

URGENT STEPS TO DEFEND TAIWAN

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Countering China's Use of Force

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In war the chief incalculable is the human will, which manifests itself in resistance.

- B. H. LIDDELL HART

This chapter looks at China's kinetic options for subjugating Taiwan, up to and including a full-spectrum invasion. It argues that although there are several ways that Beijing might try to coerce Taiwan, *the Taiwanese military must focus overwhelmingly on the invasion threat*. Taiwan must be prepared to endure a full-scale embargo and bombardment for at least two months, while resisting invasion. The chapter outlines a strategy for Taiwan to deny a conventional People's Liberation Army (PLA) landing while eliciting support from the United States and allies, including operational concepts to maximize survivability and lethality while facilitating intervention by a US-led coalition. It concludes with a list of recommended changes to Taiwan's military force structure that would enable such a defense strategy.

When "Gray Zone" Turns Black

In recent years, China's gray-zone activities against Taiwan have included everything from luring away Taiwan's diplomatic partners and imposing targeted economic sanctions to blackmailing Taiwanese

political candidates and pumping biased or false information into Taiwan's public discourse. They have also involved nonlethal actions by China's navy, air force, rocket forces, and coast guard designed to cultivate a sense of futility within Taiwan's population.

China's gray-zone activities are formidable, and we will examine them—and approaches Taiwan can take to counter them—in detail in chapter 6. But it is important to recognize up front that Beijing's gray-zone actions have so far failed to reverse Taiwan's widespread and growing disenchantment with the idea of a political union with the People's Republic of China (PRC). Beijing's activities have also failed to produce the electoral outcomes that Beijing would have preferred in each of Taiwan's last three presidential elections. To put it bluntly: Beijing's strategy to "win without fighting" is still fighting for a win.

There remains significantly more powerful approaches Beijing may yet try, such as a quarantine or blockade, that would still qualify as "gray zone" so long as they didn't escalate to lethal military force. But given the real possibility that the Taiwanese people, like the Ukrainian people, will endure such hardships to preserve their democratic freedoms and de facto sovereignty, it seems unlikely that Beijing would pursue such options without a plan and expectation that it would need to escalate to the use of force. And if Taipei, like Kyiv, still chooses to resist outside coercion, Beijing may feel compelled to move forward with a full-blown invasion. Indeed, a lesson that even casual observers of Vladimir Putin's costly ten-year war in Ukraine have drawn is that Moscow may have had more success from the start by moving rapidly with overwhelming force and presenting a fait accompli rather than easing into its conflict in stages, which gave Kyiv and its Western partners time to shore up Ukraine's defenses. Xi may have drawn a similar conclusion, judging by the concern he has evidently expressed on occasion about Putin's prosecution of his war.1

Coping with Close Encounters in the Sea and Air

In the military domain, Beijing has responded to perceived political slights by launching missiles and aircraft, as it did in 1995–96 to protest

the Taiwanese president's trip to the United States and in 2020 and 2022 when senior US officials visited Taipei. None of these constituted kinetic attacks on Taiwanese forces or territory, however. Since 1958, PLA and Taiwanese forces have not exchanged fire, or even collided as US and PRC aircraft did in April 2001 and their ships very nearly did in 2018.

In recent years, the PRC has become increasingly risk tolerant in air and maritime encounters with US and allied forces, including ramming Philippines supply vessels in late 2023. China always shifts the blame for its dangerous actions, including when its own forces employ water cannons, deploy flares, take aggressive maneuvers, or even intentionally collide with allied vessels and aircraft. Since Beijing's propaganda machinery will perpetuate its preferred narrative, Taiwan must avoid potentially escalatory interactions with the PLA in international sea and airspace. As explained in chapter 3, the problem isn't that such actions would cause an accidental conflict, but rather that they could hand Beijing a useful pretext upon which to pursue preplanned escalation. To support this approach, Taipei can borrow the PRC strategy of employing maritime law enforcement instead of military power.

Taiwan already stations its coast guard on the two South China Sea (SCS) features it holds, with only minimal military support personnel. Rather than naval forces, Taiwan should use its coast guard and National Airborne Service Corps (Taiwan's civil aviation search and rescue agency) for routine resupply to the South China Sea islands and maritime patrols in international waters. Like military transports, coast guard vessels can be armed with twenty-millimeter cannons, including Phalanx close-in weapons systems for self-defense. Military and civil transport aircraft are likewise interchangeable. If challenged in international sea and airspace, Taiwan should attempt to disengage, capturing the incidents on video, just as the Philippines has done since late 2023. Acknowledging that the PLA enjoys strategic overmatch on the high seas, Taiwan can help set its narrative by employing more "white hull" ships, such as coast guard cutters, instead of military "gray hulls."

