



SCHAR SCHOOL OF POLICY AND GOVERNMENT

Center for Security Policy Studies  
at George Mason University



# A QUESTION OF TIME

Enhancing Taiwan's Conventional Deterrence Posture

**Michael A. Hunzeker and Alexander Lanoszka**

with Brian Davis, Matthew Fay, Erik Goepner,  
Joseph Petrucelli and Erica Seng-White





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# Contents

Foreword.....	5
Acronyms.....	7
Executive Summary.....	9
Chapter 1: Introduction.....	15
Chapter 2: Defining the Threat .....	33
Chapter 3: The Cross-Strait Military Balance.....	49
Chapter 4: Accepting Risk in the Grey Zone.....	63
Chapter 5: Deterring Invasion: Elastic Denial-in-Depth.....	79
Chapter 6: Enhancing Social Resilience and Resolve.....	105
Chapter 7: Conclusion.....	117
Authors' Biographies.....	121



## Foreword

**FOR THE FORESEEABLE FUTURE**, strategic planners and analysts of international security issues are likely to consider East Asia the most critical arena in the world where great power politics and the ambitions of a rising China play out. Taiwan's security requirements and its relationship with the People's Republic of China are center stage in this regional drama. This new study, *A Question of Time: Enhancing Taiwan's Conventional Deterrence Posture*, addresses Taiwan's defense needs with fresh new thinking. It proposes some very different strategies Taiwan's leaders could consider to deter threats from Beijing, and we hope it will provoke some lively and productive conversations among military and regional experts.

This study is the second in a new series by the Center for Security Policy Studies (CSPS) of George Mason University's Schar School of Policy and Government, aimed at fostering collaboration on important topics in international security. *A Question of Time* was truly a collaboration: Schar School Professor Michael Hunzeker teamed with Professor Alexander Lanoszka of the University of Waterloo, and the research, travel and drafting team including five doctoral students at George Mason.

Please check [csps.gmu.edu](http://csps.gmu.edu) for more information about our research and activities.

Sincerely,

*Ellen Laipson*

*Director, Center for Security Policy Studies*

*Schar School of Policy and Government, George Mason University*

*November 2018*





## Acronyms

**A2/AD** – Antiaccess/Area denial

**ASBM** – Antiship ballistic missile

**ASCM** – Antiship cruise missile

**CCP** – Chinese Communist Party

**C4ISR** – Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance

**DPP** – Democratic Progressive Party

**IDS** – Indigenous Diesel Submarine program

**KMT** – Kuomintang Party

**LHD** – Landing Helicopter Dock amphibious ship

**LPD** – Landing Platform Dock amphibious ship

**MND** – Ministry of National Defense (Taiwan)

**PLA** – People's Liberation Army

**PLAGF** – People's Liberation Army Ground Force

**PLAAF** – People's Liberation Army Air Force

**PLAN** – People's Liberation Army Navy

**PLARF** – People's Liberation Army Rocket Force

**SAM** – Surface-to-air missile

**SRBM** – Short-Range Ballistic Missile

**TTPs** – Tactics, techniques, and procedures

**UMT** – Universal Military Training

## Executive Summary

**TAIWAN SHOULD BE ONE** of the most secure places on earth. It is a flourishing liberal democracy that boasts a vibrant, globalized economy, a well-educated population, and a high standard of living. Yet Taiwan's future is anything but secure. It is an outlier in the international system—sovereign in practice, but not in name. China regards it as a renegade province and systematically seeks to isolate it from the rest of the world. More ominously, China has not renounced the use of military force to resolve the standoff. Thus, instead of being safe and secure, Taiwan's 23.5 million citizens are forced to live in the shadow of unimaginable potential violence.

Whether or not China might someday attack Taiwan is a matter of much debate. Whether or not Taiwan should take steps to convince Chinese leaders that the costs of waging such a war will outweigh any possible benefits is not. The more war becomes *unacceptably* painful, the more likely both sides will endeavor to resolve their differences peacefully. In short, Taiwan must deter aggression.

This monograph suggests a holistic strategy that Taiwan can use to enhance its conventional deterrence posture. Taiwan has thus far followed a traditional approach to conventional deterrence, emphasizing symmetric capabilities and decisive battles for control over air, land, and sea. It still believes such a posture is effective because an attack has yet to materialize. We agree that Taiwan's deterrence posture may have worked in the past. However, the military balance is shifting, and it is no longer obvious that Taiwan can afford to maintain qualitative or quantitative parity with China. Therefore, we argue that Taiwan should embrace a highly asymmetric, *elastic denial-in-depth* posture. Instead of planning for decisive, set piece battles, we recommend that Taiwan prepare its military and the nation-at-large to wage a prolonged, asymmetric campaign

against an invading force. The goal is to deter by both raising the costs of invasion and reducing the prospects for a quick victory.

Chapter 1 introduces what we call Taiwan's *deterrence trilemma*. By this term, we mean that given Taiwan's unique challenges, its conventional deterrence strategy must simultaneously accomplish three goals:

- Counter grey zone provocations, which we define as the deliberate, coordinated, and incremental use of provocations, incursions, and other so-called “salami tactics” by conventional and unconventional military forces so as to challenge existing red lines and establish new “facts on the ground” without generating a decisive military response by the target;
- Raise the costs of invasion; and
- Maintain low defense expenditures.

A trilemma exists, because these goals are in tension. A force posture optimized to pursue one goal will likely exacerbate one or both of the other two.

- To counter grey zone challenges, Taiwan must project symbolic strength across its airspace and territorial waters. High-capability, high-visibility air and naval platforms such as advanced fighter jets and surface ships are often best at performing such tasks.
- To raise the costs of invasion, Taiwan needs forces that can survive long enough—and fight well enough—to impose unacceptable losses on China's forces.
- To avoid crowding out other important forms of government spending—including retirement benefits, healthcare, and education—Taiwan cannot buy enough advanced aircraft and ships, which may be useful in the grey zone, so as to prevent China from destroying most of them in the earliest stages of an invasion, which undercuts its ability to deter China in the first place.

Chapter 1 also previews our proposed alternative: *elastic denial-in-defense*. This approach consists of three core elements:

- Accept risk in the grey zone;
- Prioritize denial against the invasion threat; and
- Invest in popular resistance.

Chapter 2 assesses China's intentions. Scholars and policymakers may debate whether or not China wants to challenge the existing international order, but little disagreement exists about China's intentions toward Taiwan. Put bluntly, China wants to assert political control over the island. It certainly prefers to use peaceful means to achieve this goal, but it has not taken force "off the table." Chapter 2 concludes by discussing Taiwan's perceptions of China's intentions. Yet despite the unequivocal and nonnegotiable nature of China's attitude toward Taiwan, the average Taiwan voter seems ambivalent about the risk of war.

Chapter 3 examines the cross-Strait military balance. Instead of focusing on comparative statistics, we instead explore China's ability to carry out an invasion and Taiwan's ability to defend against one. Specifically, we examine the degree to which the People's Liberation Army (PLA) is prepared for the three main tasks it must accomplish to successfully invade:

- A missile, aircraft, and cyber-strike to achieve air superiority by destroying Taiwan's air force, degrading its defenses, disorganizing its government, and potentially even breaking its will to fight;
- A naval blockade to isolate Taiwan politically and economically while setting the conditions for invasion; and
- An amphibious assault across the Taiwan Strait to land large numbers of ground units to establish and maintain political control over the entire island.

We conclude that despite investing heavily in modernization, reorganization, training, and doctrine, the PLA still faces a number of important gaps that will complicate its ability to launch an invasion in the near term. Like other experts, we believe that a surprise invasion is virtually impossible. **Nonetheless, time is on China's side.** Trend lines unambiguously indicate that Taiwan's military is falling behind quantitatively and qualitatively. Taiwan's current force posture and war-fighting doctrine are not well synchronized. Worst of all, despite rhetorically emphasizing asymmetry, Taiwan's current approach seems more likely to pit strength against strength if war actually breaks out. That is not a fight Taiwan will win. Deterrence may suffer as a result.

Chapters 4 and 5 describe our alternative deterrence posture recommendations in detail. Chapter 4 identifies several reasons Taiwan should accept risk in the grey zone. First, threats arising from grey zone operations are not existential. Second, China operates in the grey zone so as to avoid escalation. Completely eliminating the grey zone might well push China toward more aggressive options. Third, Taiwan is well within the range of China's long-range strike systems. The characteristics that make conventional ships and fighter jets valuable in grey zone

contexts—high visibility and technological capability—become liabilities in a war because China will unquestionably target these weapons in the earliest stages of a conflict. Moreover, because advanced conventional platforms are expensive, Taiwan cannot afford large numbers of them. As a result, China will find it relatively easy to locate, target, and destroy most of them before they can “get into action.” Chapter 4 concludes by identifying ways that Taiwan can rebalance its force to maintain “just enough” conventional capability to push back against grey zone operations. Cutting investment in the Indigenous Defense Submarine (IDS) program, Aegis-like destroyers, and the amphibious shipping force will yield more resources to invest in truly asymmetric capabilities. Ultimately, Taiwan is better off deterring a worst-case invasion—even if it means living with increased grey zone incursions—than the other way around. And a military optimized to counter grey zone threats will be particularly vulnerable to an invasion scenario.

Chapter 5 provides a detailed overview of our *elastic denial-in-depth* concept. This approach is built around an unconventional force posture organized into four denial zones: air, sea, ground, and within society. Denial implies imposing costs on an attacker instead of trying to establish or maintain control of a given space, zone, or piece of ground. Thus, instead of preparing to fight a decisive battle in the air, at sea, or on the ground, Taiwan's forces should organize, train, and equip to wage a prolonged series of fighting withdrawals. In the air and at sea, Taiwan should complicate the strike campaign China must carry out in order to invade. Taiwan can do so by acquiring large numbers of relatively low-cost, dedicated counter-invasion capabilities, such as surface-to-air missiles, missile boats, mini-submersibles, naval mines, drones, and autonomous weapons. On the ground, active duty army and repurposed marine forces should prepare for long-range coastal defense, counter-attack, and fighting retrograde missions. Finally, we suggest that Taiwan begin serious planning for *social denial*. In practical terms, Taiwan should restructure its massive reserve force so as to prepare it to conduct a prolonged insurgency campaign in urban, jungle, and mountain settings. To facilitate this end, we recommend transforming Taiwan's Reserve Command into a Territorial Defense Force.

Chapter 6 explores ways that Taiwan can better prepare society for a potential conflict. Available polling data suggests that leaders and citizens alike are unsure whether or not the nation has the resolve to resist invasion. The fact that severe disagreements abound in society over whether to fight is problematic. Deterrence depends on credibility. And credibility depends on the ability to field a well-trained, well-equipped fighting force motivated by the knowledge that it enjoys the support of the people it defends. This requirement becomes especially critical if an asymmetric military response of the sort we advocate is to be adopted. Although many of these challenges are beyond the scope of this project, we

offer several tentative suggestions for enhancing social resilience, including the introduction of Universal Military Training. Chapter 7 summarizes and concludes.

Our focus on asymmetric deterrence is in line with analysis offered by a number of other American scholars and think tanks. At the same time, three factors distinguish our recommendations. First, we offer a holistic deterrence strategy that brings politics back in. Existing analyses are highly technical and tend to ignore important political and social issues that impact Taiwan's ability to generate and sustain military power and cope with the entire threat spectrum. Second, we explicitly wrestle with the tension that exists between countering grey zone provocations and deterring an invasion. Existing analyses tend to focus exclusively on one challenge, or they treat grey zone threats as a "lesser included" threat such that a military posture optimized to deal with the invasion threat can also handle subversion in the grey zone. Furthermore, we are the first to explicitly recommend that Taiwan should accept risk in the grey zone so as to focus on what we see as the truly existential threat. Third, our force structure recommendations are far more ambitious than any others suggested to date. Beyond suggesting that Taiwan repurpose its Marine Corps to focus on a purely coastal defense mission, we also endorse the wholesale transformation of Taiwan's reserve force. Our suggestion that Taiwan move *away* from its current pursuit of an operational reserve, and instead create a Territorial Defense Force, also fills an important gap in existing work on Taiwan's asymmetric options: they tend to overlook the massive collective action problems that Taiwan's defenders will face.



“Increase  
the price  
that China  
must pay  
to fight its  
way across  
the Taiwan  
Strait.”



# 1

## Introduction

**BY ALMOST ANY MEASURE,** Taiwan should be one of the most secure places on earth. A flourishing liberal democracy located in the heart of East Asia, it boasts a vibrant, globalized economy, a well-educated population, and a high standard of living.<sup>1</sup> Yet Taiwan's future is anything but secure. It is an outlier in the international system—a sovereign state in practice, but not in name. China regards it as a renegade province and systematically seeks to isolate it diplomatically and economically.<sup>2</sup> More ominously, China—which lies less than 100 miles away from Taiwan—has not renounced the use of military force to resolve the standoff.<sup>3</sup> In fact, China is investing heavily in its land, air, sea, space, cyber, and long-range strike capabilities.<sup>4</sup> Far from safe and secure, Taiwan's 23.5 million inhabitants—a population roughly equivalent to Australia's—perpetually live in the shadow of potential violence.

War is not inevitable. Indeed, cross-Strait relations even seemed to warm considerably from 2008 to 2016, a period in which Taiwan followed a policy of rapprochement under President Ma Ying-jiu and the Kuomintang (KMT). But tensions lingered beneath the veneer of reconciliation. Far from renouncing its right to use military force, China's military buildup continued. Meanwhile, across

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**1** Freedom House, "Freedom in the World 2018: Taiwan," retrieved from <https://freedomhouse.org/report/freedom-world/2018/taiwan> as of June 14, 2018; and Central Intelligence Agency, "World Factbook: GDP Per Capita," retrieved from <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2004rank.html> as of June 15, 2018; J. Michael Cole, *Convergence or Conflict in the Taiwan Strait: The Illusion of Peace?* (New York, NY: Routledge, 2017): 106.

**2** Rira Momma, Shinji Yamaguchi, and Yasuyuki Sugiura, *NIDS China Security Report 2017—Change in Continuity: The Dynamics of the China-Taiwan Relationship* (Tokyo, Japan: National Institute for Defense Studies, 2017): 2.

**3** Ian Easton, *The Chinese Invasion Threat: Taiwan's Defense and American Strategy in Asia* (Arlington, VA: Project 2049 Institute, 2017): 15–16.

**4** Eric Heginbotham, Forrest E. Morgan, and Michael Nixon, *The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996–2017* (Santa Monica, CA: RAND Corporation, 2017): 28–35.

the Strait, a distinct and coherent national identity took form.<sup>5</sup> The Democratic Progressive Party's (DPP) return to power in 2016 shattered any misplaced faith that war had become unthinkable.

Whether China might one day choose to wage war against Taiwan is a matter of much debate and speculation. Whether Taiwan should take steps to convince Chinese leaders that the costs of waging such a war will outweigh any possible benefits is not. The more war becomes *unacceptably* painful, the more likely both sides will endeavor to resolve their differences peacefully.

## 1.1 DEFINING THE CHALLENGE: TAIWAN'S CONVENTIONAL DETERRENCE TRILEMMA

So what can Taiwan do to enhance its *conventional* deterrence posture? Our team of seven security scholars, defense analysts, and former military officers spent months struggling with this question, focusing specifically on the military aspects of the challenge. This monograph describes our answer. We suggest a holistic strategy for navigating three fundamental deterrence challenges, or what we call Taiwan's *deterrence trilemma*.<sup>6</sup> What we mean here is that to be effective, any conventional deterrence strategy must allow Taiwan's leaders to accomplish three goals simultaneously:

- Counter grey zone provocations;
- Raise the costs of invasion;
- Maintain low defense expenditures.

Since the phrase *grey zone* may be unfamiliar to many readers, we use it to refer to the deliberate, coordinated, and incremental use of provocations, incursions, and other so-called "salami tactics" by conventional and unconventional military forces so as to challenge existing red lines and establish new "facts on the ground" without generating a decisive military response by the target.

Taiwan faces a deterrence trilemma because these goals are in tension with one another. A force posture optimized to mitigate one goal will likely exacerbate one or both of the other two.

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<sup>5</sup> Cole, *Convergence or Conflict*, 26. Cole builds on this point to argue that "much of the world has a problem seeing the Taiwan issue for what it really is: A *bona fide* clash of two nationalisms in the Taiwan Strait." *Ibid.*, 12.

<sup>6</sup> Inspiration for this term comes from Linton Brooks and Mira Rapp-Hooper's discussion of the security trilemma. See Linton Brooks and Mira Rapp-Hooper, "Extended Deterrence, Assurance, and Reassurance in the Pacific during the Second Nuclear Age," in Ashley J. Tellis, Abraham M. Denmark, and Travis Tanner, eds., *Strategic Asia 2013-14: Asia in the Second Nuclear Age* (Washington, D.C.: National Bureau of Asia Research, 2013): 292-93. See also Gregory Koblentz, *Strategic Stability in the Second Nuclear Age* (New York, NY: Council on Foreign Relations, 2014): 3.

- To counter grey zone challenges, such as violations of its airspace and territorial waters, Taiwan must visibly project strength across the air, sea, ground, and cyber domains. High-capability, high-visibility air and naval platforms such as advanced fighter jets and surface ships are often best at performing such tasks.
- To raise the costs of invasion, Taiwan needs forces that can survive long enough—and fight well enough—to impose unacceptable losses on Chinese.<sup>7</sup>
- To avoid crowding out other important forms of government spending—including retirement benefits, healthcare, and education—Taiwan must keep defense spending relatively low.

As a result, Taiwan must choose between a small number of advanced platforms or a large number of less advanced platforms. The former are adept at countering grey zone provocations but will be relatively easy to overwhelm in an invasion. The latter will complicate invasion operations but cedes the grey zone.

Taiwan's deterrence trilemma is at least partially self-imposed. To be sure, it only exists because of the threat posed by China. Moreover, economic trends mean Taiwan's Armed Forces could never hope to maintain a clear-cut qualitative and quantitative advantage over China's. That said, Taiwan's trilemma is more severe than it otherwise needs to be. There is a lack of domestic consensus regarding both China's intentions and Taiwan's resolve, which manifests itself in relatively low levels of defense spending. Taiwan must of course balance defense expenditures against other important forms of government spending. As painful as it is to make tradeoffs among defense, healthcare, education, and retirement benefits, budget decisions nonetheless reflect the underlying will—and priorities—of the people. The fact is that Taiwan's voters are deeply divided as to the scope and scale of the threat that they face. Many think that China will never attack because it has more pressing goals; because it knows it can use diplomacy and economics to achieve unification; or because it believes a war with Taiwan would destroy the very thing it wants to acquire. Others worry that a robust defense posture will provoke China instead of deterring it. And most problematic, some seem to question Taiwan's willingness to fight. For all of these reasons, Taiwan's constrained defense budget—and the deterrence trilemma it generates—is the result of public opinion and not underlying structural or macroeconomic realities.

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<sup>7</sup> It is impossible to say what China would define as an “unacceptable loss” *ex ante*. If China is willing to invade, then it is also willing to accept a large number of casualties. Moreover, pain tolerances will vary over time. However, the more credible Taiwan's deterrent is—that is, the more it demonstrates an ability to impose losses while preventing China from consolidating political control—the less likely China's leaders are to use military force against it.

## 1.2 PREVIEWING OUR SOLUTION: ELASTIC DENIAL-IN-DEPTH

Taiwan may not be able to “solve” its deterrence trilemma. However, we think there is a more coherent and holistic way to balance these competing demands. We thus recommend what we call an “elastic denial-in-depth” strategy. This strategy is composed of three main elements:

- Accept risk in the grey zone;
- Prioritize denial against the invasion threat; and
- Invest in popular resistance.

### *Accept Risk in the Grey Zone*

China is actively fomenting so-called grey zone challenges against Taiwan.<sup>8</sup> Examples include unilaterally imposing air defense identification zones; militarizing islands in the South China Sea; violating Taiwan's airspace and territorial waters; probing Taiwan's cyber defenses; and meddling in Taiwan's elections.<sup>9</sup> Taiwan cannot ignore these provocations. To do so further erodes Taiwan's credibility in the eyes of its people, the United States, and the international community. Thus, Taiwan's military must retain the ability to visibly intercept and dissuade Chinese incursions across the breadth and depth of its air, sea, and cyber space. To accomplish this goal, Taiwan must maintain capable fleets of jet aircraft and surface combatants, while also investing in cyber capability.

At the same time, the ability to counter grey zone challenges should not drive Taiwan's force posture or deterrent strategy. We reach this conclusion for two reasons. First, as much as grey zone provocations might erode public and international confidence, establish “new facts on the ground,” or provide China with better intelligence on Taiwan's military capabilities, they do not represent an existential threat. Put another way, China could invade Taiwan without first conducting grey zone operations. But no matter how successful or effective China becomes at operating “in the grey zone,” such operations will never compel Taiwan to acquiesce to China's ultimate demands on their own. If Taiwan's government and people were to submit themselves to China based on grey zone challenges alone, then Taiwan would have far more profound sources

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<sup>8</sup> Scott Harold et al., *The U.S.-Japan Alliance and Deterring Gray Zone Coercion in the Maritime, Cyber, and Space Domains* (Santa Monica, CA: RAND Corporation, 2017): 1-2; Bryan Clark et al., *Winning in the Gray Zone: Using Electromagnetic Warfare to Regain Escalation Dominance* (Washington, D.C.: Center for Strategic and Budgetary Assessments, 2017): 4-6; and James Holmes and Toshi Yoshihara, “Five Shades of Chinese Gray-Zone Strategy,” *The National Interest*, May 2, 2017, retrieved from <http://nationalinterest.org/feature/five-shades-chinese-gray-zone-strategy-20450>.

<sup>9</sup> For example, the computer networks for Taiwan's National Security Bureau are probed or attacked at least 10,000 times a month. Interview with Mr. Wang Ting-yu, January 17, 2018.

of vulnerability than any military strategy can solve. Second, and relatedly, we believe that Taiwan is better off leaving the door to grey zone provocations open. Counterintuitively, states choose to operate in the grey zone precisely because they want to avoid escalation. Completely blocking their ability to operate in the grey zone leaves them with only two options: do nothing or accept escalation. Given that Taiwan remains a core national interest to the Chinese Communist Party (CCP), “doing nothing” is not an option. Since Taiwan lacks the resources to fully counter both grey zone and invasion threats, eliminating the grey zone may well convince China’s leaders to attempt something far worse. In essence, if Taiwan must choose between focusing on the grey zone threat or the invasion threat, then it is much better off “closing the door” to invasion than it is “closing the door” to the grey zone.

Of course, accepting risk in the grey zone does not mean that Taiwan should fully cede that space to China or any other potential adversary. We recommend that Taiwan optimize its force structure against the most dangerous threat— invasion—instead of designing a force to counter grey zone incursions. Legacy military platforms and new counter-invasion weapons can still “push back” against grey zone incursions. That they are optimized for counter-invasion does not mean they have no grey zone applicability. Nevertheless, any notional grey zone campaign is less likely to consist of rapid operations (unlike a possible invasion) so as to allow more time to bring international pressure to bear. Additionally, and beyond the scope of this report, resisting grey zone campaigns may not be a purely military effort and instead requires a whole of government approach.

In practice, accepting risk in the grey zone means that Taiwan’s military should continue to *symbolically* intercept intrusions and enforce claims. Yet it should do so without investing the time or energy to “eliminate” the grey zone option for China fully. Taiwan’s existing air and naval platforms are therefore “good enough.” Although aging frigates and fourth-generation fighters might not prevail against their Chinese counterparts in a war, they are certainly up to the task of conducting intercept, freedom of navigation, and presence missions. The flip side of this recommendation is that Taiwan should stop investing in developing its own cutting edge air and naval platforms, particularly the Indigenous Diesel Submarine (IDS), an Aegis-like destroyer and the F-35. Such platforms are “overkill” for dealing with the grey zone threat. More important, as we argue below and in Chapters 5 and 6, budget constraints mean Taiwan cannot possibly afford enough of these exquisite, high-end platforms to deter an invasion credibly. Instead, Taiwan should use what it saves from not investing in research, development, and procurement to transition to pursue an elastic denial-in-depth concept.

## ***Prioritize Denial Operations: The Four Denials***

If Taiwan must choose between optimizing its military forces to combat grey zone provocations or an invasion scenario, then we think it should focus on the latter. To repeat, grey zone operations are neither necessary nor sufficient for China to realize its goals. Attacking and occupying Taiwan, in contrast, is certainly sufficient and likely necessary. The logic of deterrence thus demands that Taiwan's military focus on raising the costs of an "unlikely worst case," even to the degree that it means accepting risk against the "most likely case."

We believe the best way to deter China from invading is to "flip" the antiaccess threat on its head.<sup>10</sup> Doing so will require reorienting Taiwan's active duty air, naval, and ground forces away from *symmetric-conventional defensive operations* and toward *asymmetric-unconventional denial operations*. We define and distinguish these terms below. Suffice it to say for now, we suggest that Taiwan abandon any intention of holding onto any particular air space, naval zone, or piece of ground. The harsh reality is that the PLA's ever-growing quantitative and qualitative advantages mean that it could inevitably overwhelm Taiwan's defensive network in any given battlespace. Moreover, to commit its limited forces to the defense of any given battlespace, Taiwan must accept vulnerability in another battlespace. Taiwan is a big island. As the attacker, China will have the first mover advantage. Thus, a big risk exists that China could draw a significant portion of Taiwan's military into the all-out defense of a specific zone, only to strike the decisive blow elsewhere.

Instead of committing to a "none shall pass" defense of any one zone, Taiwan should adopt an elastic denial concept across the entirety of its air, sea, territory, and society. Denial sets a lower bar than defense. Whereas defense implies retaining control, denial simply requires that Taiwan prevent an invader from controlling a particular zone even if Taiwan cannot itself exercise control over that same space. Elasticity implies that Taiwan will deny a zone until its forces suffer unacceptable casualties. At that point, Taiwan's units will conduct a deliberate, fighting withdraw so as to prepare to deny an invader access to a successive zone. As with all elastic concepts, the idea is to force an attacker to trade lives and equipment for space. And once an attacker has "paid the price" to capture a given battlezone, the defender shifts back in order to force the attacker to repeat the process again. Unlike elastic defenses, an elastic *denial* concept means repeating this process *ad infinitum* rather than ever committing to a main line of resistance. Given that China's political goals require it to capture not just the entirety of Taiwan's air, sea, and territory but also the hearts and minds of its citizens, the

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<sup>10</sup> Andrew Krepinevich, "How to Deter China: The Case for Archipelagic Defense," *Foreign Affairs*, Vol. 92, No. 2 (2015): 78-86.

invader would very likely have to consider whether it is willing to trade lives and equipment *in perpetuity* to accomplish its goals.

In practical terms, we thus identify four denial zones: air, naval, ground, and social. Taiwan's active duty forces would have primary responsibility for the first three zones. A newly constituted territorial defense force, which we discuss in chapter 5, will focus on social denial. To prepare for denial operations, we suggest that Taiwan's air force and navy trade quality for quantity. That is, it should use the money it will save from not developing and/or acquiring indigenous submarines, Aegis-like surface ships, and the F-35 to instead invest in mass-produced air and naval drones; semisubmersibles; surface-to-air missiles; tactical missile defense systems; antiship cruise missiles; mines (and mine layers); and three-dimensional (3D) printing. We discuss the individual rationale behind acquiring each of these weapons and argue that Taiwan's economy is particularly well positioned to research, develop, and produce such weapons indigenously. As we also note later in the manuscript, it should also be able to develop concepts for employing them.

The capabilities that we believe that Taiwan should acquire will radically increase the price that China must pay to fight its way across the Taiwan Strait and to come ashore. Specifically, the combination of large numbers of cheap weapons creates a daunting targeting challenge for an invader. By investing heavily in quantity—particularly in weapons that are “good enough” and can be rapidly replaced in combat—an attacker will never be able to take out enough such weapons to ensure success at an acceptable price. To offer a few examples, consider the following:

- The proliferation of SAMs and tactical missile defense systems—along with a fundamental shift in how they are used—will force China to expend large quantities of its long-range precision strike weapons. Air and missile defense systems could include, for example, the TK-III, PAC-3, and ground-launched versions of the AIM-120 and AIM-9X.
- Abandoning “exquisite” surface ships and a small number of highly capable submarines in favor of a large number of unmanned and small manned submersibles; extremely small and maneuverable missile and radar boats; shore-based ASCM batteries; and naval mines also forces China to expend more of its long-range precision strike weapons. At the same time, since some of these capabilities will inevitably survive, China's leaders will have to accept the loss of its surface ships and amphibious transport ships that are each laden with thousands of ground troops.

