

Winning in the South China Sea

Lessons Learned from Recent Wars Provide the Blueprint for the US Marine Corps to Successfully Challenge the People's Liberation Army

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Abstract

The US Marine Corps (USMC) plans to transform itself into a force capable of containing China by utilizing the strategy of Expeditionary Advanced Base Operations. To throttle Chinese forces, Marines will establish a network of unsinkable forward arming and refueling points on the island chains that fence the South China Sea and survive within Beijing's weapons-engagement zone while enabling air strikes and offensive operations.

By first surveying the present situation in the South China Sea and then compiling lessons learned from detailed studies of modern-day battles, specifically focusing on the Nagorno-Karabakh War of 2020 and Second Lebanon War of 2006, this article will identify and explore the most prevalent themes present in these conflicts that should be applied as the USMC revises its strategy to fight and win against a resurgent China.

These themes function as a primer for how to win conflicts in the twenty-first century against our foremost peer competitor: First, Beijing plays a zero-sum game when it comes to protecting its sea lines of communication in the South China Sea and recapturing its rogue province of Taiwan. Beijing will only come to the table if placed at a position of disadvantage. Second, Beijing consistently will employ massed capabilities as its primary strategy to win this zero-sum game. Third, as proven in the 2020 conflict between Armenia and Azerbaijan, victory belongs to those forces that can prosecute targets fastest. Fourth, the 2006 Second Lebanon War highlighted the absolute criticality of maintaining redundant, dependable, and off-the-grid logistics chains.

The article concludes that the USMC will win these future fights if it builds regional alliances and employs widely dispersed, self-contained force laydowns to counter Chinese mass and confound its targeting systems. The USMC must continue to accelerate its efforts to shorten its targeting kill chains while speeding its employment of counterdrone jammers, missile-defense systems, and offensive weapons designed to blind enemy surveillance platforms. Finally, the USMC must establish a network of pre-positioned logistics caches throughout the operational environment, in conjunction with its regional allies, to overcome the tyranny of distance imposed by the geography of the South China Sea.

The US Marine Corps (USMC) plans to transform itself into a force capable of fighting China in its backyard, the South China Sea. To prove its commitment to this strategic evolution, the USMC divested its tanks in 2020, and Marine Littoral Regiments will stand up by 2023. The service now stakes its future on the concept of Expeditionary Advanced Base Operations (EABO). To contain Chinese forces and counter the challenges of their anti-access/area denial defenses, Marines will establish a network of unsinkable forward arming and refueling points on the island chains that fence the South China Sea and survive within Beijing's weapons-engagement zone while enabling air strikes and offensive operations.

Beyond EABO, the USMC also exists as America's 9-1-1 force, formed into Marine Expeditionary Units that can respond to contingencies from any number of US Navy (USN) vessels across the globe. Planning responses to these irregular fights necessitates a study of Russian next-generation warfare tactics, exhibited comprehensively during the 2020 Nagorno-Karabakh War, as well as an exploration of the unconventional strategies employed by the terrorist groups and non-state actors that continue to vie for dominance in the Middle East, Africa, and South America, displayed best in 2006's Second Lebanon War.

By first surveying the present situation in the South China Sea and then compiling lessons learned from detailed studies of modern-day battles, specifically focusing on the Nagorno-Karabakh War of 2020 and Second Lebanon War of 2006, this article will identify and explore the most prevalent themes present in these conflicts that should be applied as the USMC revises its strategy to fight and win against a resurgent China.

The article begins by exploring the two major themes behind the conflicts clouding the waters of the South China Sea: *First, Beijing plays a zero-sum game when it comes to protecting its sea lines of communication (SLOC) in the South China Sea and recapturing its rogue province of Taiwan.*¹ The Chinese Communist Party will not entertain negotiations to modify either of those stated goals, as Beijing views Taiwan and the portion of the South China Sea delineated by its nine-dash line as sovereign territory. Beijing will only come to the table if placed at a position of military and economic disadvantage.

