warfighting*, Marine Corps Doctrinal Publication (MCDP) 1, remains the Corps' philosophy, but it is not an operating concept. The tri-Service capstone concept will cover the maritime Services but not provide the Marine Corps with such an overarching concept. The Corps needs a true Marine operating concept: one that provides context for these six concepts, links them together, and demonstrates how they can work together. Such a concept should provide a vision of how the Marine Corps will contribute to the Joint force that simultaneously

contextualizes the six concepts identified in the *Commandant's Planning Guidance*, the Service's traditional missions of amphibious operations, and its leading role in Joint force entry operations (JFEO) through its philosophy of maneuver warfare.⁵ Any such concept must build on the past, integrate the present, and prepare for the future. It must be of value to the Navy and the Joint force, while playing to the Marine Corps' strengths, traditions, and its responsibilities to the United States. In short, when it comes to concepts, the Marine Corps needs one concept to rule them all.

This seems a daunting task, but the Service has done this before. It is common to refer to the interwar period, the visionary *Advanced Base Operations in Micronesia*, and the drafting of the *Tentative Manual for Landing Operations* in 1934.⁶ But the conceptual vision of Lieutenant Colonel Earl Hancock Ellis and the codification thereof in the later *Tentative Manual for Landing Operations* (1935) was the first Joint, multidomain doctrine in American history. Ellis provided the concept that General John A. Lejeune would later, as Commandant, begin to make reality. By World War II, the Marine Corps was ready and secured advanced bases in both theaters of war well in advance of other Services—in Iceland for the European theater and at Guadalcanal in the Pacific theater.⁷ Then, as now, the U.S. military found itself in a transitory and rapid state of change. Now, as then, the Marine Corps as the nation's forward-deployed, rapid-response force is best positioned to lead it forward as the vanguard of the Joint force. Amphibious forces operating well ahead of other U.S. forces as a crisis develops can both frustrate adversary plans and provide value to the Joint force through real-time information and intelligence, on-site command and control, and distributed support.

What follows is a proposal for the Marine Corps' Service-level concept to operate as a vanguard again: advanced force operations. The concept builds on advanced base operations, bringing forward some of its key ideas such as the advanced forces in support of naval campaigns and its inherent multidomain nature: the DNA of the modern Marine Air-Ground Task Force. It integrates present Department of Defense-level guidance such as the 2018 *National Defense Strategy*, the *Commandant's Planning Guidance*, and the six concepts that General Berger has designated as the conceptual foundation of the Marine Corps. Lastly, it shapes the future for the Marine Corps, rather than allowing the Marine Corps to be shaped by it, by ensuring a viable, lethal, and valuable mission led by the Marine Corps for decades to come.

Amphibious Operations and Naval Strategy

To understand how to generate and employ advanced amphibious forces in support of naval campaigns, it is first necessary to establish the role of amphibious operations in naval strategy. While amphibious operations are not exclusive

to naval strategy, as they can be a potent contributor to land campaigns as well, the focus of the Marine Corps is naval campaigns and thus naval strategy.

In his book, *The Leverage of Sea Power*, strategic theorist Colin S. Gray examines the use of naval strategy by both “sea powers,” states with a maritime focus, culture, and naval capability and “continental powers,” states with a landward focus. Gray states that:

Continental Powers can win wars against sea powers if they are able to deny a tolerable level of sea control to their maritime-dependent enemies; that has not been accomplished in modern times, but there have been some close calls. Next, it becomes clear that although sea powers cannot win wars at sea against land powers, command of the relevant sea areas, at least a working control, is an indispensable enabler for eventual victory in war as a whole.⁸

While the United States can be viewed as a hybrid power—one with both sea and continental power, because it is distant from its potential adversaries, separated by vast oceans and seas in nearly every case—naval strategy is vital to both American naval and land campaigns.

Naval strategy revolves around the establishment and maintenance of sea control: the ability of a naval force to “destroy enemy naval forces, suppress enemy sea commerce, protect vital sea lanes, and establish local military superiority” in a given region.⁹ No foreign war in American history could have occurred without sea control, whether provided by allies or fought for and achieved by the United States Navy. Even the Mexican-American War (1846–48) featured naval components in the Gulf of Mexico and the Pacific Ocean.¹⁰ The advent of airpower in the mid-twentieth century has not changed this requirement. Strategic bombing made possible by airpower is only transient, whereas sea control can be maintained over a longer period of time and enhances and sustains airpower.

Sea control, or command of the sea, must be recognized as a means to an end. The only purpose of achieving it is to use it for some strategic effect. That strategic effect could be the introduction of land forces to a land campaign, such as the amphibious assaults in the European theater of World War II. Or, it could be the achievement of sea control to support naval campaigns, such as the Pacific theater of World War II. As the Fleet Marine Force revitalizes its ability to contribute to sea control, it must do so with an eye on the intended strategic effect for which sea control must be established.

The purpose of sea control is to exploit it for strategic effect on land, specifically strategic effect on the adversary’s territory.¹¹ The purpose of an amphibious force is to exploit sea control for power projection ashore through amphibious

operations. Amphibious operations in support of both types of campaigns simultaneously require and can contribute to sea control. This has been true since the dawn of military history. For example, the attempted Persian invasion of Greece that culminated in the Athenian victory at the Battle of Marathon in 490 BCE depended on the Persian establishment of naval bases in the Aegean Sea. These islands, Naxos and Delos among others, were invaded by seaborne Persian troops prior to their invasion of the Greek mainland. There, they filled up on water and food and conscripted recruits to support the eventual invasion of Attica. This early example of the use of advanced bases to achieve and then exploit sea control exemplifies the enduring nature of naval strategy.¹² There are many other examples across history, including Marine Corps history. Walker D. Mills has shown that the Marine Corps established advanced bases for other Services as early as the Spanish-American War (1898).¹³