- Swarms of relatively low-tech drones designed for one-way “suicide” missions (and quickly replaced via 3D printing) can target invasion fleets as they are both loading in port and sailing across the Strait. Most drones will not hit their target, but the gambit will be inexpensive enough that Taiwan can afford to overwhelm air defense units assigned to protect the invasion fleet. If nothing else, this tactic forces China to decide whether it is willing to accept greater risk.
- Ground combat units trained and equipped to man coastal defenses then transition to waging a protracted, highly mobile series of “fighting retreats” from Taiwan’s limited number of plausible landing zones along the entirety of every major maneuver corridor will present invasion planners with the daunting prospect of confronting an enemy that will impose costs without ever presenting a static, massed target for annihilation.

Taiwan’s current acquisitions strategy calls for a small number of high-cost, “exquisite” platforms. Such an approach plays to China’s strengths. Because Taiwan can only afford a limited number of fifth-generation fighter aircraft, Aegis-like warships, and diesel submarines—and because it takes so long to build these weapons that Taiwan could never hope to replace combat losses in an invasion scenario—it suffers from a dangerous vulnerability given that China possesses a quantitative and qualitative advantage. With relative ease, China can concentrate its intelligence assets on tracking Taiwan’s finite number of high-quality weapons platforms. Using a combination of cyber-attacks, long-range precision strikes, and old-fashioned sabotage, the attacker can likely destroy, neutralize, or suppress enough of these weapons to proceed with an invasion at an acceptable price.

### ***Organize a Territorial Defense Force: The Fourth Denial***

The fourth and final denial zone is society itself. Neither threats nor military violence can compel Taiwan as long as a large enough fraction of its people is willing to resist. This point holds true even in a worst-case invasion scenario. Indeed, the prospect of waging a years-long counterinsurgency could well serve as the ultimate form of conventional deterrence.<sup>11</sup>

What policymakers must realize is that insurgencies are not spontaneous. They cannot assume that popular resistance will automatically emerge in the

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<sup>11</sup> Alexander Lanoszka and Michael A. Hunzeker, “Confronting the Anti-Access/Area Denial and Precision Strike Challenge in the Baltic Region,” *The RUSI Journal*, Vol. 161, No. 5 (2016): 16.



aftermath of an invasion.<sup>12</sup> Conducting hit and run ambushes on conventional troops is inherently risky, and not just anyone can (or should) attempt to these kinds of combat missions. Furthermore, engaging in such attacks *effectively* requires specialized training. Because Taiwan is an island located less than 100 miles away from its most likely attacker, insurgents may well have to fight for months—or longer—without external logistical and financial support of the type that insurgent movements elsewhere in the world take for granted due to porous land borders. Most importantly, since the goal is to *deter* an invasion, rather than to fight one, Taiwan must credibly signal that its people *can and will* wage a brutal insurgency under the harshest conditions imaginable.

To signal that Taiwan's citizens possess both the resolve and the capability to wage an insurgency, Taiwan should consider turning its Reserve Command into a Territorial Defense Force. Currently, Taiwan has approximately 2.5 million reservists. Divided into four tiers of readiness, existing defense strategies call for these reservists to largely augment, reinforce, and support active units, or perform a wide range of disaster response, rear area security, and infrastructure protection missions.

Instead, we recommend placing the most capable and mission-ready reserve units under the administrative and operational control of the active duty units they will support in wartime. The rest of the existing Reserve Command should be rebranded as the Territorial Defense Force. Nor should this change be cosmetic. Territorial Defense Forces should be organized and trained to fight specifically to conduct guerrilla attacks on an invader. We prescribe the following:

- Territorial Defense soldiers should be assigned to units such that they fight where they live.
- Territorial Defense armories should be accordingly divided and scattered throughout the country to both give them easy access to their weapons and ammunition at the first warning signs of an invasion. This approach also has the added benefit of complicating Chinese targeting such that it would be a waste of limited long range precision weapons, advanced strike aircraft sorties, and sabotage units to try to preemptively eliminate even a fraction of these armories.
- Territorial Defense soldiers should be organized, trained, and equipped and organized to conduct autonomous, small-unit hit and run strikes. Every unit should have personnel trained to handle first aid, demolitions, and communications. The last ability may prove important for recording and broadcasting atrocities committed by invaders via satellite links.

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12 Mao Zedong, *On Guerrilla Warfare*, trans. Samuel Griffith (Champaign, IL: University of Illinois Press, 2000).

Since the current pool of 2.5 million reservists will continue to shrink as Taiwan shifts away from conscription, the government might also want to consider introducing Universal Military Training (UMT). Like conscription, UMT would require that every military-age citizen (male and perhaps female) receive a limited amount of military training. This training could take the form of an intense three- or four-month block after high school, but it could also be structured as a required college course akin to the U.S. reserve officer training corps. Unlike conscription, UMT does not require that every military-age citizen serve on active duty after completing his or her training. Instead, UMT graduates would transition directly into the Territorial Defense Force and be subject to annual training and wartime mobilization for a set period of time. In this way, UMT can focus specifically on fostering the mindset, skills and tactics, techniques, and procedures unique to guerrilla warfare. UMT has another advantage: to the degree that Taiwan's citizens believe that the training is rigorous and useful, UMT will likely increase the degree to which they identify with Taiwan and its defense. We discuss this idea in Chapter 6.

### **1.3 ASSUMPTIONS, SCOPE, METHODS, AND GOALS**

Our team agreed on two assumptions at the project's outset: first, that Taiwan's conventional deterrence posture will be more credible if it can function without U.S. intervention during a crisis; and second, that Taiwan's defense budget will not significantly increase in the near term. We must emphasize that these assumptions do not necessarily reflect our beliefs about whether the United States might intervene in a crisis. Some of us firmly believe the United States will come to Taiwan's diplomatic, economic, and even military aid. Similarly, we have no doubt that the Tsai Administration and its successors can generate the political support necessary to increase Taiwan's defense spending. Instead, we adopted these assumptions to identify a strategy by which Taiwan might enhance its conventional deterrence posture to the maximum extent possible under "worst case scenario" conditions. If Taiwan's political and military leaders are confident that the United States will intervene in a crisis, and/or if defense budgets increase significantly, then some of our recommendations are "overkill." However, we think that the logic of deterrence means it is better to plan for the worst—and then adjust those plans when better conditions present themselves—than the other way around.

Our analysis also primarily focuses on military matters. We do not explore ways that Taiwan might leverage its diplomatic, economic, and informational assets to deter aggression. Nor do we suggest how Taiwan can counter China's long-standing efforts to isolate it diplomatically and economically. We recognize

that emphasizing the military aspects of conventional deterrence limits our recommendations in important ways, not least because Taiwan must use all of its sources of national power to deter aggression. Indeed, the fact that China has been slowly coercing Taiwan's diplomatic allies and restricting its economic options poses an important challenge to Taiwan's security. Nevertheless, we focus on military matters for two reasons. First, Taiwan's security environment is remarkably complex, and no single research project can plausibly address all possible challenges and opportunities. The old military adage that she who is strong everywhere is strong nowhere applies to policy research as well. Moreover, given our professional and academic backgrounds in national defense, we believe that focusing on our comparative area of expertise makes more sense. Second, as useful as Taiwan's nonmilitary tools can be—and as daunting as the nonmilitary threats to Taiwan's security are—deterrence ultimately rests on the ability to credibly threaten unacceptable costs on your adversary so as to convince it not to use violence against you. Thus, military considerations must drive Taiwan's conventional deterrence posture. That said, we recognize that even “pure” military factors do not operate in a vacuum. For this reason, in Chapter 6 we broaden our analysis to examine two important nonmilitary factors that are particularly relevant to Taiwan's conventional deterrence posture: social resilience and national identity.

Our team leveraged three methodological approaches to prepare this monograph. We first performed an extensive review of the historical and theoretical literatures on deterrence as well as the policy literature on Taiwan's security challenges. We then spent a week in Taipei conducting interviews with a wide range of subject matter experts, including elected office holders, high-ranking current and former government officials, military officers, defense analysts, and scholars.<sup>13</sup> Our interviews followed a semistructured format in which we used a standard set of prepared questions derived from our initial hypotheses to stimulate a broader, free-flowing discussion. Finally, we analyzed polling data on a wide range of issues related to identity, resolve, and threat perceptions.

Our primary goal is to stimulate further discussion. We believe our team has a unique perspective from which to approach this topic. Each of us is a security scholar and/or practitioner. Nevertheless, prior to working on this project, none of us specialized on Taiwan and so did not start our research with a strong set of biases or preferences. Although there are certainly advantages approaching a topic with “fresh eyes,” we also recognize that we cannot hope to achieve the same level of depth, sophistication, and nuance as experts who have been working on these issues for decades. Thus, we encourage readers to see our analysis, arguments, and recommendations as our modest attempt to start a conversation, not to end one.

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**13** A grant from the Taipei Economic and Cultural Representative Office in the United States supported this academic and research visit.

## 1.4 DEFINING KEY TERMS

Over the course of our project, and especially during our interviews with experts in Taiwan, our team noticed that Taiwan and U.S. experts sometimes interpreted the same security concepts in different ways. To avoid confusion and to improve precision, we define and distinguish several key terms at the outset.

To begin with, we distinguish between two sets of concepts that scholars and policymakers tend to use interchangeably: symmetric and asymmetric, on the one hand; and conventional and unconventional, on the other. For the purposes of this monograph, we use conventional/unconventional to refer to force structure—in other words, the types of combat units and weapons that a state acquires and maintains. Conventional forces are *primarily* organized, equipped, and trained to conduct offensive and defensive combat missions to attack, occupy, and hold or control ground, airspace, and sea space. Unconventional forces are *primarily* designed, equipped, and trained to conduct harassment, guerrilla, and area-denial combat operations. Although conventional forces can conduct the kinds of missions typically assigned to unconventional forces, and vice versa, it represents a suboptimal use of military resources. After all, modern warfare is complex, and military units have a finite amount of time that they can devote to training. Units that spend most of their time preparing for one type of mission will necessarily be less prepared and effective if called upon to conduct a different type of mission.

We use symmetric/asymmetric to refer to *relative force employment*, that is, how a unit fights given how its adversary fights. Symmetric force employment means a commander chooses to fight the same way that her adversary fights. In this scenario, both sides conduct offensive and defensive operations to attack, occupy, and hold or control ground, sea, and airspace. Alternatively, both sides conduct harassment, guerrilla, and denial missions. Asymmetric force employment means one side chooses to fight the opposite way that her adversary fights. One side conducts harassment, guerrilla, and denial missions against an adversary that fights to attack, to occupy, to hold, and/or to control.

Based on these definitions, our recommendation is that Taiwan should invest more into building unconventional forces structure and that it should prepare to employ these forces asymmetrically in wartime. This recommendation represents a departure from Taiwan's current defense and acquisitions strategy, which focuses on building more conventional force structure so as to use it symmetrically against an invasion force—an approach that we and other U.S. think tank scholars believe is imprudent because China's conventional forces enjoy both quantitative and qualitative advantages over Taiwan's.

We use the term *grey zone operations* to refer to the deliberate, coordinated, and incremental use of provocations, incursions, and other so-called “salami tactics” by conventional and unconventional military forces so as to challenge

existing red lines and establish new “facts on the ground” without generating a decisive military response by the target.<sup>14</sup> In particular, states choose to “operate in the grey zone” in cases where they possess local—but not global—escalation dominance and therefore want to coerce a relatively weak local target without triggering retaliation by its more powerful allies. Russia’s annexation of Crimea in 2014 and China’s ongoing creation and militarization of “islands” in the South China Sea are prominent examples of such so-called grey zone operations.

We should point out that we do not like the term “grey zone,” because we think such stratagems are neither new nor exclusively used by U.S. rivals. In fact, Russian strategists claim to have learned how to conduct these kinds of operations from the United States.<sup>15</sup> Moreover, we worry that the term is so amorphous that it invites misuse and abuse, to the point that it risks overstating the degree to which grey zone operations are decisive in their own right or represent a major threat to the United States and its allies.<sup>16</sup> Despite these concerns and reservations, we use the term in this monograph because of its ubiquity in U.S. policy circles and debates.<sup>17</sup>

The third and final term to define is opportunity cost. We use this term in the same way as economists: it is the price of a particular decision or course of action defined by the next best alternative decision or course of action that is not taken. Although the definition is straightforward, we think the concept is underemphasized in debates about Taiwan’s defense strategy. No state has an infinite defense budget or an endless supply of military manpower. Nevertheless, Taiwan’s constraints are particularly acute because of the size of its population, resource base, and economy relative to China’s, as well as China’s geographic proximity. Taiwan cannot afford to invest heavily in both conventional and unconventional force structure. Its military units do not have enough time to train for both symmetric and asymmetric employment. If war does break out, then Taiwan would very much have to go to war with the military it has, not the one it wished it had. We review below the kind of forces and strategies that U.S. planners have been recommending to Taiwan.

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**14** Alexander Lanoszka, “Russian Hybrid Warfare and Extended Deterrence in Eastern Europe,” *International Affairs*, Vol. 92, No. 1 (2016): 178-179.

**15** Charles K. Bartles, “Getting Gerasimov Right,” *Military Review*, Vol. 96, No. 1 (2016): 30-38.

**16** Lanoszka, “Russian Hybrid Warfare,” 189-190.

**17** For example, see Joseph Votel, Charles T. Cleveland, Charles T. Connert, and Will Irwin, “Unconventional Warfare in the Gray Zone,” *Joint Force Quarterly*, Vol. 80, No. 1 (2016): 101-109; and Frank Hoffman, “The Contemporary Spectrum of Conflict: Protracted, Gray Zone, Ambiguous and Hybrid Modes of War,” *The Heritage Foundation*, 2016, retrieved from [http://ims-2016.s3.amazonaws.com/PDF/2016\\_Index\\_of\\_US\\_Military\\_Strength\\_ESSAYS\\_HOFFMAN.pdf](http://ims-2016.s3.amazonaws.com/PDF/2016_Index_of_US_Military_Strength_ESSAYS_HOFFMAN.pdf). See also Michael Mazzarr, *Mastering the Gray Zone, Understanding a Changing Era of Conflict* (Carlisle, PA: Army War College Press, 2014); and James Holmes and Toshi Yoshihara, “Deterring China in the Gray Zone: Lessons of the South China Sea for U.S. Alliances,” *Orbis*, Vol. 63, No. 3 (2017): 322-339.

## 1.5 COMPARING OUR FINDINGS TO EXISTING RESEARCH

Some analysts contend Taiwan's military predicament is not as dire as it seems, but trend lines suggest that Taiwan is unlikely to shift the military balance back in its favor in the future.<sup>18</sup> As a result, most recommendations for the future defense of Taiwan emphasize the need for it to focus on using asymmetric capabilities to increase the cost of any attempt by China to either attempt a cross-Strait invasion or coerce its acquiescence through air and missile strikes. Taiwan's armed forces are aware of the need for asymmetry and acknowledge that they cannot spend their way out of the current military imbalance even with recent pledges to increase the size of the defense budget.<sup>19</sup> Yet Taiwan's military remains focused on purchasing high-end weapons from the United States.<sup>20</sup>

Instead of focusing on these high-end systems, many U.S. analysts recommend that Taiwan invest in truly asymmetric capabilities that would raise the price of an invasion for the People's Liberation Army (PLA). These analysts typically agree that Taiwan should focus on "flipping" the antiaccess challenge against China by indigenously producing missiles for air and missile defense, midget submarines, swarms of unmanned systems, and fast attack craft, as well as sabotage and insurgent operations should PLA forces make it ashore.

Several analysts have suggested the best option for Taiwan to counter cross-Strait aggression by the Chinese is the development of its own antiaccess/area denial (A2/AD) capability. Eugene Gholz argues that Taiwan is not as well suited to deploying an A2/AD capability that would create a "no man's sea" between itself and a Chinese invasion as other powers in the region might be. Taiwan is closer in proximity to China than other countries that fear Chinese aggression, meaning the range of their A2/AD systems would overlap.<sup>21</sup> However, Taiwan's geography offers some advantages. The island's size means that mobile systems can fire and leave the scene—"shoot and scoot"—finding shelter in parts of Taiwan's terrain that can provide concealment from Chinese missiles' surveillance. According to Gholz, Taiwan already produces a mobile antiship cruise missile

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**18** For an optimistic assessment of Taiwan's ability to resist Chinese aggression, see Michael Beckley, "The Emerging Military Balance in East Asia: How China's Neighbors Can Check Chinese Naval Expansion" *International Security*, Vol. 42, No. 2 (2017): 84–95.

**19** "Taiwan to Boost Defense Spending, U.S. Concerned Over Possible Military Imbalance: Media Official," *Reuters*, October 29, 2017, retrieved from <https://www.reuters.com/article/us-taiwan-usa/taiwan-to-boost-defense-spending-u-s-concerned-over-possible-military-imbalance-official-media-idUSKBNICZ07H>.

**20** For example, Taiwan wants to purchase F-35Bs. See Franz-Stefan Gady, "Taiwan Wants the F-35 Stealth Fighter," *The Diplomat*, March 21, 2018, retrieved from <https://thediplomat.com/2018/03/taiwan-wants-the-f-35-stealth-fighter/>.

**21** Eugene Gholz, "No Man's Sea: Implication for Strategy and Theory," paper presented at the MIT Security Studies Program, February 24, 2017, 12.

that can provide the type of capability that he recommends. The problem is that they have not been produced in sufficient numbers.<sup>22</sup>

Other asymmetric capabilities that could aid in Taiwan's A2/AD strategy include swarms of fast attack craft and unmanned aerial vehicles (UAVs). Colin Carroll and Rebecca Friedman Lissner argue that Taiwan should adopt an asymmetric strategy for the Taiwan Strait similar to what Iran has done in the Persian Gulf. This strategy would combine fast attack craft swarms, cheap unarmed UAVs, improved camouflage and concealment, and mobile surface-to-air missiles to increase the cost of a PLA attempt to control the sea and air space around Taiwan.<sup>23</sup> Some of these capabilities, such as cheap UAVs, may become easier to develop as 3D printing technology advances.<sup>24</sup>

The Center for Strategic and Budgetary Assessments (CSBA) goes even further. In *Hard ROC 2.0: Taiwan and Deterrence Through Protraction*, CSBA analysts argue that Taiwan should draw on principles from guerilla warfare to deny the PLA sea and air control around the island. The aim of this strategy would be the "virtual" and actual attrition of PLA forces in the event of Chinese aggression. The analysis assumes air and missile strikes, along with cyber-attacks and a blockade, would be used to break Taiwan's will or as prelude to an invasion.<sup>25</sup> The guerrilla sea and air campaign—and preparations for an insurgency should PLA forces make it ashore—are meant to deter Chinese aggression by increasing its cost and ensuring quick conquest of Taiwan would be impossible.<sup>26</sup> Procurement priorities for *Hard ROC 2.0* would include midget submarines, antiship cruise missiles, mines, mobile air defenses of the Enhanced Sea Sparrow missile-class, truck-based howitzers, and truck-mounted multi-launch rocket systems.<sup>27</sup> Writing in 2014, the authors suggest that such a shift in emphasis would require \$3 billion less than modernization efforts proposed at the time.<sup>28</sup> Other priorities include preparing in case the PLA does make it ashore. The authors recommend that Taiwan preposition guided rockets, artillery, mortars,

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**22** *Ibid.*, 13.

**23** Colin Carroll and Rebecca Friedman Lissner, "Forget the Subs: What Taipei Can Learn from Tehran About Asymmetric Warfare," *War on the Rocks*, April 6, 2017, retrieved from <https://warontherocks.com/2017/04/forget-the-subs-what-taipei-can-learn-from-tehran-about-asymmetric-defense/>.

**24** T. X. Hammes, "Technologies Converge and Power Diffuses: The Evolution of Small, Smart, and Cheap Weapons," *Cato Institute Policy Analysis* no. 786 (Washington, D.C.: Cato Institute, January 27, 2016).

**25** Jim Thomas, John Stillion, and Iskander Rehman, *Hard ROC 2.0: Taiwan and Deterrence Through Protraction* (Washington, D.C.: Center for Strategic and Budgetary Assessments, 2014): 72.

**26** *Ibid.*, v–vi.

**27** *Ibid.*, vi and 36–47.

**28** *Ibid.*, v.

and missiles in major cities, with the army engaging in a “Fabian defense” before “melting away” to begin a traditional guerrilla campaign.<sup>29</sup>

Where the CSBA analysis differs most from the others, though, is in its recommendation for potential strikes on China. These strikes would be part of an effort to disrupt the PLA's “battle networks”—that is, its command and control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) capabilities.<sup>30</sup> The CSBA authors suggest that the risks for potential escalation are worthwhile, as the threat of disrupting the PLA's battle networks could be enough to undermine Chinese war planners' confidence in a quick victory. Moreover, they contend, concerns about escalation are in reference to a conflict between the United States and China where the existence of the former is not in doubt. In a conflict between Taiwan and China, however, Taiwan has little to lose since its autonomy is already at stake.

Taken together, these recommendations suggest a radical departure from Taiwan's current acquisitions priorities. Each option represents a true shift to asymmetric capabilities that would be more cost effective than relying on high-end platforms purchased from the United States. Still, as a number of analysts note, adopting these recommendations will require significant training and doctrinal changes on the part of Taiwan's armed forces. It will also require Taiwan to become more self-reliant in defense production instead of continuing to wait on purchases of U.S. weapon systems. In many ways, these changes will require Taiwan's military to rethink how it conceives of its own identity as an institution.<sup>31</sup>

Our recommendations share several characteristics with these analyses. But they differ in important ways as well. We share the view that Taiwan is best served by focusing on asymmetric capabilities rather than investing in high-end platforms. However, we go further than most existing analyses in three important ways. First, we offer a holistic deterrence strategy that brings politics back in. Existing analyses are highly technical and tend to ignore important political and social issues that impact Taiwan's ability to generate and sustain military power and cope with the entire threat spectrum. Second, our report explicitly acknowledges the tension between deterring grey zone provocations and deterring an invasion. Existing analyses either focus exclusively on one challenge, or presume that grey zone threats are a “lesser included” threat such that a military posture optimized to deal with the invasion threat can also handle subversion in the grey zone. Furthermore, we are the first to explicitly recommend that Taiwan is better off accepting risk in the grey zone to focus

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29 *Ibid.*, vii and 56–63.

30 *Ibid.*, vii and 64–66.

31 For how organizational identity can impede these changes, see Carl H. Builder, *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore, MD: Johns Hopkins University Press, 1989).



on what we see as the truly existential threat. Finally, the force structure recommendations we offer are far more ambitious than those that have been suggested by other American analysts to date. Beyond our suggestions that Taiwan repurpose its Marine Corps to focus on a purely coastal defense mission, we also recommend a wholesale transformation of Taiwan's reserve force. Our suggestion that Taiwan move *away* from its current pursuit of an operational reserve, and instead create a Territorial Defense Force, also fills an important gap in existing work on Taiwan's asymmetric options: they tend to overlook the massive collective action problems that Taiwan's defenders will face. Thus, we offer a logical set of policy recommendations that will allow a Territorial Defense Force to overcome such obstacles.

## **1.6 ROADMAP**

This monograph is divided into seven chapters. Chapter 2 assesses China's intentions. Chapter 3 explores the cross-Strait military balance. Chapter 4 discusses China's provocations in the grey zone and identifies our recommendations for countering these challenges. Chapter 5 highlights our core recommendations for deterring an invasion. Chapter 6 discusses options for enhancing social resilience in general and the possibility of preparing for popular resistance in particular. Chapter 7 summarizes and concludes.



“China has a ‘sacred commitment’ to restoring political control over Taiwan.”

# 2

## Defining the Threat

TRYING TO DIVINE a potential adversary's intentions is at once the most important and most difficult task. Intentions matter because they are at the heart of the deterrence equation. If a potential adversary does not intend to challenge the status quo, whether through acquiring new territories or challenging the foundations of international order, then investments in defense spending may be unnecessary. Not only would resources go misallocated if other areas of government expenditure like social programs see shortfalls, but also political leaders and defense planners might wrongly interpret the lack of aggression as a sign of deterrence success. After all, deterrence strategies only succeed if the adversary chooses not to engage in certain activities for fear of the costs it would incur as a result of the target's own policies. Worse yet, attempts to deter a state that has no intention of attacking might spark a security dilemma, thereby inadvertently provoking the very threat that the target was trying to avoid.<sup>32</sup> Conversely, if a potential adversary *does* intend to challenge the status quo, then the target needs to make the necessary preparations for ensuring that aggression would be as costly as possible. A failure to do so could invite aggression. But because deterrence is not cheap, especially when the adversary is a great power, such preparations will inevitably crowd out spending on other government programs.

And yet intentions are frustratingly hard to assess. States have incentives to dissemble their true motivations, either because they fear exploitation by their adversaries or because they have ulterior motives to exploit others. Some scholars go so far as to say that intentions are inscrutable—that is, that they are impossible

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<sup>32</sup> John Herz, *Political Realism and Political Idealism* (Chicago, IL: University of Chicago Press, 1951); and Robert Jervis, "Cooperation Under the Security Dilemma," *World Politics*, Vol. 30, No. 2 (January 1978): 186–214.

to assess with certainty.<sup>33</sup> This difficulty applies with special force in the case of China. As Jeffrey Legro writes:

“The problem is not simply an issue of China’s secrecy or repression of free expression since the problem of future intentions applies to democracies as well as dictatorships. Even if we had access to the inner workings of the Chinese government today, it is unlikely that information would tell us about future aims. Even if China today has some secret plan for world hegemony or world harmony, those aims will be subject to change by China’s very growth and the process by which it unfolds. Ironically even China’s top leaders, despite their concentrated political power, cannot know with certainty what their country will want.”<sup>34</sup>

Like those of any great power, Chinese intentions are not constant but rather are contingent on a wide variety of factors.

For better or worse, Taiwan need not concern itself with trying to sort out Chinese intentions. In this chapter, we argue that although Chinese intentions toward the U.S.-led liberal international order are uncertain, they are unambiguous with respect to Taiwan. Put bluntly, China wants to restore political control over the island. What is up for debate is how China will go about realizing this long-standing objective.

For years, China has relied on a combination of carrots and sticks. This approach blends the use of economic incentives with a range of coercive threats, including military provocations and eliminating Taiwan’s diplomatic maneuvering space. Grey zone operations allow China to do both—show the people the safety and wisdom provided in embracing China and revealing the futility and ineptitude of Taiwan leadership’s resistance efforts. These methods also play well for China’s domestic consumption by satisfying more hawkish nationalistic sentiments to “do something” about Taiwan (and the United States’ perceived changes of the status quo) without really “doing” anything. The added benefit of grey zone incursions is that they force Taiwan to respond operationally—which takes a toll on Taiwan’s already stretched defense budget. China’s attempt to manage and exploit grey zone activities appears to be its current method of choice to erode the will of the Taiwan military and the resistance of Taiwan’s population without rising to the costs of war.

We structure this chapter as follows. We distinguish between the optimistic and pessimistic models when it comes to China’s intentions at the global level. Taiwan’s

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**33** Sebastian Rosato, “The Inscrutable Intentions of Great Powers,” *International Security*, Vol. 39, No. 3 (2015): 48–88.

**34** Jeffrey W. Legro, “What China Will Want: The Future Intentions of a Rising Power,” *Perspectives on Politics*, Vol. 5, No. 3 (2017): 515.

leaders and defense planners may have reasons to follow this debate, but we proceed to argue that experts generally agree that Chinese intentions have been relatively clear and unchanging with respect to Taiwan. China wants, and has always wanted, political unification with the island. As such, in assessing how Taiwan has evaluated Chinese intentions, we conclude that Taiwan's assessments of Chinese intentions are unjustifiably optimistic. Taiwan should follow the example of countries located elsewhere in the world that also face similar threat environments. Specifically, Taiwan should embrace worst-case thinking regarding China and evaluate its security relationships with partners like the United States accordingly.

