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How to Hold China's New Carriers at Risk

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Executive Summary

For nearly two decades, debates about the future of naval power have centered on concerns that U.S. aircraft carriers are increasingly vulnerable to "carrier-killer" missiles and a dense anti-access/area-denial (A2/AD) network that limits their operational reach.[1] China has now launched two new vessels: the *Fujian* (Type 003)—an 80,000-ton supercarrier capable of launching a mix of over 50 fourth- and fifth-generation fighters, and key enablers such as KJ-600 airborne early warning and control aircraft—and the *Sichuan* (Type 076), a 40,000-ton amphibious assault ship also suspected of serving as a drone carrier capable of using an electromagnetic (EM) catapult to launch GJ-11 stealth unmanned combat aircraft.[2] A fourth carrier (Type 004) is undergoing rapid construction. Satellite imagery suggests that this will likely be China's largest and first nuclear-powered carrier.[3]

This report flips the script. Instead of treating U.S. carriers as hunted platforms, focusing on how to *defend* U.S. assets, this report argues that the United States and allied Pacific powers can—and should—go on the *offense*, becoming the hunters instead of the hunted in this near-peer competition. More specifically, this report assesses how the United States and its allies in the Pacific can credibly hold China's new carriers at risk using a combination of subsurface, land-based, air, cyber-electromagnetic, and unmanned capabilities. It explores how free nations can asymmetrically hold billion-dollar capital ships at risk with million-dollar missiles, thousand-dollar drones, and tactical creativity in a global maritime competition.

The report concludes with recommendations for U.S. naval reform:

- Implement forward-stationed ambush forces of allied submarines, sensor networks, and unmanned underwater vehicles.
- Invest in a more mobile littoral force.
- Pursue a more aggressive shift to an unmanned fleet along the lines of the "Hedge Strategy" and tailored offsets proposed by the chief of naval operations (CNO).
- Engage in structured munitions coproduction with allies to move magazine depth closer to key areas of maritime competition globally.[4]

Introduction

From "Carrier Killers" to Carrier Targets

One question has dominated conversations about aircraft carriers: Can China sink a U.S. carrier? Branded "aircraft-carrier killers," China's DF-21D and DF-26B anti-ship ballistic missiles (ASBMs) are just part, though a central one, of a broader A2/AD architecture intended to push U.S. carrier strike groups (CSGs) beyond the first island chain.[5] U.S. and allied analysts have dedicated enormous attention to attempting to answer this question, with efforts including wargames, research studies, think-tank reports, and opinion columns asking whether the carrier is the "new battleship" (i.e., obsolete under the shadow of cheap, long-range missiles).[6]

Secretary of War Pete Hegseth put it more bluntly in a podcast interview: In wargames against China, "We lose every time."[7] The secretary went further, linking U.S. defeat to the vulnerability of aircraft carriers: "We know what our real capability [is]. . . . If our whole power projection platform is aircraft carriers and the ability to project power that way strategically around the globe . . . and if 15 hypersonic missiles can take out our 10 aircraft carriers in the first 20 minutes of a conflict, what does that look like?"[8]

Similar studies proliferate outside the United States. For example, in 2023, the *South China Morning Post* reported that researchers in the North University of China claimed that it took an average of only 24 hypersonic missiles to sink the USS *Gerald R. Ford* and its five escort ships across 20 simulated battles.[9] From an economic point of view, that would imply that for every $1 China spends on new classes of low-cost hypersonic missiles, it could destroy $10,858.59 worth of U.S. capital ships.[10] A British study published in 2024 found that their carriers—the HMS *Queen Elizabeth* and HMS *Prince of Wales*—were similarly at risk.[11]

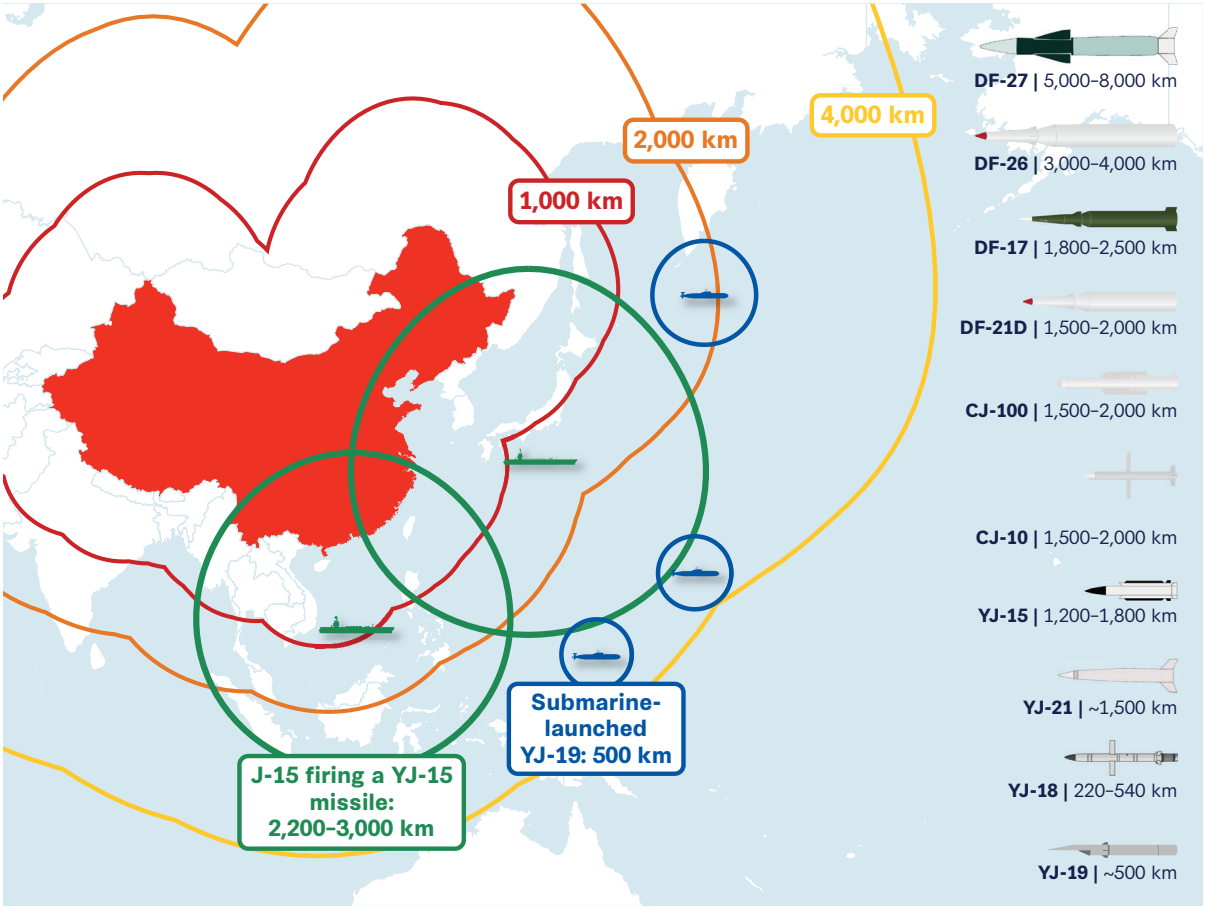
Even if China does not sink an aircraft carrier, its forces can push them back, reducing operational reach and sortie generation. In terms of delivering effects at range, assuming a 100-mile flight range for a carrier's Long Range Anti-Ship Missile (LRASM)-sized weapons (assuming two per aircraft and two strike packages of four aircraft each), a CSG can deliver 600 weapons for targets at 400 nautical miles (nm), dropping to 140 weapons for targets at 700 nm and 36 weapons for targets at 1,000 nm.[12] Recent pieces have argued that Chinese hypersonic and ballistic missiles, supported by an increasingly sophisticated space- and AI-enabled "kill web," could force U.S. and allied carriers so far offshore that their air wings become operationally irrelevant.[13]

China's first domestically produced aircraft carrier, Shandong *(Type 002).*

Source: Peter Parks/AFP/Getty Images

For example, the YJ-21 is a Chinese air-launched medium-range ballistic missile specifically designed to strike high-value assets such as carriers.[14] This missile can be launched from fighters and unmanned combat aerial vehicles (UCAVs) and uses redundant guidance systems that make it difficult to jam; a variant can be fired from Type 055 destroyers, though this may have been the YJ-20.[15] Combined with older missiles such as the DF-26, colloquially known as "carrier-killers" with a range of up to around 4,000 kilometers (km), and the DF-17, which has a shorter range of up to around 2,500 km but is designed to strike high-value assets and evade U.S. interceptors (e.g., THAAD and Patriot), China has an arsenal of systems capable of hypersonic speeds that can hold carriers at risk up to 2,500 miles away.[16] This has fueled a persistent narrative of vulnerability in the United States.

Figure 1: A Selection of China's Ballistic and Cruise Missiles



Note: Carrier and submarine positions are illustrative, not reflective of actual PRC naval deployments. Range radii use lower-bound estimates from open sources.

Source: Adapted from CSIS Missile Defense Project, "Missiles of China," CSIS, last modified March 18, 2026, https://missilethreat.csis.org/country/china/.