A more modern example is Operation Corporate, better known as the Falklands War in 1982. After the seizure of the Falkland Islands by an Argentinian amphibious task force, the United Kingdom (UK) had to organize and deploy a naval task force to retake them. Since the Falklands are more than 12,875 km from the UK, the Royal Navy task force used Ascension Island in the mid-Atlantic as an advanced base to support the amphibious assault of the Falklands. Ascension Island significantly extended the operational reach of the Royal Navy and Royal Marines. Although Ascension Island was already British territory and did not have to be seized, it demonstrates the modern need for advanced bases.¹⁴

This is no less true today. The proliferation of precision-guided munitions employed in antiair and antiship roles threatens the sea and air control necessary to execute large-scale amphibious operations. However, many of these threats are land-based or depend on shore-based installations and command and control to operate. Amphibious operations can contribute to their reduction and destruction, the control of land where they could be employed, and the use of shore-based positions for friendly antiair and antiship platforms. Therefore, the overarching concept for how the Marine Corps can contribute to naval campaigns through amphibious operations must account for environments where sea control is absent, contested, and assured, examine how Marine Corps forces help to achieve sea control, defend and consolidate sea control, and then exploit sea control to enable the Joint force to execute surge layer operations. More specifically, it must build on the Marine Corps' first to fight tradition and legacy concepts like advanced base operations by establishing the conceptual ways in which Marine Corps forces will operate in advance of other Joint forces where adversaries have established control, deplete that control to contest it, and then consolidate the control to support the introduction of the Joint force.

Advanced Force Operations

Advanced force operations are an evolution of advanced base operations. When Ellis conceived of the latter, the U.S. Navy needed forward, permanent coaling stations and harbors to support naval campaigns, in addition to forward airfields to support naval aviation, most of which would end up being semipermanent. It would be the Marine Corps that would have to seize and hold the land necessary for such bases, and the Marine Corps would need to be a combined arms, air, and ground force to do so. Ellis conceived of these concepts as a Naval War College student and instructor, refined them in early experiments during Lieutenant General John A. Lejeune's commandancy, and then applied them to the specific problem of Imperial Japan in *Advanced Base Operations in Micronesia*.¹⁵

Technology and other things have obviously changed since Ellis completed his work in 1921. The Navy no longer requires coaling stations. However, the role of naval aviation has only increased; forward airfields are even more important. Nor can the Navy ignore ports as they are still required for maintenance and other reasons; they are just less necessary for fueling, as that can be accomplished at sea. The landward side of the littorals is now more valuable for antiair and antiship platforms. During World War II, these latter two capabilities were powerful, but not to the degree they are today given the combination of precision-guided munitions and information technology.

The maturation of missiles of all varieties, including surface-to-air, air-to-air, rocket and missile artillery, antiship cruise missiles, and ballistic missiles means that it is the missile, not the machine gun, that will characterize warfare in the decades to come. These capabilities have enabled potential adversaries to construct so-called antiaccess/area-denial (A2/AD) networks. More accurately called integrated coastal defense networks, they are purpose-designed to keep U.S. forces—especially naval forces—at bay. This antiaccess warfare is not new, but it is now a key component of adversary defensive plans, including the Islamic Republic of Iran, the Russian Federation, and especially the People's Republic of China.

Naval War College Professor Sam Tangredi defines *antiaccess warfare* as “warfighting strategies focused on preventing an opponent from operating military forces near, into, or within a contested region.”¹⁶ Just as antiaccess warfare has been used before, it has been overcome before. It is always desirable to bypass antiaccess measures, such as the Germans did for the French Maginot Line during World War II. In some cases, amphibious operations are the best option to bypass coastal defenses. In the case of modern, integrated coastal defense systems, however, there may be no uncontested naval maneuver space. Antiaccess warfare has one goal: prevent the adversary from accessing maneuver space, thus forcing costly, frontal offensives against strong defensive positions.

The most successful example in history is the western front of World War

I, where both sides succeeded in fortifying all available maneuver space across most of Europe. But even there, a way was found to restore it: infiltration tactics. Infiltration tactics were pioneered as early as the American Civil War, but most famously by the German Army during World War I. By 1918, the Germans had developed the tactics necessary to infiltrate and then reduce antiaccess measures of the western and eastern fronts, thereby gaining access to the opponent's operating area. The goal of infiltration tactics was to restore mobility, and hence maneuver space, to a battlefield where the opponent had closed off all avenues of approach. These infiltration forces succeeded in the eastern, but on the western front the Germans failed to expand on that access and exploit it via follow-on assault forces.¹⁷ The infiltration tactics were only the first step; the infiltration would need to be expanded and then follow-on assault forces would need to flow through. Although these examples occurred during land campaigns, the purpose of antiaccess warfare is the same on land and sea, and lessons learned in how to reduce them on land can also be applied at sea.

The express purpose of antiaccess/area-denial networks is to close off maneuver space to the opponent by threat of attrition (i.e., antiaccess warfare). Therefore, something like infiltration tactics will be necessary to restore maneuver space. The 2018 *National Defense Strategy* addresses this need to fight for access through the concepts of contact, blunt, and surge forces as well as the need for an inside force. Instead of initiating contact through infiltration, expanding access, then exploiting access through an assault, former secretary of defense Mattis envisioned maintaining access through contact forces, depleting an opponent's momentum through blunt forces, then gaining the initiative through surge forces. To do so, however, the surge forces will need to overcome antiaccess measures that cannot be assumed to have been entirely destroyed by contact and blunt forces. Such surge forces, akin to the follow-on assault forces of infiltration tactics, will need to be supported by contact forces (akin to the infiltration force itself) and forces designed to expand the access gained.¹⁸

Regardless of whether Marine Corps contact forces maintain access against a strategic offensive initiated by an opponent or whether U.S. forces are on the strategic offensive and must gain access, the Marine Corps—traditionally stationed abroad—will be the vanguard of the Joint force. To overcome antiaccess warfare and execute infiltration tactics on a vast scale, the Marine Corps will need a tripartite concept applying the principles to the new operating environment. This will involve the coordinated use of three types or forms of forces: infiltration forces, expansion forces, and assault forces.¹⁹ Each of these components performs a different function. Infiltration forces gain or maintain maritime access, expansion forces expand and consolidate that access and deny it to the adversary, and assault forces exploit that access to achieve larger objectives. The combination can be called *advanced force operations*.