## 2.1 EXPERTS DISAGREE ABOUT CHINA'S INTENTIONS TOWARD THE INTERNATIONAL ORDER

Discussions of Chinese intentions have generally centered on two contrary views as to whether or not China will rise peacefully. The first view is that China will rise peacefully and harbors no malign intent to fundamentally change the international status quo. The second is that China will not rise peacefully, either because it already seeks an upending of the international order or because it will come to acquire revisionist intentions as its capabilities accumulate. The table below summarizes these basic views of Chinese intentions.

### Optimistic and pessimistic models for China's rise

	Optimistic Model	Pessimistic Model
Character of rise as great power	Defensive	Offensive
Desire for hegemony	Low or ambiguous	Unambiguously yes
Why act aggressively in the East and South China Seas?	To prevent encirclement	To prepare for further expansion
Why modernize the military?	To improve its defensive capabilities	To improve its offensive capabilities and to raise the costs for the United States to rescue allies
Willingness to use force	Relatively low	Relatively high
Deterrence requirements	Low cost	High cost
Importance of assurance relative to deterrence	Relatively high	Relatively low

### *The Optimists*

Optimists do not think China harbors aggressive, revisionist ambitions. Its rise will take on a more defensive character. Specifically, China's leaders are preoccupied

with consolidating political support and control at home while ensuring that the state retains its territorial integrity and preserves its political sovereignty. To retain its authoritarian hold on power, the CCP has turned away from the ideological zeal that had characterized much of the time when Mao Zedong was in power. It now relies on economic development and modernization as the primary basis for legitimating its political authority. China has also become both enmeshed in a wide array of multilateral institutions and deeply integrated more into the global economy. Some scholars argue that China has become socialized into adopting more cooperative and self-constraining behaviors as a result.<sup>35</sup>

According to optimists, even though China does not aspire to empire or regional hegemony, it does fear encirclement. Such fears are understandable. China shares land borders with fourteen countries, including four nuclear-armed states: India, Pakistan, Russia, and North Korea.<sup>36</sup> Although China faces westward into the Pacific Ocean, it is nevertheless hemmed in by the First Island Chain, which includes the Japanese Archipelago, Ryukyu Islands, and Taiwan. China's geographical position therefore feeds an underlying fear of encirclement and an obsession with U.S. power projection capabilities.<sup>37</sup> From this perspective, China might begrudgingly accept U.S. alliance commitments to Japan and South Korea if only because those security ties curb those countries' interest in nuclear weapons and stabilize the Korean peninsula.<sup>38</sup> Yet China objects to perceived U.S. efforts to reinforce or to develop the military capabilities of those countries for reasons related to the security dilemma—that is, an improvement in the security of Japan might come at the expense of China's. As such, according to the optimistic model, China's military activities in the East and South China Seas do not imply that Beijing craves territorial expansion for the sake of imperial control. Similarly, China's military buildup may not be evidence of a desire to challenge the international order. Rather, both sets of activities constitute a broader effort aimed at ensuring the viability of China's own deterrence and defense measures when the United States has not only a much larger and more sophisticated nuclear arsenal but also more technologically advanced conventional military forces.<sup>39</sup> Some analysts even argue that U.S. defense planners have adopted worst-

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**35** Alastair Iain Johnston, *Social States: China in International Institutions, 1980–2000* (Princeton, NJ: Princeton University Press, 2008): 197.

**36** On India and encirclement, David Scott, "The Great Power 'Great Game' Between India and China: 'The Logic of Geography,'" *Geopolitics*, Vol. 41, No. 1 (2008): 7–11. See also John W. Garver and Fei-Ling Wang, "China's Anti-encirclement Struggle," *Asian Security*, Vol. 6, No. 3 (2010): 238–261.

**37** Thomas J. Christensen, "Fostering Stability or Creating a Monster? The Rise of China and U.S. Policy toward East Asia," *International Security*, Vol. 31, No. 1 (2006): 118–119.

**38** Alastair Iain Johnston, "Is China a Status Quo Power?" *International Security*, Vol. 27, No. 4 (2003): 40–43.

**39** Some analysts in 2006 argued that the United States had nuclear superiority over China and Russia. China has since undertaken an extensive nuclear modernization program that nevertheless has kept the size of its nuclear weapons arsenal limited in comparison to that of the United States. See Keir A. Lieber and Daryl G. Press, "The End of MAD? The Nuclear

case assumptions in their analysis of China's military strategy, leading them to prematurely conclude that China aspires to acquire military capabilities that would hamper the movement of U.S. forces into and within a theater of operations.<sup>40</sup> Moreover, China is heavily preoccupied with internal threats—ranging from separatists in borderlands to direct challengers to the CCP leadership—than external ones. For example, Taylor Fravel finds that China is most likely to resolve its territorial disputes (on land) during those periods when the government is most insecure about its governance of ethnic minorities in frontier regions.<sup>41</sup> China's willingness to use military force may correspondingly be low, or at least not as high as some might believe. If China does appear militarily more assertive, then it is in reaction to the behavior of others rather than a proactive policy to gain more control.<sup>42</sup>

Optimists conclude that assurance is more important than deterrence. After all, in the international relations literature on power transitions, some scholars argue that it is the *declining* state that tends to provoke war. The logic is straightforward. Wars of power transition are fought between two great powers that want to achieve a better bargain at the expense of the other. The rising state has time on its side: it is accumulating military power that it can later leverage to extract concessions and agreements more favorable to its interests. In contrast, a declining state—like the United States, as many argue today—will by definition see its power recede over time. Its bargaining power falls accordingly. Moreover, the declining power is unlikely to trust a power-sharing agreement offered by a rising power, because the declining power knows the rising state could always renegotiate it once its position improves. In anticipation of these future developments, the declining state might wish to start a conflict while it still can beat the rising state on the battlefield. Thus, the rising state will need the assurances from the declining state that such dynamics would not unfold between them, just as much as the declining state will need assurances that it would not be exploited in the future by the rising state.<sup>43</sup>

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Dimension of U.S. Primacy," *International Security*, Vol. 30, No. 4 (2006): 26–31. See also Thomas J. Christensen, "The Meaning of the Nuclear Evolution: China's Strategic Modernization and US-China Security Relations," *Journal of Strategic Studies*, Vol. 35, No. 4 (2012): 457.

**40** James Johnson, "Washington's Perceptions and Misperceptions of Beijing's Anti-Access Area-Denial (A2-AD) 'Strategy': Implications for Military Escalation Control and Strategic Stability," *The Pacific Review*, Vol. 30, No. 3 (2017): 282.

**41** M. Taylor Fravel, "Regime Insecurity and International Cooperation: Explaining China's Compromises in Territorial Disputes," *International Security*, Vol. 30, No. 2 (2005): 46–83.

**42** Alastair Iain Johnston, "How New and Assertive is China's New Assertiveness?" *International Security*, Vol. 37, No. 4 (2013): 7.

**43** Dale C. Copeland, *The Origins of Major War* (Ithaca, NY: Cornell University Press, 2001). For an application of the mutual need for reassurance in the context of the Sino-American relationship, see James Steinberg and Michael E. O'Hanlon, *Strategic Reassurance and Resolve: U.S.-China Relations in the Twenty-First Century* (Princeton and Oxford: Princeton University Press, 2014).

## *The Pessimists*

Pessimists have a very different perspective on China's intentions. They typically hold one of two basic views. The first is that China harbors malign intentions toward both the international order and its regional neighbors. To the degree that China behaves peacefully, it is only because it is biding its time until it can develop the capabilities it needs to decisively challenge the United States and its allies. The second pessimistic view is that even if China does not currently want to revise the status quo, as it accumulates more economic power, it will spend more on its military capabilities. This newfound military power will inevitably generate a greater appetite for revisionism.<sup>44</sup> In other words, ability begets appetite. According to this perspective, revisionist motivations will ultimately drive Chinese foreign policy, if they are not doing so already.

In either case, pessimists agree that China will pursue an increasingly aggressive foreign policy in East Asia. Some go so far as to claim that China will try to restore the Middle Kingdom.<sup>45</sup> Others argue that domestic politics will drive expansion and aggression, especially because the CCP has long used nationalism to consolidate control at home. As economic growth slows or proves otherwise unsustainable, the CCP might even choose to pursue aggressive foreign policies either because it wants to distract the public from deeper economic challenges or because after years of nationalistic propaganda, it worries about looking weak.<sup>46</sup>

Pessimists thus reject the argument that globalization will make China a cooperative stakeholder in the international order. They point out that China's leaders have sought to insulate society from any liberalizing influences from abroad. Moreover, even if China has accepted economic interdependence (and therefore vulnerability) over the last two decades, it has also taken steps to shield itself from potential economic coercion by other states. These steps include investments in natural resources, gaining physical control of commodity supplies, and buying access to port facilities abroad.<sup>47</sup> More recently, China began using a variety of financial and trade instruments to coerce other states into adopting friendlier policies.<sup>48</sup>

The military implications of the pessimistic model are clear. China wants to challenge—and ultimately rewrite—the existing regional order. Its leaders are

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44 John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York, NY: W.W. Norton, 2001): 400.

45 Martin Jacques, *When China Rules the World: The Rise of the Middle Kingdom and the End of the Western World* (London, UK: Penguin, 2012).

46 Michael Yahuda, "China's New Assertiveness in the South China Sea," *Journal of Contemporary China*, Vol. 22, No. 81 (2013): 454–455.

47 Aaron L. Friedberg, "Globalisation and Chinese Grand Strategy," *Survival*, Vol. 60, No. 1 (2018): 23.

48 *Ibid.*, 28–30.



more nationalistic than ever before and are likely to continue along this path.<sup>49</sup> As Aaron Friedberg observes:

“The recent increase in Chinese assertiveness does not reflect a change in overall objectives, nor a wholesale abandonment of the previously existing strategy [of hiding capabilities and biding time]. Rather, it is a result of increasingly favorable leadership assessments of the nation’s relative power and of the threats and opportunities that it confronts.”<sup>50</sup>

Specifically, China wishes to dislodge the United States from the First Island Chain so as to have the capacity to break out into the Pacific Ocean. To this end, it is acting in ever more confrontational ways, particularly as it is increasingly provocative in laying claim to a wide swath of disputed territories such as the Spratley or the Senkaku/Diaoyu Islands.<sup>51</sup> Pessimists conclude that the United States and its allies must respond by placing a higher premium on deterrence than on assurance. Of course, they recognize that assurance is still important for demonstrating to China that good behavior will be rewarded, but deterrence will be paramount for ensuring that U.S. and allied interests will not be under duress because of Chinese political, economic, or military pressure.

## 2.2 EXPERTS AGREE OVER CHINA’S INTENTIONS TOWARD TAIWAN

Whether or not China harbors revisionist intentions towards the international order matters a great deal for the United States and its allies in East Asia. Unfortunately, it probably matters little for Taiwan. Virtually every analysis we read draws the same basic conclusion: China wants to reassert political control over the island.

Nor does China see Taiwan as a negotiable issue. Ever since Chiang Kai-shek and his Nationalist forces fled to Taiwan as the Chinese Civil War drew to a close in 1949, China has been steadfast in its interest in reunification. According to Gregory Moore, China has a “sacred commitment” to restoring political control over Taiwan. That is, Taiwan is part and parcel a “basket of emotional, nationalistic,

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<sup>49</sup> Yahuda, “China’s New Assertiveness.”

<sup>50</sup> Aaron L. Friedberg, “The Sources of Chinese Conduct: Explaining China’s Assertiveness,” *The Washington Quarterly*, Vol. 37, No. 4 (2015): 143. “Hiding capabilities and biding time” reflects the outlook contained in the “24 Character Strategy that Deng Xiaoping fleshed out in a memorandum to CCP officials in the aftermath of the Tiananmen Square massacre. See Dingding Chen and Jianwei Wang, “Lying Low No More? China’s New Thinking on the Tao Guang Yang Hui Strategy,” *China: An International Journal*, Vol. 9, No. 2 (2011): 195–216.

<sup>51</sup> Much ambiguity surrounds China’s territorial claims. See Peter Dutton, “Three Disputes and Three Objectives: China and the South China Sea,” *Naval War College Review*, Vol. 64, No. 4 (2011): 42–67; and Paul J. Smith, “The Senkaku/Diaoyu Island Controversy: A Crisis Postponed,” *Naval War College Review*, Vol. 66, No. 2 (2013): 38–39.

historical and almost spiritual notions held by many in China about the 'sacredness' of territorial integrity and the commitment of the founders and revolutionaries of modern China to the reunification of the motherland.<sup>52</sup> Reflecting on his own government experience in Sino-American relations, Alan Romberg similarly observes that "[f]or Beijing it symbolized sovereignty, occupying a place at the very core of China's own sense of national identity. It stood as an issue of principle that permitted no compromise."<sup>53</sup> Although Thomas J. Christensen labels China as the "high church of realpolitik in the post-Cold War," he admits that China would tolerate economic damage and war with the United States if Taiwan were to try to formalize legally its de facto independence.<sup>54</sup> Indeed, a 1996 Chinese press release unequivocally declared that "Taiwan is China's sacred territory," whereas various leading Chinese officials have used "sacred" alongside such words as "holy" to describe China's desire to reunify with Taiwan.<sup>55</sup> Rational interests and strategic considerations may be salient but should not be exaggerated. After all, if China wanted to assert control over Taiwan in order to break through beyond the First Island China, it could have resorted to a more conciliatory posture to draw the island into a shared security arrangement. At the very least, it would not have allowed the symbolism of Taiwan's status to create material risks as it has.<sup>56</sup> Hence, Legro advises that "China's obsession with Taiwan ... is hard to understand from strictly a power perspective."<sup>57</sup>

The clearest expression of China's intent with respect to Taiwan is the 2005 Anti-Secession Law. With this law, China formalized its intention to reserve the use of force to unify with Taiwan. Force will be used in the last resort, but the CCP has the authority to decide when a situation necessitates "last resort" actions. In presenting the legal text, China's spokesman stated that the new law:

... provides that in the event the Taiwan independence forces should act under any name or by any means to cause the fact of Taiwan's secession from China, or that major incidents entailing Taiwan's secession from China should occur, or that possibilities for a peaceful reunification

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**52** Gregory J. Moore, "The Power of 'Sacred Commitments': Chinese Interests in Taiwan," *Foreign Policy*, Vol. 12, No. 2 (2016): 220. Taiwan is also a "core interest" of China, but note that not all core interests are sacred. The term "core interest" has evolved slowly in China's official lexicon. According to Michael Swaine, the very first time China deployed the term "core interest" was in an official Chinese statement made on January 19, 2003, in which the Chinese Foreign Minister told Secretary of State Powell that Taiwan was among China's "core interests." Michael Swaine, "China's Assertive Behavior—Part One: On 'Core Interests'" *China Leadership Monitor*, Vol. 34, No. 22 (2011): 1–25.

**53** Alan D. Romberg, *Rein in at the Brink of the Precipice: American Policy Toward Taiwan and U.S.-P.R.C. Relations* (Washington, D.C.: The Henry L. Stimson Center, 2003): 217.

**54** Thomas J. Christensen, "Chinese Realpolitik," *Foreign Affairs*, Vol. 75, No. 5 (1996): 37 and 45.

**55** See Moore, "The Power of 'Sacred Commitments,'" 10.

**56** *Ibid.*, 14–16.

**57** Legro, "What China Will Want," 525.

should be completely exhausted, the state shall employ nonpeaceful means and other necessary measures to protect China's sovereignty and territorial integrity."<sup>58</sup>

Revisions of Taiwan's independence may be just one of those red lines that would prompt Chinese action. Whichever is the case, these comments harken back to some of the previously "hidden" triggers discussed above when the PLA has taken the reins from Jiang Zemin in the 1990s. Apparently, those hidden triggers have emerged from the shadows and found their way into mainstream Chinese political redlines.

### *Why Has China Not Already Invaded?*

Despite harboring an unequivocal intent to reassert control over Taiwan, China has never attempted an outright invasion. What explains this puzzling disconnect between China's intentions and its behavior? At least four factors seem to have combined to prevent China from reasserting control over Taiwan thus far.<sup>59</sup> The first and most obvious factor is the Taiwan Strait. Amphibious assaults are perhaps the most difficult, complex, and risky type of military operations. Moreover, the PLA has never had enough specialized amphibious lift and landing craft to support an invasion force of the size that would be necessary to invade an island the size of Taiwan.<sup>60</sup>

A second factor has been the United States and its ever-evolving security commitments. The United States supported Chiang Kai-Shek and his army throughout the Second World War and the Chinese Civil War, only to sever ties with the Kuomintang (KMT) in December 1949.<sup>61</sup> Six months later, the onset of the Korean War drove the United States to reverse course. The first cross-Strait crisis in 1954 led to the formalization of this relationship via the Sino-American Mutual Defense Treaty, which proved to be a significant irritant to China until its termination in 1979.<sup>62</sup> The alliance came to an end amid U.S. efforts to exploit China's diplomatic rupture with the Soviet Union for geopolitical advantage.<sup>63</sup>

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<sup>58</sup> Edward Cody, "China Sends Warning to Taiwan With Anti-Secession Law," *Washington Post*, March 8, 2005, retrieved from <http://www.washingtonpost.com/wp-dyn/articles/A15294-2005Mar7.html>.

<sup>59</sup> On deterrence in cross-Strait relations, see Keren Yarhi-Milo, Alexander Lanoszka, and Zack Cooper, "To Arm or to Ally?: The Patron's Dilemma and the Strategic Logic of Arms Transfers and Alliances," *International Security*, Vol. 41, No. 2 (2016): 103-118.

<sup>60</sup> For an overview of some of the practical challenges associated with a cross-Strait amphibious operation, see Ian Easton, *The Chinese Invasion Threat*, 147-169.

<sup>61</sup> Jonathan Manthorpe, *Forbidden Nation: A History of Taiwan* (New York: St. Martin's Griffin, 2009): 183-194. For a more somber account, see George Kerr, *Formosa Betrayed* (Manchester, UK: Camphor Press, 2017 [1977]).

<sup>62</sup> David Dean, *Unofficial Diplomacy: The American Institute in Taiwan* (Bloomington, IN: Xlibris Publishing, 2014): 63-64.

<sup>63</sup> In February 1972, Nixon had become the first U.S. president to visit the People's Republic of China. In December 1978,

Still, the U.S. Congress passed the Taiwan Relations Act in 1979, obligating the United States to provide Taiwan with defensive weapons. From the Chinese perspective, this continued U.S. support prevented peaceful reunification. It was the “painful reminder that the Communists had yet not finished their civil war ... Taiwan stood as towering symbol of the century of humiliation inflicted by the imperialists who had taken parts of China.”<sup>64</sup>

The fact that China cannot focus exclusively on Taiwan is a third factor. In fact, a bewildering range of other security issues have constantly tested China's strategic bandwidth. Mao had to juggle internal stability, Tibet, the Great Leap Forward (and the subsequent famine that it provoked), the Cultural Revolution, deteriorating relations with the Soviet Union, a war in Indochina, and border skirmishes with India. As a result, he was not in a hurry to deal with Taiwan.<sup>65</sup> When Deng Xiaoping became the Chinese leader in 1978, other issues competed for his attention as well. With the Taiwan Relations Act depriving China of a completely favorable outcome with respect to Taiwan, Deng prioritized domestic issues. Cognizant of how China lagged far behind advanced industrial countries, Deng believed that a focus on science and technology would help spur growth and modernization.<sup>66</sup> Science, Deng believed, would be crucial for achieving the Four Modernizations that Premier Zhou Enlai had outlined several years earlier, which emphasized agriculture, industry, defense, and science and technology. Indeed, Deng's desire to focus on issues other than Taiwan annoyed Chinese military leaders, who grew frustrated with his long-term perspective.<sup>67</sup>

### *Who Controls the Decision to Go to War?*

Many of the experts we interviewed in Taiwan reminded us about the degree to which factionalism drives Chinese politics, which in turn may affect China's willingness and ability to launch an attack. Professor Chu-Cheng Ming argues that we should *not* treat “China” as a unitary actor.<sup>68</sup> Even if President Xi Jinping is “China's most powerful leader since Mao,” the factional pressures and internal strife remain.<sup>69</sup> As a result, China's actions toward Taiwan may not

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President Jimmy Carter announced that the United States would start diplomatic relations with China as of January 1, 1979—the conditions of which required that the United States simultaneously cease diplomatic relations with Taiwan, end the defense treaty, and remove all troops from Taiwan. *Ibid.*

<sup>64</sup> Ezra F. Vogel, *Deng Xiaoping and the Transformation of China* (Cambridge, MA: The Belknap Press, 2011): 478.

<sup>65</sup> In fact, he would leverage the issue to generate domestic and Soviet support. Pantsov and Levine, *Mao*.

<sup>66</sup> Vogel, *Deng Xiaoping*, 131–132.

<sup>67</sup> *Ibid.*, 540–541.

<sup>68</sup> Interview with select faculty of the Department of Political Science at National Taiwan University, Taipei, January 19, 2018.

<sup>69</sup> See, e.g., Bill Ide, “Xi Emerges as China's Most Powerful Leader Since Mao,” *Voice of America*, October 24, 2017, retrieved from <https://www.voanews.com/a/xi-jinping-added-to-china-communist-party-constitution/4083620.html>; and

necessarily directly reflect President Xi's preferences. Several faculty members at National Taiwan University reinforced this view, pointing out that although resolving the cross-Strait issue may not be a high priority for President Xi, factions within the CCP could nevertheless force Xi to act in ways that are contrary to his preferences.<sup>70</sup>

One example is the tension that has long existed between China's civilian leaders and their generals over Taiwan. Deng exerted uncontested control over the military apparatus. However, his successors have proven less powerful. In the aftermath of the Tiananmen Square massacre, Jiang Zimen's control over the PLA was initially quite weak. As a result, he had to make a number of concessions to win its backing.<sup>71</sup> At the same time, his policy towards Taiwan—the Eight-Point Initiative—was rather conciliatory. Jiang even once declared, “Chinese will not fight Chinese.”<sup>72</sup> PLA leaders were apparently angry with this remark.<sup>73</sup> Thus, when Taiwan's President Lee Teng-Hui received a U.S. visa to speak at Cornell University, his alma mater, in 1995, the PLA began independent preparations for military action.<sup>74</sup> The subsequent exercises, which included firing missiles into the Taiwan Strait, prompted the United States to dispatch two aircraft carriers into the region and helped President Lee easily win reelection in 1996.<sup>75</sup> Nor was Jiang the only leader to have trouble asserting control over the PLA. It took Hu Jintao nearly two years to consolidate power. Lacking control and support of the military, he made peaceful overtures to Taiwan, even reinforcing the 1979 calls for “peaceful reunification” as opposed to the more recent “armed liberation” rhetoric. He incorporated into his Six-Point Proposal: commitment to the “one-China principle”; strengthening commercial, personnel, and cultural linkages; allowing Taiwan's “reasonable” participation in global organizations; and negotiating a peace agreement.<sup>76</sup>

Along these lines, a number of those whom we interviewed suggest that regardless of his underlying attitudes towards Taiwan, President Xi is preoccupied with consolidating his control over those factions that might challenge him.<sup>77</sup>

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Interview with select faculty of the Department of Political Science at National Taiwan University, Taipei, January 19, 2018.

**70** Interview with Dr. Ming Chu-cheng, Dr. Tang Hsin-wei and Dr. Liao Hsiao-chuan, Taipei, January 19, 2018.

**71** Willy Wo-Lap Lam, *Chinese Politics in the Hu Jintao Era: New Leaders, New Challenges* (New York, NY: M.E. Sharpe, 2006): 183.

**72** *Ibid.*

**73** *Ibid.*

**74** *Ibid.*, 174.

**75** *Ibid.*, 179–180.

**76** L.C. Russell Hsiao, “In a Fortnight: Hu Jintao's ‘Six-Points’ Proposition to Taiwan,” *The Jamestown Foundation: China Brief*, Vol. 9, No. 1 (January 12, 2009), retrieved from <https://jamestown.org/program/hu-jintaos-six-points-proposition-to-taiwan/>.

**77** Interview with senior National Security Council official, Taipei, Taiwan, January 15, 2018; Interview with senior Ministry of

According to this line of reasoning, because he needs time to prioritize internal control, little risk exists that he will use military force against Taiwan. After all, attacking Taiwan would be costly, risky, and distracting.

There are at least two potential problems with this line of reasoning. The first is that President Xi appears to have taken a significant step towards effectively consolidating control shortly after we left Taiwan in early January 2018. Specifically, in March 2018, he removed the ten-year term limit that has constrained every Paramount Leader since Mao. No longer shackled by term limits, the already consistent and relatively shockproof policies of the CCP are likely to gain even more consistency under a potential “dictator-for-life.” Such a development does not bode well for Taiwan. Although he pursued rapprochement towards Taiwan early in his tenure as leader, President Xi toughened his stance towards the island following the 2016 election of pro-independence Democratic Progressive Party (DPP) candidate Tsai Ing-Wen. At the 19th Party Congress, he articulated that China will:

“... resolutely uphold national sovereignty and territorial integrity and will never tolerate a repeat of the historical tragedy of a divided country. All activities of splitting the motherland will be resolutely opposed by all the Chinese people. We have firm will, full confidence, and sufficient capability to defeat any form of Taiwan independence secession plot. We will never allow any person, any organization, or any political party to split any part of the Chinese territory from China at any time or in any form.”<sup>78</sup>

Since consolidating power, President Xi has indeed increased the pressure on Taiwan. For example, China recently enacted 31 new policies designed to attract more Taiwan citizens to China.<sup>79</sup> After the U.S. Congress passed the U.S.-Taiwan Travel Bill in March 2018, China retorted that the legislation “severely violates the one-China principle, the political foundation of the China-U.S. relationship.”<sup>80</sup> Moreover, PLA warships—including the aircraft carrier

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National Defense officials, January 15, 2018; Interview with Dr. Tung Chien-hung and Dr. Su Tzu-Yun, Taipei, Taiwan, January 16, 2018; Interview with Dr. Lin Yu-fang, Taipei, Taiwan, January 18, 2018; Interview with Dr. Lin Chong-pin, Taipei, Taiwan, January 18, 2018; and Interview with Dr. Ming Chu-cheng, Dr. Tang Hsin-wei and Dr. Liao Hsiao-chuan, Taipei, Taiwan, January 19, 2018.

**78** Richard C. Bush, “What Xi Jinping Said About Taiwan at the 19th Party Congress,” *Brookings Institution*, October 19, 2017, retrieved from <https://www.brookings.edu/blog/order-from-chaos/2017/10/19/what-xi-jinping-said-about-taiwan-at-the-19th-party-congress/>.

**79** Gunter Schubert, “China’s Incentives Should Accelerate Reforms in Taiwan,” *The News Lens*, March 26, 2018, retrieved from <https://international.thenewslens.com/article/92386>.

**80** David Brunnstrom, “Trump Signs US-Taiwan Travel Bill, Angering China,” *Reuters*, March 16, 2018, retrieved from <https://www.reuters.com/article/us-usa-taiwan-china/trump-signs-u-s-taiwan-travel-bill-angering-china->

*Liaoning*—have been circling Taiwan and traversing the Strait itself.<sup>81</sup> Military exercises have also been taken place more frequently in the region and across the Strait. China has stepped up efforts to restrict Taiwan's international space by flipping diplomatic allegiances and barring attendance at international events.

There is a second problem with placing too much faith in President Xi's need to prioritize his domestic power base. It overlooks the possibility that he might use provocations abroad as a way to consolidate control at home.<sup>82</sup> Autocratic leaders have often relied on adventurism abroad to undercut political competition, distract domestic audiences, and rally public opinion. War has a long and distinguished role in the state-building process.<sup>83</sup>

It is worth pointing out that President Xi may well be publicly telegraphing his long-range plans. He has, after all, put his reform goals and timeline on record for all to see: by 2020, the PLA will achieve its basic mechanization goals, make strides in the information domain, and improve its strategic capabilities substantially; by 2035, it will be a completely modernized military; and by 2050, it will possess first-class military forces. Several of these new platforms have already been deployed near Taiwan. Having a "first-class military" deadline not only provides a warning to the United States and other countries but also conveys his expectations to other political, economic, social, and military elites in China. Nevertheless, as with the 2005 Anti-Secession Law, the target may be painted and the red lines are drawn, but mobilization toward ends might not be immediately forthcoming. China's calculus on whether to launch an attack on Taiwan will largely depend on the factors described above.