While the debate over U.S. carrier vulnerability is useful, it can be misleading. First, U.S. carriers may not be as vulnerable as analysts assume. Assessments of U.S. aircraft carrier vulnerability to the Chinese anti-ship missile arsenal often overstate the threat by assuming that a single fielded weapon equates to a reliably effective kill capability, when in reality success depends on sustaining a complex kill chain against a mobile, defended target. In practice, maintaining targeting custody on a maneuvering carrier over the full flight time of long-range weapons—amid intelligence, surveillance, and reconnaissance (ISR) limitations, weather, and maritime clutter—remains a significant operational challenge. At the same time, in a conflict, Chinese planners would face trade-offs in allocating finite ISR and missile inventories. For example, prioritizing a single CSG risks diverting resources from higher-priority targets such as U.S. airbases generating sustained strike operations. The United States also has layered naval defenses. Air-launched anti-ship missiles must first penetrate combat air patrols (CAPs) designed to prevent launch, and any "leakers" that manage to avoid the CAPs would then face successive defensive lines that substantially reduce the probability of a successful strike.[17] Finally, escalation risks associated with dual-capable missile

systems, as well as limits on launcher availability and reload rates, further constrain the scale and feasibility of sustained attacks.[18] A more realistic assessment of U.S. aircraft carrier vulnerability, therefore, recognizes that while carriers are not unsinkable, successfully targeting and destroying them in wartime conditions is far more complex, resource-intensive, and uncertain than commonly portrayed.

Moreover, the current discussion in Washington often frames carriers as unique to the United States and uniquely vulnerable, while underplaying the fact that China is now building its own large-deck, network-enabled capital ships that are at least as targetable as the U.S. ships China aims to threaten. Yet, carriers are what China wants. China plans to construct six additional aircraft carriers by 2035, bringing its total carrier force up to nine, according to the Department of War (DOW).[19]

China's emphasis on carrier construction offers both a challenge and an opportunity to U.S. naval planning. Chinese carriers could be used to help implement a Taiwan blockade by deploying east of the island and challenging third-party access, much as they practiced in Joint Sword-2024B.[20] While Chinese carriers will have some value in a Taiwan scenario, their real value for the People's Liberation Army Navy (PLAN) lies in these carriers' ability to extend China's strike capability further outside the first island chain, offering a peacetime power projection platform to further Chinese interests in the South China Sea and beyond.[21] China's desire to be taken seriously as a first-rate power may drive its construction of these capital ships more than pure military thinking, much as was the case for dreadnought construction during the pre-WWI Anglo-German naval arms race.[22]

If naval competition is about competitive strategy, then a serious U.S. strategy must also ask: How can Washington make Beijing worry about its own carriers?[23] For U.S. strategists, China's launch and commissioning of the Type 003 *Fujian* and the emergence of the Type 076 amphibious assault ship—or "drone assault ship"—provide exactly that opportunity. These platforms are both prestige projects and critical enablers of future Chinese sea control and expeditionary operations. Moreover, just like their U.S. counterparts, the Chinese carriers are high-value, hard-to-replace assets vulnerable to long-range strike.

This report reframes the evolving carrier competition in the Indo-Pacific and beyond by arguing that China's expanding carrier force presents a strategic vulnerability that the United States and its allies can exploit, rather than merely a challenge to U.S. dominance. The report first assesses the extensive literature on U.S. carrier survivability and China's A2/AD architecture to demonstrate that U.S. carriers are not necessarily as vulnerable as assumed and that they can play a key role in cost-imposition strategies. It then evaluates five operational approaches that could credibly hold PLAN carriers at risk: (1) subsurface ambush operations, (2) land-based maritime strike networks, (3) long-range air and space-enabled fires, (4) cyber-electromagnetic disruption, and (5) unmanned swarm and port-denial campaigns. The report next examines the implications of these approaches for U.S. force design, alliance integration, and defense industrial policy. It concludes by outlining specific policy and capability recommendations to operationalize a cost-imposition strategy that increases the operational, financial, and strategic burdens associated with China's carrier ambitions.

This report recommends a coordinated set of force design, alliance, operational, and policy reforms to ensure that China's growing carrier fleet becomes a strategic liability rather than a decisive advantage. The United States and its allies should establish forward-based ambush submarine squadrons by purchasing more torpedoes, deploying unmanned undersea vehicles, and changing security assistance construction cap rules to allow the creation of forward partner sustainment centers in allied nations. To control key maritime terrain, Washington should resource Marine Littoral Regiments (MLRs) and Army Multi-Domain Task Forces (MDTFs) as mobile chokepoint defense formations and clarify leadership and resourcing for contested logistics. Over the longer term, the U.S. Navy should rebalance its force structure from one centered around conventional vessels toward a balance closer to a 300 manned/300 unmanned fleet, while granting combatant commanders expanded authorities to experiment with and rapidly field tailored unmanned offsets. Those experiments and supporting campaign analyses might even reveal a balance along the lines of 1,000 unmanned platforms to 300 manned platforms. The United States and its partners should also institutionalize munitions coproduction across allied industrial bases, harden and distribute coalition ISR networks, and develop integrated carrier-denial operational concepts combining subsurface, land-based, air, cyber-electromagnetic, and unmanned strike operations. Finally, U.S. and allied leaders should reinforce these military initiatives through coordinated deterrence messaging that underscores the growing reciprocal vulnerability of Chinese carrier forces and raises the strategic costs of Beijing's naval expansion.

The coming century will see PLAN CSGs proliferate on the high seas as China pivots from a regional to a global focus. To meet that threat, the U.S. Navy will need to accelerate its investments in robotic and autonomous systems while deepening its munitions magazines and investing in infrastructure that supports global force generation.

U.S. Carrier Vulnerability

A Decade of Debate

The vulnerability of large surface combatants is not new. From the 1982 sinking of the ARA *General Belgrano* during the Falklands War to the destruction of the Russian *Moskva* by Ukrainian Neptune missiles in 2022, modern naval battles have repeatedly shown that even heavily defended ships are at risk from relatively cheap anti-ship weapons.[24]

Since 1943, the United States has maintained the 7th Fleet as a continuous forward-deployed force in the Indo-Pacific. At the heart of that force is the aircraft carrier USS *George Washington* (CVN 73), which anchors a CSG of up to 12 ships and 75 aircraft.[25] China's answer to the problem posed by the United States' 11 aircraft carriers has been to attack the kill chain that allows those carriers to operate forward. First, China has invested heavily in long-range ASBMs and cruise missiles designed to hold carriers at risk well beyond the first island chain. Systems such as the DF-21D, DF-26B, DF-17, and many other emerging hypersonic variants are frequently cited as "carrier killers," with reported ranges spanning roughly 1,500–4,000 kilometers (km) and terminal profiles intended to complicate interception.[26] Table 1 summarizes Department of War and open-source assessments of China's anti-ship missile inventory, though it does not include several recently announced or observed missile threats to the U.S. fleet, such as the YJ-20.[27] The first takeaway is clear: China's anti-ship missile arsenal is diverse, growing in size and capability, and central to its military planning.

Second, China has embedded these weapons in a dense and increasingly resilient sensor web.[28] Space-based ISR, over-the-horizon radars, shore-based aviation, unmanned systems, and maritime patrol aircraft are designed to form a "kill web" capable of finding, tracking, and targeting mobile naval forces in near-real time.

Table 1: A Selection of Chinese Anti-Ship Missile Capabilities

Missile	Class	Launch platforms	Range (km)	Top Speed (estimated)
DF-21D	MRBM	Land-based launchers	1,500–2,000	Hypersonic (Mach 10+ terminal)
DF-17	MRBM (HGV)	Land-based launchers	1,800–2,500	Mach 5–10
DF-26	IRBM	Land-based launchers	3,000–4,000	Mach 10+
DF-27	IRBM / ICBM	Land-based launchers	5,000–8,000	Mach 8+
YJ-21 / KD-21	ASBM	Surface ships; bombers	~1,500	Mach 8–10
YJ-18	ASCM	Surface ships; submarines	220–540	Mach 0.8 (cruise), Mach 2.5–3.0 (terminal)
YJ-19	ASCM	Submarines	~500	Mach 5+ (cruise), Mach 8–10 (terminal)
YJ-12	ASCM	Bombers; surface ships; land-based launchers	400–500	Mach 3
YJ-83	ASCM	Aircraft; surface ships	~180	Mach 0.9 (cruise), Mach 1.4 (terminal)
YJ-15	ASCM	Aircraft	1,200–1,800	Mach 3–5
CJ-10 / CJ-100	ASCM / GLCM	Bombers; surface ships; land-based launchers	1,500–2,000	Subsonic

Note: Speeds are not terminal-phase speeds unless marked as such. All figures are estimates, and uncertainty remains, particularly for newer systems.

Source: Authors' analysis of Department of War China Military Power Report 2025, CIMSEC, Defense Watch, and CSIS.[29]

Third, China has built layered coastal defenses and forward operating bases—particularly in the South China Sea—that complicate U.S. and allied carrier access while increasing the risk of attrition to escorts, logistics ships, and replenishment forces. Chinese missile boats (such as the Type 22), fighter aircraft, and submarines operating from these bastions can sortie repeatedly, imposing cumulative costs even if no single attack proves decisive.