Second, Beijing will consistently employ massed capabilities as its primary strategy to win this zero-sum game. The world has seen this strategy at work since Mao Zedong's campaigns in World War II, and the most recent examples of Beijing's continued reliance on sheer numbers revolve around its use of its 122-ship People's Armed Forces Maritime Militia (PAFMM) to blockade islands in the South China Sea.² The article will offer strategic solutions to counter these themes be-

fore proceeding to an examination of the “new-generation warfare” on display in the Second Karabakh War.

The article’s second section studies the conflict between Armenia and Azerbaijan that occurred from 27 September to 10 November 2020 and reveals how this limited conflict introduced a new triad that will dominate the conduct of war for the foreseeable future: Victory belongs to those forces that can *prosecute targets fastest by shortening the kill chain between their long-range sensors and their precision fires; hide their electronic signatures and physical locations through jamming, deception, and camouflage; and kill as many of the enemy’s drones, satellites, and radars via a robust countersensor campaign.* Azerbaijani drones paired with artillery, rockets, and missiles destroyed more than 1,500 Armenian air defense and artillery systems, tanks, and other armored vehicles in 44 days.³ The USMC risks decimation if it attempts to survive within China’s or Russia’s weapons-engagement zones without redundant and resilient means to counter the inevitable rain of cruise missiles enabled by drone-based surveillance. Again, the article will provide options for consideration to counter this triad before moving on to analyze the criticality of maintaining redundant and reliable logistics chains during the 2006 Second Lebanon War.

The third and final element of this article will illustrate how Hezbollah’s dispersed, brick-and-mortar logistics approach gifted its forces with an unbroken stream of bullets and rockets that was never interdicted by Israeli Defense Forces⁴—and how this need for defendable, dispersed, and pre-positioned supply nodes could be the USMC’s Achilles heel as it strives to overcome the tyranny of distance and provide beans, bullets, and band-aids to its Marines across the more than 50 potential islet battlefields in the South China Sea.

Rekindle and Expand Existing Alliances, Then Rely on Dispersion

Chinese military officers cut their teeth by reading Sun Tzu’s *Art of War* and the literature surrounding the Warring States period that predates Clausewitz by more than 2,000 years. These volumes detail nine irregular precepts of warfare, from “inducing complacency to avoid alerting your opponent” to “[stealing] your opponent’s ideas and technology for strategic purposes.”⁵ The Chinese blueprint for dominating strategic competition with America follows these ancient precepts precisely and rejects the conventional clashes embraced by Clausewitz in favor of a slow, asymmetric fight that results in a death by a thousand cuts.⁶

As the twenty-first century proceeds and the United States finds itself at odds with a China establishing itself as a peer competitor, it appears that American officers have been blithely reading the wrong book.⁷ The current Commandant of the Marine Corps, Gen David H. Berger, summed up his service’s conundrum:

The present USMC “is not organized, trained, equipped, or postured to meet the demands’ of this rapidly changing operating environment,” where revisionist powers, rogue states, and technologically advanced nonstate actors make use of *increasingly mature precision strike capabilities* and a *sophisticated toolkit of coercive behaviors below the threshold of violence* that some describe as gray-zone strategies.⁸

These italicized phrases encapsulate the *how* behind Beijing’s strategy to employ massed capabilities to win the zero-sum game of protecting its SLOCs and recapturing Taiwan. Beijing will mass its missiles and long-range precision fires to deny the USMC the ability to operate within China’s weapons-engagement zone. China will also utilize its enormous, well-established PAFMM, a flotilla of more than 122 known vessels, to blockade American and allied efforts throughout the South China Sea. The most recent example of this nonkinetic impediment tactic occurred in 2018, when a gray-zone armada of 95 fishing vessels appeared, massed, and mobbed Thitu Island, physically stopping the progress of Filipino engineers as they began a runway repair project.⁹

The answer to China’s mass-based strategy in the zero-sum game of the South China Sea is twofold: First, the USMC must leverage its existing military alliances and build new partnerships with all other Southeast Asian maritime nations to gain and hold ground on as many of the 70-odd islets in the South China Sea as possible. Second, the USMC and the USN must evolve their current partnership model, which marries heavyweight concentrations of Marines to substantial motherships, into a leaner, dispersed model that counters mass by being increasingly hard to target.