However, if PRC vessels approach Taiwan's twenty-four-nautical-mile (nm) contiguous zone (measured out from its territorial baselines), Taipei

must be resourced and prepared to respond militarily.² Considering its behavior in the South and East China Seas, the PRC may lead with unarmed maritime militia. Or it could use drones to test Taiwan's defenses. In all cases, Taiwan should respond first with law enforcement, when possible, as it has done with PRC dredgers and fishers.³ The Taiwan Coast Guard should issue warnings approaching 24 nm and judge the target's nature and intent. Inside of 12 nm, military forces should respond if Taiwan witnesses actions that go beyond innocent passage, as defined by international law. If circumstances permit, Taiwan could deliver warning fire across the bow of the interloper. But if there are too many vessels or they are moving too fast, Taipei would be within its rights to employ lethal weapons against uncooperative targets operating inside its territorial waters. If Beijing intentionally provokes in Taiwan's sovereign seas, Taipei cannot afford to back down.

The same is true for interlopers in the air, with the caveat that Taiwan may need to scramble fighters when approaching aircraft reach 40 nm, depending on the flight profile and type of aircraft. Forty nautical miles is roughly the closest distance from Taiwan's main island to the centerline of the Taiwan Strait. Taiwanese fighters should aim to intercept and determine armaments and intent before PRC aircraft reach 12 nm from Taiwan's baselines. Here, too, if the offenders are uncooperative inside territorial airspace, Taiwan should prosecute the targets rather than allow erosion of its sovereignty. This could provide pretext for retaliation by China, so Taiwan must rapidly and proactively publicize incidents in the context of homeland defense, with accompanying video evidence, to counter ensuing PRC propaganda.

If the PRC interlopers are drones, Taiwan could employ twentymillimeter or similar light cannons (from the air or sea) to disable them. In the case of maritime militia or dredgers, the Taiwan Coast Guard should detain them if they cannot claim innocent passage. Taiwan's fighter jets can respond to air or naval threats and should establish continuous alerts with ordnance for both contingencies. Similarly, Taiwan's coast guard and navy should be on hand in various ports, prepared to scramble. Fast-attack missile boats (Taiwan has 180-ton and 650-ton missile patrol craft) are best suited for the mission—functioning as the maritime equivalent of fighter jets. Land-based coastal defense cruise missile and medium-range air defense batteries should be stationed around Taiwan's coast to provide operational depth in coordination with the fighter aircraft and missile boat alert missions.

Taiwan must also take care to avoid overreacting. In the days leading up to the January 2024 election, the PRC likely attempted to bait Taiwan by releasing balloons into the jet stream and allowing tugboats to traverse Taiwan's territorial waters under an innocent passage profile.⁴ In both cases, Taipei made appropriate judgments and responses.⁵

For the offshore islands (Taiwan-held islands along the coast of mainland China), Taiwan's territorial rights do not extend 12 nm. Instead, Taiwanese forces should target direct overflight of the territory itself, as they eventually did with small drones in the summer of 2022. More critically, all Taiwan's outer island defense forces, which occupy its offshore and SCS features, should primarily prepare to resist PLA takeover.

Outer Island Seizures

If the political objective of the Chinese Communist Party (CCP) is to show measurable progress toward unification, provoking an altercation on or over the high seas may not suffice. Beijing could instead choose to take over Taiwan-held territory by seizing one or more of the outer islands along the mainland coast or in the SCS. The United States would likely be unwilling and unable to intervene on Taipei's behalf in such a scenario. Washington's Taiwan Relations Act does not cover the outer islands, and a PLA operation to seize one would probably be over in a matter of days, if not hours, given the PLA's capability overmatch. Pratas Reef, with no native population or other claimants, is a top candidate. China could also seize one or more of the offshore islands. Doing so might prove strategically obtuse, since the offshore islands tie Taiwan historically to the mainland and serve as political counterweights to independence-leaning Taiwanese. Nevertheless, because Beijing does miscalculate and overreach at times, Taipei must have a plan for responding.

To deter and, if necessary, resist such a seizure, Taipei should deploy scores of short-range defensive munitions, like Stingers and Javelins, on each of its Outer Islands. Taiwan must avoid a Crimea-like uncontested takeover at all costs, both to demonstrate its resolve and to oblige China to use lethal force. Actively resisting an island grab will send an unambiguous signal to the rest of the world: China is a violent revisionist power and Taiwan is willing to fight for itself.

In every scenario, Taiwanese crews and defenders should record or transmit their interactions with PRC forces. If China is clearly the aggressor in a limited kinetic scenario, such as an island seizure, a collision at sea, or weapons employed against transport vessels or aircraft, allies would take umbrage and the Taiwanese people would stiffen their spines, making Beijing's chances of eventually realizing "peaceful reunification" even more remote.