Overall, China's anti-carrier toolkit is widely varied and can be used both simultaneously and sequentially. Simultaneous attacks emphasize joint firepower strikes that combine missile salvos (large salvos are particularly relevant for short-range ballistic missiles) with effects in cyber, space, and the EM spectrum. The objective is to degrade the CSG's ability to sense, communicate, and coordinate defense—to, in effect, shut down the kill web. Simultaneous attacks would therefore comprise ballistic and cruise missile salvos, arriving alongside jamming, cyber disruption, and attacks on space-based ISR, compressing decision timelines and stressing commanders under uncertainty.

Sequential attacks, by contrast, aim to shape the battlespace over time. Submarines, maritime strike aircraft, and slower sub-launched or surface-launched anti-ship cruise missiles are used to harass the strike group, force evasive maneuvering and the expenditure of interceptors, and degrade defensive sensors. These actions prepare the battlefield and set conditions for a follow-on missile salvo intended to strike the carrier itself, once its defenses are thinned and its position better fixed. Harassment attacks can also force the CSG to pull back, reducing its strike effect-generation capabilities.

China's highly publicized anti-ship capability investment effort has produced a body of analytic literature that sometimes reads as if the carrier era is over and China has already won. Recent commentaries have gone so far as to argue that "the era of the American aircraft carrier's undisputed dominance is coming to an end," even outright asking whether carriers are obsolete in a world of long-range missiles.[30]

But this literature often misses two key points. First, kill chains are reciprocal and attackable.[31] The same dependence on sensors, networks, and forward bases that enables China to threaten U.S. carriers creates parallel vulnerabilities for its own forces. Second, China is now building the very kind of high-value, conspicuous capital ships it has spent decades learning how to kill. That opens a new avenue for cost-imposing strategies that shift some of the psychological, operational, and budgetary risks back onto Beijing.

A denial-based strategy offers powerful asymmetries and can be highly cost-effective, especially if the asymmetries are narrowly targeted in time and space.[32] As with many defensive strategies, however, denial cedes the initiative to the adversary. An opponent is not compelled to attack a well-prepared "denial zone" and can instead choose to maneuver around it and attack elsewhere or wait for political and other strategic conditions to change. The U.S. Navy is considering implementing a hedge strategy, in the form of tailored offsets including unmanned forces, to contest an enemy's ability to conduct particular operations (e.g., an amphibious invasion of Taiwan). However, the hedge strategy is still taking shape, and tailored offsets may be difficult to use for operations outside of their designed purpose.

Denial alone is thus insufficient as a competitive strategy. Cost imposition must remain a core element of the U.S. strategic quiver in a potential conflict with China.[33] U.S. carrier and expeditionary strike groups are not simply vulnerable assets to be preserved; they are complementary tools capable of imposing risk at range—through strikes, diversionary raids, and

persistent pressure—thereby forcing an adversary to defend, disperse, and make costly trade-offs rather than dictate the tempo of conflict. Moreover, if a future war is fought in an environment without easy access to space-based or otherwise networked sensors, a CSG's ability to reconnoiter and generate an offensive strike may be a crucial capability, especially later in a conflict after the first wave of long-range precision munitions has been expended.[34]

China is rapidly building the very category of high-value naval platforms that modern precision-strike warfare is best suited to threaten.

One area where the United States can credibly impose costs upon China is the latter's growing carrier fleet. China is rapidly building the very category of high-value naval platforms that modern precision-strike warfare is best suited to threaten. If kill chains are ultimately reciprocal and increasingly fragile, then the PLAN's new carriers become concentrated nodes of military, political, and symbolic risk. As such, the Chinese carriers create an opportunity for a competitive strategy that complements denial-creating tailored offsets with proactive cost imposition, including by the United States' own CSGs. Rather than treating Chinese carriers as peripheral targets, the United States and its allies can make them focal points of operational pressure designed to constrain Beijing's freedom of action not only across the Western Pacific and South China Sea but also globally. The following section identifies five scalable and coalition-friendly approaches that could credibly hold PLAN carriers at risk across multiple domains.

Five Ways to Hold PLAN Carriers at Risk

The question for U.S. and allied strategy is not *whether* Chinese carriers are vulnerable—they are—but *how* to exploit those vulnerabilities in ways that impose disproportionate costs on Beijing.

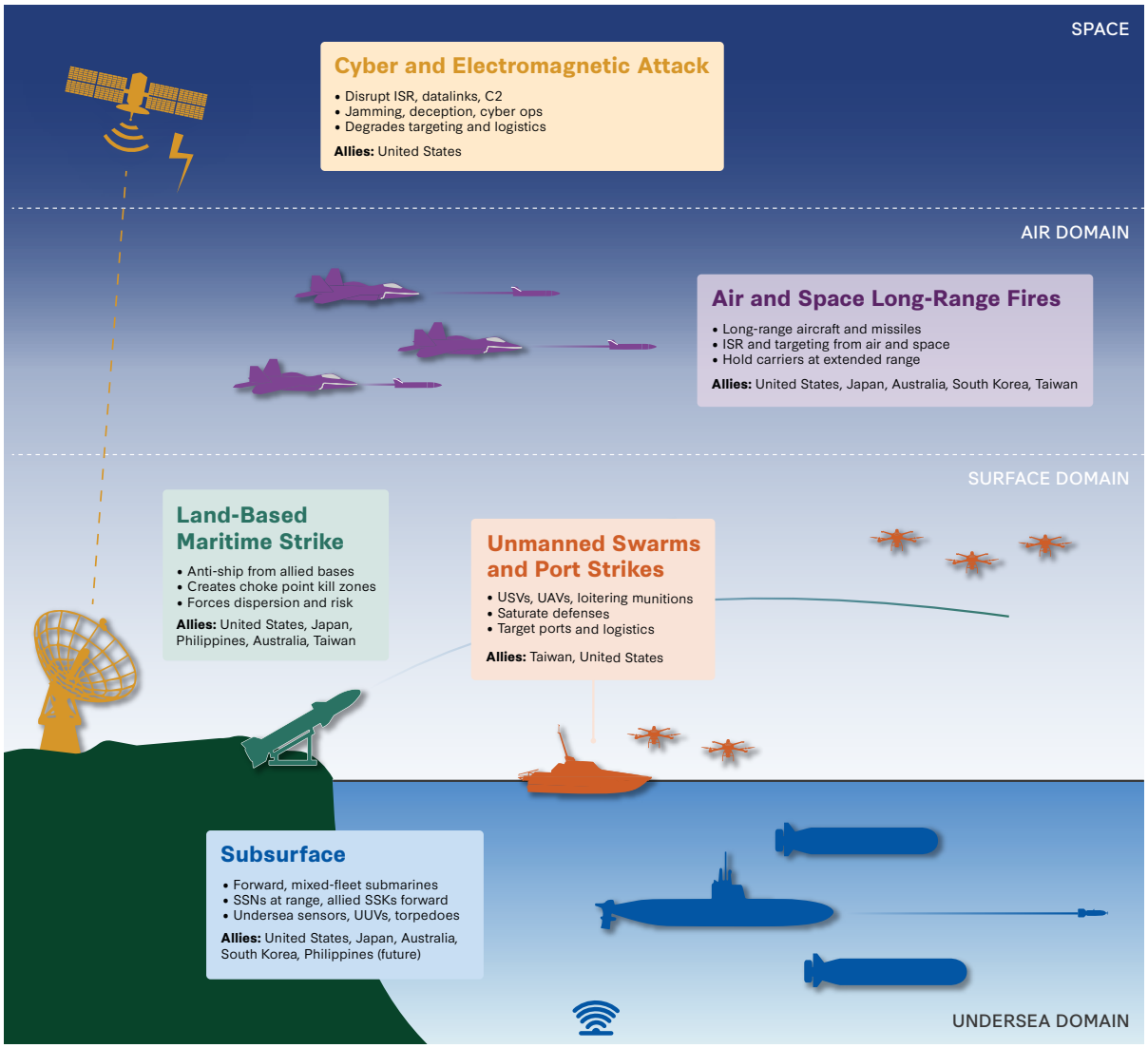
1. Subsurface Ambush: Forward, Mixed-Fleet Submarines

China's Achilles' heel at sea remains anti-submarine warfare (ASW). Despite various improvements, PLAN surface ASW, fixed-wing ASW, and undersea sensing are still patchy compared with U.S. and Japanese capabilities, particularly in noisy littorals and chokepoints.[35]

A cost-effective way to threaten the *Fujian* and *Sichuan* carriers is through a layered subsurface screen built around the following assets:

- U.S. nuclear attack submarines (SSNs) operating at range;
- allied diesel-electric submarines from Australia, Japan, South Korea, and potentially the Philippines, including submarines equipped with air-independent propulsion where available;
- shared undersea sensing networks and common heavyweight torpedoes, enabling coordinated ambush of PLAN carrier groups in transit corridors rather than near the Chinese coast; and
- shared unmanned undersea vehicles (UUVs) capable of both conducting intelligence collection and limited strike missions against PLAN ships.[36]