## 2.3 HOW TAIWAN PERCEIVES CHINA'S INTENTIONS

The preceding discussion suggests that Taiwan should be very concerned about China's intentions and its potential willingness to use force. Although China has so far refrained from undertaking a full frontal assault on Taiwan, its intent is clear: Beijing will eventually attempt to assert political control over Taipei. And yet the average Taiwan voter seems ambivalent about the threat. One political scientist in Taiwan described this puzzling insouciance succinctly, stating that "There are lots of missiles aimed at us but the people in Taiwan do not feel the fear; maybe it is the government that understands the deterrence power."<sup>84</sup> Most citizens

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**81** "US affirms Taiwan support after Chinese carrier enters Taiwan Strait," *Financial Times*, March 21, 2018, retrieved from: <https://www.ft.com/content/715cd8f6-2d00-11e8-9b4b-bc4b9f08f381>.

**82** Amy Oakes, *Diversionsary War: Domestic Unrest and International Conflict* (Stanford, CA: Stanford University Press, 2012).

**83** Charles Tilly, *Coercion, Capital, and European States: AD 990-1990* (Cambridge, MA: Basil Blackwell, 1990): 70-95.

**84** Interview with Dr. Ming Chu-cheng, Dr. Tang Hsin-wei, and Dr. Liao Hsiao-chuan, Taipei, Taiwan, January 19, 2018.

indicate, if not satisfaction, at least an acceptance of the status quo, unstable though it seems to be. A recent survey shows that over 90% of respondents favor maintaining the status quo. Nearly 28% want the status quo to last indefinitely, while 15% want a gradual move towards independence. Approximately 14% prefer a gradual shift towards unification.<sup>85</sup> However, public opinion trend-lines are far from straightforward and are therefore open to interpretation and debate. A March 2018 study conducted by the Taiwanese Public Opinion Foundation indicated a decline in public support for independence since President Tsai Ing-wen's inauguration.<sup>86</sup> At the same time, nearly 50% supported Formosa TV's call for an independence referendum in 2019.<sup>87</sup>

China's economic power may explain some of this complacency. One pervasive belief is that China will simply "buy" Taiwan and that it will therefore avoid war among policymakers, academics, and citizens alike.<sup>88</sup> According to this reasoning, China will not use force against Taiwan because it does not make sense to destroy an economy that it hopes to absorb; because a conflict will destabilize the region, undermining China's broader economic development; and because it has learned about the costs and pitfalls of forcibly integrating entire populations from its experiences in Tibet.

We agree that China wants to reassert control over Taiwan peacefully. However, a preference for peace does not preclude war. Wars rarely happen because a peaceful bargain is impossible.<sup>89</sup> Mistrust and miscalculation can conspire to cause states to fight, even when it is not in their best interest. The First World War is a poignant example of this phenomenon. Thus, even if China wants to "buy" Taiwan, it might still opt to attack instead. Domestic unrest might pressure China's leaders into action. China may come to believe that it has exhausted its nonmilitary options. Alternatively, they may worry that they have a limited window of opportunity to act.<sup>90</sup>

Given these well-founded risks, we are concerned about the lack of alarm. Certainly, other countries that find themselves in a similar position to Taiwan tend to demonstrate a higher level of vigilance toward the risk of war. Estonia

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**85** Survey reported in Sean Lin, "Taiwanese Willing to Fight China," *Taipei Times*, April 20, 2018, retrieved from <http://www.taipetimes.com/News/front/archives/2018/04/20/2003691661>.

**86** Renée Salmonsén, "Poll: Public favor for Taiwan independence sours," *Taiwan News*, (March 19, 2018), <https://www.taiwannews.com.tw/en/news/3385076>, (Accessed September 28, 2018).

**87** *Ibid.*

**88** Interview with senior National Security Council official, Taipei, Taiwan, January 15, 2018; Interview with Dr. Ding Shu-feng and Captain (Ret.) Yen Tieh-lin, Taipei, Taiwan, January 16, 2018; and Interview with Dr. Lin Chong-pin, Taipei, Taiwan, January 18, 2018.

**89** James D. Fearon, "Rationalist Explanations for War," *International Security*, Vol. 39, No. 3 (1995): 379–414.

**90** On windows of opportunity and war, see Stephen Van Evera, *Causes of War: Power and the Roots of Conflict* (Ithaca, NY: Cornell University Press, 1999).



(and the other Baltic countries) is one such example. Like Taiwan, Estonia is close to a great power that dwarfs it demographically, economically, and militarily; has expressed a desire to invade it; and which is constantly conducting grey zone operations against it. Moreover, Estonia's potential attacker also shares historical, lingual, and ethnic ties that it can leverage and exploit. Unlike Taiwan, Estonia enjoys a far more secure place in the international community, including widespread international recognition and a formal alliance commitment from the United States and twenty-seven other countries through the North Atlantic Treaty Organization. Given this relative source of security, one would think that Estonia might be more complacent about the risk of war than Taiwan. And yet, Estonians demonstrate an acute sense of insecurity toward the threat. Estonian leaders are deeply concerned that the Kremlin might undertake aggression against it and the other Baltic countries. Estonia spends a higher percentage of its economy on defense (2.4% of GDP versus 1.9% of GDP in 2016); reintroduced conscription; and maintains a robust volunteer militia force (which is larger than its entire active duty military) that trains civilians to fight in the event of an invasion.<sup>91</sup> In August 2018, Taiwan's president announced her proposal for a budget increase of 5.6% to US\$11.3 billion in 2019. This would take Taiwan's defense spending to approximately 2.16% of GDP.<sup>92</sup> Although this and other signs demonstrate that President Tsai is galvanizing her support for military preparedness, the defense spending increases still fall short of the previously announced spending goal of 3% of GDP.<sup>93</sup>

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<sup>91</sup> Spending level comparisons are from International Institute for Strategic Studies (IISS), *The Military Balance 2017* (London, UK: IISS) 2017: 98 and 331. For a discussion of Estonia's security situation, see Alexander Lanoszka and Michael A. Hunzeker, *Conventional Deterrence and Landpower in Northeastern Europe* (Carlisle, PA: Strategic Studies Institute), Forthcoming: 45–53. For a discussion of the Estonian Defense League, see Naomi O'Leary, "As Putin Looms and Trump Withdraws, Estonia Is Training Civilians to Fight," *Huffington Post*, February 9, 2017, retrieved from [https://www.huffingtonpost.com/entry/putin-trump-estonia\\_us\\_5897905de4b09bd304bbd1dd](https://www.huffingtonpost.com/entry/putin-trump-estonia_us_5897905de4b09bd304bbd1dd).

<sup>92</sup> "Taiwan's Tsai Ing-wen seeks \$11 billion defence budget as China threat grows," August 6, 2018, retrieved from <https://www.japantimes.co.jp/news/2018/08/06/asia-pacific/taiwans-tsai-ing-wen-seeks-11-billion-defence-budget-china-threat-grows/#.W62BNWhKjbo>.

<sup>93</sup> Adela Lin and Ting Shi, "Taiwan Plans Military Spending Surge to Counter Rising China," March 16, 2017, retrieved from <https://www.bloomberg.com/news/articles/2017-03-16/taiwan-plans-military-spending-increase-to-counter-rising-china>.



“One can  
hardly  
speak of any  
‘balance’ of  
power across  
the Taiwan  
Strait.”

# 3

## The Cross-Strait Military Balance

**INTENTIONS ARE ONLY** part of the equation. Capabilities matter as well. No matter how much China's leaders might want to assert political control over Taiwan, they are unlikely to resort to force until they are reasonably confident of the answers to two questions:

- Is their military organized, trained and equipped to invade across the sea?
- Is Taiwan's military organized, trained, and equipped to impose unacceptable costs on an invasion force?

Of course, China will not attack simply because China thinks its military forces can defeat Taiwan's military forces at an acceptable cost. China is unlikely to use military power when peaceful alternatives exist, if only because of the inherent risks and costs of war. Nevertheless, the more China believes the cross-Strait military balance has shifted in its favor, the harder the deterrence challenge becomes for Taiwan.

Unfortunately, most analysts and scholars believe that trend lines are working against Taiwan. China's military has always been larger than Taiwan's. It may soon have better weapons and equipment, as well. Of course, simple comparisons often mask crucial gaps in capabilities. For example, just because a military has a lot of ground troops and advanced aircraft does not imply that it knows how to coordinate their action on the battlefield. Thus, it is important to explore the balance of military power in a given situation through the lens of an actual conflict scenario.

We offer such an analysis in this chapter. We compare China's ability to suppress Taiwan's defenses, to isolate it from trade and reinforcement, and ferry

invasion forces across the Taiwan Strait. We similarly explore Taiwan's ability to defend against such operations. We conclude that China still lacks critical capabilities to mount a major amphibious assault. However, such a finding should not be a source of complacency for Taiwan's leaders and defense planners. China is likely aware of these gaps. To the degree that it wants to maintain the option of resolving its "Taiwan problem" by force of arms, it can likely redress many of these gaps in relatively short order.

### 3.1 ASSESSING CHINA'S CAPABILITIES AND GAPS

Analysts and scholars often discuss three basic ways that China can use military force to compel Taiwan: a missile, air, and cyber-strike campaign; a naval blockade; and an amphibious invasion.<sup>94</sup> It is thus worth briefly considering the PLA's capabilities and deficiencies vis-à-vis these three types of military operations. However, instead of assessing strike and blockade scenarios separately, we look at them in the context of an overarching invasion campaign. We take this approach for two reasons. First, an invasion of Taiwan would almost certainly include missile, air, and cyber-strike operations as well as a naval blockade.<sup>95</sup> Missile, air, and cyber-strikes would be necessary for reducing the island's defenses, and a naval blockade would help physically and psychologically isolate Taiwan from the rest of the world. Thus, we can meaningfully explore China's military capabilities as they pertain to all three types of options by just looking at one. Second, the strike, blockade, and invasion options have each been the subject of countless studies and analyses over the past thirty years. Since our goal is to focus on Taiwan's conventional deterrence posture, rehashing this well-developed literature has little value.

To evaluate China's capabilities and gaps, our hypothetical scenario unfolds in several stages: a strike campaign, an isolation campaign, and an invasion.

#### *The Opening Salvo: A Strike Campaign*

China will almost certainly precede any invasion with a massive missile, air, and cyber-strike campaign.<sup>96</sup> It will likely do so by saturating Taiwan with ballistic missiles in order to destroy air defense radars, surface-to-air missile sites, runways, airfields, and aircraft on the ground.<sup>97</sup> China could also use cyber-attacks,

<sup>94</sup> Thomas, Stillion, and Rehman, *Hard ROC 2.0*; Easton, *The Chinese Invasion Threat*; Michael Grubb, "Merchant Shipping in a Chinese Blockade of Taiwan," *Naval War College Review*, Vol. 60, No. 1 (2007): 1-22; Michael Glosny, "Strangulation from the Sea? A PRC Submarine Blockade of Taiwan," *International Security*, Vol. 28, No. 4 (2004): 125-160; and Michael Beckley, "The Emerging Military Balance," 78-119.

<sup>95</sup> Easton, *The Chinese Invasion Threat*, 94-97.

<sup>96</sup> Easton, *The Chinese Invasion Threat*, 97.

<sup>97</sup> Michael J. Lostumbo, David R. Frelinger, James Williams, and Barry Wilson, *Air Defense Options for Taiwan: An*

jamming devices, and warhead decoys to confuse air defenses units, to trick them into revealing their locations and into firing their limited stockpiles of precision antiair weapons.<sup>98</sup> At the same time, it will almost assuredly activate sleeper cells and criminal gangs and insert special operations forces. Such forces will wreak havoc by assassinating government officials, sabotaging critical infrastructure, and fomenting disorder. China's leaders will certainly hope such strikes will prove devastating enough to cause Taiwan to surrender. However, the PLA's main goal during the strike phase is to achieve air superiority. Controlling the skies around and over Taiwan allows the People's Liberation Army Air Force (PLAAF) to accomplish a number of tasks. These tasks include sinking Taiwan's naval assets and maritime shipping; making it hard for Taiwan to launch strikes against the invasion fleet (and targets inside China); neutralizing and destroying C4ISR nodes, ground defense units, and critical infrastructure; and inserting airborne and special operations forces.<sup>99</sup>

U.S. analysts largely agree that the PLA already has the ability to carry out a devastating strike campaign against Taiwan. Oriana Skylar Mastro and Ian Easton argue that China can overwhelm Taiwan's defenses and has spent years planning to do so. They find that not only do Chinese strategists consider runways, taxiways, and parking ramps as high-value targets but also that China has been optimizing its missiles' payloads so as to wreak havoc on airfields. Taiwan might have dispersed and hardened its bases, but it still faces gaps in protecting those sites.<sup>100</sup> Worse yet, China has "sufficient [air] basing within range of Taiwan for China to employ as many as 1,000 fighters, or roughly 80% of the inventory."<sup>101</sup> And as the U.S. Department of Defense's annual report on China's military power in 2014 notes, "China's increasingly modern weapons and platforms (more than 1,200 ballistic missiles, an antiship ballistic missile program, ships and submarines, combat aircraft, and improved C4ISR capabilities)" have negated the advantages that Taiwan had derived from favorable geography and technological superiority for much of its post-1949 history.<sup>102</sup>

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*Assessment of Relative Costs and Operational Benefits* (Santa Monica, CA: RAND Corporation, 2016): 12.

**98** *Ibid.*, 13.

**99** Easton, *The Chinese Invasion Threat*, 99.

**100** Oriana Skylar Mastro and Ian Easton, *Risk and Resiliency: China's Emerging Air Base Strike Threat* (Arlington, VA: Project 2049 Institute, November 8, 2017): 15-16.

**101** Heginbotham et al, *U.S.-China Military Scorecard*, 75.

**102** Office of the Secretary of Defense (OSD), *Military and Security Developments Involving the People's Republic of China 2014* (Washington, D.C.: Department of Defense, 2014): 56-57. This report was quoted in Anthony Cordesman and Joseph Kendall, *Chinese Strategy and Military Modernization in 2016: A Comparative Analysis* (Washington, D.C.: Center for Strategic and International Studies, December 5, 2016), 528. The version in Cordesman and Kendall has a typo that refers to 1,100 SRBMs, but the original notes the same 1,200 SRBM figure that Cordesman and Kendall cite later.

### *The Next Step: Isolate Taiwan*

Once it achieves air superiority over and around Taiwan, China will likely try to impose a blockade of the island.<sup>103</sup> An effective blockade allows China to cut off remaining economic trade, prevent additional military supplies and equipment from reaching Taiwan's defenders, and put additional pressure on Taiwan's population. It could also deter the United States, Japan, and other countries from finding an easy way to intervene in the conflict, whether by providing material support for Taiwan or attempting to deter China via a mere show of force. Although naval blockades are rarely decisive on their own, China's leaders might hope that a "watertight" blockade combined with a devastating strike campaign might be sufficient to compel Taipei to capitulate.<sup>104</sup>

China will use a variety of methods to impose a blockade. These include mining Taiwan's major harbors, sinking ships while they are still in port, laying mines further out to sea so as to canalize shipping, and intercepting ships as they attempt to leave or approach.<sup>105</sup> Whether the People's Liberation Army Navy (PLAN) can effectively erect and maintain a blockade of the entire island is a matter of some debate. Certainly, the task is daunting. Ian Easton aptly points out that the PLAN must develop a highly sophisticated and complex reconnaissance and surveillance network capable of locating ships long before they reach the Taiwan coast; distinguishing enemy combatants and merchant ships from other shipping; and avoiding "blue-on-blue" incidents given that the entire operation must unfold under wartime conditions.<sup>106</sup> Furthermore, China will invariably need to create an expansive air defense identification zone (as well as a number of no-fly zones) to augment and reinforce the naval blockade.<sup>107</sup> Prohibiting air and maritime traffic around such an extensive area is likely to impact key trade routes, alienating neutral states and potentially even generating a *casus belli* to justify outside intervention. Needless to say, the PLAN will need to use a significant portion of its fleet to maintain the blockade, thus providing Taiwan with a tempting set of high-value targets and may create strategic vulnerabilities for China elsewhere. Stephen Biddle and Ivan Oelrich argue that China has the

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**103** It is also conceivable that China might reverse the strike and blockade campaigns, attempting a naval blockade to strangle Taiwan into capitulating before launching a large-scale missile strike. However, this approach represents a major risk. Blockades are rarely decisive on their own. And without a strike campaign, Taiwan would possess a full military capability to sink blockading ships or launch retaliatory strikes, resulting in higher losses.

**104** To be sure, blockades are rarely—if ever—successful since states try to mitigate them by seeking alternative sources for key supplies. Furthermore, their populations might be willing to bear the costs out of nationalist sentiments. See Mearsheimer, *Tragedy*, 90–96. A 2005 analysis argues that a Chinese submarine blockade would not be able to get Taipei to capitulate. See Glosny, "Strangulation from the Sea?" 126.

**105** Easton, *The Chinese Invasion Threat*, 101102.

**106** *Ibid.*, 103.

**107** *Ibid.*

ability to “prevent Taiwanese or neutral shipping from sustaining the Taiwanese economy.”<sup>108</sup> However, Michael Beckley reaches the opposite conclusion, finding that the PLAN would not be able to isolate Taiwan and to prevent it from receiving critical supplies.<sup>109</sup> Unfortunately, Beckley bases his conclusions mainly on reports over a decade old. China has since embarked on a well-publicized modernization program.

Analysts debate how long the PLA might blockade Taiwan before invading it. Most assume that the PLA will blockade Taiwan to force it into capitulation to avoid the casualties and international reaction associated with an invasion. In these scenarios, the PLA will conduct a deliberate buildup prior to any invasion while it systematically neutralizes Taiwan’s military defenses. It invades only as a last resort. Yet this scenario could take weeks or months and may increase the risk of outside intervention. An alternative scenario would involve a series of missile strikes to neutralize command and control nodes and critical defenses, with a rapid amphibious/airborne invasion thereafter. However, the PLA would have difficulty generating its full combat power without alerting Taiwan (or the United States) and would likely attempt to seize key sites with a relatively small (though elite) force. As this strategy represents a major gamble by the PLA, we assess that a traditional invasion remains the most likely scenario. Furthermore, the counterinvasion recommendations discussed later remain just as effective against a lightning invasion as a deliberate invasion. For these reasons, the remainder of this section addresses the deliberate invasion scenario.

### *The Endgame: Invasion*

PLA forces must accomplish at least six core tasks to successfully seize control of Taiwan. First, the PLA must take, neutralize, or isolate Taiwan’s outlying islands. Many of these islands are within radar and missile range of the air bases and naval ports that China would use in an invasion and so can provide early warning of an impending attack. Taiwan can then use this knowledge to launch strikes against invading units.<sup>110</sup> Second, the PLAAF and the PLAN must reduce obstacles and defending forces that remain near invasion routes, landing beaches, and drop zones.<sup>111</sup> No matter how effective the pre-invasion bombardment and blockade may be, Taiwan will almost certainly lay mines along the most likely axes of advance, surf zones, and landing beaches. It will also scramble fighter aircraft, deploy submarines, initiate long-range strikes, and deploy armor units that it will

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**108** Stephen Biddle and Ivan Oelrich, “Future Warfare in the Western Pacific: Chinese Anti-Access/Area Denial, U.S. AirSea Battle, and Command of the Commons in East Asia,” *International Security*, Vol. 41, No. 1 (2016): 13–14.

**109** Beckley, “The Emerging Military Balance,” 91.

**110** Easton, *The Chinese Invasion Threat*, 114–120.

**111** *Ibid.*, 126.

have hitherto kept hidden inside caves and underground.<sup>112</sup> Third, the PLAAF and PLAN must transport People's Liberation Army Ground Force (PLAGF) units across the Taiwan Strait. Fourth, PLAGF units must fight and ultimately defeat Taiwan's military forces so as to eliminate any meaningful source of armed resistance. Fifth, the PLAAF and PLAN must maintain a steady flow of supplies and equipment to Taiwan for as long as it takes the PLAGF to accomplish its mission. Finally, China must assert political control over the surviving population.

As the foregoing discussion suggests, the PLA must overcome a number of daunting challenges to invade successfully. To be sure, China has invested heavily in modernizing the PLA so as to improve its ability to handle such challenges. For example, the PLAN and PLAAF have acquired more capabilities that enable them to execute offensive operations. They have increased training as well as their operational presence in regional territorial disputes in the East and South China Seas, including the area around Taiwan.<sup>113</sup> To boost its power projection capabilities, China has even added aircraft carriers to its arsenal. With one aircraft carrier in service and a second expected to go into service later this year, the PLA is now in the process of building a third carrier. A fourth carrier group is expected to be in service by 2030.<sup>114</sup> By Anthony Cordesman's estimate, PLAN forces have already increased by twenty percent in almost every category since 2005.<sup>115</sup> The PLA also continues to improve its undersea, cyber, space, and information operations capabilities.<sup>116</sup>

A result of this military modernization program is that one can hardly speak of any "balance" of power across the Taiwan Strait because of the sheer disparity in numbers across personnel and platforms. With respect to the many platforms possessed by the PLAN and the PLAAF, the PLA commands at least a 2-to-1 advantage. For its part, the PLA Rocket Force (PLARF) has deployed more than 1,200 short-range ballistic missiles (SRBMs) across the Strait that the Pentagon believes would be used to destroy the air bases that these aircraft would be launched from in a war.<sup>117</sup> The PLAAF also has 150 transport aircraft—as opposed to 50 in 2005—that demonstrate increased commitment to providing operational lift.<sup>118</sup> Forces that belong to PLAGF and are dedicated to the Taiwan

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112 *Ibid.*, 213.

113 *Ibid.*, 24–31.

114 Minnie Chan, "China has Started Building Its Third Aircraft Carrier, Military Sources Say," *South China Morning Post*, January 5, 2018, retrieved from <http://www.scmp.com/news/china/diplomacy-defence/article/2126883/china-has-started-building-its-third-aircraft-carrier>.

115 Anthony Cordesman and Joseph Kendall, "Chinese Strategy and Military Modernization in 2016: A Comparative Analysis" (Washington, D.C.: Center for Strategic and International Studies, December 5, 2016): 539.

116 OSD, *Military and Security Developments*, 50–51.

117 Cordesman and Kendall, "Chinese Strategy," 542 and 544.

118 *Ibid.*, 542–543.



Strait theater have also increased, whereas Taiwan's have decreased amid its transition to an all-volunteer force.<sup>119</sup> With some systems, the PLA has as much as an 8-to-1 advantage.<sup>120</sup> The disparities are only growing larger given the PLA's annual defense increases and Taiwan's nearly flat-lining defense budget.

China's military development is qualitative as much as it may be quantitative. As Cordesman writes, "[I]t is important to reiterate that quantitative measures do not show the intangibles of leadership, morale, training, and combat skill, and thus, alone, cannot provide a full picture of combat power."<sup>121</sup> Accordingly, he notes shifts in PLAGF training toward more realistic, joint operations.<sup>122</sup> China also restructured its military regions into theater commands in 2016, thereby streamlining command and control and improving joint operations.<sup>123</sup> Within the services, command structures and doctrine continue to undergo extensive revision.

Despite investing heavily in modernization, reorganization, training, and doctrine, the PLA still faces a number of important gaps that will complicate its ability to launch an invasion. Most notably, China has systematically underinvested in strategic lift assets, especially the kinds of amphibious assault ships that would be essential to any invasion scenario.<sup>124</sup> Indeed, the single greatest material factor that prevents this scenario from occurring is China's maritime lift capacity (or lack thereof).<sup>125</sup> China is capable of destroying Taiwan's air and naval forces in addition to grabbing some of the smaller islands. Still, a successful main island landing remains out of reach, not least because large-scale amphibious operations are some of the hardest military operations to undertake.<sup>126</sup> The basic problem is that the PLA simply cannot mass enough troops—despite its impressive manpower—on the island to create, exploit, and hold a landing on Taiwan.<sup>127</sup> One estimate asserts that based on its current amphibious fleet, China "could not hope to land more than 20,000 troops in its initial assault and 15,000 troops the day after—assuming the initial wave of troops could hold the beachhead in the

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119 *Ibid.*, 549.

120 OSD, *Military and Security Developments*, 94–95.

121 Cordesman and Kendall, "Chinese Strategy," 269.

122 *Ibid.*, 273.

123 OSD, *Military and Security Developments*, 1.

124 Easton, *The Chinese Invasion Threat*, 189.

125 Dee Wu, "China's Evolving Military Strategy against Taiwan: An Interview with Bernard D. Cole," *National Bureau of Asian Research*, June 4, 2018, retrieved from <http://www.nbr.org/research/activity.aspx?id=875>.

126 Michael O'Hanlon, "Why China Cannot Conquer Taiwan," *International Security*, Vol. 25, No. 2 (2000): 54–56. For a more up-to-date analysis on the prospects of a Chinese amphibious invasion, see Beckley, "The Emerging Military Balance in East Asia," 87–90.

127 O'Hanlon, "Why China Cannot Conquer Taiwan," 54–56.

first place.”<sup>128</sup> In contrast, Allied forces targeted a fifty-mile stretch of beaches on the Normandy Coast on June 6, 1944 using over 150,000 troops. And the Allies had the benefit of attacking an enemy that was fighting a multifront war at the same time that it had to defend against a possible invasion along a 1,600-mile-wide front in Western Europe.

China is aggressively expanding its amphibious shipping fleet to address this shortfall. China could also press commercial shipping into service to augment its amphibious forces. This move is not without risk, since commercial shipping lacks the survivability (both in damage control capability and self-defenses) of amphibious shipping and may be significantly more vulnerable to raiding craft and ASCMs in the Taiwan Strait. An alternative option would be for the PLA to seize outlying islands as staging bases and airfields, thereby allowing helicopters to range Taiwan and to facilitate an air assault in conjunction with other airborne forces. However, even this is not a panacea, as it requires the seizure of Taiwan's outlying islands, thereby signaling China's intentions to the world. These forces remain vulnerable to MANPADs and mobile air defenses that can survive any notional Chinese first strike. And helicopters cannot carry nearly as many troops and as much gear as amphibious shipping.

Nor can China gamble on seizing Taiwan with a small landing force. Amphibious assaults are notorious for their risk and cost. Some amphibious landings in history are noteworthy for having allowed a commander to rapidly achieve his objectives with few casualties. The Inchon landings in the Korean War are one such example. However, it is at least as common for amphibious landings to end in catastrophe. Such was the case with the Gallipoli landings and the Dieppe Raids. Even the successful island-hopping campaign undertaken by the U.S. Marine Corps in the Pacific Theater produced massive casualties that might be difficult to tolerate in today's political environment. Seizing the tiny but heavily fortified Iwo Jima alone led to 26,000 casualties.

As a result, China will need to be prepared to transport tens of thousands of troops across the Strait in the openings phases of an invasion. The PLA's ability to move sizeable numbers of personnel by air remains suspect as evident in their recent humanitarian assistance/disaster relief and noncombatant evacuation operations.<sup>129</sup> For the foreseeable future, China does not appear able to deploy enough ground forces quickly in order to overwhelm Taiwanese defenses and to prevent the massive casualties of even historically successful amphibious campaigns.

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**128** Beckley, "The Emerging Military Balance," 90.

**129** Cristina L. Garafola and Timothy R. Heath, *The Chinese Air Force's First Steps Toward Becoming an Expeditionary Air Force* (Santa Monica, CA: RAND Corporation, 2017), 21–22, 24–25.

Another capability gap involves early warning. It would be extremely difficult—if not outright impossible—to launch a “surprise” invasion. The preparations necessary to mount an amphibious operation of this scale are virtually impossible to conceal. Short of having good intelligence, which was often difficult to obtain amid deception campaigns, the best early warning indicators available to either Japan or Germany during the Second World War were the naval and aerial bombardments that would usually precede the ground assaults. Taiwan (and the United States) would benefit from satellite imagery and other intelligence, surveillance, and reconnaissance technologies to learn of any massing of forces. Indeed, the stockpiling of forces, weapons, and other logistical necessities such as fuel and ammunition would provide a distinct signature. Moreover, Taiwan has invariably developed an extensive human intelligence network inside China. Such indicators and warnings will provide Taiwan with increased decision, preparation, and execution lead-time. Of course, opening the conflict with strikes from prepositioned missiles would limit warning times considerably compared to staging for an amphibious landing.