Blockade with Firepower Strikes

The PRC's August 2022 live-fire exercise following Speaker Nancy Pelosi's visit to Taiwan was a scripted political protest designed to avoid further escalation. With a global audience in mind, these drills were preannounced, time bound, and geographically circumscribed. PLA vessels patrolled the designated impact zones to clear stray vessels. PRC state media said the exercises included "joint blockade, sea target assault, strike on ground targets, and airspace control operations."⁶ The ballistic missiles launched over Taipei were therefore intended to signal the PLA's ability to hit Taiwan with precision.

However, even thousands of guided missiles are unlikely to compel capitulation. Short of using atomic weapons, virtually no bombing campaign in history has compelled a population to concede. They typically stiffen public resolve instead. That said, because Beijing might still try to blast the Taiwanese people into submission from afar, Taiwan needs to be mentally and logistically prepared to endure large-scale missile strikes against military and critical infrastructure targets. China is unlikely to intentionally target civilians with such a campaign, because it would further turn popular sentiment against Beijing, both in Taiwan and abroad. As with the limited kinetic operations mentioned above, Taipei's ability to communicate with the outside world will be critical to rallying and coordinating external intervention. In the meantime, Taiwan's thousands of fishing vessels could serve as stents for maintaining access to critical supplies. If the Taiwanese people demonstrate resilience and resolve to sustain themselves, global public outrage and the acute shock to global electronics supply chains will motivate the United States and others to intervene, arguably more urgently than with a non-kinetic blockade, as discussed in the next chapter.

The abiding condition of a PRC bombardment and blockade, while certainly disastrous for Taiwan, would be more bearable than what many Ukrainians and Israelis endured over the past two years, including rape and torture at the hands of the enemy. All the while, Beijing would find itself at an increasing disadvantage vis-à-vis Washington, as China would suffer more economically and expend more militarily to sustain the blockade.⁷ Politically, the developed world would condemn and isolate the CCP, adding to the regime's challenges.

Moreover, not only would Taiwan remain effectively independent from China under this scenario, but Taipei may even move to formally separate with the support of the United States and key allies. Such an outcome would be analogous to, if not worse than, Putin's ill-advised reinvasion of Ukraine in 2022, which triggered the very thing he sought to avoid: a stronger and expanded NATO. If Taiwan can successfully communicate while countering a PRC embargo for several weeks, Beijing will be forced to back down as it did in 1958, settle for a limited victory like a small-island seizure, or invade to take Taiwan itself.

Given the inadequacies of all other options (including those discussed in the next chapter), the PRC's most likely path to victory may therefore be a full-scale invasion to rapidly assume control of Taiwan by force. It is, after all, the scenario for which the PLA has been preparing for decades. Russia expected to achieve a similar fait accompli in Ukraine in February 2022. But the Ukrainians repelled the main effort and endured other initial attacks, forcing the operation into a years-long siege. The Taiwanese people must be willing and prepared to do the same.



Taiwanese soldiers on Kinmen Island during the 823 Artillery Battle. John Dominis/The LIFE Picture Collection/Shutterstock

The 823 Artillery Battle

A PLA blockade coupled with lethal territorial bombardment of Taiwan is most likely a precursor to an amphibious operation. Taiwan experienced an analogous attack during the 823 Artillery Battle, a more than three-month battle named for its starting date of August 23, 1958 (the event is also known as the Second Taiwan Strait Crisis). An artillery barrage attack of Kinmen, two offshore islands occupied by the Taiwan-based Republic of China (ROC) forces, was not followed by a PLA takeover because of timely American intervention. The ROC Army retreated to defilade while the PLA's continuous artillery fires effectively blockaded Kinmen, wearing down the defenders. Two weeks later, the US Navy began escorting resupply convoys to Kinmen. China dared not fire on the US-led formations, creating an opening for deliveries of critical supplies and munitions.

The United States also sent fighter jets, weapons, and even amphibious ships to Taiwan. Most of the ROC's eighty-five thousand ground troops in Kinmen remained in bunkers while its aircraft operated from Taiwanese bases more than a hundred miles away. US and ROC naval convoys also remained outside the range of PLA artillery fire. Only ROC landing vessels traversed the last miles onto Kinmen's beaches, delivering shells and supplies to continue resisting China's offensive.⁸

Facing replenished resistance and a diminishing ammunition stockpile, PRC forces conceded the stalemate after a few weeks. With timely assistance from the United States, Taiwan's forces had successfully defended Kinmen, preventing the PRC from taking territory.