Figure 2: Layered Threats to China's Aircraft Carriers



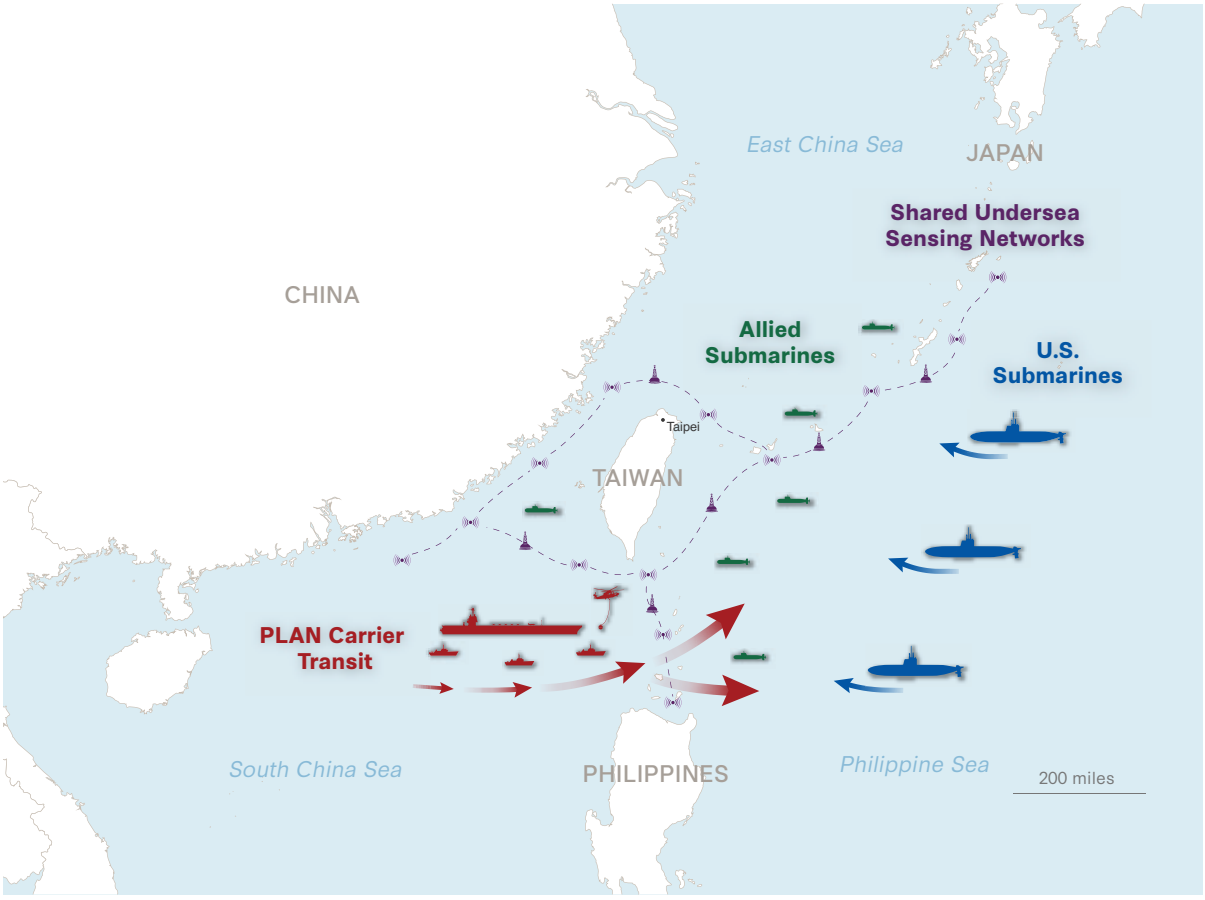
Source: CSIS.

This approach is scalable: A middle-income ally with a handful of modern conventionally powered attack submarines (SSKs) and good coastal basing can meaningfully complicate PLAN carrier operations in its near seas. The United States can add deep-water, long-endurance SSN pressure further out. The key is to turn the undersea domain into a continuous threat envelope that forces Beijing to invest heavily in escorts, ASW aviation, and fixed sensors simply to move carriers out of its home waters. This approach also leverages existing areas of production and operational excellence from various U.S. allies, making implementation faster and cheaper than more novel approaches. Relatively inexpensive allied SSKs can therefore efficiently impose costs on the PLAN, either by forcing them to overcommit ASW forces to protect a CSG, thereby reducing the PLAN's ability to deploy these forces elsewhere, or by possibly sinking a carrier itself. For example, Japan has built Soryu-class and Taigei-class diesel submarines capable of firing heavy torpedoes and a mix

of anti-ship cruise missiles.[37] South Korea fields the Dosan Ahn Changho-class submarine, which is similarly capable of firing a mix of anti-ship cruise missiles and torpedoes.[38]

Furthermore, this strategy can be adapted for different combatant commands outside the Pacific. China is building a global navy and will need to project power to secure its sea lines of communication and economic interests. Positioning naval ambush teams consisting of a mix of U.S. tailored offsets and partner forces at key maritime chokepoints will deny China freedom of maneuver.

Figure 3: Subsurface Ambush Threats to China



Note: PRC and allied naval positions are illustrative, not reflective of actual PRC naval deployments. Graphical images are not to scale.

Source: CSIS.

2. Land-Based Maritime Strike Networks Along Key Maritime Terrain

China's A2/AD system is, in part, a land-based missile problem. The United States and its regional partners can mirror that logic by building a distributed, multinational anti-ship missile network on

land from Japan through the Philippines and, where politically feasible, into the South Pacific and even around key maritime terrain globally, including the following:

- U.S. Marine Corps and Army units fielding Navy-Marine Expeditionary Ship Interdiction System (NMESIS) missile systems, Mid-Range Capability (i.e., Typhon batteries), and Precision Strike Missiles (PrSMs) adapted to strike ships and a host of information warfare systems (e.g., cyber, space, electronic warfare, and inform/influence activities) stationed as a littoral rotational force;
- Australian, Japanese, and potentially Philippine coastal missile batteries (e.g., upgraded Type 12, BrahMos, and naval strike missiles) integrated into common fire control and ISR architectures; and
- pre-negotiated access, dispersal sites, and logistics arrangements to ensure these units can survive Chinese Air Force and Rocket Force (PLAAF/PLARF) strikes and continue to generate maritime fires.[39]

U.S. NMESIS missile system.

Source: Armed Forces of the Philippines/Handout/Anadolu/Getty Images

Such a network can threaten PLAN carriers during deployment, not just at the point of conflict. Moreover, the mere expectation that upon entering the Philippine Sea, carriers such as the *Fujian* or *Sichuan* will face dense, land-based anti-ship fires backed by allied ISR raises the perceived risk of using them as front-line tools of coercion. Further deployment of allied land-based fires, particularly near the South China Sea where PLAN carriers are likely to operate as power projection tools, would deny China the ability to maneuver without facing significant risk. The geography

of the Pacific reinforces this strategy. There are a limited number of chokepoints through which a PLAN CSG will have to pass to move beyond the first island chain. These points create ideal littoral ambush sites, denying the PLAN the ability to easily move its forces out into the broader Pacific. Overall, this type of network would hold Chinese forces at risk as they transit these regions, requiring them to make costly investments in protecting their carriers if they wish to deploy them far afield. This logic extends to key maritime terrain in other combatant commands, creating additional opportunities to deny the growing PLAN carrier fleet freedom of maneuver.

3. Air- and Space-Enabled Long-Range Anti-Ship Fires

The United States and its allies can conduct long-range strikes using a mix of bombers, fighters, and maritime patrol aircraft:

- U.S. Air Force bombers and Navy aircraft armed with anti-ship missiles, such as LRASM and future hypersonic anti-ship weapons, connected to a complex battle network that both supports the attack and degrades enemy sensors;
- allied F-35 fleets (from Australia, Japan, and South Korea) using low-observable sensors to contribute to the maritime picture and deliver their own long-range anti-ship munitions; and
- a mix of kinetic and non-kinetic attack vectors with a conscious emphasis on mission kills, specifically by degrading flight-deck operations, destroying aviation fuel and ordnance handling, or disabling key escorts and logistics ships supporting the carrier, rather than only aiming for catastrophic hull loss.[40]

This approach is particularly suited to large military powers such as the United States but can be partially adopted by states with smaller budgets by investing in a limited number of fifth-generation or advanced fourth-generation aircraft plus modern anti-ship missiles. Similar to land-based fires but even more adaptable and therefore unpredictable, air- and space-enabled long-range fires put PLAN carriers at risk across a wide geography, requiring costly Chinese investments to protect their forward operations.

4. Cyber and Electromagnetic Attacks on Battle Networks

PLAN CSGs are nodes within a broader battle network. Their combat value depends on complex links to off-board ISR, satellite navigation, command networks, and electromagnetic attack and defense platforms. By disrupting the carriers' connections to this broader network, the United States and its allies can deny the PLAN access to the enablers that make its forces more combat-capable.

Rather than treating ships solely as physical targets, U.S. and allied planners should prioritize EM and cyber operations that do the following:

- jam or deceive the PLAN airborne early warning systems, data links, and over-the-horizon targeting needed to coordinate air wing operations and long-range strikes;

A B-1B Lancer launches an LRASM.