### 3.2 TAIWAN'S CAPABILITIES

The discussion above highlights the growing disparities between China's and Taiwan's military forces. An even closer look at Taiwan's military capabilities does not yield much optimism. Although China has made strides thanks to its modernization program, Taiwan has fallen behind.<sup>130</sup> The gap between Taiwan's strategic means and ends has widened, thereby weakening Taiwan's overall deterrent posture. To its credit, however, Taiwan has recently accorded renewed importance to its ability to defend itself against attack. It has embarked on an ambitious modernization plan of its own that primarily emphasizes conventional-symmetric war-fighting capabilities, including the acquisition of indigenous production of submarines, surface ships, and manned aircraft.<sup>131</sup>

Consider Taiwan's 2017 Quadrennial Defense Review (QDR). It states that the primary mission of Taiwan's Armed Forces is to defend the homeland from foreign invasion. Although it also identifies a range of secondary goals, such as developing a professional military, disaster relief, regional stability, and self-sufficient defense capability, the QDR declares that the “first priority of our national defense is to deter and defend against any hostile military action.”<sup>132</sup> To achieve this goal, the QDR calls for securing territory “with resolute defense” and

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**130** See David Shambaugh, “A Matter of Time: Taiwan's Eroding Military Advantage,” *Washington Quarterly*, Vol. 23, No. 2 (2000): 119–133; and S. L. Myers and C. Horton, “Once Formidable, Taiwan's Military Now Overshadowed by China's,” *New York Times*, November 4, 2017, retrieved from <https://www.nytimes.com/2017/11/04/world/asia/china-taiwan-military.html>.

**131** Thomas, Stillion, and Rehman, *Hard ROC 2.0*: 6–10; and Caroll and Lissner, “Forget the Subs.”

**132** Republic of China, *2017 Quadrennial Defense Review* (Taipei: Ministry of National Defense, 2017): 30.

achieving “multi-domain deterrence by joint capabilities.”<sup>133</sup> Taiwan’s theory of victory thus involves being able to “resist the enemy on the shore, attack the enemy on the sea, destroy the enemy in the littoral area, and annihilate the enemy on the beachhead.”<sup>134</sup> The QDR argues that this layered defensive scheme, coupled with the natural defenses of the Taiwan Strait, will allow the Taiwan to prevent a larger, more advanced military force from attacking by fielding the capabilities to deny a successful invasion.

Yet a disconnect exists between the goals of a layered defensive scheme and the force structure, both current and planned. Rather than developing a force optimized for layered defense, Taiwan’s force planning remains focused on high-end platforms in a manner that is inconsistent with their QDR. Moreover, Taiwan’s Armed Forces are trying to implement their new defense strategies while reacting to the evolving cross-Strait military balance within the difficult resource constraints imposed by a tight defense budget. Taiwan’s defense budget has been relatively stable at roughly \$10B U.S. dollars over the past three years, rising negligibly from 319B NT in 2015 to 322B NT in 2017. Taiwan’s annual defense budget is thus less than 2% of GDP, although many Taiwan officials are optimistic that Taiwan will soon increase its defense budget to 2% of GDP.<sup>135</sup> Unfortunately, it seems implausible that Taiwan will be able to increase its defense spending levels much higher than that. Current budgetary constraints, largely driven by public pension shortfalls, have already forced Taiwan to reduce its military pension payments for all but junior personnel, which resulted in domestic protests.<sup>136</sup> The transition from a conscript force to an all-volunteer force (AVF) also comes with significant manpower costs that will further stress the defense budget. In response to the challenges associated with AVF recruiting, Taiwan is considering several proposals—such as increased education benefits for volunteers—that will further increase the manpower costs for Taiwan’s Ministry of National Defense.<sup>137</sup> The defense budget will be unlikely to support across-the-board modernization and rapid fielding of high-end platforms.

Current defense spending levels allow Taiwan to maintain an active military of 215,000 personnel. This military is divided into Army, Navy (including a Marine Corps), Air Force, Missile Command, and a new Cyber Command. In addition to their active component, they have a large Reserve Command with

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**133** *Ibid.*, 38.

**134** *Ibid.*, 39.

**135** Interview with senior Ministry of National Defense official, Taipei, Taiwan, January 15, 2018; and interview with Mr. Wang Ting-yu and Dr. Tsai Shih-ying, Taipei, Taiwan, January 17, 2018.

**136** “Taiwan President Thankful for Completion of Military Pension Reform,” *Taiwan Times*, June 21, 2018, retrieved from <https://www.taiwannews.com.tw/en/news/3463158>.

**137** Interview with senior Ministry of National Defense official, Taipei, Taiwan, January 15, 2018; and interview with Mr. Wang Ting-yu and Dr. Tsai Shih-ying, Taipei, Taiwan, January 17, 2018.

over two million personnel and another 17,000 paramilitary personnel.<sup>138</sup> The Taiwan Army is by far the largest of the branches with 130,000 personnel. Its primary maneuver elements consist of seven heavy brigades, six light infantry brigades, a special forces command, one coastal defense battalion, and assorted combat support elements. The reserve component of the Army supplies 21 light infantry brigades of varying readiness. As impressive as these numbers might appear on paper, the Taiwan Army's equipment is antiquated, largely consisting of retired American platforms such as the M60 and M48 Main Battle Tanks (MBT) and the M113 Armored Personnel Carrier (APC). To be sure, Taiwan's Army does have some relatively modern equipment, including 29 new AH-64E attack helicopters, Javelin antitank missiles, and an impressive range of tube, missile, and short-range air defense artillery platforms.<sup>139</sup>

With only 40,000 sailors, Taiwan's Navy is roughly one-third the size of the Army. It is equipped with mostly aging platforms that, while capable in their day, are well past their prime. The main combat fleet consists of four *Kidd*-class destroyers, four submarines, and 22 frigates.<sup>140</sup> Most of these are at least one or two generations old, although the Navy also has two ancient WWII-era *Tench*-class submarines. Aside from eight indigenously produced frigates, the rest of Taiwan's naval fleet has been acquired from abroad. With 13 midsize amphibious ships and 278 landing craft, Taiwan's amphibious force is relatively large, although again made up of vintage U.S. platforms. Taiwan also possesses a number of combat support ships, including 14 minesweepers and ten logistics ships of various classes. Taiwan has successfully produced 51 smaller combatants, ranging from a first-of-class stealthy corvette to smaller patrol boats, most of which carry indigenously produced ASCMs. The Taiwan Navy's 10,000-strong Marine Corps comprises three amphibious brigades and some 200 Amphibious Assault Vehicles.<sup>141</sup>

Taiwan's Air Force is similar in size and capability to the Navy. Its 45,000 service members man a fleet of 493 combat aircraft: 287 of these are fighter jets, a mix of early model U.S. F-16s, and F-5s, as well as French Mirages. Beyond

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**138** David A. Shlapak, David T. Orletsky, Toy I. Reid, Murray Scot Tanner, and Barry Wilson, *A Question of Balance: Political Context and the Military Aspects of the China-Taiwan Dispute* (Santa Monica, CA: RAND Corporation, 2009): 23; Albert S. Willner, "Implications of Recent and Planned Changes in Taiwan's Defense Posture" in *New Opportunities and Challenges for Taiwan's Security*, eds. Roger Cliff, Phillip C. Saunders, and Scott Harold (Washington D.C.: RAND Corporation, 2011): 82; and IISS, *The Military Balance*, 331.

**139** IISS, *The Military Balance*, 331-332.

**140** The *Kidd*-class destroyers were pre-Aegis destroyers built in the United States and originally intended for Iran. They were transferred to Taiwan when retired from the U.S. fleet in place of supplying Aegis technology. Of the four submarines, two are WWII-era *Tench*-class largely used for training, and two were built by the Netherlands in the 1980s in what was the last non-U.S. foreign military sale for Taiwan. The frigates include French *Lafayette*-class, U.S. *Knox*-class, and the indigenously produced *Oliver Hazard Perry*-class.

**141** IISS, *The Military Balance*, 332. Note that Taiwan has about as many minesweepers as the United States.

its fighter fleet, the Air Force includes small numbers of key enablers such as antisubmarine, reconnaissance, early warning, and transport aircraft. Additionally, Taiwan possesses a Missile Command with 12 surface-to-surface missile launchers, 24 missile-defense Patriot launchers, and over 1,100 medium-range surface-to-air missile launchers of various types. Finally, Taiwan has recently set up an information command, combining cyber- and electronic-warfare capabilities into one organization to better combat modern information threats.<sup>142</sup>

The picture that thus emerges is one of a well-sized military, given Taiwan's population, equipped with a modest number of aging platforms. Unfortunately, as described earlier, Taiwan is well inside the range of Chinese missiles and strike fighters. It also has relatively little strategic depth, an unfavorable situation that is all the more troubling considering how China is a modernizing neighbor with attack fighters, nuclear-powered submarines, an emerging aircraft carrier program, and an expanding number of ballistic missiles. Given that some U.S. defense planners worry about whether their most advanced forces could go toe-to-toe with China, Taiwan's vintage platforms would be severely outmatched in a conventional conflict.<sup>143</sup>

If the Ministry of National Defense's top priority is to defend the homeland against attack, then it lacks the forces to meet that mission. And yet Taiwan's leadership has a very different set of goals with regard to their force modernization, despite the nearly unanimous opinion of Western experts. In many of the interviews we conducted in Taiwan in early 2018, military and political leaders consistently emphasized three national priorities: procurement of a new diesel submarine; a new fighter jet; and an Aegis-like destroyer.<sup>144</sup> Taiwan does not appear to have a plan to indigenously produce its next air superiority fighter. Instead, it is seeking to procure either the F-16V (an updated version of their early model F-16As) or the short take-off and vertical landing (STOVL) F-35B. For the naval platforms, however, Taiwan has a much more ambitious plan. It wants to indigenously produce both its diesel submarines and its Aegis-like surface ships. None of these high-end capabilities identified as Taiwan's top acquisitions priorities are truly compatible with the asymmetric force structure that most U.S. analysts think Taiwan should acquire to deal with the invasion threat.<sup>145</sup>

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**142** *Ibid.*, 333; and Interview with senior Ministry of National Defense official, Taipei, Taiwan, January 15, 2018.

**143** OSD, *Military and Security Developments*, 82; and Thomas, Stillion, and Rehman, *Hard ROC 2.0*, 6-10.

**144** Interview with senior Ministry of National Defense officials, Taipei, Taiwan, January 15, 2018; Interview with Dr. Arthur Ding and Captain (Ret.) Yen Tieh-len, Taipei, Taiwan, January 16, 2018; and Interview with Mr. Wang Ting-yu and Dr. Tsai Shih-ying, Taipei, Taiwan, January 17, 2018.

**145** Thomas et al., *Hard ROC 2.0*; Carroll and Lissner, "Forget the Subs"; and Eugene Gholz, "No Man's Sea: Implication for Strategy and Theory," paper presented at the MIT Security Studies Program, February 24, 2017.

In part, Taiwan appears to want these high-end platforms to counter grey zone provocations.<sup>146</sup> After all, Taiwan's leaders tend to believe that Beijing is unlikely to use force against Taiwan.<sup>147</sup> They believe that the slow strangulation of Taiwan's economic and foreign policy maneuver space is a more likely threat than invasion. Thus, they see Taiwan's military forces "primarily as a political instrument, i.e., to convey Taiwan's defiance, to reassure the Taiwan public that they are secure from Chinese military intimidation and coercion, and most important to strengthen U.S. ties with Taiwan."<sup>148</sup> The end result is a tendency to focus on high visibility weapons systems vice those that might prove more effective in an invasion scenario.

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**146** Interview with senior National Security Council official, Taipei, Taiwan, January 15, 2018; and Interview with senior Ministry of National Defense official, Taipei, Taiwan, January 15, 2018.

**147** *Ibid.*

**148** Michael D. Swaine and James Mulvenon, *Taiwan's Foreign and Defense Policies: Features and Determinants* (Washington D.C.: RAND Corporation, 2001): 59.



**“A middle path between Taiwan’s current plan and what most U.S. defense experts recommend.”**



# 4

## Accepting Risk in the Grey Zone

CHINA SEEMS to prefer challenging Taiwan in the grey zone. For the foreseeable future, provocations, subversion, and disinformation will remain a more likely threat than missile strikes, a naval blockade, or an invasion. To counter this grey zone challenge, Taiwan needs *conventional* platforms that can operate in a permissive, peacetime environment. Most U.S. analysts who propose that Taiwan should focus on acquiring *unconventional* platforms tend to overlook this need, forgetting that weapons systems and platforms are often as useful for performing political and symbolic roles as they are for war-fighting purposes. With respect to the grey zone threat, open ocean-going ships, modern fighter jets, and other conventional weapons signal resolve to domestic and international audiences. Moreover, conventional weapons fill this important role in a way that unconventional systems such as missiles, mines, and patrol boats cannot. For these reasons, Taiwan's Navy and Air Force should not pursue a *purely* unconventional/asymmetric naval and air posture. Taiwan must maintain an inventory of conventional ships and fighter aircraft to counter China in the grey zone.

And yet Taiwan should not invest too much in conventional air and naval force structure. First, Taiwan is already well within the range of China's long-range strike systems. The characteristics that make conventional ships and fighter jets valuable in grey zone contexts—high visibility and technological capability—become liabilities in a wartime scenario.<sup>149</sup> China will unquestionably target these weapons in the earliest stages of a conflict. Moreover, because advanced conventional platforms are expensive, budget constraints and political realities mean that Taiwan cannot afford large numbers of high-performance conventional weapons. China will find it relatively easy to locate, target, and destroy most of

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149 OSD, *Military and Security Developments*, 78; and Republic of China, *2017 Quadrennial Defense Review*, 39.

them before they can “get into action.” Second, China cannot compel Taiwan via grey zone operations alone. Although China can use grey zone provocations to influence public opinion, to challenge Taiwan's red lines, or to collect intelligence, they do not existentially threaten Taiwan. China can invade Taiwan without conducting grey zone operations, but the reverse is not true. Third, it may be in Taiwan's best interests to let China engage in some grey zone operations. China likely prefers grey zone challenges because it wants to avoid the risk of a conflict that escalates out of control. If China's leaders think Taiwan has effectively eliminated the grey zone, then they may become more willing to engage in more escalatory types of actions.

Some readers might argue that ceding in the grey zone would only whet China's appetite. Alternatively, they might assert that doing so would create new operational advantages for China such that it would be better positioned to launch the inevitable assault. We find such rebuttals unpersuasive. To begin with, Taiwan does not face the same uncertainty as British leaders might have faced when they met with their Nazi counterparts in Munich in 1938. As far as we are concerned, China has unlimited aims with respect to Taiwan. Taiwan should definitely not cede the grey zone in the belief that doing so would placate China. Rather, it should cede the grey zone because it faces major opportunity costs in decisions regarding its force posture. In a resource-constrained world, every NT spent on small numbers of expensive conventional platforms for demonstrating resolve and responding to grey zone challenges is an NT that cannot be used to develop and field large numbers of unconventional capabilities that deter against invasion because too many of them would exist for China to knock them out. Moreover, ceding the grey zone could enhance deterrence if done correctly. Taiwan could express itself more clearly and credibly that it will defend its vital interests. By pursuing more militarily effective investments, Taiwan could make China pay a much higher price if it mounts a large-scale assault.

We thus recommend that Taiwan's Ministry of National Defense rebalance its force modernization plans. It should consider maintaining just enough conventional capability to ‘push back’ against grey zone aggression. By reducing or eliminating investments in producing and acquiring new conventional weapons systems, Taiwan can free additional resources to invest in a wide range of truly unconventional counterinvasion weapons and capabilities.

## **4.1 AIRPOWER IN THE GREY ZONE**

Despite facing a seemingly insurmountable qualitative and quantitative gap, Taiwan's political and military leaders remain committed to an Air Force organized around high-end fighter aircraft. Military officials, elected leaders,

and defense scholars repeatedly made this point clear in their conversations with us. Crucially, the government's rationale for buying and fielding advanced fighter jets had surprisingly little to do with their war-fighting capabilities. Instead, officials used one of two arguments to justify the high costs associated with developing, procuring, maintaining, and operating advanced fighters. The first, and most frequently referenced, argument focused on the psychological benefits associated with having a manned, technologically advanced aircraft. As one senior official put the matter, "You can't create a hero pilot of a UAV." He proceeded to suggest that the sight of Taiwan Air Force F-16s flying in the skies above Taipei was worth the cost because it would bolster public morale and resolve.<sup>150</sup> In a series of subsequent interviews, senior lawmakers, former government officials, and defense scholars asserted that buying advanced aircraft from the United States was at least as much about assuring the public as it was about improving war-fighting capability.<sup>151</sup> They are not alone. A former American diplomat affirmed the "F-16 pilot as hero" narrative noting that, "psychological warfare is very big here."<sup>152</sup>

The second argument concerns signaling. A number of interviewees suggested that when the United States sells advanced aircraft to Taiwan, it sends a clear signal to China that the United States will intervene in a conflict. As one interviewee succinctly put the matter, "when you sell us the latest fighters, it lets China know America would intervene on our behalf in a conflict." In essence, the argument is a variation on the theory of "costly signaling." This theory implies that the best way for a state (like the United States) to signal credibly that it really will make good on a threat (such as coming to the aid of an ally or partner) is to engage in actions that are expensive to undertake. The logic is that a state would not incur those costs unless it is actually willing to carry out the threat.<sup>153</sup> When the United States wants to credibly signal that it will intervene on an ally's behalf, it usually does things like base American troops on an ally's territory. Such actions are costly both in terms of financial expense and the fact that forward deployed troops may not be available for other contingencies. The fact that the United States is willing to bear these costs tells potential adversaries it is serious about acting to protect its ally.

There are two problems with treating the sale of advanced fighter jets like a "costly signal." First, the idea that Taiwan should buy expensive fighter jets

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**150** Interview with senior National Security Council official, Taipei, Taiwan, January 15, 2018.

**151** Interview with Mr. Wang Ting-yu and Dr. Tsai Shih-ying, Taipei, Taiwan, January 17, 2018; and Interview with Dr. Lin Yufang, Taipei, Taiwan, January 17, 2018.

**152** Interview with former U.S. government official, Taipei, Taiwan, January 19, 2018.

**153** James D. Fearon, "Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs," *Journal of Conflict Resolution*, Vol. 41, No. 1 (1997): 69.

to buttress public resolve overlooks the opportunity cost associated with such a strategy. Ideally, Taiwan would have a defense budget large enough to afford a sufficient number of advanced fighter jets to both maintain parity with the PLAAF and to ensure that a large number could survive the missile strikes that will surely precede any invasion attempt. Unfortunately, Taiwan's defense budget is severely constrained. It already spends 12.6% of its defense budget just to maintain and operate the F-16s, F-CKs, and Mirages that *it already has*.<sup>154</sup> Buying and maintaining the F-35 would prove even more costly. Thus, even if every NT spent on advanced fighter aircraft enhances public resolve, that resolve comes at a severe cost to actual war-fighting capability. Worse yet, the strategy of trading resolve for capability could easily backfire. Few things will sap citizens' collective will in a war than seeing their limited arsenal of exquisite weapons destroyed in their bunkers or in the skies over Taipei.

Second, it is not clear that selling weapons to a partner necessarily makes it more likely that the seller is then willing to fight a war on its buyer's behalf.<sup>155</sup> Weapons sales are the opposite of a costly signal, because selling weapons is actually quite profitable. Since Chinese leaders know the United States makes money on weapons sales, they might believe that weapons sales signal little more than a U.S. President's desire to support America's defense industries.

To be fair, Taiwan's leaders likely see weapons sales as the next best alternative to basing U.S. troops in Taiwan, since cross-Strait dynamics seem to prevent the United States from sending traditional costly signals. Nor are weapons sales costless for the United States. At a minimum, they demonstrate that the United States is willing to tolerate the Chinese indignation and retaliation that usually follow each U.S.-Taiwan foreign military sales announcement.

Nevertheless, we think it is risky for Taiwan to spend its limited defense budget on expensive U.S. weapons systems on the tenuous assumption that it signals American willingness to go to war on Taiwan's behalf. The issue of whether the United States would intervene in a war between Taiwan and China remains contentious. From a historical perspective, the U.S. commitment to Taiwan has been waning from the days of the Mutual Defense Treaty with Taiwan. Although public and elite opinion on the matter has ebbed and flowed over the past four decades, the general trend appears to cast increasing doubt on U.S. intervention. Many U.S. citizens appear to think that the United States should use Taiwan as a bargaining chip to improve relations with China.<sup>156</sup>

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154 Lostumbo et al., *Air Defense Options*, 23–26.

155 For a partial exception, see Yarhi-Milo et al., "To Arm or to Ally?"

156 Bonnie Glaser, "The Future of U.S.-Taiwan Relations," Statement before the House Foreign Affairs Committee Subcommittee on Asia and the Pacific, February 11, 2016.

## 4.2 RECOMMENDATIONS

Advanced aircraft are clearly useful for countering China's provocations in the grey zone and for improving public morale *in peacetime*. However, for the reasons discussed in our introduction and the beginning of this chapter, Taiwan should not sacrifice genuine war-fighting capabilities in order to counter China in the grey zone. Taiwan's Air Force should maintain its existing fleet without investing heavily in procuring cutting edge, fifth-generation aircraft. Funds that would have been spent on procuring and maintaining limited numbers of F-35Bs and other exquisite platforms should instead be invested in the following capabilities.

### *Buy More Early Warning Assets*

Improving the amount of time that key decision makers have in an invasion scenario is important in that it provides time to marshal combat capability, activate defensive measures and alert the international community. It also improves deterrence by further reducing China's confidence in its ability to launch a surprise attack and by increasing China's fear that being denied the ability to surprise, an invasion attempt would be met by a sustained and bloody counter-attack. Air-based intelligence, surveillance, and reconnaissance (ISR) platforms, particularly remotely piloted ones, can supplement Taiwan's limited arsenal of ISR platforms. Unmanned ISR platforms can also provide Taiwan with additional political space in which to maneuver in an unintentional crisis. For example, if Taiwan scrambles a drone to observe and report on a grey zone incursion, and that drone is shot down, then Taiwan's leaders would not feel the kind of acute domestic pressure to respond or escalate that they would if the same incident involved a pilot.

Taiwan defense planners can balance their ISR force mix in a number of ways. The weight of effort might go toward early detection of Chinese actions that would be required ahead of an invasion. Alternatively, the ISR emphasis could be on integrating with war-fighting assets for use during hostilities, whether grey zone or full-spectrum combat operations.

### *Modify Air Defense Tactics, Techniques, and Procedures (TTPs)*

Taiwan should modify its air defense tactics, techniques, and procedures to substantially lengthen a conflict with China. Air defense systems that target incoming aircraft or missiles are traditionally employed for area defense, leaving their prestaged radars vulnerable. As a result, air defense systems like the Patriot PAC-3 would likely be destroyed in short order by China. Instead, Taiwan's integrated air defense system could be dedicated to opening windows during

which maneuver forces can launch counterattacks against an invading force.<sup>157</sup> To take one hypothetical situation, the Patriot PAC-3 could remain silent during inbound ballistic missile strikes and then be employed to take down Chinese aircraft attempting to support an amphibious landing of ground forces.<sup>158</sup>

Although modifying air defense TTPs will not help the Taiwan Air Force counter grey zone challenges directly, they can nevertheless indirectly influence China's behavior. For example, changes to TTPs as outlined in the RAND study would signal Taiwan's commitment to sustained combat operations in defense of its territorial integrity. That could, in turn, constrain China's ongoing efforts to occupy and build on disputed territories in the South China Sea.

Modifications to air defense TTPs also represent a substantial return on investment. At almost no financial cost—at least relative to research and development, procurement, or sustainment—Taiwan can achieve significant war-fighting gains. Additionally, if China understands these changes have been made, then deterrence is enhanced because these modifications would make a protracted conflict more likely. It is true that such changes may well result in decreased morale and public pressure in the midst of conflict. Since Taiwan would purposefully avoid the symmetrical use of its missile defense systems against incoming ballistic missiles, the population could incorrectly conclude that the lack of military response either meant Taiwan lacked the means or the will to respond. The population may not know or be confident that the air defense response was being delayed for maximum effect.

### ***Do Not Buy F-35Bs***

The F-35B provides much of what Taiwan's political and military leaders want: fifth-generation, air-to-air, air-to-ground, and STOVL capabilities. Having the latest fighter aircraft would, in the eyes of many military, political, and academic officials whom we interviewed, achieve the goals of psychologically assuring the population and signaling to China that the United States has the resolve to intervene in any cross-Strait conflict.

To be sure, a RAND study concludes that a Taiwan fighter fleet consisting entirely of F-35Bs would be more survivable than other potential force structure options. This conclusion holds even if budget constraints mean Taiwan must eliminate all of its existing fourth-generation aircraft and will be 85% smaller as a result. According to RAND, in a maritime blockade scenario, a small, "pure" F-35B force would suffer little to no attrition in the first 60 days *in air-to-air combat*. Other force mixes (e.g., current mix, F-16 heavy) would endure

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**157** Lostumbo et al., *Air Defense Options*, 59.

**158** *Ibid.*, 57.

substantial losses.<sup>159</sup> Against current threats, the RAND study also suggests that a small fleet of F-35s would likely survive twice as long in air-to-air combat as the second-best-performing force structure package. Moreover, the F-35 package would likely inflict substantially more losses on Chinese aviation assets than any of the fourth-generation aircraft currently in the inventory.

Nevertheless, we contend that the F-35B has more downsides than upsides. The entire option hinges on U.S. willingness to sell the aircraft to Taiwan, which is far from a foregone conclusion.<sup>160</sup> More important, moving to a fighter force consisting only of F-35Bs represents *substantial* operational risk. In order to afford the high per unit cost of the F-35B while maintaining defense spending levels, Taiwan must retire its *entire* existing fleet of third- and fourth-generation fighter aircraft. That would shrink the force from more than 400 aircraft to just under 60. Such a modestly sized force brings to mind airpower theorist Giulio Douhet's exhortation to destroy the enemy's "eggs" (aircraft) and preferably when they are in the "nest" (air base).<sup>161</sup> No aircraft, no matter how advanced, is worth the investment if the adversary can destroy it on the ground. This lack of value is especially true when we consider that PLA war-planners will have a far easier time preemptively locating, targeting and neutralizing 60 F-35Bs than they will 400 fourth-generation aircraft. Given that the PLA is likely to make extensive use of sleeper cells and pre-inserted special operations units to assassinate key leaders and sabotage critical infrastructure, even Taiwan's vaunted caves may not offer sufficient protection to such a small fleet of high value targets.<sup>162</sup>

Finally, Taiwan's existing fleet of fourth-generation aircraft are more than sufficient to handle grey zone operations, including intercept, surveillance and presence missions. Even if the F-35B is better at performing such tasks, the associated opportunity costs—in terms of both financial expense and the number of fourth-generation fighters Taiwan must give up to buy a meaningful number of F-35Bs—are prohibitive.

### 4.3 SEAPOWERS IN THE GREY ZONE

Nowhere have the differences between the expert analyses and the goals of Taiwan's Armed Forces been more pronounced than in the area of shipbuilding

<sup>159</sup> *Ibid.*, 31 and 34–39.

<sup>160</sup> Marcus Weisgerber, "F-35 Sale to Taiwan Not Worth the 'Risk,' Experts Warn," *Defense One*, March 26, 2018, retrieved from <https://www.defenseone.com/politics/2018/03/f-35-sales-taiwan-not-worth-risk-experts-warn/146970/>; and Ellen Mitchell, "Top GOP senators push Trump to sell F-35s to Taiwan to deter China," *The Hill*, March 26, 2018, retrieved from <http://thehill.com/policy/defense/380362-top-gop-senators-push-trump-to-sell-f-35s-to-taiwan-to-deter-china>.

<sup>161</sup> Giulio Douhet (trans. Dino Ferrari), *The Command of the Air* (Tuscaloosa, AL: University of Alabama Press, 2009 [1921]): 34–35.