Taiwan should apply three relevant lessons from its own historical experience in the 823 Artillery War to deter a future PLA amphibious assault:

- 1. Forces within range of enemy surface fires must be survivable and protected. In 1958, the PLA killed or destroyed some of Taiwan's forces on Kinmen, including some senior officers, that were not protected in underground bunkers. Today, the PLA's precise ballistic and cruise missiles can range anywhere in Taiwan, not just the offshore islands. Moreover, Taiwan does not have enough ballistic or cruise missile defense capacity to offset the large number of incoming munitions. With limited and costly interceptors, Taiwan must prioritize protecting its leadership, major cities, and critical infrastructure.
- 2. Forces within range of enemy surface fires must have enough supplies and munitions to outlast the enemy. If China attacks, Taiwan should deploy its fishing vessels to transport rations and supplies as needed from staging ports in nearby friendly territories, like Japan and the Philippines. But if China also attacks allied territory, Taiwan may have to survive much longer without resupply. Either way, it will be very difficult to transport weapons into Taiwan after hostilities begin. Instead, Taiwan should accumulate and maintain adequate stockpiles of wartime rations, munitions, and equipment.
- 3. Naval and air forces must originate from outside the range of enemy surface fires. Taiwan's military ports and docked

vessels will be early targets of a missile bombardment. Similarly, to neutralize Taiwan's air force, the PLA need only attack nodal vulnerabilities, like airfield fuel depots and electricity hubs, or taxiways and runways. Capabilities and concepts like rapid runway repair or landing on highways are not responsive enough to outpace the PLA's kill chain, which can identify and prosecute fixed targets on Taiwan in a matter of minutes.

The Principal Mission: Counterinvasion

The PRC is deterred by the specter of US intervention, not by Taiwan's defenses alone. As with Ukraine, Taiwan cannot resist a far larger enemy indefinitely without assistance. Therefore, Taiwan's principal defense strategy should be based on two symbiotic objectives: deny a conventional PLA landing and elicit maximum assistance from a US-led coalition. Just as Ukraine repelled the assault on Kyiv and continued to fight, Taiwan must keep PRC forces at bay while ensuring that China is viewed as the militant aggressor and the Taiwanese people as innocent victims. As with the gray-zone contingencies, continued connectivity with the outside world will be critical and necessary to mobilize an international coalition to assist.

Regardless of whether the United States is formally committed to defending Taiwan in the event of a PRC attack, the Taiwanese military's task remains the same.⁹ The mission is to protect Taiwan's core territory and its inhabitants from a PRC takeover—and to do it alone until external help arrives or China quits. If the PRC manages to successfully establish a lodgment (such as an operational seaport or airport) in Taiwan, the likelihood of international acceptance and restraint would increase significantly. In contrast to Ukraine, without a friendly bordering nation, allies would be challenged to provide security assistance for a ground campaign in Taiwan. Taiwan's international isolation and undetermined status, along with China's economic and military heft, accentuate this reluctance to intervene. For these reasons, the Taiwanese military must prioritize denying a PLA lodgment above all else. Taiwan should be prepared to endure missile and bomb strikes, an enforced embargo, cyberattacks on critical infrastructure, disinformation campaigns, and other associated threats for up to *two months* while denying a landing operation. This would allow one month for allied political decision making, including countering disinformation, building coalitions, and mobilizing forces. Taipei should anticipate an additional month for US-led military operations to "peel back the layers" of the PRC's anti-access, area denial (A2AD) forces designed to keep coalition forces away from the vicinity of Taiwan. In other words, the United States and its allies will have to fight their way in from hundreds of miles away. These operations could vary in character and duration depending on how the political situation unfolds. For example, US forces might initially limit themselves to semi-deniable capabilities like cyber, electronic warfare, long-range expendable drones, or even undersea warfare to control escalation and avoid risk to US personnel.

The primary threats in a PLA landing operation are the amphibious ships, landing craft, air assault helicopters, and airborne delivery planes. These platforms will transport first echelon troops to seize and hold a lodgment, allowing follow-on PLA forces to flow unimpeded into Taiwan. The immediate enabling threats are the thousands of (mostly land-based) ballistic and cruise missiles, rockets, drones, and strike aircraft capable of hitting Taiwan and the Penghu Islands in support of landing operations. These are the threats that Taiwan must counter, by attacking the former and avoiding the latter.

Although counterintuitive, the threats from PLA Navy submarines, surface combatants, and aircraft carriers are largely inconsequential to the primary mission of denying a lodgment. In an operation to invade Taiwan, the core assault force would be the PLA Army's amphibious combined arms brigades, supported primarily by other elements of the army.¹⁰ While certain naval units would participate in landing operations, the blue-water vessels will mostly be tasked to block the United States and allies from the Taiwan area as part of China's A2AD campaign. Taiwan should deprioritize blue-water naval targets, especially since associated costs and risks are high, and instead let the US military

prosecute them using its qualitative advantages, including long-range precision strike weapons and advanced submarines.