Source: U.S. Navy

- disrupt logistics, maintenance, and sortie generation through cyber operations against port infrastructure, aviation maintenance systems, and fuel distribution; and
- contest Chinese space-based ISR with counter-space measures that create uncertainty about carrier locations—mirroring how the United States plans to disrupt the People's Liberation Army Rocket Force's kill web against U.S. forces.[41]

Beyond their immediate tactical effects, EM and cyber operations offer a scalable means of managing escalation risks while generating meaningful operational advantages. Offensively, these capabilities can shape the battlespace in advance of kinetic strikes by degrading PLAN sensing, targeting, and command networks, thereby enabling more efficient pulse operations and reducing the volume of missiles and strike assets required to achieve mission kills against high-value platforms. Defensively, the same capabilities can complicate People's Liberation Army targeting cycles, inject uncertainty into Chinese ISR and fire-control networks, and allow U.S. and allied forces to survive and retaliate by firing follow-on salvos. EM and cyber operations are flexible tools that can impose costs on the PLAN, deny access to needed enablers, and manage escalation dynamics via non-kinetic means.

5. Unmanned Swarms and Port-Strike Campaigns

Finally, the Ukraine war has shown how even a state with a modest navy can use unmanned surface vessels (USVs), unmanned aerial vehicles, and shore-based missiles to attrite a larger fleet. Ukraine

has successfully forced Russia to pull major units out of Sevastopol and turned the Black Sea into a contested battlespace.[42]

While the terrain of the Pacific is not identical to the Black Sea, a similar logic can be applied to PLAN carriers, especially in the first island chain.[43] For example:

- Swarms of relatively low-cost USVs and loitering munitions can attack ships in port, logistics hubs, and fixed defenses, driving carriers to relocate to more distant, less convenient bases or to remain "harbor queens."
- Taiwan's development of its 28-foot sea drone, the *Endeavor Manta*—explicitly inspired by Ukrainian operations—illustrates how a smaller state can deploy systems capable of threatening high-value naval assets.[44]
- U.S. and allied navies can pair their own growing fleets of unmanned surface and subsurface vessels with allies' coastal drones to saturate PLAN defenses and impose constant tactical and psychological pressure, including through tailored offsets envisioned by the CNO's Hedge Strategy.[45]

The central idea is to make a carrier's routine employment around Taiwan, the South China Sea, or beyond the first island chain appear prohibitively risky, day in and day out.

The central idea is to make a carrier's routine employment around Taiwan, the South China Sea, or beyond the first island chain appear prohibitively risky, day in and day out. Land-based, short-range USVs can help provide cost-effective denial capabilities in the Taiwan Strait itself. While these USVs will be particularly useful in the Taiwan Strait due to their short range, they can also be launched from motherships to extend their operational ranges and deployment areas. Furthermore, launching USVs from motherships complicates adversary reconnaissance and targeting by creating more axes of potential attack that need to be monitored, thereby imposing costs not just via potential kinetic impacts but by generating uncertainty.[46]

Implications for U.S. Naval Reform

If the United States wants to make the PLAN's carriers a central vulnerability rather than an advantage, it must adjust its own force design, operational concepts, industrial policy, and alliance posture. Four reforms are especially important.

1. Increase subsurface firepower and enable forward ambushes.

U.S. shipyards are already struggling to meet the demand for Virginia-class submarines for the country's own production needs, not to mention the additional demand for submarines for the Australian Navy under the AUKUS agreement. While the U.S. Navy has aimed to procure two Virginia-class attack submarines per year since fiscal year 2011, U.S. shipyards' production is currently around 1.2 per year.[47] Relying solely on nuclear-powered attack submarine production limits the Navy's ability to generate the volume of undersea platforms needed to sustain a dense "ambush belt" against PLAN carrier groups.[48]

A strategically powerful step would be to complement the United States' existing force of SSNs with additional subsurface firepower. This can be done in three ways: (1) buying more torpedoes, (2) increasing UUV-attack options, and (3) investing in allied infrastructure to support hosting forward UUV and USV squadrons independent of nuclear attack submarines.

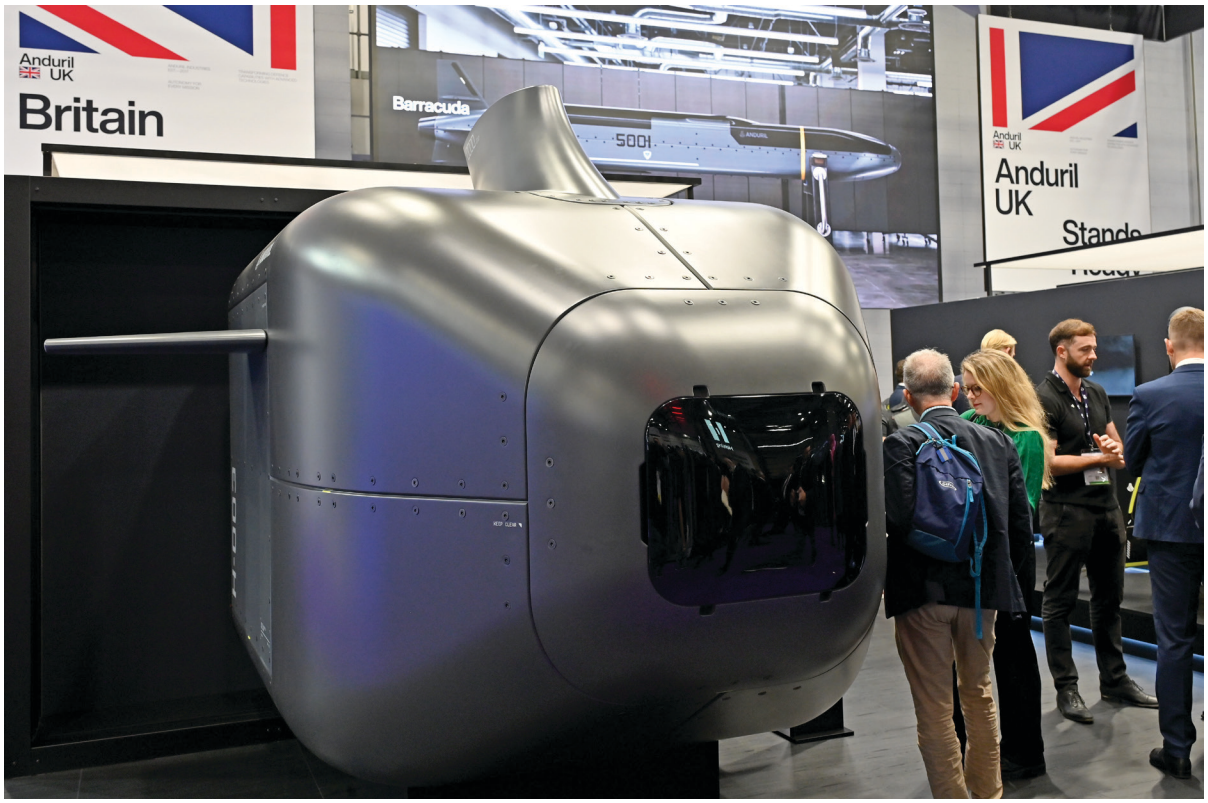
On the first point, the United States is likely to need a lot of torpedoes in a conflict with China. Some analysts estimate an expenditure of 60–120 torpedoes per week, and current U.S. stockpiles are likely insufficient for a prolonged fight.[49] The need for torpedoes was recently underscored

when a U.S. submarine sank the Iranian ship IRIS *Dena* on March 4, 2026, the first ship the United States has sunk via a torpedo since World War II.[50] Specifically, the United States should purchase more MK-48s, which each cost $4.142 million to produce. The current U.S. production rate is estimated at 79–120 MK-48s per year.[51] A limiting factor is the supply of high-tech components, such as the guidance and control section and the afterbody/tail cone, which each have a reported current maximum production rate of around 100 per year.[52] Assuming maximum (100) annual production of MK-48s, the cost would be around $414 million. Further investment in the industrial base to increase overall torpedo production capacity would enable much greater sustained fighting capacity. The Navy should also procure lower-cost torpedo alternatives—such as the Rapid Acquisition Procurable Torpedo (RAPTOR)—to deepen its stockpiles and allow for more cost-effective attacks on less defended targets.[53] The United States should also explore coproduction programs to develop interoperable heavy torpedoes that can be used by U.S. allies in the first island chain.

Second, the United States should build and operate additional ambush squadrons composed of forward-based UUVs. The United States has experimented with programs such as the XLUUV.[54] The U.S. Navy's XLUUV development and fielding effort—often associated with the "Orca" vehicle—was framed as a way to deliver undersea mines without requiring sailors while advancing a more distributed hybrid fleet architecture.[55] The initiative has continued to evolve, and on March 12, 2026, the defense firm Anduril was selected to participate in the Combat Autonomous Maritime Platform Project for the extra-large autonomous underwater vehicle (XL-AUV) program. Anduril plans to build on its existing program of record with the Royal Australian Navy for the firm's Ghost Shark XL-AUV.[56] Autonomous undersea vessels that can deploy large payloads such as mines hold Chinese naval assets at risk without endangering U.S. sailors' lives. Allied suppliers such as Australia have begun to purchase these capabilities, and the U.S. Navy could continue rapidly leveraging these existing capabilities in close coordination with its allies. This logic extends to other partners and regions. China is building a global navy and must be challenged both in the Pacific and beyond.