Infiltration Forces

The role of the infiltration forces is to contest maneuver space. The infiltration forces will operate within the adversary's antiaccess network, either by entering it from outside or maintaining position within it as it expands if they are already in theater. These are contact-layer forces with a specific mission: persist within the weapons engagement zone of the adversary. Whereas advanced base operations during World War II was the establishment of bases to push the Navy forward, infiltration forces act as forward and screening forces to pull the Navy and Joint force enablers forward, similar to reconnaissance pull.²⁰

Key Concepts

The concepts most relevant to the infiltration forces will be distributed operations, reconnaissance/counterreconnaissance, operations in the information environment, and the forthcoming stand-in forces concept called for in the *Commandant's Planning Guidance*.²¹ In order to survive within the range of threat weapon systems, infiltration forces will necessarily be composed of small, networked teams. They will have to conduct both reconnaissance and counterreconnaissance, identifying threat positions, actions, surfaces, and gaps as well as preventing the adversary's attempts to do the same. Lastly, the infiltration forces will need to begin the process of attrition where opportunities appear to reduce the antiaccess system through lethal means. Infiltration forces will need to favor guerrilla-like tactics, avoiding contact with enemy forces but employing supporting arms whenever possible.

Key Tasks

The key tasks for the infiltration forces are threefold. First, infiltration forces must identify, track, and report adversary actions, positions, and posture. Second, infiltration forces must disrupt and delay adversary actions where possible, through the application of Joint fires and other stand-off capabilities, such as long range precision antiship and antiair missiles, when possible. Third, infiltration forces must establish and maintain contact with partnered forces in their operating area.

Key Capabilities

Infiltration forces will need to be stealthy; capabilities such as signature mitigation and multispectrum camouflage will be necessary for them to remain unseen while securely communicating with off-site forces. But they will also need to shoot. Infiltration teams will need the organic firepower to overmatch like-size forces and access to supporting arms for larger targets, especially adversaries' ships. When it comes to the fire support coordination required to work with Navy fires to destroy ships, Marine Corps forces are not generally

well-versed. Forces that will compose infiltration forces will be reconnaissance units, light armored reconnaissance, and Air-Naval Gunfire Liaison Company (ANGLICO) teams. Marine Expeditionary Force Information Groups (MIG) will be a critical enabler and will need to use military deception to protect infiltration forces but without a lot of capability on the ground. Aspects of operations in the information environment will be necessary to maintain the situational awareness of Marine and Joint forces.

Key Platforms

Platforms for the infiltration forces will necessarily be small, swift, stealthy, and difficult to detect. The light amphibious warship, once procured, will be the main maritime transportation vehicle, and the Marine Corps should investigate the use of submarines for both insertion and sustainment.²² The infiltration force will be limited to the High Mobility Artillery Rocket System (HIMARS) and/or the Remotely Operated Ground Unit Expeditionary (ROGUE) launcher for fire support, especially against adversaries' ships. These systems will need to employ both concealed firing positions and deception measures to remain hidden until firing. On land, infiltration forces will need to be foot-mobile or equipped with all-terrain vehicles or similar systems for mobility, including the use of local, purchased civilian vehicles.

Infiltration forces can also be supported by a range of autonomous systems to augment their own capabilities, including autonomous mortar boats, autonomous load-bearing ground vehicles, and a range of unmanned aerial systems.²³ Lastly, the use of seaplanes for insertions, exfiltrations, and sustainment would be a useful augmentation to existing platforms, especially in Indo-Pacific Command. The Lockheed Martin F-35 B/C Lightning II and the Bell Boeing V-22 Osprey will be critical aviation platforms, the former due to its stealth capabilities and the latter due to its range. Not all of these will be undetected but many will, and their smaller size and diversity will complicate an adversary's targeting processes.

Key Partners

While advanced force operations are a Marine Corps concept, it would rarely if ever occur without the presence of Joint partners. Therefore, it should address where Marine forces will interface with, cooperate with, and enable other Services. Infiltration forces will have to be able to communicate with command and control nodes in the rear to pass and receive information, enabling Navy and Air Force fires, information warfare, and electronic warfare. They will also need to be tied to adjacent Special Operations Forces if they are operating in the same area. Finally, the most important partners will be local allied security forces. Security cooperation and partnering with allied forces is inherent for

contact layer forces; U.S. forces will not be able to operate forward without local government permission and may be tied in with local military forces. These relationships must be fostered during peacetime to ensure the necessary relationships and liaison procedures carry over into conflict.

Amphibious Operations

Amphibious operations will be the key to advanced force operations. Every potential adversary named in the NDS has key maritime terrain in the near-abroad, and no Joint force action can occur unless access to that key maritime terrain is assured.²⁴ Not all of the five forms of amphibious operations will play equally in all three components of advanced force operations, however.²⁵ Since infiltration forces will rarely, if ever, permanently occupy terrain, they will need to be well-versed in amphibious raids and amphibious withdrawals, able to infiltrate key maritime terrain, accomplish their mission, and then move to another location.

Once infiltration forces successfully persist within the adversary's antiaccess system and have disrupted it enough for more forces to be introduced into the area, expansion forces begin to flow in to shape the maneuver space.

Expansion Forces

The role of expansion forces is to shape the maneuver space. Once the infiltration forces have successfully gained access, or identified areas where the adversary cannot contest it, expansion forces should be committed to ensure that access is held against counterattack. Expansion forces will fight for and gain sea control, exploiting the disruption created by infiltration forces. Those infiltration forces may not be withdrawn but instead just take a more static posture and act in support of expansion forces as they move from contesting sea control to achieving it. In key littoral areas where the adversary has not yet established sea control, expansion forces may be committed without the prior commitment of infiltration forces.