<sup>162</sup> Easton, *The Chinese Invasion Threat*: 86.

and naval force structure. Taiwan's Ministry of National Defense recently revealed plans to indigenously build a range of major fleet assets designed for a sea control mission. This initiative was even a key part of the DPP's 2016 platform. For years, however, most U.S. experts have been recommending the opposite: rather than investing in sea control capabilities, Taiwan should focus on developing *sea denial* capabilities, including missile boats, sea mines, and mobile antiship cruise missiles (ASCMs), since Taiwan cannot afford a sea control fleet capable countering the far larger PLA Navy.<sup>163</sup>

We believe that a worthwhile middle path exists between Taiwan's current plan and what most U.S. defense experts recommend. Specifically, we argue that Taiwan should continue to develop some of its more promising projects, but it should also scale back on its more ambitious projects. The Taiwan Navy could then invest the money it would have otherwise spent on developing high-end naval platforms on procuring a wide range of sea denial capabilities.

In 2016, Taiwan unveiled an ambitious ship-building plan to recapitalize its entire naval fleet with indigenously produced platforms. The Taiwan Navy's top priority is the IDS program, an eight-unit class of diesel-electric submarines. Other projects include four destroyers based on the U.S. Navy's Arleigh Burke class; 15 frigates in the 2,000-3,000-ton range; 11 additional *Tuo Jiang*-class corvettes (one is already in service); and a 22,000-ton Landing Helicopter Dock (LHD) ship—essentially a small aircraft carrier for assault helicopters—as well as two 10,000 ton Landing Platform Dock (LPD) ships for transporting ground combat forces as well as landing craft.<sup>164</sup> A key component of this plan is the *Hsun Lien* project, which seeks to develop a flexible and scalable version of the U.S. Aegis phased array radar system. This so-called Distributed Architecture Combat System would be incorporated into ships of various displacements so as to mirror the U.S. Navy's "distributed lethality" initiatives.

The Taiwan Navy has an ambitious plan for employing its indigenously produced fleet. In our interviews, some defense officials described ambitions to secure sea-lanes through the first island chain and to hold Chinese aircraft carriers at risk, particularly if they seek to operate in the previously safe area east

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**163** Gholz, "No Man's Sea," 18-19; and Thomas et al, *Hard ROC 2.0*: 33-43.

**164** Rowan Allport, "Taiwan's Navy: Striking the Asymmetric Balance," *Real Clear Defense*, November 29, 2017, retrieved from [https://www.realcleardefense.com/articles/2017/11/29/taiwans\\_navy\\_striking\\_the\\_asymmetric\\_balance\\_112696.html](https://www.realcleardefense.com/articles/2017/11/29/taiwans_navy_striking_the_asymmetric_balance_112696.html); Dan Darling, "Taiwanese Navy Pushes the Throttle on Indigenous Shipbuilding with LHD Plan," *Forecast International*, March 14, 2017, retrieved from <https://blog.forecastinternational.com/wordpress/taiwanese-navy-pushes-the-throttle-on-indigenous-shipbuilding-with-lhd-plan/>; Michal Thim and Liao Yen-Fan, "Taiwan Navy Emphasizing Domestic Shipbuilding in Ongoing Maritime Restructure," *USNI News*, March 25, 2016, retrieved from <https://news.usni.org/2016/03/25/taiwan-navy-emphasizing-domestic-shipbuilding-program-in-ongoing-maritime-restructure>; and Michal Thim and Liao Yen-Fan, "Taiwanese Navy Plans to Enhance Fleet Air Defense," *The Jamestown Foundation China Brief*, Vol. 16, No. 7, April 21, 2016, retrieved from <https://jamestown.org/program/taiwanese-navy-plans-to-enhance-fleet-air-defense/>.



of Taiwan.<sup>165</sup> The plan is to “deploy the main force in a safe zone far outside the strike range of PLAN and then deter the PLAN from launching an amphibious invasion. If the PLAN still sent its amphibious fleet, the [Taiwan Navy’s] surviving ships will conduct a decisive battle to prevent the PLA from landing.”<sup>166</sup>

Unfortunately, this plan is unlikely to work given that Taiwan is well within range of China’s long-range antiaccess weapons. Taiwan’s surface ships are vulnerable to ballistic missile strikes, mines, and submarines. In fact, Chinese missile ranges have increased to the point that the Taiwan Navy has even lost its safe haven east of Taiwan. Moreover, the Taiwan Navy faces the same acute budget constraints as the Taiwan Air Force. It can only afford a relatively small fleet of highly capable conventional naval platforms. Once again, this limitation simplifies the targeting challenge for China’s war-planners. They will find it relatively easy to track, locate, target, and destroy this relatively small fleet. Thus, the combination of China’s long-range precision strike capabilities and the inevitably limited size of Taiwan’s conventional naval fleet means Taiwan’s ships will not survive long enough in an all-out conflict to meaningfully contribute to deterring a cross-Strait invasion.

At best, Taiwan’s current ship-building plan is more aspirational than practical. At worst, it undercuts deterrence by creating incentives for China to try to knock the Taiwan Navy out in the earliest phases of a conflict. Nor are such investments and their associated risks necessary for countering China in the grey zone. Taiwan’s existing surface fleet is more than sufficient to conduct the kind of surveillance, intercept, and presence missions required for dealing with most maritime grey zone incursions. In contrast, advanced Aegis-like ships are “overkill.” They have more capability than Taiwan needs to “show the flag.” Less exquisite and less costly ships can almost certainly perform this same function.

#### 4.4 RECOMMENDATIONS

We offer four recommendations to rebalance the ship-building plan so as to provide Taiwan with the ability to counter Chinese naval provocations while freeing money to invest in the kind of asymmetric, *sea denial* capabilities that are more likely to be effective in wartime.

This rebalancing does not mean giving up all high-capability forces or completely ceding the grey zone to China. As we previously argued, both legacy platforms and new counterinvasion platforms can continue to “push back” against grey zone incursions. What we collectively recommend is that Taiwan optimize its

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<sup>165</sup> Interview with senior National Security Council official, Taipei, Taiwan, January 15, 2018.

<sup>166</sup> Shang-su Wu, *The Defence Capabilities of Small States: Singapore and Taiwan’s Responses to Strategic Desperation* (Singapore: Palgrave Macmillan, 2016): 122.

force structure against the most dangerous threat of invasion instead of designing a force to counter grey zone incursions. However, just because Taiwan's Navy is optimized for counterinvasion operations does not mean that it will be incapable of countering grey zone provocations. Additionally, by investing in less technically challenging platforms like frigates and minisubs, our recommendations would preserve the ability for Taiwan to field higher-capability platforms at a future date and reduce the technical risk associated these platforms by an incremental approach. What we recommend is investing now in modest capability and capacity improvements to address the most pressing need, homeland defense, while preserving the ability to alter the strategy if future increases in the frequency and intensity of Chinese provocations changes this calculus.

### *Defer the IDS Program*

At first glance, a submarine platform seems like the perfect solution to the threats Taiwan faces. Current and former government officials across Taiwan's political spectrum consistently list it as their top priority. Yet they also consistently admit that Taiwan needs technical assistance from the United States to make IDS a reality. The problem is that Taiwan has never built a submarine, and undersea platforms are far more technically challenging to build and operate than surface combatants. With enough time and money, Taiwan can almost certainly field some kind of submarine platform. Nevertheless, the opportunity costs of this endeavor cannot be understated. Time and money are two things Taiwan does not have in excess supply, and the time and money that Taiwan will need to pour into the IDS program will seriously limit Taiwan's ability to invest in other necessary capabilities.<sup>167</sup>

The other problem is operational. Even if Taiwan manages to develop and produce eight submarines, such a force is unlikely to enhance Taiwan's conventional deterrence capabilities significantly. China will place a high priority on locating and destroying all eight submarines. Any of Taiwan's submarines anchored in port will be vulnerable to sabotage and preemptive missile strikes. Submarines are also maintenance-intensive. The length of maintenance cycles mean that Taiwan will have a hard time getting most of its eight submarines to sea at one time despite having early warning. Submarines that receive early warning and sortie, as well as those already at sea, will be the targets of a sustained PLAN antisubmarine campaign. Taiwan will therefore have too few operational platforms to threaten seriously an

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<sup>167</sup> Wu, *The Defence Capabilities of Small States*, 130. At the moment, Taiwan intends on fielding its first submarine in 2026. This timetable may be difficult to achieve. See Franz-Stefan Gady, "India, Japan to Submit Design Proposals for Taiwan's New Indigenous Submarine," *The Diplomat*, July 12, 2018, retrieved from <https://thediplomat.com/2018/07/india-japan-to-submit-design-proposals-for-taiwans-new-indigenous-submarine/>.

invasion force. This constraint limits their IDS program's ability to achieve the desired deterrent effect. Nor are submarines useful for responding to grey zone provocations. After all, their ostensible purpose is to remain undetected until called upon to carry out a combat mission. Thus, the IDS program comes at a significant expense without clearly enhancing Taiwan's deterrence-by-denial capability.

Instead of the IDS program, Taiwan should consider producing less expensive and less technically challenging semisubmersible craft and minisubmarines. Building a much larger fleet of these vehicles offers two primary benefits. First, it will let Taiwan's shipbuilders practice building less complex undersea weapons. This approach should give Taiwan the ability to work toward building a future IDS program with more confidence in its success, without sinking limited defense dollars into a risky program in the near term. Second, by focusing on less expensive undersea weapons, the Navy can procure more platforms focused on enhancing its sea denial capability inside likely invasion sea-lanes.

### ***Spend More on Small Surface Combatants Like Corvettes and Frigates***

Taiwan needs to replace its aging surface fleet. Many American defense analysts think Taiwan should focus on building a fleet of missile boats instead of acquiring any new major surface combatants. However, there is also a problem with investing solely in missile boats. Although the missile boats can harass and attack invasion fleets, they lack the range to carry out open ocean patrols. They are also ill suited for most grey zone missions, such as intercepting ships that harass Taiwan's merchant vessel. The optics of a tiny missile boat facing off against a PLAN cruiser ten times its size are terrible. The result would likely undermine public resolve and signal a lack of credibility.

At the same time, Taiwan cannot afford to match China ton-for-ton on the open ocean. Any large surface combatants that it buys are still vulnerable to China's long-range antiaccess weapons. Perhaps the best way to resolve this dilemma is for Taiwan to continue to build its stealthy *Tuo Jiang*-class corvette. Taiwan naval planners should then use the lessons learned from building and fielding this platform to rapidly field a small 2000–3000-ton frigate-class combatant that leverages Taiwan's indigenously produced *Hsun Lien* system. These frigates will be large enough to escort merchant shipping, conduct patrols, and maintain a naval presence so as to emphasize Taiwan's maritime sovereignty. Moreover, producing a fleet of frigates will still be a valuable source of jobs for Taiwan's defense producers. Finally, Taiwan can eventually "spiral develop" its frigate platform into larger and more capable variants, similar to European

designs. Such a plan can serve as part of a long-term road map for surface-ship development. That said, Taiwan's leaders do not have to make such a decision in the near term, giving them flexibility should future conditions (and defense budgets) change.

### *Defer the Aegis Destroyer Program*

Even though recapitalizing Taiwan's aging frigate force has value, the Taiwan Navy should delay plans to build a large 10,000-ton Aegis-like destroyer. As is the case with the IDS program, Taiwan's ship-building industry has not yet proven that it has the technical ability to produce indigenously such a large and complex platform at a reasonable cost and in a reasonable amount of time. And once again, budget constraints limit the number Taiwan can afford. The drawbacks here are similar to the ones that undercut the IDS program. An Aegis-like destroyer is unlikely to last very long in a war with China given the range of China's antiaccess weapons and the PLAN's quantitative advantages. The relatively small number of destroyers that Taiwan will be able to afford will add little to its counterinvasion defenses. Finally, Aegis-like destroyers are unambiguously "overkill" for the peacetime presence mission.

Given that costs in shipbuilding are often directly proportional to tonnage, Taiwan could probably build at least four frigates for the cost of each destroyer. These four frigates may be individually less capable, but they can be present in more places than a single platform, which significantly complicates adversary targeting. Continuing low-level developmental efforts for a future destroyer would allow Taiwan to preserve the option of fielding this platform or something like it in the future, but by focusing on the smaller surface combatants, Taiwan will be able to more rapidly field large numbers of platform, validate their industrial base's ability to produce more complex surface combatants, and invest in near-term indigenous production to meet political promises. For the near- and midterm, Taiwan's existing *Kidd*-class destroyers are more than capable of serving as Taiwan's symbolic large surface combatants.

### *Reduce or Eliminate Taiwan's Amphibious Forces*

Of all the programs in the Taiwan Navy's portfolio, its aging but numerous amphibious forces serve the least strategic purpose. They neither deter grey zone operations nor a cross-Strait invasion. There seems to be no plausible scenario in which Taiwan would dispatch an amphibious force to cross the Taiwan Strait and conduct an assault against China. Worse yet, amphibious assault ships are offensive by design. They are force projection platforms. As a result, they are provocative. China can use them as proof that Taiwan is the one harboring revisionist ambitions.

Taiwan's amphibious fleet also comes at a significant opportunity cost. The money and manpower Taiwan spends on maintaining and operating these ships cannot be spent on developing and fielding other, more practical, less provocative capabilities. To be sure, amphibious ships can help with disaster relief and humanitarian aid. They can also shuttle troops to and from Taiwan's offshore islands. Yet a wide range of far-less-expensive—and less provocative—ships can easily handle such missions. In fact, civilian transport ships can conduct goodwill operations, support troop transport, and do both at far less cost and without being unambiguously offensive.

Instead of maintaining its dozen or so ancient amphibious ships and its fleet of landing craft—let alone investing in a new fleet of a large amphibious ships—the Taiwan Navy should redirect those resources into procuring more advanced sea denial capabilities. At the same time, the elimination of the legacy amphibious platforms leaves the Marine Corps without a mission. In need of a new mission, the Marine Corps should be refocused on coastal defense tasks and littoral warfare in the beach/ocean interface, something we discuss in detail in the next section.

## 4.5 NOTIONAL COST SAVINGS

Calculating detailed cost savings from these proposals is admittedly difficult. For one, projected costs for many of the platforms in Taiwan's ship-building plan are notional, at best, and largely only mentioned in press releases. While the United States has relatively detailed costs available via Congressional Budget Office and Congressional Research Service reports, ship-building costs for U.S. platforms are not necessarily relevant due to different labor costs. Additionally, a U.S. Aegis destroyer or LHD may have different capabilities than a notional Taiwanese analogue. Lastly, Taiwan's projected costs are for platforms not yet in production (except for their missile corvette) and subject to the typical cost growth associated with weapons systems.<sup>168</sup> For this reason, when available, both the Taiwanese planned cost and equivalent cost of U.S. or European ships in production are included in the table on the following page.

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**168** A rough comparison of Taiwan's projected costs vs U.S. costs for similar platforms suggests that Taiwan's projections may be extremely optimistic.

### Cost Savings by Platform (in million USD)<sup>169</sup>

Platform	Taiwan Projected Cost	U.S./EU Equivalent Cost	Reduction in Platforms	Savings (Projected Cost)	Savings (Equivalent Cost)
IDS (sub)	85	500 <sup>170</sup>	8	680	4000
Destroyer	600	1700	4	2400	6800
Frigate	-	600	0	-	-
Corvette	60 <sup>171</sup>	-	0	-	-
LHD	-	3700	1	-	3700
LPD	-	1600	2	-	3200
F-35B	123	123	60	7380	7380

Significant cost savings are also theoretically possible in the areas of manpower and sustainment (or Operations and Maintenance) due to the elimination of these platforms. Less personnel would be required to man large destroyers; fewer spare parts and fuel would need to be purchased and stockpiled; and less shore infrastructure would be required (to include hardening and dispersing the aforementioned fuel and parts stockpiles). However, these notional savings are not included for two reasons. First, calculating these savings is not possible without detailed budgetary information—and even then, it is difficult to assign costs to individual platform or class retirements. Second, we are not anticipating overall reductions in defense-wide manpower or sustainment costs. Rather, we are recommending that the manpower freed up by foregoing larger platforms be diverted to a larger number of small platforms. Thus, any manpower and sustainment savings are likely to be minimal, at best.

In the end, we believe substantial resources can be freed up from deferring IDS, Aegis Destroyers, and F-35B procurements. These resources can be instead used to procure large numbers of corvettes, frigates, air defenses, and further asymmetric defenses discussed in the next section. Thus, any “savings” generated

<sup>169</sup> U.S. Congressional Budget Office, “An Analysis of the Navy’s FY17 Shipbuilding Plan,” February 2017, retrieved from <https://www.cbo.gov/publication/52324>; “Republic of China Navy,” *Globalsecurity.org*, retrieved from <https://www.globalsecurity.org/military/world/taiwan.navy.htm>; Jeremiah Gertler, *F-35 Joint Strike Fighter (JSF) Program*, Congressional Research Service 23 April 2018, retrieved from <https://fas.org/sgp/weapons/RL30563.pdf>; Joseph Trevithick, “Taiwan Wants to Speed up Construction of Its New Missile-Toting Stealthy Catamarans,” *The Drive.com*, 16 May 2018, retrieved from <http://www.thedrive.com/the-war-zone/20911/taiwan-wants-to-speed-up-construction-of-its-new-missile-toting-stealthy-catamarans>.

<sup>170</sup> Utilized Type 214 as a more similar platform versus U.S. nuclear attack submarines.

<sup>171</sup> This is an actual cost versus a projection, since the Tuo Chiang missile corvette is in production.

by these recommendations do not reduce the overall defense budget but instead serve to efficiently modernize the Taiwanese military and allow it to credibly deter a larger adversary.



“Taiwan can execute a layered, asymmetric approach, but it is not part of an integrated strategy.”



# 5

## Deterring Invasion: Elastic Denial-in-Depth

**THE CORNERSTONE** of any deterrence posture is its ability to impose unacceptable costs on an adversary if it attempts to attack, either through denial or punishment. To date, Taiwan has largely hedged in a manner that emphasizes high-end, high-visibility platforms, largely on the assumption that the international community in general—and the United States in particular—will intervene in a worst-case invasion scenario. We think this assumption is dangerous for reasons already discussed. Moreover, although China might appear content with maintaining the status quo for now, its strategic calculus is surely based, in part, on its beliefs about Taiwan's ability to impose unacceptable costs on an invasion force. To the degree that Taiwan continues over-investing in a small number of expensive and exquisite platforms, it will likely continue to find itself at both a qualitative and quantitative disadvantage. The more the gap widens, the more Chinese leaders may be tempted to resolve the "Taiwan problem" by force of arms.

To develop a more effective conventional deterrence posture, Taiwan must ruthlessly question its assumptions about China. For example, three assumptions frequently came up during our interviews. Each is problematic. The first assumption is that China does not need to be deterred. According to this line of reasoning, Chinese leaders are unwilling to use force against Taiwan because they are more interested in economic advancement and increasing their power ahead of any military confrontation. The problem is that Chinese calculations can change over time, and Taiwan cannot take it for granted that China will remain internally focused. Taiwan must prepare now to sufficiently deter China.

A second assumption is two-fold: that the United States will intervene and that receipt of the latest U.S. weaponry signals U.S. resolve to China. This assumption is perhaps even more dangerous because determining exactly how the United States might respond to an invasion scenario is difficult. The United

States has long maintained a policy of “strategic ambiguity.” Although some scholars point to a historically robust amount of weapons sales to Taiwan since 2008 as evidence of deterrence, others suggest that the United States strives to avoid direct military intervention.<sup>172</sup> The fact of the matter is that it is anyone’s guess whether the United States would risk nuclear conflict with China over Taiwan. At a minimum, enough uncertainty surrounds how the United States might react that Taiwan’s defense planners should not build Taiwan’s deterrence posture on the assumption that the United States can—or will—intervene.

The third assumption is that the most advanced fighter jets patrolling the skies will embolden the population to keep up the fight. Polling already indicates more than 30% of those in Taiwan do not think military force should even be used to stop China from reunifying. As discussed in the last chapter, little evidence suggests Taiwan will be able to launch their fighters in the midst of a conflict.<sup>173</sup>

Perhaps more accurately, however, a number of officials pointed to China’s fear as the primary source of deterrence. During the interviews, a number of political, military, and academic leaders suggested Chinese government officials were self-deterred because they are afraid of a long, drawn out conflict and the uncertainty it would create. After all, the longer a military conflict with Taiwan drags on, the more likely it is that the United States will intervene. Those interviewed also indicated Chinese leaders might also be afraid of domestic unrest in response to high numbers of casualties, potentially exacerbated by the one-child policy, which might make Chinese families particularly casualty-averse. With this in mind, the following discussion focuses on lengthening any potential conflict and causing high rates of casualties on the invading force. Ideally, with effective signaling to China, these recommendations would lower the probability of conflict.

We again recommend that Taiwan rebalance its investments to emphasize its war-fighting capabilities even if this shift constrains its ability to counter Chinese provocations in the grey zone. We think that it makes more sense for Taiwan to accept risk in its peacetime presence, because such capabilities will not deter China from invading. Of course, as argued in the preceding chapter, Taiwan cannot and should not completely divest itself of all of its high-end air

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**172** Scott Kastner, “Is the Taiwan Strait Still a Flash Point?: Rethinking the Prospects for Armed Conflict between China and Taiwan,” *International Security*, Vol. 40, No. 3 (2015/2016): 54–92, 73–74, and 84; John J. Mearsheimer, “Say Goodbye to Taiwan,” *The National Interest* (March–April 2014), retrieved from <http://nationalinterest.org/article/say-goodbye-taiwan-9931>; and J. Michael Cole, “The U.S.-Taiwan security relationship in a time of transition,” *Brookings Institution*, September 6, 2017, retrieved from <https://www.brookings.edu/opinions/the-u-s-taiwan-security-relationship-in-a-time-of-transition/>.

**173** Sean Lin, “Taiwanese willing to fight China,” *Taipei Times*, April 20, 2018, retrieved from <http://www.taipetimes.com/News/front/archives/2018/04/20/2003691661>.

and naval platforms, since these have an important role to play in countering China's most likely threats.<sup>174</sup> However, we believe that Taiwan can “do more with less” in this area. Cutting investment in the IDS program, Aegis-like destroyers, and the amphibious shipping force will yield more resources to invest in truly asymmetric capabilities. Ultimately, Taiwan is better off deterring a worst-case invasion—even if it means living with increased grey zone incursion—than the other way around. And a military optimized to counter grey zone threats will be particularly vulnerable to an invasion scenario.

Beyond emphasizing its war-fighting capabilities over its grey zone capabilities, we believe that Taiwan should focus on acquiring a particular set of weapons and on developing a particular set of strategies for using them. Specifically, we argue that Taiwan should primarily invest in an *unconventional* force structure, which it should plan to employ *asymmetrically*. We call this approach “elastic denial-in-depth.” It is built around the use of an unconventional layered force posture that emphasizes four denial zones: in the air, at sea, on the ground, and within society. In the air and at sea, Taiwan should focus on acquiring large numbers of relatively low-cost, dedicated counterinvasion capabilities. On the ground, active duty army and repurposed marine forces should prepare for long-range coastal defense, counterattack, and fighting retrograde missions. Finally, we suggest that Taiwan begin serious planning for *social denial*. In practical terms, Taiwan should restructure its sizeable reserve force to prepare it to conduct a prolonged insurgency campaign in urban, jungle, and mountain settings.

While this strategy is primarily concerned with deterring an invasion of Taiwan itself, the capabilities recommended above will also be effective in preventing a smaller land grab of Taiwan's outlying islands. Although such an attempt would constitute a substantial escalation, China could potentially seize the outlying islands to improve invasion staging or to exert political pressure on the Taiwanese government. Ultimately, these outlying islands will remain vulnerable and well inside China's A2/AD envelope, so hardening the islands with dispersed, asymmetric defenses (the same ones recommended for Taiwan itself) to impose costs on any potential invasion will maximize Taiwan's ability to deter such a land grab. It is also important to remember that the loss of its outlying islands will not represent an existential threat to Taiwan.

Although Taiwan already possesses many of the capabilities needed to execute this layered, asymmetric, and unconventional approach, they are not currently fielded as part of a holistic and integrated strategy. These capabilities can include not only traditional forces such as mobile air defense and anti-aircraft missile launchers but also transformative technologies such as 3D printing and drones in addition to a comprehensive restructuring of their Reserve Command.

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174 Interview with senior Ministry of National Defense official, Taipei, Taiwan, January 15, 2018.

## 5.1 DENIAL IN THE AIR: THE FIRST ZONE

American defense experts have warned Taiwan for nearly two decades that it can no longer expect to counter China symmetrically in the air.<sup>175</sup> China's military capabilities continue to improve. Twenty years ago, China's missiles had an estimated circular error probable (CEP) of 300 meters. Today, that CEP has been reduced to 40 meters.<sup>176</sup> Similarly, China will soon reach—if it does not have it already—initial operational capability with one of its fifth-generation fighters (the J-20). Its second fifth-generation aircraft (the J-31) reportedly has two prototypes.<sup>177</sup>

China already possesses both qualitative and quantitative advantages over Taiwan. Quantitatively, the PLAAF has more aircraft than Taiwan's Air Force. Qualitatively, the PLAAF has parity with respect to the generation of aircraft currently in service, and is projected to wield an advantage in terms of fifth-generation fighter development. The result of this growing inequality is that experts have begun to consider Taiwan's air defense challenge to be "one of the most difficult...in the world," noting "it is increasingly likely that Chinese missiles would be able to shut down operations on Taiwanese airfields" and that the PLA has the ability to destroy Taiwan's fleet of fighters or force it underground.<sup>178</sup> In a high-intensity conflict, any of Taiwan's fighter aircraft that survive the initial onslaught may wind up becoming a one-way missile since they may not have an airbase at which to recover, refuel, and rearm. RAND scholars bleakly noted that "To continue to provide a credible deterrent and be seen as having the potential to contest its own airspace, Taiwan needs to invest in and invigorate its SAM

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**175** William S. Murray, "Revisiting Taiwan's Defense Strategy," *Naval War College Review*, Vol. 61, No. 3 (2008): 1-27; and Shambaugh, "A Matter of Time."

**176** Michael O'Hanlon, "Why China Cannot Conquer Taiwan," 57; and Lostumbo et al., *Air Defense Options for Taiwan*, 16.

**177** China Power Team, "Does China's J-20 rival other stealth fighters?" *China Power*, February 15, 2017, retrieved from <https://chinapower.csis.org/china-chengdu-j-20/>; and Andrea Gilli and Mauro Gilli, "Military-Technological Superiority: Systems Integration and the Challenges of Imitation, Reverse-Engineering and Cyber Espionage," *International Security* (forthcoming).

**178** Lostumbo et al., *Air Defense Options*, xi and 11; and Thomas Mahnken, *Asia in the Balance: Transforming U.S. Military Strategy in Asia* (Washington, D.C.: American Enterprise Institute, 2012): 11. Regarding the UAV threat, Taiwan will want to continue monitoring the development of China's program and its tactics, techniques, and procedures for employing them. However, China currently lacks the ability to credibly threaten Taiwan with attack UAVs. Additionally, China's ISR UAVs remain vulnerable to Taiwan's electromagnetic capabilities. Since China's UAV capability is not an existential threat to Taiwan as are other dimensions of the Chinese military, Taiwan should monitor the UAV situation but not prioritize it as a first-tier threat. See, for example, Michael Chase and colleagues, *Emerging Trends in China's Development of Unmanned Systems* (Santa Monica, CA: RAND Corporation, 2015), pp. 6-8 and Ian Easton and colleagues, *Transformation of Taiwan's Reserve Force* (Santa Monica: RAND Corporation, 2017), 55-56. See also the Institute for Strategic Studies, *The Military Balance 2018* (Abingdon, Oxfordshire: Routledge, Taylor & Francis Group, 2018), Chapter 6, which omits any substantive discussion of UAVs as a critical threat facing Taiwan.

force.”<sup>179</sup> This 2016 assessment paints a much more worrisome picture than the one issued just 15 years prior.<sup>180</sup>

Taiwan’s strategy for defending its airspace against an invasion has so far relied heavily on its fleet of over 400 third- and fourth-generation fighter aircraft. This fighter-centric approach comes at a heavy cost. First, manned aircraft obviously require manpower. Taiwan already spends nearly half of its defense budget to cover manpower costs. For the sake of comparison, the U.S. military devotes about a quarter of its budget on manpower.<sup>181</sup> Second, Taiwan spends nearly 13% of its defense budget to operate and maintain its existing fighter fleet.<sup>182</sup> Efforts to acquire a meaningful inventory of fifth-generation aircraft will substantially increase the strain on Taiwan’s defense budget by either crowding out other investments or increasing the country’s debt. The recently passed legislation to cut military pensions highlights the fiscal pressures being felt by the country to sustain even its current defense outlays, which routinely fall below 2% of Taiwan’s gross domestic product.<sup>183</sup> Taiwan cannot field a larger fleet without increasing the share of gross domestic product devoted to defense spending. Third, Taiwan’s fleet of fighter jets is supremely vulnerable to China’s arsenal of long-range, precision strike weapons. Studies suggest that between 240 and 360 short-range ballistic missiles can hold at risk all aircraft parked in the open at Taiwan’s ten air bases. China currently has at least 1,000 to 1,200 of such missiles.<sup>184</sup> And it could use a mere five SU-30s, each armed with ten precision-guided munitions, to potentially destroy almost every Taiwan Air Force jet parked in a hardened shelter (although not the two mountain complexes).<sup>185</sup>

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**179** Lostumbo et al., *Air Defense Options*, xi and xxiii.