For the U.S. Navy, these unmanned hulls—both mine-laying and, eventually, torpedo-armed—would not replace SSNs. Rather, they would complement them by providing affordable presence in shallow, noisy littorals, optimized for ambush against high-value units rather than global blue-water patrols. For allies, joint programs would deepen interoperability, allow cost sharing, and create a more resilient multilateral undersea industrial base, complicating Chinese ASW planning. The objective is straightforward: contain China's carriers and amphibious assault ships and separate them from the protection of mainland air and missile bases by making every approach path a submarine problem Beijing cannot ignore. Although XLUUVs tend to be slow and are better suited to mine laying than torpedo attack, prepositioning them at key chokepoints would complicate PLAN deployments.

Third, the United States should partner with its allies in the Indo-Pacific to develop forward bases for USVs and UUVs to get them positioned and sustained closer to the fight, holding Chinese naval assets perpetually at risk. The U.S. Navy has already used its facilities in Yokosuka, Japan, to support unmanned surface vessel experimentation in the Indo-Pacific, and also deployed USVs from the



Anduril's Dive-XL autonomous underwater vehicle.

Source: John Keeble/Getty Images

Philippines during the 2026 Balikatan military exercise.[57] The Pentagon's Regional Sustainment Framework (RSF) is premised on contested logistics and distributed maintenance across allied territory, explicitly discouraging returning equipment back to the United States for maintenance.[58] A network of austere operating sites in places such as Japan and the Philippines, complemented by deeper sustainment capacity in these countries as well as in Australia and other regional partners, would let the United States pre-position, repair, rearm, and rotate USVs and UUVs far closer to likely operating areas than is possible from current sites in Hawaii, Guam, and the West Coast.[59]

To enable this approach, Congress would need to continue to use its power of the purse to maximize torpedo production, initially to the level currently sustainable by the industrial base and then, through funding initiatives, to expand the nation's torpedo production capacity. The U.S. Navy has begun making strides in this effort, including investing $1 million in 2025 in L3Harris's Salt Lake City facility to reportedly increase torpedo production capacity by 400 percent.[60] The combination of (1) a steady and high-demand signal and (2) funding for maritime industrial base initiatives to make supplier-side investments will help increase U.S. subsurface warfighting readiness.

For UUV ambush squadrons, Congress should direct the Navy to transition XLUUVs from a prototype-centric posture to a scalable, multiyear procurement and sustainment plan that explicitly budgets the integration/testing throughput and shore infrastructure required to field a larger

fleet, as well as vehicle procurement. Congress should pair its demand signal with industrial-base investments in the highest-risk components (e.g., energy storage, autonomy/navigation, secure communications, and pressure-vessel manufacturing).[61] It should employ producibility metrics and schedule transparency requirements to prevent repeats of the cost/schedule growth witnessed in previous XLUUV programs.[62] Finally, Congress should require an AUKUS-enabled XLUUV production and modular payload roadmap (including coproduction, shared interfaces, and pooled spares) that leverages AUKUS's International Traffic in Arms Regulations exemptions and existing Pillar II initiatives to integrate Indo-Pacific allied supply chains while preserving security through clearly defined excluded-technology boundaries.[63]

For forward basing, Congress can reform Title 10, Section 333, to allow Defense Security Cooperation Agency funding to build "partner sustainment centers" such as forward piers for XLUUV- and USV-recharging/rearming stations in nations including Australia, Japan, the Philippines, and Taiwan. This would create a resilient distributed network of infrastructure to enable forward basing of these often short-range assets (especially when compared to SSNs). Furthermore, reform would allow the Navy to leverage allied geography, capacity, and ability more effectively across the production and sustainment of unmanned systems.

2. Guard the chokepoints with littoral forces.

Holding PLAN carriers at risk is more than an undersea problem. Geography matters, and the Western Pacific contains multiple maritime chokepoints and strategic island outposts that any Chinese carrier force must traverse to effectively project power far beyond its shores. Outside the region, there are well-known key maritime chokepoints that provide additional opportunities for denying China freedom of maneuver.

The United States already possesses much of the force structure needed to contest these spaces, particularly in the form of MLRs and MDTFs.[64] These forces need support to improve integration and mobility to enable them to perform their tasks more effectively. Specifically, these formations must evolve into true chokepoint guards—rotational, forward-based forces capable of operating closely with allies to control key terrain and exert sea control in and around the first island chain. That means deeper interoperability with partners such as Australia, Japan, and the Philippines, including shared targeting, communications, sustainment, and littoral mobility. The Marine Corps has been grappling with how to best perform contested resupply of littoral forces, including efforts to procure autonomous low-profile vessels to address this need.[65] These initiatives will require proper resourcing to see full success.[66] With the ability to move rapidly among islands, ports, and austere bases, these forces can become agile contributors to a broader maritime campaign.

Congress will need to provide financing for the continued recapitalization of these forces to have the equipment required to carry out littoral operations.[67] Especially on the issue of contested logistics, funding for innovative programs and prototyping to overcome the challenges of delivering supplies to islands in a sustainable manner is critical. For example, Other Transaction Authorities (OTAs) could be used for unmanned supply vessels, semi-submersibles, or various other systems. Regulatory reforms can also assist in these efforts. H.R. 5190, for example, facilitates

the use of commercial additive manufacturing facilities in contested environments.[68] In addition, congressional guidance could clarify the contested logistics issues between the deputy secretary of war, the vice chairman of the Joint Chiefs of Staff, and U.S. Transportation Command.[69]

3. Explore shifting hybrid fleet concepts from 350/150 to 300/300 and embrace low-cost swarms.

Current U.S. Navy planning envisions a future "hybrid fleet" of roughly 500 ships composed of about 350 manned vessels and 150 unmanned surface and subsurface platforms.[70] This would constitute a significant change but is still conservative relative to the scale of the unmanned revolution visible in the Black Sea and, increasingly, in the Indo-Pacific.

The hybrid fleet is likely to take the form of a traditional primary battle force complemented with several tailored offsets.[71] In January 2026, CNO Daryl Caudle stated that unmanned vessels such as USVs (including medium unmanned surface vessels), UUVs, and low-cost interceptors could form "tailored offsets" that complement the main battle force of carriers and surface combatants.[72] These tailored offsets with unmanned forces would be designed specifically for high-risk, low-probability scenarios (e.g., an invasion of Taiwan by the PLAN) as well as more routine maritime domain awareness missions.

To credibly threaten PLAN carriers with drone swarms, deception, and persistent surveillance, the U.S. Navy should consider rebalancing its target mix to approximately 300 manned ships and 300 unmanned platforms by the 2030s. This shift would leverage lower per-platform cost to field more "shots" in theater and create a more resilient distributed architecture, consistent with U.S. desires for more distributed firepower.[73] The force structure could involve two main assets:

- manned ships focused on traditional missions like power projection and sea control; and
- unmanned vessels (e.g., surface, subsurface, and airborne assets) providing massed sensors, decoys, and strike capacity—ideal for saturating the defenses of high-value units such as PLAN CSGs.

Subsurface unmanned systems, particularly XLUUVs, will be central to the United States' future hybrid fleet. U.S. subsurface technology is one of the service's crown jewels and already poses significant challenges to PLAN strategy for Taiwan contingencies by holding their carrier forces at risk. Building more unmanned systems would allow the Navy to draw on a broader industrial base than traditional shipyards, many of which are already occupied by the concurrently growing demand for the conventional fleet. Industrial policy aimed at scaling unmanned production would directly support this force design while improving resilience in a protracted competition.[74]

Due to their inherent flexibility and innovative applications, naval unmanned systems offer capabilities beyond low-cost versions of conventional combatants by leveraging low-cost naval swarms. One can imagine situations in which large unmanned platforms—such as a "manta ray" type UUV or USV—deploy dozens of small airborne quadcopters or loitering munitions designed to swarm sensors, ignite fires on flight decks, or blind radars rather than sink ships outright.[75] Such

systems leverage cost asymmetry, forcing adversaries to repeatedly defend expensive platforms against cheap, numerous, near-constant threats.

Hybrid fleets could also leverage existing commercial hulls by mounting containerized munitions or using them as bases for deploying low-cost drone swarms. Equipping a container ship with 40 naval strike missiles would cost around $130–$145 million, comprising $2 million per missile, $20 million for command-and-control and ship modifications, and between $10 and $40 million for the ship itself.[76] Alternatively, these ships could serve as close-in launch vessels for USVs, particularly if the former are disguised as nonmilitary assets before the outbreak of conflict as a sort of modern-day "Q-Ship," a historical approach that China is experimenting with through the weaponization of civilian merchant vessels.[77] These vessels do not even need to have real weapons in containers to be useful—decoys could proliferate targets for the PLAN and complicate the battlespace for their strategists.