Key Concepts

The key concepts for the expansion forces are littoral operations for a contested environment and expeditionary advanced base operations. LOCE describes the naval integration necessary for naval task forces and Marine forces to move into an area of key maritime terrain, contested by stand-in forces, and tip the scale toward friendly sea control.²⁶ EABO begins to create a limited network of infrastructure to achieve sea control, contest air control, and establish the logistics and command and control necessary for Joint forces to operate in the area of operations. Expeditionary advanced bases (EABs) solidify air control and extend the reach of naval aviation. Antiship EABs solidify sea control while

antiair EABs and forward arming and refueling points contribute to air control and antisubmarine warfare EABs detect adversary submarines. These bases are still far from permanent and static. Rather, they are difficult to detect, mobile, and frequently moved. The Marine Littoral Regiment (MLR), currently an experimental force, will be a main effort for the expansion force.²⁷ Finally, the Air Force's adaptive basing concept seeks to address some of the same issues as EABO.²⁸ The two Services should seek commonalities in these concepts and ensure mutual support.

Key Tasks

The key task for expansion forces is to turn antiaccess warfare against the adversary, creating pockets of antiaccess around infiltrated key maritime terrain where enemy forces cannot achieve freedom of action. This allows friendly naval task forces and air forces freedom of action at a key point to increase the attrition and disaggregation of the enemy's A2/AD system. Lastly, littoral forces and EABs enable other Joint forces through sustainment, fire support, command and control, and information-related capabilities in the absence of Army theater logistics networks.

Key Capabilities

The key to the expansion force is a symbiotic relationship between Marine and Navy forces to establish sea control and contest air control. Antiship capabilities and air and missile defense capabilities will need to increase in this phase. Another key is Marine forces integration with the Navy's component warfare command concept, especially fire support and information systems, to establish a common operating picture. Fire support capabilities will expand and diversify. Lastly, the EABO network's ability to act as an expeditionary sustainment infrastructure requires the ability to stand-up, sustain, and displace EABs. Logistics capabilities may well be strained during this phase, and MIG enablers will still be key, but may not have adequate assets forward except where they are integrated with the MLR.

Key Platforms

As naval task forces begin to operate and dominate in the area, at least intermittently, maritime vessels like the offshore support vessel, expeditionary fast transport, and expeditionary mobile base (ESB) ships will be the most vital ships, along with connectors like the ship-to-shore connector, landing craft utility vessels, and limited use of the amphibious combat vehicle.²⁹ Although an adversary's A2/AD capabilities will not be entirely defeated by this point, smaller vessels are much more difficult to find, track, and target. These platforms will allow the littoral maneuver and logistics necessary to expand the access gained

by infiltration forces. At this point, landward forces can begin to be augmented by heavier forces to hold key maritime terrain against counterattack. Lift platforms such as the Sikorsky CH-53K King Stallion will offer key advantages for expansion forces, along with rotary-wing attack aviation squadrons.

Key Partners

While partnering with local forces will again be a major focus, liaison and coordination with Navy and Air Force components will greatly increase. Coast Guard forces are another likely partner to perform maritime patrolling and maritime security tasks. Marine expansion forces continue to provide key intelligence and data, acting as forward intelligence, surveillance, and reconnaissance for the Joint force.

Amphibious Operations

The amphibious operations component of the expansion force will expand, but both amphibious raids and amphibious withdrawals will still feature heavily as EABs are inserted, moved, and exfiltrated. There will also be a role for small-scale amphibious assaults against adversary strongpoints and possibly amphibious demonstrations.

Once access is assured and the expansion forces have set a foundation of support to enable forces to be introduced at will, assault forces move in to exploit the maneuver space thus created.

Assault Forces

The role of assault forces is to exploit maneuver space gained by the infiltration forces and consolidated by the expansion forces. This exploitation involves either expanding it further, using it as a movement corridor toward a key objective, or beginning the process of seizing additional terrain. This is a shift from achieving sea control to using it, assaulting through and contesting more terrain, and repeating the process from infiltration to expansion to assault if necessary. Assault forces seize or achieve larger objectives. If the infiltration and expansion forces are left jabs to reduce the adversary's defenses, the assault force is the right hook that does real damage.

Key Concepts

Distributed maritime operations (DMO) is the key concept here as the Navy exploits the access maintained by Marine forces to maneuver against adversary naval formations. The Marine assault forces will be more traditional, featuring full Marine Air-Ground Task Forces (MAGTF) tailored to the objective and acting in support of naval task forces and the Joint Forces Maritime Compo-

ment Commander (JFMCC). These may be blunt forces or may be the vanguard of surge forces.

Key Tasks

The main objectives for the assault force are to capture key maritime terrain, attack and destroy key adversary forces, or otherwise push the access already gained into new areas. Where infiltration forces contest antiaccess warfare and expansion forces solidify the breach, assault forces penetrate adversary defenses and exploit maneuver space beyond.

Key Capabilities

The assault forces are composed of more traditional capabilities: combined arms formations of maneuver, fires, aviation, and information and logistics enablers. MIGs and the LCE will have more capability forward. The assault forces will be a Marine Expeditionary Brigade (MEB) or Marine Expeditionary Force (MEF) level operation.

Key Platforms

Amphibious warships will be the key platform to enable assault forces. The actions of the infiltration and expansion forces will create windows of opportunity to exploit the unmatched capability of the amphibious warships to project power. Forces ashore will be heavier and able to employ larger platforms for both mobility and fire support. More aviation platforms will become viable for air assault, air mobility, and sustainment.

Key Partners

Partnering with local forces will continue to be a major concern for assault forces, as they will most likely need to initiate linkup with partner forces that were already operating in the area, or provide further support such as sea and airlift. Joint partners that may also participate in this phase include U.S. Army Airborne and Air Assault units, Navy expeditionary strike groups (ESG), and Navy carrier strike groups (CSG).