Some defense analysts in Taiwan believe that striking Shanghai or a PLA aircraft carrier should be among Taiwan's primary objectives—to deliver a psychological blow and weaken the enemy's will. Here again, Ukraine's experience is instructive. On the strategic level, these attacks have not deterred Putin, lessened his popularity in Russia, or undermined his grip on power. Similarly, a Taiwanese countervalue strike on a symbolic target would only serve to escalate the stakes and reduce the chances of a PLA stand-down. Taiwan should target its mainland strikes against military targets that most directly support PLA landing operations.

On the operational level, Ukraine can conduct deep strikes only because it is seventeen times the size of Taiwan and has a secure rear area from which to operate. Taiwan is more comparable to Crimea in landmass (Crimea is three-fourths the area of Taiwan). In this era of modern weapon systems, Taiwan is essentially a single battle space. To maintain a secure rear area, Taiwanese forces must hold all of Taiwan and the Penghus by decisively repelling PLA landing forces.

Asymmetric Defense Strategies

For several years, the United States recommended that Taiwan adopt an "asymmetric" defense strategy, but with no agreed definition or capabilities. The United States generally pressed Taiwan to acquire greater numbers of resilient and cost-effective platforms, like coastal defense cruise missiles (i.e., antiship missiles launched from trucks), more munitions to sustain operations, and greater investment in training and maintenance. Taiwan instead prioritized replacing its aging marquee platforms with newer versions: advanced fighter jets and helicopters, ships with phased array radars and vertical missile launchers, modern tanks and tracked artillery, and so on.

Washington argued that China would not be deterred by a handful of exhibition weapon systems that represent lucrative targets in conflict, especially as the PLA has modernized to specifically counter the US platform-centric style of power projection warfare. For many years, Taiwanese military leadership denied that the PRC would attack Taiwan and was dismissive of US warnings. For example, a Taiwanese army general told US interlocutors that mainlanders and Taiwanese were "cousins" so they would never actually fight each other, as if their civil war had not occurred.¹¹ An admiral, when asked why Taiwan trained for amphibious assault operations, argued that Taiwan might need to take on Vietnam in the SCS. And an air force general, when confronted with the assessment that airfields could not survive a PLA missile barrage, responded curtly that the backbone of any self-respecting air force simply had to be fighter jets, bar none. Taiwan's general officers were settled into a worldview whereby Taiwan's military should prepare to assume control of the mainland if and when the communist regime collapses. Hence Taiwan's reluctance to divest from power projection capabilities like tanks, attack helicopters, paratroopers, amphibious assault, and airborne early warning.

Around 2019, however, the Tsai administration finally began moving Taiwan's defense establishment toward a force development strategy more aligned with the US vision. Taiwan announced its intent to purchase Stinger man-portable air defense systems, Harpoon antiship missiles and vehicular launchers, HIMARS (High Mobility Artillery Rocket System) launchers, and MQ-9 Reaper uncrewed intelligence, surveillance, and reconnaissance (ISR) aircraft. Since 2022, the Ukraine war has validated the wisdom of this shift. Washington and Taipei now largely agree on the capabilities Taiwan must grow to enhance deterrence, although implementation remains alarmingly slow.

At a basic level, exploiting asymmetry means pitting one's strengths against the opponent's weaknesses and avoiding the opposite, like David against Goliath. Taiwan is engaged in a long-term military competition against an increasingly better-resourced and more technologically advanced rival. Only thirty years ago, Taiwan's GDP was more than half that of China's. Now it is less than one-twentieth the size. This asymmetry of economic power is reflected in military

power and necessitates a correspondingly asymmetric Taiwanese defense strategy.

On a related note, Taiwan's 2022 defense spending amounted to only 1.6 percent of GDP while China's more opaque spending added up to 3.8 percent of its much larger economy, according to US government assessments.¹² Taiwan did increase defense spending to more than 2 percent for 2023 and 2024, but Taipei should spend proportionally at least as much as the United States (3.5 percent of GDP). The burden of defending Taiwan cannot fall more heavily on Americans than Taiwanese. Increasing defense purchases from the United States would not only show resolve and enhance deterrence, provided the right capabilities are procured, but could also bring about a more balanced trading relationship (in 2022, Taiwan enjoyed a \$51 billion trade surplus with the United States).