Cultivating regional alliances enables the USMC to begin acquiring the literal physical space needed to execute long-term EABO. Beginning as far back as 1988, China has developed seven major reefs and built 20 smaller islets into military outposts through its “Great Wall of Sand” initiative.¹⁰ The USN and USMC must tap into every national instrument of power available to gain footholds on the remaining 43 islets. Though Vietnam already has militarized several of its outposts, arming these islets with missiles is not the answer, as this will provoke an escalatory arms race.¹¹ Instead, naval infantry partnerships should focus on the logistics of the future fight, transforming each atoll into a weather-resistant storage point, redundant communications node, and safe harbor equipped with the food, fuel, and supplies that will enable the merchant fleets of Japan, Taiwan, Vietnam, the Philippines, Malaysia, and Indonesia to stand united against the PAFMM.

Developing these island and reef sites in conjunction with Southeast Asian partners is less of a revolution in military affairs at the tactical/operational level and more a conscious reframing of the narrative that China controls the South

China Sea at the strategic level. China receives more than half its crude oil imports via its SLOCs, which run through the South China Sea, and Beijing's need for crude will only increase as China begins to wean itself from its dependency on pollution-generating coal.¹² Beijing also views the South China Sea and its undersea crude deposits as a means to satisfy its rapidly growing demand for oil—China estimates that more than 300 billion barrels of crude and nearly 2,600 trillion cubic feet of natural gas rest on the seabed within its nine-dash line. These two factors form the basis for Beijing's investments in militarizing its 27 islets and reefs, and the value of these potential oil and gas revenues provides a \$25 to \$60 trillion reason to continue to dominate the South China Sea.¹³

China built up its seven major reef complexes in two years through dedicated dredging, creating five square miles of new land from December 2013 through the fall of 2015. America and its military forces, partnered with civilian engineers, could do the same, unbalancing the Chinese presence in the South China Sea by creating a network of more than 43 unsinkable aircraft carriers that would outmass Beijing. The bedrock requirement to make this network of developed, allied islets a reality is an unshakable commitment by the USMC, the USN—and, most importantly, the United States government writ large—to maintain a consistent presence in the South China Sea—and to weather and overcome the policy changes between successive but vastly disparate presidential administrations that have torpedoed such promises in the past.

These hot-and-cold approaches to Asia by American administrations exacerbate the problems faced by Southeast Asian nations when they attempt to ally to balance China. The Association of Southeast Asian Nations (ASEAN), comprised of many of the maritime nations bordering the South China Sea, represents a combined population of 636 million and boasts the sixth-largest gross domestic product (GDP) in the world. ASEAN could present a formidable check on China's ability to project power in its eponymous region, yet the association finds itself hemmed in by its economic dependence on China as a trading partner, as exports to the China account for at least 20 percent of GDP for the bulk of ASEAN member states.¹⁴ Ending the hedging practices employed by Southeast Asian maritime states requires a shift away from the previous administration's "America First" policies and demonstrative actions by the United States that signal its intentions to balance China's monopoly on ASEAN economies. This rebalancing should begin with American initiatives aimed at codifying military alliances among its member states. Right now, a united ASEAN maritime front could mass a growing flotilla of approximately 31 boats and ships specifically designed for littoral operations to face off against China's gray-zone fleet, and this count does not include any USN or USMC vessels, nor any ships from the Australian or New Zealand na-

vies.¹⁵ The USMC and USN must work directly with the Department of State and other diplomatic and economic agencies to strive to make these potential partnerships a reality and establish ASEAN as a united regional force able to counter China's gray-zone blockades and the Great Wall of Sand.