Amphibious Operations

Although the amphibious assault will take center stage for this phase, they will not resemble traditional World War II-era amphibious assaults such as Iwo Jima or Okinawa in scope, scale, or tactics. Amphibious warships will be able to rapidly move into and out of an area for short periods, or raid into an area of operations to support landings but will probably still be threatened enough to then have to withdraw. These assaults will most likely be limited to brigade-size

assaults or smaller, initially supported by an amphibious task force but then supported by nearby expansion forces, MLRs, or other similar forces. There is, however, one World War II-era campaign that will have a resemblance: Operation Watchtower, where key maritime terrain in the form of Henderson Field on the island of Guadalcanal was seized by the 1st Marine Division in 1942. Thereafter, they were intermittently supplied and reinforced by naval forces. Once the security of the positions ashore were assured and Henderson Field was secure, control was transitioned to Army forces.³⁰

The Surge: Joint Follow-on Forces

Consequently, advanced force operations can set the stage for the surge layer. Once assault forces have disaggregated or rolled back adversary antiaccess platforms in a large enough area or enough areas, the surge forces composed of Joint forces have assured access to the operating area, enabling Joint forcible entry operations (JFEO), air, naval, or ground offensives, or other Joint task force missions. As surge forces move into the area, they are supported with command and control, intelligence, surveillance, and reconnaissance, logistics, and fires from the EABO network.

Advanced force operations find, create, and shape opportunities for the rest of the Joint force, keeping the adversary off-balance and short-circuiting their ability to prepare for the arrival of the full weight of the U.S. military. Marine Corps infiltration forces may be operating in multiple areas at once and indeed may have to withdraw if adversary forces prove too strong. Some infiltration forces may contest an area as a feint to support other infiltration forces. But where they successfully contest an area, or where the adversary fails to eject them, expansion and assault forces are committed and breaches are expanded on. Importantly, advanced force operations build on and modernize traditional Marine Corps strengths, traditions, and tested operational concepts to address contemporary adversaries and requirements to support the Joint force.

Back to the Future: Advanced Base Operations

In 1920, Lieutenant Colonel Ellis composed what we would today call an operational concept for then-Commandant of the Marine Corps, General John A. Lejeune. The concept was based on exhaustive study of the southern Pacific region, Marine Corps experiments with ship-to-shore operations, and papers on amphibious operations Ellis had completed as a student at the Naval War College. The paper was called *Advanced Base Operations in Micronesia*.³¹

The concept was built around the U.S. Navy's need for coaling stations forward to cross the Pacific. Since the Imperial Japanese Navy also needed these stations, they would need to be seized and held against counterattack, and the Marine Corps would perform that role. To do so, they would need a balanced

force composed of ground troops and aircraft trained for amphibious operations. This symbiotic relationship between the Navy and the Marine Corps and the force design changes it required were formative in the creation of the modern Marine Corps.³²

However, the Navy did not always need coaling stations; by World War II, coal had been replaced by oil. What the Navy did need, however, were airstrips to increase the range and striking power of naval- and land-based aviation, which had become the major offensive weapon of both the U.S. and Imperial Japanese navies. It would be these advance bases that won the war, enabling both the strangling of Japanese shipping—cutting the home islands off from the outside world—and airstrikes on Japan, to include the use of two nuclear bombs.

Further experimentation and development after Ellis's death led to the publication of the *Tentative Manual for Landing Operations* in 1934 and an update in 1938. The manual was the doctrinal expression of Ellis's conceptual breakthrough and would be used by Marine, Navy, and Army forces in both theaters of the war, from Guadalcanal against the Japanese in 1942 to Normandy against the Germans in 1944.³³

Both the concept of advance base operations and the *Tentative Manual* called for force design changes overseen by Commandant of the Marine Corps General Thomas Holcomb. Although not all of the required changes were completed prior to Pearl Harbor, the intent was to create a dual composition. First, the Marine Corps would employ assault forces, organized in battalions, regiments, and two divisions, the 1st and 2d Marine Divisions. Secondly, the Marine Corps would employ independent defense battalions, stationed at key maritime terrain. Assault forces would seize advanced bases and defense battalions would hold them. If a forward base was designated as permanent, it would be turned over to Army forces. Essentially, Marine Corps assault forces and defense forces would leapfrog across island chains, seizing and then assuring access for naval forces. Importantly, assault forces and defense forces were manned, trained, and equipped for their role rather than being standardized as generic infantry units.³⁴

The concept of advanced base operations was well-suited to the industrialized warfare of World War II. Today's Information Revolution-era warfare will be different, but some foundational commonalities remain. First, the Navy will still require advanced bases, not only for airfields but for additional reasons, especially air and missile defense. Whereas aircraft were the most potent naval weapon during World War II, precision-guided missiles now characterize naval warfare.³⁵ These can be launched from land, sea, and air against land, sea, and air targets, making shore-based threats more potent than ever. U.S. Navy ships have already been attacked by nonstate actors employing such weapons.³⁶

Indeed, precision-guided missiles are the foundation of modern antiaccess warfare. Due to the range of modern missiles, naval campaigns can no longer bypass islands and other key maritime terrain; forces must be projected ashore to protect fleets and ships from shore-based threats if they cannot be neutralized. Additionally, airfields are just as important as they were during World War II and will either need to be used by Joint forces or seized to prevent their use by adversary forces. Advanced forces will be key to locate, identify, and neutralize such threats and assure Joint access.

There are major differences as well. The vast naval task forces that accomplished the large-scale amphibious operations of World War II are not survivable due to the proliferation of precision-guided munitions; at least, they are not survivable until advanced forces are able to mitigate shore-based antiaccess networks and create windows of opportunity. Information warfare and intelligence, surveillance, and reconnaissance platforms are now ubiquitous and will require shore-based infrastructure. Most, if not all, of the shore-based positions necessary to protect and enable the fleet will be more temporary in nature than they were during World War II, hence the change from advanced base operations to advanced force operations.