**180** In 2000, RAND afforded Taiwan a “reasonable degree of confidence” to defeat any Chinese air attack, and any potential Chinese invasion attempt was characterized as having “a significant probability of failure.” See David Shlapak, David T. Orletsky, and Barry A. Wilson, *Dire Strait? Military Aspects of the China-Taiwan Confrontation and Options for U.S. Policy* (Santa Monica, CA: RAND Corporation, 2000): xvi and 30.

**181** Congressional Budget Office (CBO), *Costs of Military Pay and Benefits in the Defense Budget* (Washington, D.C.: CBO, 2012): 1; Shang-su Wu, “Taiwan’s All-Volunteer Military,” *The Diplomat*, December 25, 2013, retrieved from <https://thediplomat.com/2013/12/taiwans-all-volunteer-military/>; and Lostumbo et al., *Air Defense Options for Taiwan*, 23–24, 26, and 30.

**182** Lostumbo et al., *Air Defense Options*, 26–30 and 91–95.

**183** “Taiwan passes bill to cut veterans’ pensions that sparked violent protests,” *South China Morning Post*, June 21, 2018, retrieved from <http://www.scmp.com/news/china/policies-politics/article/2151812/taiwan-passes-bill-cut-veterans-pensions-sparked>.

**184** OSD, *Military and Security Developments*, 95.

**185** Lostumbo et al., *Air Defense Options*, xiii.

## 5.2 RECOMMENDATIONS

These recommendations are intended as a holistic air denial strategy to achieve maximum effect. However, the first and second recommendations could be implemented individually.

### *Modify Air Defense TTPs*

Taiwan can more effectively prolong any potential conflict by modifying how it employs its surface-to-air missiles (SAMs), thereby enhancing deterrence. For example, Taiwan should forgo using their SAMs for area defense missions. Area defense requires prestaging equipment and keeping radars operational for long periods of time so as to locate, target, and destroy incoming aircraft or missiles. This approach leaves SAM batteries and their radars vulnerable to counterdetection and preemption. As a result, air defense systems like the Patriot PAC-3 would likely be destroyed in fairly short order by China.

We believe that SAM units should thus be reassigned to support counterattack missions.<sup>186</sup> This concept of employment means that SAM radars are only operational for relatively brief periods of time to open windows for friendly land forces to maneuver against invasion forces.<sup>187</sup> We envision the following scenario. At the outset of a militarized crisis, a Patriot PAC-3 system could remain silent during inbound ballistic missile strikes, which is their traditional target. Thereupon, they are employed to take down follow-on Chinese aircraft attempting to support an amphibious landing of ground forces.<sup>188</sup> The reason behind this strategy is that modifying air defense missions and their associated TTPs is relatively inexpensive. If properly signaled through exercises and demonstrations, these changes should further deter China since these modifications would make a protracted conflict more probable.

We understand that risks come with shifting SAMs from area defense to a counterattack mission. Taiwan will not be able to intercept as many incoming ballistic missiles during the strike phase of an invasion, but critical counterattack capabilities will likely become more survivable. Increased survivability should result from the modification in TTPs toward intermittent use of radar systems that support surface-to-air systems. If Taiwan's citizens, though, are not prepared for such an eventuality, then they might wrongly conclude that their country is giving up and/or cannot protect them from missile strikes. Taiwan's government

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<sup>186</sup> Lostumbo et al., *Air Defense Options for Taiwan*, xiv.

<sup>187</sup> *Ibid.*, 13 and 59.

<sup>188</sup> *Ibid.*, 57.

must communicate any such shift in missile defense posture and missions well in advance of a conflict.

### ***Substantially Increase SAM Inventory***

A RAND report suggests that emphasizing surface-to-air missile defenses over manned fighters probably represents Taiwan's best opportunity to successfully counter a Chinese invasion.<sup>189</sup> This recommendation includes modifying TTPs (as previously suggested) and procuring a far larger and more diverse inventory of missiles. It also involves properly integrating these different weapon systems so that they could not only operate as part of an integrated air defense network but also fight independently if missile or cyber-strikes bring the network down.

The substantial increase in numbers would focus on Patriot PAC-3 batteries and interceptors, as well as ground-launched AIM-120 and AIM-9X missiles.<sup>190</sup> Taking advantage of the latest technology for integrating the assets would be critical. One such possibility is the U.S. Army's Integrated Air and Missile Defense Battle Command System (IBCS). Referred to as a "net-centric system of systems," IBCS simultaneously integrates data from the sensors assigned to different platforms and then determines the best missile shot for the threat, regardless of which weapon system detected or is currently tracking the threat.<sup>191</sup>

### ***Decrease the Number of Fighter Aircraft***

Reducing the fighter inventory will release much needed funds to resource weapon systems that will be able to inflict more casualties on Chinese forces and lengthen the conflict. U.S. defense experts estimate that if China were to invade today, Taiwan's fighter force could only sustain operations for one to two months. The future looks worse. China is moving toward full operational capability for its fleet of fifth-generation fighters. Consequently, Taiwan's fighter force will likely be rendered irrelevant early in a conflict. In fact, one proposal envisions shrinking the existing fighter force to as few as 50 retrofitted F-16s, using the divestment of most of the current fighter fleet to free up scarce resources for procuring a vast arsenal of surface-to-air missile systems.<sup>192</sup>

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189 *Ibid.*

190 *Ibid.*, 28.

191 See Jen Judson, "Growing mission for future Army battle command system accounts for delays," *Defense News*, March 2, 2018, retrieved from <https://www.defensenews.com/land/2018/03/02/growing-mission-for-future-army-battle-command-system-accounts-for-delays/>.

192 Lostumbo et al., *Air Defense Options*, xix, xxi, and 31.

### 5.3 DENIAL AT SEA: THE SECOND ZONE

An amphibious invasion remains the most dangerous threat to Taiwan's survival. Although China has the ability to blockade Taiwan or punish it with air and missile strikes, these options are not existential threats to Taiwan's survival. Only an invasion and occupation of Taiwan will fully threaten its survival as an independent nation, and transporting the tens of thousands of ground forces needed to enable an effective occupation requires moving most by sea. Even if an invasion appears unlikely in the near future, a responsible defense strategy would develop the means to deter independently such a worst-case attack in the future.

China cannot invade Taiwan if the PLAN cannot first establish control over the Taiwan Strait. Without sea control over the Strait, the PLAN's limited amphibious shipping, and the troops they carry, would be vulnerable to attack during the Strait transit.<sup>193</sup> With China pursuing its maritime build-up, Taiwan cannot plan on maintaining local sea control, even inside its territorial waters.

Fortunately, Taiwan does not need to maintain sea control in order to counter an invasion fleet. Its task is simpler. It can get away with simply denying control to China. Unlike the air denial challenge, sea denial is far easier for at least two reasons. First, weather patterns, currents, tides, hydrography, Taiwan's topography, and the fact that Taiwan controls islands astride China's most likely invasion routes, combine to make amphibious invasion across the Taiwan Strait a severe challenge for China to mount.<sup>194</sup> Second, China has virtually no real-world experience with amphibious operations. An invasion of Taiwan would easily be the largest since Operation Overlord—the Allied landings at Normandy. In addition to all the reasons described earlier that facilitated Operation Overlord's success, the Allies had years of experience conducting smaller amphibious landings around the world before 1944.

To deny the unopposed use of the sea to the PLAN, Taiwan should shift from away from large surface ships to a strategy that relies on numerous, dispersed capabilities capable of surviving Chinese attempts at preemption and of imposing unacceptable costs on an invasion fleet.<sup>195</sup> By adopting an elastic, layered defensive approach, Taiwan can attrite any invasion force at each step of a transit across the Strait. The first layer would consist of long-range precision weapons and a fleet of relatively cheap and expendable 'suicide' drones that could strike amphibious ships as they are loading troops. The second layer should comprise mobile air, land, sea, and undersea platforms that can strike at the PLAN's vulnerable, troop-

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193 OSD, *Military and Security Developments*, 76.

194 For a discussion of the planning challenges associated with a cross-Strait amphibious operation, see Easton, *The Chinese Invasion Threat*, 143–193.

195 OSD, *Military and Security Developments*, 76–77 and 81.



laden amphibious ships as they attempt to transit the constrained Strait. The third denial layer should be built around naval mines. Taiwan's geography and hydrography are such that any invasion fleet must aim for a relatively limited number of suitable landing zones. Taiwan can use missile boats, minisubmarines, and drones to lay networks of mines of expendable sea-mines.

Rather than rely on a decisive naval battle or attempt to maintain control over the Strait, an elastic denial-in-depth strategy calls for Taiwan's active duty forces to use multiple, overlapping layers of weapons to blunt and attrite an invasion, while remaining flexible enough to adapt to the loss of any platform or set of capabilities. By embracing this layered sea denial strategy, Taiwan can deter China from considering an amphibious assault as a viable policy option, thereby negating the existential threat that China poses.<sup>196</sup>

## 5.4 RECOMMENDATIONS

### *Buy More Counterinvasion Raiding Craft and Ship-Based ASCMs*

Taiwan already has a number of fast missile boats and is reportedly trying to procure another 60 small, stealthy missile boats. Although this effort represents an important first step, we recommend that the Navy acquire and field far more missile boats of various types and sizes. Combined with some of the smaller surface combatants such as the aforementioned *Tuo Jiang*-class corvette, a large force of missile boats, particularly those with low observable features like the larger *Tuo Jiang*, can complicate adversary targeting and can bend the cost-curve in Taiwan's direction since they are relatively inexpensive. These missile boats can also swarm an invasion fleet.<sup>197</sup>

### *Develop and Field Semisubmersibles, Minisubmarines, and Underwater Drones*

Taiwan does not need a full-sized diesel submarine to counter an invasion in the limited geography of the Taiwan Strait. In fact, because Taiwan can only afford eight such submarines and China will prioritize their destruction, such submarines will end up becoming a liability in any invasion scenario.

Less capable platforms such as semisubmersibles or minisubmarines can be optimized for antisurface warfare and effectively function as mobile mines or missile launch platforms. Another benefit is that each costs far less than a multimission diesel submarine. Semisubmersibles, minisubmarines, and

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<sup>196</sup> Shlapak et al, *A Question of Balance*, 119–120.

<sup>197</sup> Keoni Everington, "Taiwan Navy begins research into fleet of 60 stealth mini-missile boats," *Taiwan Times*, January 24, 2018, retrieved from <https://www.taiwannews.com.tw/en/news/3348868>; and Gholz, "No Man's Sea," 11.

underwater drones are also stealthier than missile boats and have a better chance of successfully penetrating an invasion fleet's escort screen. These platforms can be used to attack amphibious vessels themselves or to serve as advance scouts, relying on targeting information from other shooters ranging from missile boats to shore-based ASCMs. At the same time, they can further develop Taiwan's undersea industrial base to reduce the learning curve associated with any future construction of indigenous submarines.

## 5.5 DENIAL ON THE GROUND: THE THIRD ZONE

In an elastic denial-in-depth scheme, Taiwan's ground forces should not wait for an invasion force to approach land before it joins the fight. Instead, Taiwan's active duty ground units should begin hitting the invasion fleet while it is still far out at sea. Our strategy thus envisions that the first layer of ground defenses should overlap with the last line of naval defenses. More precisely, we envision that specialized teams of ground troops armed with mobile ASCMs would begin targeting the invasion fleet as it struggles to make its way through the minefields that have been rapidly laid by Taiwan's semisubmersibles, minisubmersibles, and undersea drones. Any invasion landing craft that has survived this maelstrom so far will then run into Taiwan's active duty ground combat units. However, like their counterparts in the air and at sea, Taiwan's ground combat units should focus on denying control to potential invaders rather than fighting to control ground. That means that Taiwan's soldiers should *not* "stand and fight" to the last man or woman, although unmanned weapons systems can certainly fill this role.

No "main line of resistance" in the elastic denial-in-depth concept therefore exists. In our view, there is no real hill worth dying on since we believe that no one piece of ground should provide a focal point for a war of attrition. Instead, Taiwan's active duty ground forces should impose costs on the invader, then withdraw to subsequent fighting positions as soon as their current positions become untenable. Ground units should repeat the process as much as necessary. In this way, the concept emphasizes elasticity by denying PLA forces the opportunity to destroy large groups of defending units in set-piece battles. You do not win an asymmetric war by dying. You win it by getting the other side to die instead.

## 5.5 RECOMMENDATIONS

### *Repurpose Taiwan's Marine Corps*

Taiwan has 10,000 Marines divided into three brigades, with over 200 Amphibious Assault Vehicles (AAVs). The MND should divest itself of the Marine Corps' amphibious assault capabilities and instead redefine the Marine

Corps as Taiwan's preeminent counteramphibious force. This repurposed Marine Corps would specialize in defensive operations within the surf zone—that is, the interface between the beaches and the Taiwan Strait—so that Taiwan would have a higher chance at winning what Taiwan's defense officials termed the “decisive battle at the littoral zone.”<sup>198</sup> Instead of having AAVs and amphibious equipment, this new Marine Corps would be equipped with the new asymmetric coastal defenses discussed above. They would cooperate with the Navy and the Air Force to attack amphibious ships off the coast before assisting the Army in attacking landing craft and landing forces on the approach to the beaches. This suggested approach may be radical, but it shifts the Marines from a notionally offensive force to a defensive force designed specifically to deter a cross-Strait invasion.<sup>199</sup>

By itself, repurposing the Marine Corps would not generate direct savings, although substantial savings may be achieved by eliminating the associated Navy amphibious shipping. We do not necessarily recommend reducing the overall size of the Marine Corps, and although we do recommend divesting some of their current equipment, any savings from eliminating amphibious assault equipment would presumably be consumed by acquiring new coastal defense equipment. So rather than a recommendation designed to generate savings, this is a shift in resources from the current amphibious assault mission to a coastal defense mission more in line with an elastic denial strategy.

### ***Create a Taiwan Strait Command and Control Structure***

Any counterinvasion fight will be multidomain because it will involve the use of naval assets, air assets, and shore-based defenses. Synchronizing responses from different services and leveraging sensor data from one platform to employ shooters from another service will be critical in maximizing the effects of Taiwan's limited resources.

To optimize Taiwan's counterinvasion response, the Ministry of National Defense should create a Taiwan Strait theater command focused on this one kind of fight. This operational command would integrate the different service capabilities and develop a flexible, resilient network architecture for C4ISR purposes to maximize command and control as well as targeting in the face of persistent kinetic and nonkinetic attacks. Just as importantly, this command would be responsible for develop a counterinvasion deterrent posture and methods to signal its defensive capabilities in order to enhance its deterrence.

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<sup>198</sup> Interview with senior Ministry of National Defense official, Taipei, Taiwan, January 15, 2018.

<sup>199</sup> IISS, *The Military Balance 2017*, 332.

## ***Buy More Mobile, Ground-Based ASCM and Develop Doctrine for Multidomain Employment***

Taiwan's existing inventory of mobile shore-based ASCMs capable of ranging the Taiwan Strait is relatively small. The Ministry of National Defense should acquire far more such weapons. To be sure, individual ASCMs can be intercepted or destroyed before launch. However, a single ASCM costs a fraction of even the smallest warship. Enough can be built and appropriately hidden, disguised, and dispersed to seriously threaten a fleet constrained by the geometry of Taiwan Strait and landing zones.<sup>200</sup> Taiwan's existing ASCMs have a maximum range of 150 kilometers, which should be sufficient to hold ships in the half of the Strait closest to Taiwan at risk.<sup>201</sup> Of course, Taiwan will need to invest in the additional C4ISR assets to facilitate targeting. Drone and "cubesat" technologies might offer low-cost options for target acquisition, tracking, and terminal guidance. The Taiwan Strait theater command should also coordinate a joint doctrine and associated TTPs so that Army, Navy, and Marine Corps units would use ASCMs in a dispersed, overlapping and coordinated way to "thin out" an advancing amphibious fleet.

## ***Develop Asymmetric Coastal Defenses***

Facing Chinese conventional superiority and its ever-growing precision-strike complex capable of targeting fixed beach defenses, Taiwan needs to invest in a low-cost, survivable means of opposing an amphibious assault. Given that Taiwan's geography limits any amphibious assault to a relatively small number of acceptable beach zones, these forces can be prestaged in hidden locations, ready to respond. Once any invasion fleet makes its way across the Strait, it could be met with advanced sea-mines and near-shore missiles, ranging from tripod-launch Hellfire missiles (~8 kilometer maximum range) to shoulder-launched antitank missiles (~2 kilometer maximum range). Smaller than mobile shore-based ASCMs, these near shore missiles are easier to disperse and to disguise but are still capable of mission kills against off-shore vessels. Especially vulnerable are those amphibious ships forced close to the shore in order to disembark assault forces. Taiwan should rapidly field those proven capabilities that exist today.<sup>202</sup> Although Taiwan is seeking to purchase M1A2 Abrams main battle tanks from the United States, we recommend against

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**200** Shlapak et al., *A Question of Balance*, 113–115; and Interview with senior Ministry of National Defense official, Taipei, Taiwan, January 15, 2018.

**201** Missile Defense Project, "Missiles of Taiwan," *Missile Threat*, Center for Strategic and International Studies, published June 14, 2018, last modified June 15, 2018, <https://missilethreat.csis.org/country/taiwan/>.

**202** Shlapak et al., *A Question of Balance*, 113–115; Wu, *The Defence Capabilities of Small States*, 72; and Gholz, "No Man's Sea," 13.

relying heavily on armor for coastal defense missions.<sup>203</sup> China will not launch an assault force until it has air superiority over the Strait and the landing beaches (if not the entire island). Even if Taiwan's armor assets survive the invasion's strike phase—which is far from assured given the risk of destruction by PLA special operations forces and sabotage by double agents—they will become high priority targets for the PLA's ISR and ground attack assets. It will be better to rely on mobile launchers camouflaged as container trucks and small teams of motorized and dismounted infantry.

### *Invest in 3D printing, Drones, and Automated Weapons*

Although we advise against undertaking major acquisition projects such as the IDS or Aegis-like destroyers, Taiwan should invest in some more aspirational capabilities that have the potential to invert the cost curve. Taiwan should focus on asymmetric capabilities that Taiwan's microcomputing, engineering, and manufacturing industries are already well-positioned to build and that they can benefit from financially for producing. Examples include 3D printing; aerial, underwater, and ground combat drones; and automated weapons such as remotely operated machine guns. The ability to 3D print drones makes them cheap and easy to produce in dispersed locations. These drones are also inexpensive enough to build in mass quantities. They can be, and in several real-world examples already have been, equipped with explosives and used against advanced air, ground, and sea forces. Although the ability to use these "swarming drones" against mobile forces at long ranges remains aspirational, such a capability could mature enough in the near future so that it could be prestaged at known landing zones and used to attack landing ships in the littorals. Given the technical capability within Taiwan's industry and the strategic need to develop a cost-effective deterrent against invasion, Taiwan is well positioned to take advantage of these capabilities so as to offset China's increasing conventional superiority.<sup>204</sup>

### *Prioritize Elastic Denial-in-Depth in Ground Training and Doctrine*

Taiwan's current war-fighting doctrine calls for Taiwan's active duty ground forces to mount a highly conventional-symmetric defense on and around the landing beaches. Through the use of prepared positions and aggressive counterattacks, the goal is to "crush amphibious [invasion] forces at the water's edge" and to defeat airborne invasion forces while still inside landing zones.<sup>205</sup> Only in the event

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**203** Gavin Phipps, "Taiwan Seeking to Buy M1A2 Abrams MBTs from US," *Jane's 360*, accessed at <https://www.janes.com/article/81684/taiwan-seeking-to-buy-m1a2-abrams-mbts-from-us> as of September 21, 2018.

**204** T. X. Hammes, "The Future Of Warfare: Small, Many, Smart Vs. Few & Exquisite" *War on the Rocks*, July 16 2014, retrieved from <https://warontherocks.com/2014/07/the-future-of-warfare-small-many-smart-vs-few-exquisite/>.

**205** Easton, *The Chinese Invasion Threat*, 229

that PLA air and missile strikes prevent a coordinated defense of the beaches are Taiwan's ground forces to fall back on prepared defensive lines and shift to a prolonged war of attrition.<sup>206</sup>

We have two reasons to think that planning and training for a decisive defense of the beaches is a dangerous misuse of time. The first has to do with effective training. Taiwan's ground forces should spend most of their time preparing for the kind of fight they are most likely to encounter. Every hour spent training for a conventional-symmetric defense of beaches and landing zones is an hour not spent on learning how to conduct a fighting withdrawal. Fighting withdrawals are essential to an elastic denial campaign and are not something troops can learn quickly. They are much harder to coordinate than static defenses, and they are at least as difficult and challenging as mobile defenses and counterattacks. To execute a fighting withdrawal requires immense psychological discipline. Commanders must cede the initiative to the enemy, and undisciplined troops may turn an organized withdrawal into a chaotic retreat. Fighting withdrawals also require precise command and control because units will need to conduct rearward passages of line while under fire. However, if properly executed, an endless series of fighting withdrawals can guarantee to prolong the conflict for weeks or even months.

The second reason involves signaling. Existing doctrine undercuts deterrence because it plays to the PLA's conventional-symmetric advantages. We agree that defeating an invasion on the beaches is usually better than waging a punishing war of attrition. However, Taiwan's ground forces will not have a choice in the matter. The PLA will not land troops without first establishing air superiority. To be sure, the Taiwan Air Force will hold some of its fighter jets in reserve, hidden in caves until the decisive battle for the beaches. Nevertheless, the fact that it relies on a finite number of exquisite platforms means that PLA war-planners will know roughly how many fighter aircraft the Taiwan Air Force will scramble at the decisive moment. And so the PLAAF will already be prepared to meet them and prevent them from interfering with landings. That Taiwan will no longer control the skies means that its prepared defensive positions will be neutralized or suppressed long before the first PLAGF units touch the beach. Worse yet, PLAAF attack jets will pummel the armor units and supply convoys that are essential to any mobile defense and counterattack scheme of maneuver.

By the time China has decided to land ground troops, a long war of attrition may be Taiwan's only option. Elasticity in the form of imposing costs on invading units, refusing decisive battle, and waging a never-ending series of fighting withdrawals is the best way to guarantee that this war of attrition will go on for as long as possible. Of course, the real goal is to deter China from undertaking

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206 *Ibid.*, 231-232.

an invasion in the first place. Therefore, Taiwan must use training and doctrine to signal clearly what its ground forces will do to an invasion force. Taiwan's current doctrine of decisive defense on the beaches sends the opposite signal. Indeed, of all the defensive schemes that they could face, PLA leaders likely prefer that Taiwan commit the bulk of its forces to a decisive battle in the earliest stages of the ground invasion, so that it can destroy them from above.

To prepare for elastic denial in depth operations, Taiwan's ground forces should train and equip for operations that emphasize:

**Independent, small unit action:** The PLA will not attempt to land an invasion force until it controls the air. Once it owns the skies over and around Taiwan, PLAAF ground attack aircraft and drones will target ground forces with impunity. The larger the unit—and the more armor and artillery that unit has—the more tempting a target it presents. To increase both survivability and the PLAAF's targeting challenge, Taiwan ground forces should operate in the smallest units and most dispersed formations possible. Therefore, company—or even platoon—sized elements must have the training, equipment, and authority to maneuver independently on the battlefield. Battalion-sized units and larger will likely be decimated before they can move into action.

**High mobility:** The PLAAF will put a high priority on neutralizing prepared defensive positions and destroying heavy armor and artillery. To survive long enough to inflict losses on the invasion fleet, Taiwan's coastal defense units must be able to continuously “move and shoot” during the preinvasion bombardment. Similarly, inland defensive units must be prepared to wait in caves, tunnels, and other hiding spots until the last possible moment before racing into action. In either case, Taiwan will need to invest in far more wheeled transport vehicles than it currently has to transport large numbers of troops around the battlefield. Although it might seem counterintuitive, wheeled vehicles such as trucks and jeeps will likely be more effective than large, armored vehicles such as tanks and armored personnel carriers. Wheeled vehicles are lighter, faster, and more maneuverable than armored vehicles. Wheeled vehicles will seem like less of a threat to PLA troops than armored vehicles and so will be less of a priority for PLAAF aircraft. And Taiwan can afford for more wheeled vehicles than it can armored vehicles, which allows it to both transport larger numbers of ground troops and generate a bigger targeting challenge for the PLAAF. Of course, Taiwan can still put its existing armored vehicles to good use as fortified bunkers or decoys to draw PLAAF aircraft and drones away from the real defenders.

**Rapid, flexible coordination:** It goes without saying that elastic denial-in-depth operations will place an enormous burden on Taiwan's C4ISR capabilities. The reality is that Taiwan's senior political and military leaders may need to accept far higher levels of decentralized autonomy than they are accustomed to.

In any case, the cost of building C4ISR capabilities that are highly survivable and capable of tracking and coordinating thousands of company-sized units as they maneuver across the battlefield is likely out of reach for Taiwan (assuming it is even technologically possible). Taiwan's ground forces may need to train commanders to rely on "mission type orders," in which they tell units what to do, but not how to do it; empower extremely junior leaders to make decisions that are currently reserved for senior commanders (e.g., when to fall back); and train and equip these same junior leaders to handle coordination with adjacent units (e.g., for rearward passage of line operations).

**Multidomain, combined arms integration:** Finally, Taiwan's ground forces will need to push combined arms capabilities down to the smallest unit possible. Independent maneuver units will need their own C4ISR assets, drones, artillery (e.g., mortars), anti-air (e.g., MANPADS) and antiarmor (e.g., Javelins). These assets must be "organic" (i.e., permanently embedded) to frontline units. In contrast, the traditional method of centralizing and retaining these assets at the battalion, brigade, and division level runs an unacceptably high risk that the PLAAF will either destroy them in place or interdict them as they make their way to the units that need them. Moreover, Taiwan's small unit commanders must be prepared to use their weapons across multiple domains. Examples include using antiarmor weapons against landing craft; MANPADs against aircraft; and even electronic warfare assets against PLA command and control sites. Again, preparing company and platoon commanders to conduct multidomain operations will represent a major challenge for Taiwan's ground forces. It is not a task that can be put off until the last minute.

## 5.6 SOCIAL DENIAL: THE FOURTH ZONE

In a worst-case scenario, China is not deterred by the prospect of a prolonged ground war. It decides to attack and commits the forces necessary to wage a months-long campaign. Yet no matter how much ground it takes or airspace it controls, China cannot achieve its true goal—asserting meaningful political power—until it can exercise control over the Taiwan people. It is here that Taiwan can enact its ultimate form of denial: insurgency.

Our concept of insurgency differs from many others in two respects. First, we do not envision it as a distinct phase of a defensive campaign whereby the insurgency begins after Taiwan's active duty forces have collapsed. Instead, we argue that preparations for insurgency should be constant. In fact, they must begin years before China's leadership even contemplates launching an invasion. Moreover, insurgents should begin attacking PLA units as soon as active duty ground forces begin their fighting withdrawal. Thus, the farther the PLA pushes into Taiwan's interior, the more it is forced to fight two simultaneous—yet



distinct—forms of warfare: a conventional-asymmetric fight against Taiwan’s active duty ground forces, and an unconventional-asymmetric fight against Taiwan’s insurgents. Given that China has been transforming its military to fight conventional wars under so-called “informationalized” conditions, we think it will prove to be particularly unprepared to combat an insurgency.