Exploiting Asymmetries

Taiwan needs to maximize the efficiency of its defense resources over time. To do this, Taiwan's political leadership must clearly articulate its priorities and focus the defense establishment on the core, critical mission of defending Taiwan from a PLA invasion. This chapter argued earlier that Taiwan's offshore islands should be minimally equipped to credibly resist a PRC military seizure, acknowledging that the PLA can succeed in such an operation with its overwhelming firepower. The next chapter will show that Taiwan's gray-zone defense should consist of long-endurance, uncrewed ISR platforms embracing the concept of deterrence by detection.¹³ These are important yet relatively low-cost, low-manpower military requirements.

The Taiwanese military also has diplomatic and disaster response support missions, but it should not allocate force development (i.e., acquisitions and training) resources specifically for midshipman cruises to the Caribbean or typhoon relief operations. These collateral missions should be accomplished using ready forces as available.

Therefore, the overwhelming preponderance of the Taiwanese military should be purpose-built for fending off a PLA assault. Meanwhile, Taiwan should use its civilian talent to create a whole-of-society homeland defense establishment. This should include part-time adjuncts in areas such as cybersecurity (IT workers), healthcare (trauma medicine practitioners), aviation (pilots), logistics (truckers), and homeland defense (local community residents).

If resources permit, Taipei should also consider maintaining a counterforce strike capability. If the PLA does not employ lethal force against allied territory, the United States may restrain from striking PRC territory to limit nuclear escalation risks. But Taiwan would be justified responding to kinetic attacks by targeting, for example, the PLA's coastal command-and-control facilities and amphibious vessels in port.

To suit this purpose, Taiwan already has hundreds of Hsiung Feng IIE (HF-2E) land-attack cruise missiles paired with relocatable launch vehicles. Taiwan is also acquiring Army Tactical Missile System (ATACMS) ballistic missiles and should procure larger quantities of its replacement, the Precision Strike Missile (PrSM). Anticipating the denial of airfield operations in Taiwan, the military could also preemptively redeploy its US and Taiwan-based fighters to the Second Island Chain to prepare for a standoff air campaign, where perhaps Taiwanese aircraft would be the only ones authorized to strike mainland targets. To support such an option, Taiwan should acquire and pre-position large quantities of Joint Air-to-Surface Standoff Missiles (JASSMs) (and Long Range Anti-Ship Missiles [LRASMs]) on US bases in Guam. If circumstances prevent Taiwanese aircraft from redeploying, US forces could employ these missiles in defense of Taiwan.

In the undersea domain, China has invested in building underwater sensor networks in the waters surrounding Taiwan.¹⁴ Meanwhile, Taiwan's submarine technology is decades behind the times. Japan has air-independent propulsion submarines. The United States, and now China, added pump-jet propulsion technology to theirs. Taiwan's newest submarine has neither of these improvements, making it the noisiest and most vulnerable modern boat in the region, despite its exorbitant cost.¹⁵ Taking a page from Ukraine, Taiwan should develop uncrewed

sea drones, particularly lethal expendable ones (i.e., smart torpedoes), instead of building more manned submarines.

Modern antiship and antiair missile systems match up against manned power projection platforms at a fraction of the cost. In modern warfare, the cost curve favors the territorial defender, as seen in Ukraine. The most prominent Pacific example is China's A2AD network, designed to protect against US military intervention. As one would expect, the shorter the effective range, the cheaper the projectiles and more mobile (and thus survivable) the launchers. Taiwan must develop its own A2AD network with enough mobile short- and medium-range air and coastal defense systems to deny a PLA landing for two months.

Additionally, active missile defense and extensive hardening are more expensive than corresponding offensive ballistic and cruise missile capabilities. As an example, a single counter-ballistic Patriot missile costs \$4 million, which is more than the projectile it is tasked to intercept. Therefore, Taiwan should pursue a missile defense strategy that relies chiefly on mobility—fixed, high-value targets are unlikely to survive PLA strikes. The same is true of larger platforms such as manned aircraft and vessels. And if not destroyed at home base, they would be vulnerable to the PLA's dense A2AD weapons in the seas and skies around Taiwan.

To mitigate numerical disadvantages, the Taiwanese military must utilize resilient sensors and weapons platforms and target efficiently to maximize lethality. China's embargo operations and firepower strikes will likely be coupled with cyberattacks and possibly direct action and fifth column (sleeper cell) sabotage to accomplish the three doctrinal prerequisites for PLA landing operations: information, air, and maritime superiority. Taiwanese forces must avoid or minimize the effects of these operations against Taiwan while maneuvering and attacking to deny the three superiorities.

PLA information superiority involves attempts to blind the enemy and disrupt communications. Taiwan can minimize the effects of these operations by decentralizing command and control. If tactical-level operators have organic ISR, fires, and engagement authority, they can identify and attrit at close range enemy forces that meet certain predetermined profiles (e.g., landing forces). To better exploit asymmetries, Taiwan should not attempt to attain air or maritime superiority, even for limited durations, as the costs and risks are exponentially higher than to simply deny the PLA the freedom to maneuver in those domains. Large quantities of lethal, distributed, and survivable antiair and antiship missiles are the backbone of an effective extended denial campaign.