Advanced force operations build on these commonalities and accounts for the differences. The tripartite employment of forces ensures that whatever the state of the adversary's antiaccess efforts, the Marine Corps has the ability to contest it. First, it accounts for changes in warfare by adopting a three-part formulation rather than a two-part formulation, each tailored to a different level of access and sea control. Second, it meshes well with the Marine Corps' maneuver warfare philosophy and applies it to contemporary problems: searching for and creating gaps in an adversary's antiaccess/area-denial network to enable maneuver, rather than just seeking mere attrition. Third, it contextualizes Department of Defense guidance and traditional Marine Corps strengths such as amphibious operations and security cooperation in a mutually reinforcing manner. Fourth, it links current Marine Corps and Navy concepts such as DMO and EABO together as a family of concepts for specific situations. Lastly, by establishing a network of advanced bases for sea control, air control, command and control, sustainment, and information warfare, the Marine Corps can extend its vital function of supporting the Navy in naval campaigns to the rest of the Joint force, ensuring that it is a Joint enabler. In this way, advanced force operations reestablish the Marine Corps as the vanguard of the Joint force.

Operation Watchtower, the amphibious invasion of Guadalcanal in 1942, demonstrates many of the concepts necessary for advanced force operations. Imperial Japanese controlled the Solomon Islands and had forces on a number of islands, of which Guadalcanal was one. The initial infiltration forces were the Australian coastwatchers, who had either infiltrated Japanese territory or

maintained their positions as the Japanese advanced, presaging the concept of stand-in forces. Well-informed by the coastwatchers, the Solomon Island chain was then assaulted by the landing of the 1st Marine Division on Guadalcanal to seize the airfield, renamed Henderson Field. The 1st Marine Division maintained its position against attack by both land forces and air forces from the Japanese airbase at Rabaul on the island of New Britain, and the Navy had to withdraw from the area due to heavy Japanese naval attacks.³⁷

Once the Marines' position on Guadalcanal was secure and the Navy could logistically support it, an expansion of forces phase began. Henderson Field was expanded, two more airstrips were built, and more air squadrons were based on the island itself. Marine defense battalions and Navy engineer units arrived to improve the position. Eventually, Navy patrol torpedo boats plied the waters offshore to contest and consolidate sea control.³⁸

Upon achieving reliable air and sea control around Guadalcanal after a number of hard-fought naval engagements, an exploitation phase began. Control of Guadalcanal itself was slowly passed to U.S. Army units as Marine forces prepared for further assault operations in the Solomons, which later occurred at Bougainville Island in 1943. Accordingly, the infiltration and expansion of sea and air control in the Solomons acted as a springboard to achieve control of the entire island chain.³⁹

To be clear, this is not to say that Navy and Marine Corps planners viewed Operation Watchtower in terms of infiltration forces, expansion forces, and assault forces. They did not. However, the campaign did unfold along those lines, demonstrating the efficacy and applicability of advanced forces operations. The Japanese controlled the entirety of the Solomon Islands; the United States had no assured access there whatsoever. By infiltrating the Solomon Islands at a single key point, expanding and consolidating that access, and then exploiting it for follow-on amphibious assaults elsewhere in the Solomon Islands, the United States first reduced Japanese control in the area and then achieved it themselves.

Implications

Advanced force operations is not just a rehash of advanced base operations, but it is also not just an update. It is a modernization that takes contemporary trends into account without scuttling proven principles. It reflects the 2018 NDS Global Operating Model without abandoning Marine Corps strengths and advantages: infiltration forces are suited to the contact layer, expansion forces to the blunt layer, and assault forces to the blunt and surge layers.⁴⁰

While the Marine Corps is primarily focused on operations in Indo-Pacific Command against the People's Republic of China, advanced force operations ensures that the Marine Corps is well-suited to assure Joint force access against a variety of potential opponents. The Russian Federation also employs antiac-

cess warfare and may indeed be able to prevent the build-up of North Atlantic Treaty Organization (NATO) land forces in Eastern Europe.⁴¹ Even if it cannot, naval access to the North Sea, the Norwegian Sea, and the Baltic Sea will be necessary to sustain NATO against Russian aggression. Advanced force operations are ideally suited to achieving and assuring that access. The Islamic Republic of Iran is another threat that is seeking to employ antiaccess warfare. Iran's A2/AD systems are focused on the Persian Gulf, another region of key maritime terrain that also features islands.⁴² In recent years, the Democratic People's Republic of Korea has accelerated its acquisition and production of antiaccess weapons.⁴³ Lastly, the Bolivarian Republic of Venezuela is well behind these other threats in antiaccess systems, but it has recently purchased anti-air components of such a system from Russia.⁴⁴ These adversaries are united by more than just the anti-access weapons they have succeeded in acquiring but also by their proximity to key maritime terrain. The oceans offer access to these threats; offshore islands will either need to be used to support Joint force operations or seized to prevent their use by the adversary. Naval expeditionary forces are required for all of these areas, and advanced force operations can be applied to any of these potential threats. To return to Colin S. Gray's leverage of seapower, establishing sea control in the waters near these adversaries is an essential prerequisite to victory for both naval and land campaigns against these adversaries.

Another implication of advanced force operations is the vital importance of security cooperation for Marine Corps operations. As a small force operating ahead of many Joint enablers and support systems, security cooperation and partnering will have to be inherent in everything the Marine Corps does. Nor can Marine Corps forces access many forward positions without host nation support and permissions. The Marine Corps will not just have to fight for access, but it will simultaneously have to partner for access. This will place a heavy burden on units that already have security cooperation tasks, such as ANGLICO units and Marine Corps Advisor Companies, the latter of which only exist in the Select Marine Corps Reserve (SMCR). Security cooperation activities will have to expand beyond such units to become inherent across the Fleet Marine Force. Its practice has to be continuous, not intermittent. The Marine Corps should also explore increasing ties and integration with the Department of State.