Projecting military power onto this network of South China Sea islets forms the second component to the answer to China's mass-based strategy: The USMC and USN must restructure their current partnership model, which marries a Marine Expeditionary Unit of roughly 2,000 Marines to three massive and hard-to-replace ships of the line, and recast it into a disaggregated mold that weds Marines possessing the skill sets to establish advanced bases of operations with a fleet of smaller, easily replaceable patrol boats that can deploy from amphibious assault ships. Creating this new capability becomes particularly essential in the wake of the USMC's December 2021 ban on Amphibious Assault Vehicle (AAV) waterborne operations after the July 2020 incident that killed eight Marines and one Sailor.¹⁶ The AAV's slated replacement, the Amphibious Combat Vehicle (ACV), remains in an initial operation capability status, with approximately 30 vehicles being built, but the ACV program has run afoul of the same safety concerns associated with the now-sidelined AAV: cramped seating conditions within the ACV make at-sea rapid egress extremely difficult.¹⁷

This proposed refocusing on smaller, disaggregated elements depends on launching a culture shift inside both services that dispels the notion that bigger, more technologically advanced platforms are the answer. *Wasp*-class amphibious assault ships cannot survive within the range ring of China's Dong Feng 26 (DF-26), the headline-grabbing "Carrier Killer" that can strike targets as far out as Guam with conventional or nuclear warheads,¹⁸ and the Light Amphibious Warship that the USN and the USMC are pursuing as their workhorse vessel in the South China Sea is 684-foot-long and slower than a *Wasp*-class ship.¹⁹ Current estimates peg China's quantity of DF-26s at 80 to 160,²⁰ and Beijing's ability to mass salvos of DF-26 missiles makes traditional employment of Marine battalion landing teams from slow-moving amphibious assault ships a very risky proposition.²¹ USN cruisers armed with antimissile missiles would shepherd *Wasp*-class ships, but despite more than 60 years of development, strategic offensive missiles still retain an enduring edge over defensive systems: at no point have scientists from the United States or the former Soviet Union produced a defensive system that could truly negate a rival nation's strategic offensive missile force.²²

The rise of the DF-26 illustrates that the current Marine Expeditionary Force procedure of shuttling a battalion ashore via multiple hovercraft or surface ship trips only works in uncontested waters. But what the *Wasp* and its sister ships can also do is host smaller, faster patrol boats that could hide from Chinese missile sensors,

provide flexible offensive fire support through tube-launched munitions, and transport platoons of Marines to and from the network of partnered advanced bases of operations.²³ These Sailors and Marines could then fall in on vehicles and equipment pre-staged on these islands and begin allied patrols with the naval infantry forces of Southeast Asian nations. The USN currently owns 12 85-foot Mark VI patrol boats, which can fit into the well decks of Marine Expeditionary Unit shipping and transport 18 personnel for 750 nautical miles, or about half the distance from Guam to Taiwan, without refueling. Oddly enough—and signifying the confusion among senior leaders concerning how best to prosecute this new fight—the Mark VI program is in jeopardy of cancellation due to perceptions that its small size and limited missile firepower would not prove relevant in a war with a peer nation.²⁴

While the Mark VI's future remains officially uncertain, the utility of a small vessel that could saturate the islets of the South China Sea with distributed platoons of Marines while keeping its mothership at the fringes of DF-26 range must be explored, as the key to winning the fight with Beijing in the South China Sea is to negate its ability to mass missile fires by presenting too many targets on too many boats and islets. Simply adding up the various known littoral assets listed above presents Beijing with an increasingly unsolvable dilemma:

- 31 existing Southeast Asian-flagged patrol vessels,
- plus at least a dozen Mark VI patrol boats,
- plus forces deployed to 43 developed islets,
- yields 86 potential targets for China's known stockpile of 80 to 160 DF-26s.

Half of these targets will be moving constantly among the network of islets. Equip each of these littoral assets with a jammer/electronic signal deception emitter, and then each becomes capable of broadcasting additional fake radar signatures to further confound Chinese targeting efforts. Survivability increases yet again if planned December 2021 missile-defense tests of a medium-range intercept capability begin to succeed in destroying simulated ballistic missiles.²⁵ The USN and USMC team must preserve its mass by embracing a total restructuring in how these forces are deployed: Small, replaceable, lower-cost watercraft crewed by Marines and Sailors following mission command orders who can spread out, hide, and win the counter-reconnaissance contest will become the center of gravity in the littoral fight.²⁶

Lessons from Nagorno-Karabakh: Drastically Shorten Your Kill Chains, Always Hide Your Signatures, and Blind Your Enemy Soonest