Allies have a critical role to play in deploying unmanned platforms against China. Given the challenge of operating USVs or UUVs at extended ranges, in particular, the U.S. naval position will be strengthened by allied basing for U.S. unmanned systems in addition to allied fleets' own unmanned systems.[78]

Congress can support the adoption of a hybrid fleet by providing funding for the creation of tailored offsets envisioned by the Hedge Strategy proposed by the CNO.[79] Currently, the FY 2027 budget calls for large increases in unmanned investments, particularly $54 billion for the Defense Autonomous Warfare Group (DAWG), which absorbed the Pentagon's earlier Project Replicator.[80] How the funding will align across different efforts—ranging from service-level initiatives in the U.S. Navy, such as the Portfolio Acquisition Executive for Robotic and Autonomous Systems (PAE RAS), to institutional efforts such as DAWG, which appears to focus more on combatant command priorities—remains unclear.[81]

While authorities exist to enable the construction of tailored offsets, funding would need to rise above current levels to enable these forces' creation without cannibalizing other U.S. Navy priorities. That is possible given the recent budget, which, on top of calls for more autonomous platforms, also ordered the procurement of 18 warships, the largest single buy since 1962.[82] One option to enable greater experimentation with unmanned systems would be to grant greater acquisition authorities to the combatant commanders of tailored offsets in theater, including rapid acquisition authorities such as Commercial Solutions Openings (CSOs) and OTAs.[83] Because this approach introduces risk in long-term standardization, it should only be employed for early experimental phases before picking a good-enough solution and deploying it at scale.

Regardless of how resources and authorities are aligned, increasing the number of unmanned platforms across the U.S. Navy will require additional analysis before deployment at scale. There will need to be a clearer sense of what is called, in Pentagon-ese, "DOTMLPF-P" analysis, which turns warfighting and deterrence concepts into formations, logistics support packages, and career pipelines for sailors. The need for expanding the use of unmanned systems is widely agreed upon, but the mix and required support structures are not as clear and should be an analytical priority.

4. Coproduce munitions with allies.

Large-scale strike campaigns against carriers and their escorts are magazine-intensive. The United States cannot afford to fight a long war in the Western Pacific if every LRASM, SM-6, or Naval Strike Missile must be produced in and shipped from North America.

The United States cannot afford to fight a long war in the Western Pacific if every LRASM, SM-6, or Naval Strike Missile must be produced in and shipped from North America.

There is already movement toward coproduction and licensed manufacture of guided weapons and key munitions with allies such as Australia and Japan. For example:

- U.S.-Australia agreements include the coproduction of Guided Multiple Launch Rocket Systems and PrSM and the expansion of a Guided Weapons and Explosive Ordnance enterprise in Australia.[84]
- Australia plans to manufacture Naval Strike Missiles and Joint Strike Missiles with Norway's Kongsberg, creating one of only two global production sites and the only one outside Norway.[85]
- Japan's first-ever export of PAC-3 interceptors, combined with deepening U.S.-Japan industrial ties, indicates a willingness to treat arms coproduction as a core pillar of alliance strategy.[86]

The United States should build on these precedents to deliberately expand its long-range anti-ship and air defense missile production—along with the supply chains for key components and propellants—into allied industrial bases within, or at least near, the Indo-Pacific theater. This would shorten logistics tails for replenishing forward magazines, reducing the strain on the U.S. logistics enterprise in wartime. Coproduction would also ease the sustainment challenge of forward-based forces in peacetime and enable forward sustainment by allied capabilities in the event of war.[87] The overall goal should be to increase total production capacity beyond what the U.S. industrial base alone can sustain by leveraging existing allied production capabilities.

One critical outcome of coproduction would be to lower the cost of pulse strikes—the recurring attack cycles needed to hold PLAN carriers and their escorts at risk—which requires greater availability of lower-cost cruise missiles and expanded launch platforms (including maritime patrol aircraft, USVs, and allied systems). Deeper munitions coproduction with allies who already possess forward supply chains can be a core enabler of this effort, including eventual coproduction of launch platforms to expand availability and interoperability.

Finally, an essential outcome of coproduction is the further integration of the United States and its allies in the Indo-Pacific. Specifically, coproduction entangles allies even more in the defense of

shared sea lanes and the U.S. production web, making any PLAN carrier campaign a contest against a broader coalition rather than just versus the United States.

Congress can support coproduction with allies by expanding upon existing defense industrial cooperation agreements. The Department of War has signed reciprocal defense procurement agreements (RDPAs) with several core allies such as Australia and Japan, but has yet to sign one with South Korea, a major arms producer and a strong partner for deeper cooperation.[88] Congress could also build upon the success of close defense industrial cooperation agreements such as AUKUS either by opening that agreement to other nations—such as Japan and South Korea—or by creating parallel agreements with them.[89] Congress could also enlarge the National Technology and Industrial Base to include more nations, though this framework could benefit from reform before expanding.[90] Other initiatives, including the RSF, the Partnership for Indo-Pacific Industrial Resilience (PIPIR), and the U.S. Air Force Global Enterprise Network for Universal Sustainment (GENUS), could also be extended beyond their current borders.[91] Overall, Congress should encourage, fund, and authorize the Department of War to build upon or expand existing agreements rather than create new, duplicative efforts.

Table 2: Implications for Naval Reform

	Core problem	Operational logic	Reform and implementation agenda
1. Increase subsurface firepower and enable forward ambushes.	The Navy cannot rely on SSNs alone to create enough undersea presence, especially given Virginia-class production shortfalls and demand from the trilateral agreement among Australia, the United Kingdom, and the United States (AUKUS).	Turn PLAN carriers into high-risk targets by creating a dense undersea "ambush belt" around likely operating areas and chokepoints.	Expand torpedo production, scale Unmanned Underwater Vehicle/Extra Large Unmanned Undersea Vehicle (XLUUV) programs, and build allied forward sustainment sites to create a larger, more distributed subsurface ambush force.
2. Guard the chokepoints with littoral forces.	PLAN carrier groups must pass through predictable maritime geography, but U.S. and allied littoral forces need better mobility, sustainment, and integration to exploit it.	Use MLRs, Army MDTFs, and allied forces to contest key maritime terrain across the first island chain and other strategic chokepoints.	Fund littoral mobility, contested logistics, unmanned resupply, and joint targeting networks so distributed forces can hold maritime chokepoints at risk.
3. Shift hybrid fleet concepts from 350/150 to 300/300 and embrace low-cost swarms.	Current hybrid fleet plans are still conservative relative to the unmanned systems revolution and the need for distributed mass.	Use tailored offsets including unmanned forces to bring to bear sensors, decoys, deception, strike capacity, and swarm effects against high-value PLAN units.	Rebalance toward a larger unmanned fleet by funding tailored offsets including unmanned forces, rapid experimentation, and the support structures needed to scale unmanned platforms.
4. Coproduce munitions with allies.	A long Western Pacific campaign would be magazine-intensive, and the United States cannot depend on North American production and shipping alone.	Make PLAN carrier operations a coalition-wide problem by expanding missile production, sustainment, and replenishment capacity inside or near the Indo-Pacific.	Expand allied coproduction of anti-ship missiles, air-defense interceptors, propellants, components, and launch platforms by expanding existing defense-industrial agreements.

Source: CSIS.

Recommendations

To flip the carrier vulnerability narrative and impose new strategic dilemmas on Beijing, Washington should align the United States' industrial base, force design, allied integration, and operational concepts around sustained maritime denial. The following recommendations outline a coherent approach for Congress and the Department of War to generate scalable undersea and unmanned capabilities, harden contested logistics, and leverage allied industrial capacity to hold Chinese naval forces—particularly its CSGs—at persistent risk.

Congress should authorize and direct the secretary of the Navy to use multiyear procurement and economic order quantity authorities under Title 10, Section 3501, for MK-48 heavyweight torpedoes (and their key subcomponents) to provide stable demand signals. The Navy should then pair that with direct investments in critical energetics/fuel production and weapons testing capacity.[92] Congress should also mandate the creation of a "critical components" stockpile (e.g., propellants, guidance electronics, and propulsion parts) sized to sustain 6–12 months of surge production. The Navy has already launched four multiyear munitions contracts to stabilize funding, but industry warns that bottlenecks—especially for electronic components—still throttle torpedo output.[93]

Congress should direct the U.S. Navy to deliver, with the next budget submission, a scalable XLUUV/XL-AUV acquisition strategy that covers vehicles, payload interfaces, shore infrastructure, autonomy software, test assets, and sustainment.[94] The authorizing language should require production-readiness reviews before full-rate procurement, cost and schedule transparency by hull lot, and annual reporting on high-risk components such as energy storage,

autonomy computing, communications, and pressure-vessel fabrication. Allies can play a core enabling role in this effort. AUKUS Pillar II experimentation has already focused the United States, Australia, and the United Kingdom on jointly operating and testing unmanned maritime systems.[95] Australia's Ghost Shark program, for example, demonstrates that allied extra-large autonomous undersea production can move faster when the customer commits to a multiyear industrial signal.[96] To that end, Congress should direct the Department of War to submit an AUKUS-enabled production and modular-payload roadmap, with defined areas for codevelopment, coproduction, or standards harmonization with trusted partners.[97]

Congress should amend Title 10, Section 333, to permit higher construction caps for Indo-Pacific maritime sustainment projects supporting distributed operations, including unmanned-system charging, repair, rearming, secure storage, and expeditionary maintenance.[98] Defense Security Cooperation Agency (DSCA) funding can be used to build "partner sustainment centers" to enable forward basing and replenishment of U.S. Navy assets, particularly range-limited XLUUVs and USVs.[99] Increasing Section 333 construction caps could allow the DSCA to fund pier extensions and mobile workshops near the first island chain, in support of forward-deployed unmanned systems.[100] These drones can continually hold Chinese naval assets at risk, provide credible deterrence, and serve as an early tripwire or even a quick-reaction force. Reforming Title 10, Section 333, would allow the Navy to leverage allied sustainment capacity nearer to the fight, knitting together closer partnerships and improving force generation during conflict.