Importantly, advanced force operations are not strictly focused on islands. Although islands offer convenient ways for amphibious forces to project power against sea and air forces, other types of terrain offer opportunities as well. Straits, canals, rivers, and deltas all offer opportunities for amphibious forces equipped with the right mix of platforms. The PRC's Belt and Road Initiative is, in large part, a global maritime network linking key maritime terrain

from China as far away as the Mediterranean Sea.⁴⁵ Should conflict between the United States and China occur, the role of the Fleet Marine Force will be global in scope, potentially operating in the South Pacific and other areas where there are sea lines of communication important to China. Examples of these sea lines of communication important to China include the Indian Ocean and the Gulf of Aden near Djibouti, where the People's Liberation Army (PLA) has its sole foreign base manned by its marine corps.

Advanced force operations have yet another application: the protection of sea lines of communication. The capabilities and forces necessary to gain, maintain, and exploit naval access in a wartime scenario are the same as those required should potential adversaries attempt to close off merchant shipping in their near abroad without escalating to open conflict. All of the potential adversaries mentioned above sit astride or near key sea lines of communication required for the transit of goods, people, and information throughout the global economy. Should they attempt to exploit that proximity through economic blockade of those lines of communication, advanced force operations enable the Marine Corps to provide policy makers with a range of options short of open conflict to maintain open waterways around the globe.

Such forces can also contribute to land campaigns. In land campaigns as diverse as the American Civil War, World War II, and Vietnam, riverine warfare—including amphibious operations using rivers as maneuver space—played key roles. Even beyond riverine warfare, most land campaigns that the U.S. military may face in the future will have an amphibious component. Additionally, both infiltration and expansion forces are well-suited to act in support of Special Operations Forces against any range of potential threats.

Lastly, advanced force operations do not account for the Marine Corps statutory crisis response role, which should remain the focus of Marine Expeditionary Units (MEU). The Marine Corps' crisis response role was written into law in 1952, and the Service remains the nation's force-in-readiness.⁴⁶ The primary means to perform this mission are MEUs. Lastly, advanced force operations offer an opportunity for the Marine Corps to design a force able to accomplish the goals set forth in the 2018 NDS and maintain its crisis response missions without assuming a great deal of risk. The mission of infiltration forces is more appropriate to company-size units and below, the mission of expansion forces is more appropriate for the Marine Littoral Regiment, and the mission of assault forces will require Marines forces of brigade or Marine Expeditionary Force size. These forces can be optimized for their role in advanced force operations while the MEUs are optimized for crisis response. Adopting this concept allows the Marine Corps to safely optimize, train, and structure them for crisis response missions.

Conclusion

No concept offers all the right answers, nor will every aspect of a concept make it through experimentation, wargaming, and analysis. But intellectual reconnaissance is valuable for the same reasons military reconnaissance is valuable: to find routes and pathways that will work, that will not work, and to find the right place to proceed. The concepts already identified by General Berger all address specific roles and situations. What remains is the need for a big-picture concept to tie them together.

First to fight must be more than just a recruiting slogan and an honored tradition. The Continental Navy and Marines were the first to take the fight to the enemy overseas in 1776 and the first American force to raise the flag over foreign shores during the Barbary Wars (1801–5). But these facts are just fading history if the Marine Corps cannot perform the same feats today. For the Joint force to send Marines first, or station them forward, Marines must provide value for being there first. As valuable as the Marine Corps has proven for the United States, it must also provide value for the Joint force. Advanced force operations is a concept that ensures a Marine Corps that can do both as the vanguard of the Joint force. It is founded on the timeless dynamic of offense and defense and the tested methods of antiaccess warfare and infiltration tactics, updated for the future operating environment to ensure access to maneuver space in the face of integrated antiaccess systems.

Access to both the Atlantic and Pacific Oceans does not inherently grant the United States the advantages of seapower. They must be defended and exploited by lethal maritime forces; that is, the Navy and the Marine Corps. The naval strategy necessary to prosecute both naval and land campaigns abroad rests on the acquisition, maintenance, and exploitation of sea control for which amphibious forces are a key component.

The 2018 NDS has refocused the Marine Corps on naval campaigns, and General Berger has the right vision at the right time to recalibrate the Fleet Marine Force for the future operating environment. Now, as during World War II, the role of amphibious forces in naval campaigns will be as a forward-deployed force to ensure access for the Navy. To do so in the face of adversary antiaccess warfare networks, amphibious forces will need to infiltrate them, expand the breach, and then assault through. The advanced force operations concept will require further testing, doctrinal development, and eventually force design, but it can help the Marine Corps achieve former secretary Mattis's vision, General Berger's goals, and meet the demands to become an effective force of the future operating environment.