Due to overwhelming victories by Azerbaijani forces in the counterreconnaissance realm, the Second Nagorno-Karabakh War concluded in 44 days. Rival Armenia lost more than 1,500 air defense, artillery systems, tanks, and other armored vehicles to Azerbaijani fires directed by unmanned aerial vehicles (UAV), or drones. On the first day of the conflict, the Armenian Defense Ministry reported more than 1,000 drones were airborne along the 200-kilometer front, and these UAVs were so unlike typical military aircraft in both size and maneuverability that Armenian antiaircraft missile systems, most notably the Russian S-300, found themselves completely overmatched by Israeli-made Harop loitering aerial munitions.²⁷ The former was simply never designed to engage the latter,²⁸ and so Armenia's \$160 million missile launchers and radars²⁹ could not combat the Harops, whose estimated cost of \$10 million per unit is exponentially less.³⁰ The critical lesson learned from this short-but-bloody conflict is that victory belongs to those forces that can prosecute targets fastest by shortening the kill chain between their long-range sensors and their precision fires; hide their electronic signatures and physical locations through jamming, deception, and camouflage; and kill as many of the enemy's drones, satellites, and radars via a robust countersensor campaign.

Azerbaijani tactics to accomplish the above triad were surprisingly low-tech and did not rely exclusively on satellite surveillance or the global positioning system. Instead, during the early days of the conflict, Soviet-era AN-2 biplanes that had been converted to drones were used as bait: When these lumbering targets were detected and fired upon by Armenian air defense missile systems, Israeli Harops or armed Turkish TB2 drones that were following in trace located and engaged the S-300s.³¹ The growing diffusion of cheap, high-quality sensors on the battlefield negates many of the benefits of terrain and camouflage, as these drones provide too many eyes to evade, even with the most rapid execution of maneuver warfare techniques.³²

Under its current construct, the USMC risks mission-critical levels of casualties if it attempts to survive within China's or Russia's weapons-engagement zones without redundant and resilient means to counter the inevitable rain of missiles enabled by drone-based surveillance. The agreed-upon solution set at the tactical level is to expand its Low Altitude Air Defense (LAAD) capabilities, adding a third battalion to support the addition of air defense units to the proposed Marine Littoral Regiments now forming in Hawaii.³³ The USMC concurrently will attempt to

fast-track the Marine Air Defense Integrated System (MADIS), a vehicle-based suite of weapons that includes a drone jammer, Stinger missiles, a cannon, and a machine gun.³⁴ While not yet fielded, the operational assessment of the weapon is slated for the end of 2022 “in anticipation of a Milestone C production decision around February 2023,” translating to a possible delivery to units sometime in 2024.³⁵ The plain fact of the matter is that offensive drones are multiplying and becoming very hard to kill, and counterdrone systems—whether using lasers, missiles, or jammers—“have not panned out” due to weight and power requirements, according to 2019 testimony to Congress by the Commandant himself.³⁶

The news at the operational and strategic levels throughout the Department of Defense is equally grim: There is money in the budget for missile defense, but there appears to be no comprehensive framework to promote the understanding that such defense must be multifaceted and layered to encompass high-altitude, medium-altitude, and low-altitude threats. The Army’s Terminal High Altitude Area Defense (THAAD) interceptor funding dropped 57 percent from 2021 to 2022; however, during that same period, the services and Congress then decided to invest \$1.5 billion of the Missile Defense Agency’s budget in Israeli products, such as Iron Dome, to defend against lower-altitude rockets, mortars, and cruise missiles.³⁷ Yet despite this massive bump in funding, only two Iron Dome systems have been delivered to Army units for evaluation,³⁸ the USN’s massive Aegis Ashore complex in Romania possesses zero air defense assets and cannot defend itself against even a helicopter attack, and the single radar that anchors the European Phased Adaptive Approach system in Turkey—the early warning node for the rest of the continent—is similarly underprotected.³⁹ Likewise, in another crystal clear example of costly duplicative efforts, the USN’s DRAKE system jams UAVs using a similar, backpack-sized jammer found on the Marines’ MADIS—both were developed in the stove-piped world of counter-UAV programs that do not cross service lines.⁴⁰

The silver lining in the difficult, unfocused world of countering drones is that due to their rapidly evolving technology, neither of America’s peer competitors have developed workable solutions to solving the UAV problem. China appears to be focused completely on offensive capabilities, and Russia has developed jamming systems in line with what the United States has already fielded on MADIS.⁴¹ What appears clear when studying the lessons learned from the Second Nagorno-Karabakh War is that the triad delineated earlier in this section remains the key to victory—America, and its USMC, needs to position itself to be Azerbaijan in the coming drone fight.