Taiwanese war planners should also concede that the "force protection phase" of its defense plan will not conclude until the conflict ends. For example, aircraft parked in east coast tunnel complexes will be unavailable for the duration of the fight. Instead, the Taiwanese military should expect to be suppressed by PLA fires whenever exposed and embrace its role as a "stand-in" force. US forces in southwest Japan and the northern Philippines will also assume a stand-in role if the war expands to those regions. The remaining US and allied forces, operating initially from farther distances, will approach the conflict from standoff (as covered in later chapters).

Accordingly, Taiwan's training regimen should pursue interoperability with US Marines and special forces, either of which might predeploy stand-in or advisory forces to Taiwan. Taiwan's F-16s are already largely interoperable with the United States through daily training and exercises in Arizona and could participate in standoff operations during a contingency. The rest of Taiwan's military, as a homeland defense stand-in force, need only de-conflict from US and allied forces to avoid friendly fire incidents. Taiwan should concentrate its fires in the near littorals and avoid targeting the open seas. The United States will not coordinate sensitive submarine operations with Taipei, so Taiwan should avoid the undersea domain outside its coastal waters. As stated above, Taiwan's principal mission does not require targeting the PLA's blue-water naval assets. As an example, Taiwan could keep its manned platforms within its 12-nm territorial space and its fires within 40 nm, plus attacks on targets in PRC territorial space. Allied forces could then de-conflict accordingly.

Our Recommended Military Force Structure Changes

Taiwan's defense establishment should accelerate acquisitions to attain the following operational capabilities in the next two years (in order of importance):

- 1. 4,000+ man-portable air defense missiles (e.g., Stinger)
- 2. 200+ mobile short-range air defense vehicles, with 3x missile reloads (e.g., MADIS, Avenger/Stinger, Antelope/TC-1)
- 3. 40+ counter-UAS, counter-rocket, artillery, mortar systems, with 10x missile reloads (e.g., MRIC/SkyHunter, Iron Dome/Tamir)
- 4. 200+ mobile medium-range antiair missile vehicles, with 5x missile reloads (e.g., NASAMS High-Mobility Launcher/AMRAAM, mobile TC-2)
- 5. 2,000+ man-portable antiarmor missiles, suitable for employment against landing craft (e.g., Javelin)
- 6. 200+ mobile coastal defense cruise missile vehicles, with 3x missile reloads (e.g., HCDS, NMESIS, HF-2)
- 7. 2,000+ small, expendable, intelligent autonomous UAS to assist in finding and identifying priority naval troop transport targets
- 1,000+ small, expendable, autonomous surface/undersea drones for targeting amphibious shipping, both in PRC ports and in transit
- Enough rifles, pistols, and ammunition such that each member of the military, reserves, and civil defense force has emergency access to a personal weapon that is routinely function-checked and fired
- 50+ mobile rocket launchers (e.g., HIMARS, RT-2000) with 1,000+ rounds of precision munitions for beach defense (e.g., GMLRS) and 1,000+ rounds of precision munitions for mainland counterforce targeting (e.g., ATACMS, PrSM)
- 11. Up to 200 fighter aircraft with antiship and antiair identification and targeting capabilities (e.g., F-16 Viper)
- 12. 90+ 200-ton class fast-attack missile craft (e.g., Kuanghua FACG)
- 13. 36+ 600-ton class guided-missile patrol craft (e.g., Tuojiang, Anping PGG)
- 25+ medium-altitude long-endurance maritime surveillance UAS (e.g., MQ-9 Reaper)
- 15. Aerostat radar systems for low-altitude air surveillance
- 16. Satellite surveillance data subscriptions
- 17. LEO internet communications subscriptions
- 300+ long-range air-to-surface cruise missiles held by US forces outside the First Island Chain, for use by redeployed Taiwanese fighters (e.g., JASSM stored in Guam)
- 100+ long-range antiship cruise missiles held by US forces outside the First Island Chain, for use by redeployed Taiwanese fighters (e.g., LRASM stored in Guam)

Conclusion

To maximize survivability, lethality, and sustainability, Taiwan should have hundreds of weapons platforms and thousands of munitions. Ideally, these platforms are land (or perhaps coastal) based and highly mobile. Launch platforms should operate in complex background terrain (avoid open fields and waters) and move into defilade within minutes of firing (i.e., "shoot-n-scoot" tactics). Sensors should also move regularly, especially when emitting. Rugged wheeled platforms provide versatility in Taiwan's urban and mountainous terrain, rather than heavily armored tracked vehicles.