Endnotes

1. *Warfighting*, FMFM 1 (Washington, DC: Headquarters Marine Corps, 1989).
2. Gen David H. Berger, *Commandant's Planning Guidance: 38th Commandant of the Marine Corps* (Washington, DC: Headquarters Marine Corps, 2019); and Gen David Berger, *Force Design 2030* (Washington, DC: Headquarters Marine Corps, 2020).
3. Berger, *Commandant's Planning Guidance*, 9–12.
4. *Warfighting*, MCDP 1 (Washington, DC: Headquarters Marine Corps, 1997).
5. See Berger, *38th Commandant's Planning Guidance*, 9–12.
6. LtCol Earl Hancock Ellis, USMC, *Advanced Base Operations in Micronesia* (Washington, DC: Headquarters Marine Corps, 1921). For the influence of the *Tentative Manual*, see Alan R. Millett and Williamson Murray, eds., *Military Innovation in the Interwar Period* (New York: Cambridge University Press, 1998).
7. LtCol Kenneth J. Clifford, USMCR, ed., *The United States Marines in Iceland, 1941–1942* (Washington, DC: Historical Division, Headquarters Marine Corps, 1970).
8. Colin S. Gray, *The Leverage of Sea Power: The Strategic Advantage of Navies in War* (New York: Free Press, 1992), xi.
9. For a definition of sea control operations, see *DOD Dictionary of Military and Associated Terms* (Washington, DC: Department of Defense, 2020), 190.
10. K. Jack Bauer, *The Mexican War, 1846–1848* (Lincoln: University of Nebraska Press, 1974).
11. *DOD Dictionary of Military and Associated Terms*, 1.
12. Herodotus 6.96–99.
13. See Walker D. Mills, “The U.S. Marine Corps and Advanced Base Operations: Past, Present, and Future,” in *On Contested Shores: The Evolving Role of Amphibious Operations in the History of Warfare*, ed. Timothy Heck and B. A. Friedman (Quantico, VA: Marine Corps University Press, 2020).
14. For the logistics of the Falklands War, see Maj Paul A. Olson, USA, *Operation Corporate: Operational Art and Implications for the Joint Operational Access Concept* (Leavenworth, KS: School of Advanced Military Studies, U.S. Army Command and General Staff College, 2012).
15. B. A. Friedman, ed., *21st Century Ellis: Operational Art and Strategic Prophecy for the Modern Era* (Annapolis, MD: Naval Institute Press, 2015), chap 3.
16. Sam J. Tangredi, *Anti-Access Warfare: Countering A2/AD Strategies* (Annapolis, MD: Naval Institute Press, 2013), 1.
17. For the development of infiltration tactics, see Bruce I. Gudmundsson, *Stormtroop Tactics: Innovation in the German Army, 1914–1918* (Westport, CT: Praeger, 1995).
18. Gen James N. Mattis, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge* (Washington, DC: Department of Defense, 2018), 7.
19. The Marine Corps uses the terms *enabling forces*, *decisive forces*, *assault force*, *exploitation forces*, and *sustaining forces* to describe sustained operations ashore. These are similar concepts applied to maritime operations. See *Marine Corps Operations*, MCDP 1-0 (Washington, DC: Headquarters Marine Corps), 2-31, 2-32.
20. See *Marine Corps Operations*, 11-8, for *reconnaissance pull* and *reconnaissance push* concepts.
21. Berger, *Commandant's Planning Guidance*, 10.
22. Maj Scott Cuomo, USMC, and Billy Birdzell, “Submarine Stormtroops,” USNI News, 7 November 2012, last updated 5 February 2013.
23. Jeff Cummings et al., “Marine Warbot Companies: Where Naval Warfare, the U.S. National Defense Strategy, and Close Combat Lethality Task Force Intersect,” *War on the Rocks*, 28 June 2018.
24. Olivia Garard, “Geopolitical Gerrymandering and the Importance of Key Maritime Terrain,” *War on the Rocks*, 3 October 2018.
25. The five forms of amphibious operations are: amphibious assaults, amphibious raids, amphibious withdrawals, amphibious demonstrations, and amphibious support to

- other operations. See *Amphibious Operations*, Joint Publication 3-02 (Washington, DC: Department of Defense, 2019), I-3, I-4.
26. *Littoral Operations in a Contested Environment* (Washington, DC: Headquarters Marine Corps, 2017).
27. Shawn Snow, "New Marine Littoral Regiment, Designed to Fight in Contested Maritime Environment, Coming to Hawaii," *Marine Corps Times*, 14 May 2020.
28. JaNae Caputo, "Gunfighter Flag 18-3, Adaptive Basing," USAF Air Combat Command, 24 July 2018.
29. Expeditionary fast transports (EPF) were formerly known as Joint high speed vessels. Expeditionary mobile base (ESB) ships were formerly known as a mobile landing platform, then an afloat forward staging base before the most recent change to ESB.
30. For Operation Watchtower, see Richard B. Frank, *Guadalcanal: The Definitive Account of the Landmark Battle* (New York: Penguin, 1992).
31. Friedman, *21st Century Ellis*, 82.
32. Friedman, *21st Century Ellis*, chap. 4.
33. For a detailed look at these changes, see David J. Ulbrich, *Preparing for Victory: Thomas Holcomb and the Making of the Modern Marine Corps, 1938–1943* (Annapolis, MD: Naval Institute Press, 2013).
34. David J. Ulbrich, "Clarifying the Origins and Strategic Mission of the US Marine Corps Defense Battalion, 1898–1941," *War & Society* 17, no. 2 (October 1999): 81–109, <https://doi.org/10.1179/072924799791201425>.
35. Capt Wayne Hughes Jr., USN (Ret), and RAdm Robert P. Girrier, USN (Ret), *Fleet Tactics and Naval Operations*, 3d ed. (Annapolis, MD: Naval Institute Press, 2018).
36. Sam LaGrone, "Destroyer USS *Mason* Unsuccessfully Attacked from Yemen," USNI News, 10 October 2016, last updated 11 October 2016.
37. Frank, *Guadalcanal*.
38. Frank, *Guadalcanal*.
39. For further reading on Operation Watchtower and the Solomon Islands campaign, see Frank, *Guadalcanal*.
40. *National Defense Strategy*, 7.
41. Michael Kofman, "It's Time to Talk About A2/AD: Rethinking the Russian Military Challenge," *War on the Rocks*, 5 September 2019.
42. Shahryar Pasandideh, "Iran Boosts Its A2/AD Capabilities," *Diplomat*, 23 May 2014.
43. Jeffrey L. Caton, *Impacts of Anti-Access/Area Denial Measures on Space Systems: Issues and Implications for Army and Joint Forces* (Carlisle, PA: U.S. Army War College, Strategic Studies Institute, 2018), 7–8.
44. Ryan C. Berg and Andrés Martínez-Fernández. "Venezuela Is Armed to the Hilt," *Foreign Policy*, 2 May 2019.
45. Elodie Sellier, "China's Mediterranean Odyssey," *Diplomat*, 19 April 2016.
46. Ian T. Brown, *A New Conception of War: John Boyd, the U.S. Marines, and Maneuver Warfare* (Quantico, VA: Marine Corps University Press, 2018), 35.