The USMC is already doing so with its divestment of tanks, its emphasis on exploring EABO as its driving concept, and its focus on building redundant da-

talinks that will allow target-quality information to be shared among its aircraft, radars, and rocket artillery.⁴² But Marine planners need to understand that single, exquisite platforms are losing ground to replaceable, “attritable” masses of drones and other autonomous offensive systems that are made to die to destroy or unmask defenses. Recent illustrations of the successful employment of such “killable” platforms include the AN-2 example above and the 2019 attack by Iran on Saudi oil facilities by 17 rudimentary drones that knocked out half the Arabic kingdom’s production while evading detection by American-built radars due to their small, unconventional sizes.⁴³ Mass will replace maneuver as a key tenet for military success, as the quantity of low-cost, robotic, expendable systems find and kill the high-budget, manned, irreplaceable platforms that the United States employs with impunity at the present time.⁴⁴ While John Boyd’s oft-referenced Observe, Orient, Decide, and Act loop remains relevant, a better acronym for the future fight will be “OIDSS,” described below and synthesized after looking at how the Azerbaijanis won:⁴⁵

While on OFFENSE	While on DEFENSE
Observe enemy activity	Obscure friendly positions through camouflage or false signals
Inform the kill chain	Interdict enemy kill chains through jamming and EW
Decide to target	Destroy enemy shooters
Shoot	Shoot
Scoot immediately after firing to avoid being targeted	Scoot immediately after firing to avoid being targeted

Dispersion of critical platforms and weapon systems can be augmented by massing “decoy ducks” to present bogus targets and too many physical locations or aerial signatures for the enemy to target.⁴⁶ While electronic warfare did not play a huge role in Nagorno-Karabakh, the Russians targeted the communications networks of Ukrainian soldiers down to the individual cell phone level during the Donbas conflict,⁴⁷ and the USMC must double down on its efforts to stop relying on traditional communications structures and instead move toward flattened networks that allow information to move fast and freely from sensors to shooters.⁴⁸

Finally, with literally billions of dollars already earmarked for Israeli antiprojectile technologies—and with Israel itself remaining in the center of the fighting arena of the world⁴⁹—the USMC must push to get its own Iron Dome clone systems online and into operational testing as fast as practical while advancing the engineering and fielding of MADIS and the expansion of LAAD forces to kill as many of the enemy’s drones as possible. The USMC must also emphasize to the joint force that it cannot win the counterdrone and countersensor campaign on its own: MADIS and Iron Dome can provide the low- and medium-altitude mix of protection needed for

Marines to survive inside a weapons-engagement zone, but this shield depends heavily on the Army winning its high-altitude fight with its existing THAAD platforms and the Space Force achieving victory in the orbital realm.

Lessons from the Second Lebanon War: Robust, Hidden Logistics Dumps Allow You to Ignore Your Enemy's Decision Cycle

Every effort by America to build the best, most technologically advanced anti-missile system will face defeat if the system runs out of projectiles, and the entire EABO concept depends on the ability to feed and equip Marines stationed on islets on the other side of the world. Logistics has been the greatest limiting factor in the history of warfare.⁵⁰ Nowhere were these material constraints on display more than during the 2006 Second Lebanon War, where Hezbollah's dispersed, brick-and-mortar logistics approach gifted its forces with an unbroken stream of bullets and rockets that was never interdicted by Israeli Defense Forces (IDF), despite the IDF's overwhelming advantages in airpower and artillery.⁵¹ While the USMC and the overall American defense establishment usually associate netcentric warfare with cyberspace capabilities and the Internet, Hezbollah created a physical network of distributed, small, adaptive, and independent cells that funneled personnel and supplies to the fronts of the war, allowing its forces to largely ignore the IDF's decision cycle and operate completely on their own terms. Compromised, forward fighters could be left behind or sacrificed without critically impacting the overall campaign; cache managers maintained their own logistical nodes that could cover all reasonable supply needs for Hezbollah fighters autonomously; and this strategy of attrition and measured response to IDF attacks substituted for speed and efficiency in command and control, as each cell knew the overall objective and followed a mission command-style framework.⁵²