The Taiwanese military's tactical employment of its limited weapons must be coldly efficient, prioritizing PLA manned aircraft and seaborne troop transport. Hundreds of fuel depots, weapons armories, and ammunition stockpiles should be distributed across the island in protected bunkers, caves, and buildings. Taiwan's air defense units should have permissive engagement authority—yet another reason friendly manned air operations over Taiwan are ill-advised. Antiship missile teams should employ tactical drones to assist with locating and identifying priority naval targets. If the PLA attempts landing operations, hundreds of infantrymen should be ready to target landing craft with antiarmor rounds (e.g., Javelins) and shoot transport planes and helicopters with antiair missiles (e.g., Stingers) as they approach the beach.

For deterrence to be effective, the PRC must believe that Taiwan's relevant capability can and will be deployed in a contingency. Beijing, with its impressive intelligence capabilities, likely has very accurate assessments of Taiwan's military capabilities and capacity. Prestige platforms and performative statements will not suffice. Deterrence can be achieved only through realized capabilities, including all readiness factors like personnel, training, maintenance, parts, ammunition, logistics, and so on. To prevent conflict, Taiwan must be both willing and able to fight effectively in a sustained fashion.

For decades in Taiwan, the army has centered itself around armored maneuver brigades, the navy has operated in surface action

groups, and the air force has revolved around fighter aircraft. But none of these capabilities is relevant to the task of defending against a proximate and determined attacker with qualitative and quantitative overmatch. All credible analyses of a cross-strait conflict assess that the PLA will destroy or neutralize the bulk of Taiwan's marquee platforms within days. If Taiwanese leaders continue to present these platforms as the backbone of their defense force, then the rapid loss of them in an attack will sap the morale of the troops and the people, all but guaranteeing failure. Alternatively, the new Taiwanese administration should promote an entirely new military culture as described in the previous chapter, adopt a credible wartime defense strategy as proposed in the next chapter.

NOTES

- 1. Matthew Johnson, John Pomfret, and Matt Pottinger, "'No Limits': Xi's Support for Putin Is Unwavering," Foundation for Defense of Democracies, October 11, 2022.
- 2. A nautical mile and a regular, or "statute," mile differ in length. Nautical miles are about 15 percent longer than statute miles and are used for navigation. The unit is based on the circumference of the earth, with one nautical mile equal to one minute of latitude.
- 3. Lawrence Chung, "Taiwan to Seize Intruding Sand Dredgers from Mainland China to Fight Illegal Mining and 'Grey Zone Warfare,'" *South China Morning Post*, December 18, 2023.
- Guermantes Lailari, "China Tries Influencing Taiwan Elections with Balloons and Ships," *Taiwan News*, January 9, 2024.
- 5. "Coast Guard Drives Chinese Tugboats from Southern Coast," *Taipei Times*, January 2, 2024.
- 6. John Dotson, "An Overview of Chinese Military Activity Near Taiwan in Early August 2022, Part 2: Aviation Activity, and Naval and Ground Force Exercises," *Global Taiwan Brief* 7, no. 18 (2022).
- 7. Charlie Vest, Agatha Kratz, and Reva Goujon, "The Global Economic Disruptions from a Taiwan Conflict," Rhodium Group, December 14, 2022.
- 8. Morton H. Halperin, "The 1958 Taiwan Straits Crisis: A Documented History (U)," memorandum to the Office of the Assistant Secretary of Defense (International Security Affairs), RAND Corporation, March 18, 1975.

- 9. Ivan Kanapathy, "Taiwan Doesn't Need a Formal U.S. Security Guarantee," *Foreign Policy*, April 26, 2022.
- 10. Dennis J. Blasko, "China Maritime Report No. 20: The PLA Army Amphibious Force," *CMSI China Maritime Reports* 20 (2022).
- 11. This and the other examples in the paragraph were gleaned from the author's personal conversations with Taiwan military officers over the years.
- 12. Nan Tian, Diego Lopes da Silva, Xiao Liang, Lorenzo Scarazzato, Lucie Béraud-Sudreau, and Ana Carolina de Oliveira Assis, "Trends in World Military Expenditure, 2022," Stockholm International Peace Research Institute, April 2023; Editorial Board, "What Does China Really Spend on Defense?," Wall Street Journal, June 9, 2023.
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- 14. Alastair Gale, "The Era of Total U.S. Submarine Dominance over China Is Ending," *Wall Street Journal*, updated November 20, 2023.
- 15. Thompson Chau, "Taiwan's Presidential Candidates at Loggerheads over Submarines," *Nikkei Asia*, December 15, 2023.