Congress should fully fund MLRs and Army MDTFs with dedicated amphibious transport and ground mobility. Specifically, Congress should authorize and appropriate funds for the procurement of a floor of 35 of the Navy's new Landing Ship Medium (LSM) class, enough to ensure nine operational LSMs for each of the three envisioned MLRs.[101] That number will adjust depending on how many MLRs the U.S. Marine Corps opts to field and the extent to which it does not detract from core Navy needs for SSBNs, SSNs, amphibious ships, large surface combatants, and aircraft carriers.[102] Congress and the Department of the Navy should work with industry partners to ensure the LSMs have interoperability standards with allies.[103] Likewise, the Department of War should coordinate with regional partners such as Japan and the Philippines to stockpile common fuels, munitions, and equipment, including by leveraging existing regional partnerships such as the RSF and the broader PIPIR.[104]

Congress should continue to clarify the lead on contested logistics. The FY 2026 National Defense Authorization Act designated the deputy secretary of war, the vice chair of the Joint Chiefs of Staff, and the commander of Transportation Command as responsible for global contested logistics posture management.[105] Congress should build on this by mandating the Department of War report on whether the new structure has sufficiently closed historical gaps in who "owns" contested logistics issues.[106] Furthermore, Congress should more broadly grant offices with contested logistics responsibilities various innovative acquisition authorities such as CSOs and OTAs to deploy sustainment solutions (e.g., mobile 3D-print shops and autonomous resupply drones) in contested zones.[107] For instance, Navy commanders could issue CSOs to procure sea drones for ISR,

or Transportation Command could use OTAs to obtain prototype logistics robots to experiment with contested logistics operations.

Congress should require that, in the next 30-year shipbuilding submission, the Department of the Navy provide a force-design alternative built around upward of 300 manned and 300 unmanned platforms by the 2030s. The alternative should explicitly prioritize unmanned surface and subsurface systems for surveillance, deception, decoying, magazine extension, and strike support against high-end maritime targets. The Navy's 2025 Shipbuilding Plan called for a force of 381 battle-force ships but only 134 unmanned surface and undersea vessels.[108] A force-design alternative with 300 unmanned platforms would build upon CNO Caudle's embrace of a Hedge Strategy that leverages tailored offsets.[109] While the Navy's 2025 plan for unmanned systems did not include estimated costs for unmanned systems, Congress should require future fleet alternatives to consider both manned and unmanned cost estimates to inform policymakers.[110]

Congress should institutionalize munitions coproduction with Australia, Japan, and select other partners (including in Europe). Coproduction should focus on anti-ship missiles, torpedoes, and integrated air/missile defense interceptors, with production lines located as far forward as allied politics allow. Congress should direct the Department of War and the Department of State to create a formal coalition munitions-production architecture centered on the Indo-Pacific. That architecture should build upon, not replace or recreate, the RSF; PIPIR; GENUS; U.S.-Japan Defense Industrial Cooperation, Acquisition, and Sustainment (DICAS); AUKUS; and other existing reciprocal procurement agreements.[111] The Department of War has already leveraged PIPIR, and as a result, in 2026, PIPIR nations agreed to joint projects on U.S.-Japan and U.S.-South Korea engine sustainment, U.S.-Japan solid rocket motor production, and the assessment of partner-produced 30-millimeter ammo and modular UAS hardware.[112]

Congress should fund and direct the Department of War to create a unified and resilient maritime sensing web to harden U.S. ISR capabilities rather than relying on its current platform-by-platform approach to ISR upgrades. That would include (1) hardening data links and mission systems against cyber and electronic warfare attacks, (2) accelerating proliferated sensing layers for maritime moving target indication, (3) expanding unmanned airborne, surface, and subsurface sensor nodes, and (4) requiring that new kill-chain investments use degraded communications and denied-space operating assumptions. The Navy already spends heavily on Indo-Pacific ISR.[113] Knitting together these efforts into a resilient web should also nest under broader Joint All-Domain Command and Control initiatives.[114]

The secretary of war should direct U.S. Indo-Pacific Command to produce, within one year, a joint carrier-denial campaign concept that integrates subsurface ambush, land-based maritime fires, air-delivered standoff weapons, deception, cyber-electromagnetic effects, and operational logistics attacks against PLAN carrier groups. This concept should explicitly include mission-kill effects (e.g., flight-deck disruption, sortie-generation suppression, sensor blindness, refueling denial, and escort attrition) rather than only sinking an enemy carrier.[115] The concept should then be exercised during joint and service events in the Western Pacific, including in coordination with allies.[116]

The White House, the Department of War, the Department of State, Congress, and allies should align public and private Indo-Pacific deterrence messaging around the proposition that Chinese carrier groups and associated support infrastructure will be persistently targetable in a crisis. This should appear in senior speeches, posture statements, joint communiqués, and exercise messaging. Moreover, as China's carriers deploy globally, the message should follow.

Collectively, these recommendations work together to better hold Chinese capital ships at risk. The littoral force covers maritime chokepoints while XLUUVs and conventional submarines hunt within the resulting kill boxes. At the same time, maritime patrol aircraft and resilient space-based ISR assets would enable long-range LRASM shots.

If the United States wants to compete effectively in a long-term maritime rivalry, it must not allow the "carrier-killer" narrative to remain a one-way story. By targeting PLAN CSGs as part of a broader U.S. cost-imposition strategy, Washington can reshape Beijing's risk calculus and restore a measure of reciprocal vulnerability to the center of twenty-first-century naval competition.

Table 3: Recommendations

Actor(s)	Recommendation(s)	Implementation
U.S. Navy; Congress	Stabilize torpedo production and build surge capacity.	Authorize multiyear procurement and economic order quantity buys for MK-48 components; fund industrial-base investments in energetics/fuels and test throughput; establish a 6–12-month critical-components stockpile to enable surge production.
U.S. Navy; Congress	Scale XLUUV procurement and allied integration.	Transition XLUUVs to a multiyear procurement and sustainment model funding platforms, integration/testing, and infrastructure; pair with investments in key components and require producibility metrics, while mandating an AUKUS-enabled coproduction and modular payload roadmap.
U.S. Navy; Congress; DSCA	Enable forward sustainment for unmanned systems.	Increase Title 10, Section 333, construction funding caps to support creating "partner sustainment centers" for forward basing and replenishment of UUVs/USVs, enabling persistent forward presence, improved force generation, and enhanced deterrence.[117]
Congress; U.S. Marine Corps; U.S. Army	Resource littoral forces as chokepoint control units.	Expand funding for Marine Littoral Regiments and Multi-Domain Task Forces; purchase 35 LSMs to equip the MLRs; fund mobility platforms, missile batteries, and forward stockpiling to enable distributed maritime denial operations with allied forces.
Congress; Department of War	Clarify authority and resource contested logistics.	Require the Department of War to report on the division of ownership of contested logistics across the department between the deputy secretary of war, vice chairman of the Joint Chiefs of Staff, and U.S. Transportation Command; enable rapid prototyping of resupply solutions such as unmanned logistics platforms and expeditionary additive manufacturing.
Congress	Explore shifting hybrid fleet to 300 manned/300 unmanned platforms.	Require the Navy to produce an alternative fleet-force structure that expands unmanned surface and subsurface platforms capable of serving as tailored offsets and provides cost estimates.
Congress	Expand rapid acquisition authorities for USVs.	Provide combatant commanders expanded authority to rapidly test and field unmanned and other tailored offset technologies using CSOs, OTAs, and similar rapid procurement mechanisms.
Congress; Department of War	Institutionalize allied munitions coproduction.	Expand and centralize coproduction agreements for anti-ship missiles, torpedoes, and air-defense munitions with Indo-Pacific and European allies, leveraging RDPAs, AUKUS-style frameworks, and possibly a reformed National Technology and Industrial Base; build upon existing frameworks such as RSF, DICAS, and GENUS.
Department of War	Harden and distribute ISR networks.	Invest in resilient distributed sensing architectures and unmanned ISR platforms capable of surviving cyber, electronic, and counter-space attacks while enabling coalition targeting.
U.S. Navy; Joint Staff; Indo-Pacific Command; Allied Militaries	Develop integrated carrier-denial operational concepts.	Develop and exercise joint campaign concepts integrating subsurface, land-based, air-delivered, cyber-electromagnetic, and unmanned strike operations targeting PLAN carrier groups.
Department of War; Department of State; White House; Allied Governments	Reframe Indo-Pacific deterrence messaging.	Coordinate allied strategic messaging to emphasize coalition capability and intent to hold Chinese carrier forces at persistent operational risk.

Source: CSIS.

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