Contrast the above with the IDF's supply plan: The Israelis weighted their system toward computer networks and "just-in-time" technologies that crumbled due to the incredibly fast pace of the war and left units operating without a logistical tail. Modular depots, whose stocks were tracked and regulated by Internet-linked, virtual bean counters, were supposed to predict where and when supplies would be needed, but as the tracking system broke down or became disconnected from the computer network, the entire concept imploded, resulting in missing equipment and noticeable shortages in food, water, and ammunition.⁵³ Logisticians resorted to vastly unconventional ways of attempting to resupply the troops on the front lines, from driving food and water in on four-wheeled, all-terrain vehicles, to packing items in on llamas, finally resorting to parachute drops that often missed and left

critical supplies in the hands of the enemy. Hezbollah compounded all the above problems by mining all the known arteries into southern Lebanon.⁵⁴

Though the Second Lebanon War occurred on land, the woes of the IDF described above—and the advantages enjoyed by Hezbollah—can be transposed to the maritime theater of the South China Sea. China's situation mirrors that of Hezbollah, in that its logistics chains will be robust, multifaceted, and in its own backyard. This leaves the USMC potentially playing the undesired role of the IDF, outgunned in terms of supply, and slowly dehydrating and starving as the Chinese antiaccess/area-denial campaign chokes off the usual peacetime arteries of replenishment. The USMC must use the lessons from the Second Lebanon War to reverse the roles: It must adopt Hezbollah's low-tech version of netcentric logistics to have any chance of surviving and winning in the contested waters off China's home coast.

Further adding to the difficulties posed by the tyranny of distance, USN inaction and inattention on monitoring the health of its surge sealift fleet will be the defining external factor that cripples the USMC's ability to move logistics to the South China Sea. The average age of the ships in this fleet—designed to rapidly move supplies in times of crisis and essential to facilitating EABO—is nearly 40 years, and the number of sealift ships reaching the end of their programmed service lives during the next 10 years will reduce the USN's overall sealift capacity by 25 percent. Additionally, key logistic support ship classes and auxiliary crane ships will reach the end of their programmed service lives of 50 to 55 years by 2024. Billions of unforecasted dollars will be needed to recapitalize this aging roll-on, roll-off fleet that is essential to getting the USMC's supplies to the fringes of the South China Sea theater.⁵⁵ Worse, this aging shipping shortage is not a problem that can be solved internally to the United States without prohibitively high costs: A 2018 task force sponsored by the Defense Science Board highlighted the immense disparity between the costs for shipbuilding domestically and internationally, finding that used, foreign-built roll-on, roll-off vessels cost approximately \$25 million per ship, while American-built, new vessels with the same capabilities run \$850 million. Twenty-six used foreign-built ships could be purchased for the price of one new American vessel.⁵⁶

In the Second Lebanon War, the IDF realized that its new, netcentric, computer-based logistics system could not bear its expected tracking burdens only when it confronted the sudden strains of an unexpected conflict initiated by Hezbollah's kidnapping of two Israeli soldiers. The USN—and by extension, the USMC—has known for years that the ships required to support EABO will reach the end of their service lives at exactly the time they are needed most. Despite this glaring fact, precious few fixes are on the table to rectify this disparity: While the current National

Defense Authorization Act funds \$1.6 billion for the purchase or construction of nine logistics-related vessels,⁵⁷ the General Accountability Office reported that 23 supply ships will reach the end of their service lives from 2017 to 2027, with an additional 28 becoming too old for sea duty from 2028 to 2033.⁵⁸

Throwing money at shipbuilding is a start, but the viable, near-term solution revolves around rebuilding and strengthening the partnerships and alliances with Southeast Asian maritime nations already discussed in the article's first section—there exist 43 unsinkable logistics nodes in the form of the islets that dot the South China Sea that are not controlled by Beijing. The USMC must begin to work with the maritime nations in the region to develop these islets as supply depots that mirror the distributed, small, adaptive, and independent cells that Hezbollah exploited to maximum effect against the IDF.⁵⁹ These waystations could support merchant vessel needs in the near-term while also serving as prepositioned supply caches in the event of any future military conflicts or natural disaster relief efforts.

Additionally, an outside-the-box approach is needed to better mirror the unconventional techniques adopted by Hezbollah: The USMC should consider successful smuggling techniques as blueprints for its methods to resupply these islets during a South China Sea conflict. Daily, drug cartels escape law enforcement's efforts to interdict illicit shipments by using small, semisubmersible autonomous vessels that routinely transport tons of cocaine between the American continents and Europe, successfully evading the sensors of the most technologically advanced nations in the Western Hemisphere.⁶⁰ The ability of these drug runners to overcome the coast guards of multiple nations using unconventional, asymmetric techniques mirrors how Hezbollah mastered logistics distribution while operating in the backyard of arguably a much more technologically advanced, better-armed force, the IDF. The USMC must heed this example and actively work to pursue strategies for winning the South China Sea conflict that do not fall prey to the illusion that "small but smart" militaries can overcome any obstacle, specifically China's overwhelming mass, through the judicious application of exquisite technologies. Instead, it must ape Hezbollah's tactics, particularly in the South China Sea, and adopt the use of simple, expendable, disaggregated watercraft, crewed by Marines relying on a decentralized network of command, control, and logistics nodes, to compensate for the quantitative and qualitative shortages that await any force fighting in China's backyard.⁶¹

Conclusion: Internalize the Themes and Apply the Lessons

By first surveying the present situation in the South China Sea and then compiling lessons learned from detailed studies of modern-day battles, specifically

focusing on the Nagorno-Karabakh War of 2020 and Second Lebanon War of 2006, this article identified and explored the most prevalent themes present in these conflicts that will drive revisions to the playbook on how the USMC should fight and win the wars of tomorrow. Specifically in the South China Sea, the USMC must leverage its existing military alliances and partnerships with all other Southeast Asian maritime nations to gain and hold ground on as many of the 70-odd islets in the South China Sea as possible, containing Chinese aggression and expansion by presenting a mass of unsinkable outposts and regional maritime power unity that overbalances Beijing's singular, zero-sum campaign to control the territory within its nine-dash line. Concurrently, the USMC and USN must restructure their current partnership model, which marries a massive formation of Marines and Sailors to two or three hard-to-replace ships of the line, and recast it into a disaggregated mold that weds the Marines possessing the skill sets to establish advanced bases of operations with a fleet of smaller, easily replaceable patrol boats crewed by adaptable Sailors that can deploy from amphibious assault ships and then scatter across the region.

The future fight, whether in Southeast Asia or the plains of Ukraine, will also be won by the forces that can mass drones in the fashion that grants their side the ability to decimate air defense forces without a considerable loss of their own manned airpower. One-off, precious platforms are losing ground rapidly to replaceable, attritable masses of drones and other autonomous offensive systems purpose-built to die to destroy or unmask defenses. The critical lesson from 2020's short-but-bloody Second Nagorno-Karabakh War is that victory will be achieved by the side that can prosecute targets fastest by shortening its kill chains; hiding its electronic signatures and physical locations through jamming, deception, and camouflage; and downing its enemy's drones, satellites, and radars via a robust countersensor campaign.

Finally, logistics matter, and simple, redundant, and autonomous sources of beans, bullets, and band-aids matter most. Hezbollah outperformed the mighty IDF in the Second Lebanon War by establishing a dense web of robust, multifaceted, and self-sustaining logistics nodes that overwhelmed Israel's network of air and land targeting systems. Creating a network of low-tech, permanent, and decentralized supply nodes within the South China Sea by capitalizing on the partnerships with Southeast Asian maritime nations already discussed will only heighten the United States' ability to contain China as Beijing seeks to establish regional hegemony and eventually subsume Taiwan. ✪

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