Second, we do not expect “the people” to wage the insurgency, at least not in the earliest phases of the war. Certainly, deterrence is enhanced to the degree that China’s leaders think the entire population will rise up in armed resistance against any invader. Nevertheless, it is not practical to expect civilians to bear the brunt of guerrilla-style fighting against frontline PLA units, especially since the insurgency will be most effective if it begins harassing the PLA soon after it has landed. Instead, we think that insurgency is a specific mission that should be assigned to a part of Taiwan’s military that already exists: Taiwan’s Reserve Command.

## 5.7 RECOMMENDATIONS

### *Transform Taiwan’s Reserve Command into a Territorial Defense Force*

Taiwan’s Reserve Command has approximately 2.5 million men, making it roughly ten times the size of Taiwan’s active duty forces. It is an independent service reporting directly to the Ministry of National Defense. It is thus an equivalent organization to the Army, Navy, and Air Force. As a 2017 RAND study determined, approximately 15% of Taiwan’s population falls under its aegis. By way of comparison, the U.S. reserve force (to include the Air and Army National Guard) numbers around 1.1 million personnel, thereby representing less than 0.4% of the population. The vast majority of Taiwan’s reserve forces are assigned to the Army, with approximately 60,000 assigned to the Navy and Air Force.<sup>207</sup>

Unfortunately, due to training and readiness deficiencies, Taiwan currently plans to use Reserve Command to augment its *conventional* forces in an invasion. Since the Reserve Command is predominantly made up of Army personnel, its primary mission is to generate combat brigades rapidly. It divides its brigades into one of four readiness and capability categories. There are approximately nine first-tier infantry brigades, which possess advanced weapons. The remaining three tiers of brigades have decreasing levels of readiness and equipment. In the event of an invasion, the top-tier units reinforce active duty forces as they defend critical beachheads and landing zones. Meanwhile, lower-readiness brigades will notionally defend their home-counties and key choke

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**207** Ian Easton, Mark Stokes, Cortez A. Cooper III, and Arthur Chan, *Transformation of Taiwan’s Reserve Force* (Washington, D.C.: RAND Corporation, 2017): 12–13.

points. Navy and Air Force reservists will augment base support and security units. Additionally, Reserve Command is responsible for the mobilization and civil defense of the civilian population. It has components attached to civilian departments to assist in this role.<sup>208</sup>

On paper, this reserve military capability looks impressive, but the numbers are misleading. Reserve Command suffers from major structural challenges and obstacles. Its 2.5 million reservists are poorly trained and generally ill-prepared to mobilize rapidly for combat missions under the harshest conditions imaginable. The Reserve Command is made up primarily of former conscripts. Prior to transitioning into the reserve force, these draftees will have attended a *maximum* of four months of active duty training. As reservists, they are only required to train for *five days* every *two years*. Nor is it even clear what percentage of Taiwan's 2.5 million reservists are legally required to participate in these biennial recalls or how rigorous and realistic these five-day training periods are. More importantly, mobilization will not occur in a permissive, peacetime environment. Reservists may have to report for duty and participate in refresher training in the midst of intense cyber and missile attacks. Interviewees, ranging from senior government officials and legislators to academics, openly admitted that the current readiness model is not suited for high intensity, modern combat. Their solution is to embrace the U.S. model of the "weekend warrior," drilling one weekend a month and two weeks a year.<sup>209</sup>

As a result, this massive fighting force does not meaningfully contribute to deterring aggression and signaling resolve. Even in the most optimistic early warning scenarios in which Taiwan receives unambiguous evidence of an impending invasion 30 days in advance, Reserve Command will unlikely be able to mobilize and to field more than a fraction of its 2.5 million reservists as combat credible forces.

### ***Do Not Copy the U.S. "Operational Reserve" Model***

Taiwan's government is aware of the flaws in its current reserve model. As a result, it wants to emulate the U.S. "Operational Reserve" model. The aforementioned RAND report endorses this approach. It recommends posturing the reserves to better respond to the initial stages of a cross-strait invasion and developing more technically specialized units in areas such as electronic and cyber warfare, air defense missiles, and sea denial units. The RAND report also recommends that Taiwan should "employ the reserve force as an instrument of statecraft for

**208** *Ibid.*, 13-14 and 21-22.

**209** Interview with senior Ministry of National Defense officials, Taipei, Taiwan, January 15, 2018; Interview with Dr. Arthur Ding and Captain Yen Tieh-len, Taipei, Taiwan, January 16, 2018; and Interview with Mr. Wang Ting-yu and Dr. Tsai Shih-ying, Taipei, Taiwan, January 17, 2018.

detering PRC use of force and other forms of coercion” by highlighting the reserve force mobilization exercises to better signal their capabilities.<sup>210</sup> Lastly, the RAND report argues for the revision of the reserve force training to include sustained training periods (similar to the U.S. two-week annual training periods) and increasing funding to build this strong national reserve force.<sup>211</sup>

The U.S. model of an operational reserve might seem appealing. It is probably better than Taiwan’s current reserve system. Nevertheless, we do not think that it is the right model for Taiwan, not least because the U.S. approach to reserve readiness reflects challenges, constraints, and incentives that are unique to the United States. It is thus unlikely to be the ideal solution for Taiwan. Nor will it represent a cost-effective way to enhance deterrence. First, Taiwan probably would not be able to resource an operational reserve force without significant increases in its defense budget. The U.S. model relies on approximately 38 days of reserve duty in a year—specifically, 24 weekend drill days and two weeks of annual training. Moreover, many U.S. reservists who voluntarily perform more drill days and units in a mobilization work-up cycle are provided more weeks of annual training. Consider the following hypothetical. If Taiwan were to increase their training to the low end of U.S. requirements (38 days per year per individual), that would increase their paid training from five days every two years, to 76 days every two years. This would amount to a 15-fold expansion in reserve training requirements. Even without taking into account the other financial incentives and fringe benefits normally provided to American reservists, such an approach would require a massive increase in Taiwan’s reserve manpower funding.<sup>212</sup>

An even more important reason why an U.S.-style operational reserve may not be the panacea Taiwan hopes for involves mobilization timelines. Most analysts assume that Taiwan will have weeks—if not months—of advance warning that China is about to mount an invasion, affording the Reserve Command sufficient time to mobilize reserve units before any fighting begins. However, China is clearly unaware of these estimates—and the risk associated with giving Taiwan sufficient time to mobilize its massive reserve force—and may therefore elect to preempt such preparations via a combination of cyber-attacks, missile strikes, and sabotage to complicate mobilization. Moreover, the U.S. operational reserve model was designed to support wars in Iraq and Afghanistan. As a result, U.S. reserve units are mobilized well in advance of their deployment. They spend *months* on active duty conducting refresher and mission-specific training. All

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210 Easton et al., *Taiwan’s Reserve Force*, 61.

211 Easton et al., *Taiwan’s Reserve Force*, 62–64.

212 Col. Richard J. Dunn III, “America’s Reserve and National Guard Components” in *2016 Index of U.S. Military Strength*, Heritage Foundation (2015), retrieved from <https://index.heritage.org/military/2016/essays/americas-reserve-and-national-guard-components/>.

of this training is conducted in a safe, permissive environment. Such a model may work for the United States in Iraq and Afghanistan because its reserve units are expected to integrate with the active component before rotating back to an inactive, but ready, status following a deployment. Nevertheless, even in the most optimistic early warning scenarios, Taiwan lacks the ability to support such prolonged mobilization timelines. Nor could the United States, which has decades of experience preparing reserve units for deployment, conceivably mobilize its 1.1 million reservists in a single month. Thus, Taiwan should not think that it has the capacity to mobilize rapidly twice as many reservists in the same period of time, especially in the context of a siege and the first phases of a Chinese invasion.

Cumulatively, any attempt to transform Taiwan's large Reserve Command to mirror the U.S. operational reserve model would be overly costly, misguided, and unlikely to enhance Taiwan's conventional deterrence posture meaningfully. Instead, we offer the following recommendations:

### ***Adopt a Small Operational Reserve***

Despite the limitations laid out above, an operational reserve can serve as an important surge capacity for the active duty force. Rather than a full transition to an operational reserve along the lines of the 2017 RAND report and Taiwan's stated desires, we recommend a smaller operational reserve. This small operational reserve would augment active duty units in peacetime and serve as reinforcements for the counterinvasion fight. Ideally, the operational reserve would draw from prior-service members with technical training or individuals with advanced civilian skills, such as cyber specialists. These individuals could augment active duty forces in the areas such as sea denial (offensive mining and antiship missile batteries), air defense batteries, and a small number of higher-readiness infantry brigades to reinforce the active duty beachhead defenses. By using predominantly prior-service volunteers, Taiwan's Ministry of National Defense could leverage the investment in active duty training and not have to spend as much on basic skills and military indoctrination.

Instead of belonging to Reserve Command as the Ministry of National Defense has currently structured, these operational reserve forces should be aligned with the parent service (e.g., Army or the Navy). Doing so would allow them to be more integrated with their parent active duty services and as a result would have to adopt a more American-like drill schedule to maintain their administrative and operational readiness. Their manpower costs would be significantly higher than the current reserve force due to this training, but the mitigating factor is that a relatively small number of reservists will be included in this operational reserve. Overall, this reserve force would probably have fewer than 100,000 individuals,

based on the ratios of U.S. active to reserve forces. Accordingly, it would not be as major an expense as transforming the entire reserve system. Additionally, if they were maintained at higher readiness levels (as could be reasonably expected for a small number of volunteers), then they might be better postured to mobilize before a notional preemptive strike.

### ***Create a Territorial Defense Force***

We recommend that the government transform the bulk of Reserve Command from a counterinvasion force designed for a conventional fight on the beachheads into a Territorial Defense Force designed to resist a foreign occupation via a prolonged insurgency campaign waged in the cities, jungles, and mountains.<sup>213</sup> As mentioned, it is unreasonable to expect 15% of the population to maintain sufficient mobilization readiness to realistically be combat capable without some amount of warning. Thus, for the rest of the reserve force, we recommend an approach that many Baltic and Scandinavian countries facing similar existential threats with limited strategic depth are actively exploring and adopting. Rather than traditional military forces intended to go toe-to-toe with the invading conventional forces, they have invested in “people’s forces,” such as Norway’s Heimevernet or Estonia’s Estonian Defense League. More paramilitary than not, these forces have some military training but are largely civilian. They are only activated in the event of an attack on the homeland.<sup>214</sup>

We recommend that Reserve Command, now having transferred the operational reserve components to the appropriate parent services, be rechristened as the Territorial Defense Force Command. The Territorial Defense Force would be a paramilitary force responsible for disaster relief and civil assistance in peacetime, and for coordinating a guerilla warfare campaign in the event of an invasion. Given that it is not intended to operate as a conventional military force and integrate with the active duty components to resist an invasion on the beachheads, it would not need to maintain military readiness standards and could instead focus on the core tasks of homeland defense via guerilla tactics. As the United States has experienced in Iraq and Afghanistan, low-tech forces can improvise and prove horrifyingly effective against occupying forces.<sup>215</sup>

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**213** Easton et al, *Taiwan’s Reserve Force*, 11; and Interview with senior Ministry of National Defense official, Taipei, Taiwan, January 15, 2018.

**214** Elisabeth Braw, “There are More and More Threats that Militaries Can’t Stop. People’s Forces Can Help,” *Defense One*, March 15, 2018, retrieved from <https://www.defenseone.com/ideas/2018/03/norway-peoples-force-preps-threats-military-cant-stop/146705/>.

**215** Interview with Dr. Lin Chong-pin, Taipei, Taiwan, January 18, 2018.

### *Train the Territorial Defense Force to Fight Like Guerrillas*

Given these missions, the Territorial Defense Force would not need a similar level of training as conventional military forces. To some extent, they would not even need uniforms. Their role is to blend in with the populace and resist an occupation rather than to fight invading forces. Instead of being assigned to a traditional unit, Territorial Defense Force soldiers would simply form small, mobile resistance cells roughly linked to a nearby armory or weapons depot, but capable of independent action once mobilized. Instead of having drill weekends intended to ensure administrative readiness, conducting general military training, and dealing with the myriad of issues that conventional reserve units have to accomplish, Territorial Defense Force units could simply conduct annual or semiannual field exercises that keep costs relatively low.

In addition to the administrative task of mustering individuals, these field exercises should be made to look as similar as possible to a realistic mobilization in face of enemy invasion. They would practice drawing weapons and equipment from armories and dispersing them, covertly monitoring key targets, planting improvised explosive devices, ambushing occupying forces, and establishing foreign contact in a communications-denied environment.<sup>216</sup>

By design, the Territorial Defense Force would be resilient in the face of the possible preemptive cyber, air, and missile attacks that threaten other conventional forces. These forces would be naturally dispersed around population centers, and armories should be made as small as possible to allow for hundreds of locations, each located within easy reach of its likely members. Doing so would in turn permit mobilizing Territorial Defense Force soldiers to report to their armories before invading forces had time to secure the weapons. The dispersal and division into small armories would mitigate the first strike problem by providing too many low-cost targets for an invading power to realistically target them all with ballistic missiles. Similarly, their disaggregated nature mitigates the possible paralysis from cyber-attacks and kinetic attacks on the national leadership. Little coordination is required to mobilize Territorial Defense Force units: when the missiles start flying, they would report to their armory as quickly as possible to draw weapons and then disappear back into the population.

Rebranding the Reserve Command as the Territorial Defense Force sends several signals. First, publicizing Territorial Defense Force mobilization exercises and their unique guerrilla capabilities communicates that this is a new capability, different than the old Reserve Command. The MND's message to potential invaders should be that even if China were to overcome the island's conventional defenses, it would be bogged down in a never-ending, bloody conflict. Equally

important is the second signal: that the Territorial Defense Force is inherently defensive. Given its low level of training and lack of mechanized or advanced weaponry, the Territorial Defense Force is incapable of undertaking offensive, force projection missions. Taiwan can at once maintain the moral high ground and assure China that it does not intend any aggressive action, particularly since insurgency tends to be costly for both sides.

### *Is a Threat to Wage Insurgency Credible?*

Some analysts will invariably question whether Taiwan has the resolve and ability to wage a prolonged insurgency against the PLA. Such critiques usually rest one or more of the following assumptions:

**Taiwan is too developed and modern. Most citizens will flee rather than fight:** Without a doubt, most civilians will not participate in guerrilla operations against an invasion force. Nor should they. The average civilian lacks the weapons and training to conduct extraordinarily dangerous hit and run attacks on a well-armed adversary. This reason is why we advocate for transforming Taiwan's existing Reserve Command into a Territorial Defense Force organized, trained, and equipped for such missions. Nor does it take hundreds of thousands of fighters to effectively wage an insurgency. A comparison is instructive: the United States estimated that it was dealing with 20,000 active insurgents during the first year following its invasion of Iraq.<sup>217</sup> With several million soldiers in its ranks—even more if Taiwan adopts UMT, which we discuss below—a Territorial Defense Force can wage a brutally effective insurgency even if only a fraction of its members actually fight. Moreover, a properly waged insurgency will draw increasing support from Taiwan's citizens over time. PLA forces will invariably overreact to insurgent provocations, likely driving growing numbers of citizens to support the effort. To the degree that Territorial Defense Units are prepared to record and broadcast PLA transgressions around the world, the insurgency can also generate support from the international community.

**China knows how to wage counterinsurgency:** China has experience putting down insurgencies and suppressing rebellion. It has a People's Armed Police Force (PAP) consisting of 1.5 million paramilitary troops specifically trained to handle internal security missions. And the PAP has experience maintaining order in China's restive provinces. Nevertheless, it is important not to overstate their ability to effectively neutralize an insurgency in Taiwan. First, the PAP has no experience waging a counterinsurgency under the conditions we describe. Maintaining order in Xinjiang is nothing like fighting guerillas in the midst of a conventional war. The American experience in Vietnam, in which U.S. units

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<sup>217</sup> Bruce R. Pirnie and Edward O'Connell, *Counterinsurgency in Iraq: 2003–2006* (Santa Monica, CA: Rand Corporation, 2008): 24.

had to simultaneously contend with conventional and unconventional forces, is a closer approximation to the challenges that await China's counterinsurgent units. Furthermore, to a greater degree than even the Viet Cong, Taiwan's Territorial Defense Forces will have been explicitly organized, trained, and equipped for insurgency operations. Second, an insurgency in Taiwan puts China "on the horns of a dilemma." Counterinsurgency operations are notoriously manpower intensive. China will need to deploy either large numbers of PLA or PAP units to deal with the insurgency. Both options come at a cost. History suggests that conventional combat units are slow to master counterinsurgency operations. Therefore, if China uses the PLA to deal with the insurgency, it is more likely than not to play into the guerilla's strategy, relying heavily on firepower, ignoring political dynamics, and overreacting to provocations. Similarly, the more PLA units China sends to Taiwan, the more options the international community (perhaps moved to action by the insurgency) has to coerce China by threatening its interests around the world. Meanwhile, if China relies on PAP units, it will have to draw them from Xinjiang and other restive provinces. Rebel groups that want to pressure China into making concessions will likely take advantage of the reduced internal security presence. The more credibly Taiwan can threaten insurgency, the more China's leaders will have to decide whether they are willing to trade Xinjiang for Taiwan.

**Taiwan is an island. China can cut the insurgency off from external support:** Although Taiwan is an island, it is a large one. With nearly 14,000 square miles, it is approximately the same size as Massachusetts and New Jersey together. Its size, combined with over 700 miles of coastline, will make it nearly impossible for the PLA to maintain an airtight blockade. Sympathizers—both states and nonstate groups—will be able to use both traditional means, such as blockade running, and nontraditional methods, such as long-range drones, to support the insurgency. Nor will insurgents be exclusively dependent on help from the outside world. Part of organizing a Territorial Defense Force will entail establishing a complex network of weapons and ammunition caches. Insurgents will of course rely heavily on the local population for food, water, medical care, and intelligence. And, Taiwan's insurgents will rely heavily on guerrilla operations against the PLA to keep themselves supplied. Additionally, Taiwan makes up for its lack of size with its geographic complexity. PLA forces will have to conduct counterinsurgency operations in some of the harshest conditions imaginable: jungles, mountains, and megacities.







“National identity is essential to deterrence and defense.”

# 6

## Enhancing Social Resilience and Resolve

**DEBATES OVER DETERRENCE** strategies, force postures, and defense procurements are important. However, Taiwan's leaders must address two, far more fundamental questions: first, should they ask their people to fight if Taiwan's territorial integrity is violated and its political sovereignty faces extinction? And second, if they do make this request, will their people heed their call to take up arms, to fight, and to risk dying to preserve those twin values?

Available polling data and the interviews we conducted in Taipei in early 2018 suggest the answers to these questions remain troublingly elusive. A number of interviewees made comments touching on one or both of these crucial issues. We heard concerns from senior political leaders that the military might not fight if ordered. Several government officials and academics warned that the people might lack the resolve to sustain a prolonged fight over Taiwan's survival. Others went further, claiming that Taiwan should in fact not fight to defend its sovereignty against China, even if the capability and resolve exists.<sup>218</sup> In their opinion, Taiwan's sovereignty is not worth the lives it would cost to protect. Polling data reinforces some of these fears and concerns, although it is important to point out that Taiwan's citizens remain deeply divided on such matters. For instance, approximately one-third of respondents in one poll said Taiwan should not fight if China attacks it. At the same time, younger citizens—members of the Millennial generation—appear slightly more willing to fight and perceive China less favorably than the average citizen. Similarly, the number of people who identify as Taiwanese has risen dramatically over the past three decades.

The fact that severe disagreements abound in society over whether to fight is problematic. For one, a robust defense and deterrence posture requires the

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**218** In the interests of protecting our sources, we will not disclose the identities of those who made the foregoing comments.

support of a country. Taiwan would not face a deterrence trilemma if there were widespread support for significantly more defense spending. The absence of consensus makes it hard to marshal resources towards defense and deterrence measures in peacetime—to say nothing of wartime. Taiwan's political and military leaders will increasingly be forced to adopt stopgap solutions and compromises that fail to address critical vulnerabilities and weaknesses. Most important, deterrence will suffer. Over time, the lack of public support and the erosion of military capability it engenders will take a toll on Taiwan's credibility. The loss of credibility unnerves allies and partners. Worse yet, it emboldens adversaries.

To begin to get at these crucial issues, this section examines social resilience. Deterrence depends on credibility. And credibility depends on the ability to field a well-trained, well-equipped fighting force motivated by the knowledge that it enjoys the support of the people it defends. This requirement becomes especially critical if an asymmetric military response of the sort we advocate in this monograph will be adopted. Indeed, one study finds that soldiers must overcome a range of stressors that affect their combat effectiveness: workload, fear of danger, boredom, a sense of ambiguity surrounding their mission, and feelings of isolation that define warfare.<sup>219</sup> Individuals who have a sense of personal control, are satisfied with their work and accomplishments, and adaptable to change have what psychologists describe as “personality hardiness.”<sup>220</sup> Communities that contain such individuals are more able to withstand uncertainty. Individuals who evaluate their life experiences from a hardiness approach are more resilient.

Societies can be mobilized on the basis of a shared national identity.<sup>221</sup> National identity is a type of collective identity predicated on a demarcated territorial component (i.e., a homeland), the belief that members of the group are nominally equal, and a sense of shared community, institutions, and values.<sup>222</sup> In Taiwan's context, the strength of national identity has been the matter of intense debate in both policy and academic circles. The Election Study Center at National Chengchi University has investigated and recorded changes in individuals' identification as Taiwanese, Chinese, or both since the early 1990s. Initially, its surveys found that most people in Taiwan saw themselves as both Chinese and Taiwanese. By the early 2000s, however, growing numbers began identifying solely as Taiwanese. This trend continued unabated until 2014. Conversely, the frequency with which

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**219** J.T. Cacioppo, A.B. Adler, P.B. Lester, D. McGurk, J.L. Thomas, H.Y. Chen, and S. Cacioppo, “Building Social Resilience in Soldiers: A Double Dissociative Randomized Controlled Study,” *Journal of Personality and Social Psychology*, Vol. 109, No. 1 (2015): 91. See also Paul T. Bartone, “Resilience Under Military Operational Stress: Can Leaders Influence Hardiness?” *Military Psychology*, Vol. 18 Supplemental (2006): S133–S136.

**220** Bartone, “Resilience,” S137–S138.

**221** Barry R. Posen, “Nationalism, the Mass Army, and Military Power,” *International Security*, Vol. 18, No. 2 (1993): 80–124.

**222** Anthony D. Smith, *National Identity* (Reno, NV: University of Nevada Press, 1991): 9–11.

respondents identify as exclusively Chinese has been on a clear downward trend since the mid-1990s.<sup>223</sup>

Of course, national identity is a social construct, and so its content and meaning—to say nothing of its intensity—are subject to different pressures and influences. In Taiwan, national identity has been especially prone to contestation, not least because Taiwan's society is divided.<sup>224</sup> As such, scholars do not fully understand why we observe such remarkable variation in whether people in Taiwan self-identify as Taiwanese (or Chinese). Some scholars believe that the international political environment is a powerful driver of nationalist attitudes. Different interpretations of these trends are possible. One factor relates to where respondents consider their true home. After all, many fled China—including the leadership of the KMT—in the final years of the Chinese Civil War. The number of people who used to live in China has dropped dramatically as a share of the total population. Other methodological issues may abound. Richard Bush observes that the Election Study Center fails to provide a clear definition of what it means to be Taiwanese when conducting the survey.<sup>225</sup> Alastair Iain Johnston and George Lin highlight problems with how questions in the survey are formulated. Individuals may identify as both Chinese and Taiwanese but could still vary in their attachment to either.<sup>226</sup>

International and domestic political factors might also explain changes in self-reported identity over time. Yang Zhong contends that the growing salience of national identity stems not from a rejection of Chinese culture but rather from a rejection of China's CCP-dominated government.<sup>227</sup> Alternatively, domestic politics might play a larger role. As Professor Arthur Ding points out, more people identified as Taiwanese when President Ma Ying-jeou and the KMT were in power. By contrast, those numbers began to drop when President Tsai Ing-wen and the Democratic Progressive Party came to power in 2016.<sup>228</sup> Thus, it may be the case that people in Taiwan base their sense of national identity, at least in part, on their perceptions about who is in power and how they perform.

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**223** See Election Study Center at National Chengchi University, "Taiwanese/Chinese Identification Trend Distribution in Taiwan (1992/06-2017/12)," Election Study Center, January 15, 2018, retrieved from <https://esc.nccu.edu.tw/course/news.php?Sn=166>.

**224** Interview with Captain Yen Tieh-lin, Taipei, Taiwan, January 16, 2018.

**225** Richard C. Bush, "The 2016 Election and Prospects for Taiwan's Democracy," *Orbis*, Vol. 60, No. 4 (2016): 481.

**226** Alastair Iain Johnston and George Yin, "Beijing wants Taiwanese to identify as Chinese. But how do Taiwanese really feel?" *Washington Post (Monkey Cage)*, June 4, 2018, retrieved from <https://www.washingtonpost.com/news/monkey-cage/wp/2018/06/04/beijing-wants-taiwanese-to-identify-as-chinese-but-how-do-taiwanese-really-feel/>.

**227** Yang Zhong, "Explaining National Identity Shift in Taiwan," *Journal of Contemporary China*, Vol. 25, No. 99 (2016): 337.

**228** Interview with Dr. Arthur Ding, Taipei, Taiwan, January 16, 2018.

From the perspective of effective deterrence, it is a problem if people shift their sense of national identity based on their frustration with the government's performance. If domestic politics truly drive identity decisions, then political leaders and defense planners will experience more challenges leveraging national identity as a unifying force. To be sure, national identity might not be a good predictor for an individual's willingness to fight. But it surely helps develop national cohesion.

Identity trends might also impact China's decision-making. Some claim that the more Taiwan's society identifies as Chinese, the more China's leaders will use peaceful tools. Conversely, the more China's leaders perceive a persistent, possibly irreversible decline in Chinese identity within Taiwan, the more they might adopt more provocative policies on cross-Straits issues.<sup>229</sup> It is worth noting that a recent survey conducted by the Taiwan Foundation for Democracy found that roughly two-thirds of respondents said that they would be willing to go to war if China were to attempt a forceful unification of Taiwan.<sup>230</sup> That number drops to 55% if Taiwan were to declare unilateral independence.

China might also try to leverage or to exploit identity. Beijing has long promoted various economic development schemes in China to entice Taiwan's businessmen and entrepreneurs to come to China.<sup>231</sup> China recently announced its "31 Measures" on February 28, 2018, which aim to attract investment from Taiwan by relaxing restrictions to allow Taiwan firms to work on urban infrastructure programs, receive the same tax benefits as China's firms, and enjoy other benefits.<sup>232</sup> Taiwan's citizens are also able to study, to obtain professional certifications, and join professional associations in China. Economic incentives and cultural exchanges such as these offer a way to expose Taiwan's citizens to China's soft power.<sup>233</sup> Beyond a mere ploy to drain Taiwan of its talent and its technology, these initiatives are likely also an attempt to shape the attitudes and identities of Taiwan's voters.<sup>234</sup>

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**229** Johnston and Yin, "Beijing."

**230** Lin, "Taiwanese Willing to Fight China."

**231** Interview with senior Straits Exchange Foundation official, Taipei, Taiwan, January 19, 2018; and Interview with Dr. Ming Chu-cheng, Dr. Tang Hsin-wei, and Dr. Liao Hsiao-chuan, Taipei, Taiwan, January 19, 2018.

**232** "China Unveils Sweeping Plan to Attract Investments from Taiwan," *Bloomberg News*, February 28, 2018, retrieved from <https://www.bloomberg.com/news/articles/2018-02-28/china-unveils-sweeping-plan-to-attract-investments-from-taiwan>.

**233** Interview with Dr. Ming Chu-cheng, Dr. Tang Hsin-wei, and Dr. Liao Hsiao-chuan, Taipei, Taiwan, January 19, 2018.

**234** Department of Information Services, "Executive Yuan responds to mainland China's 'incentives' policy," *Executive Yuan Press Releases*, March 18, 2018, retrieved from [https://english.ey.gov.tw/News\\_Content2](https://english.ey.gov.tw/News_Content2).

## 6.1 RESILIENCE, RESOLVE, AND WARTIME EFFECTIVENESS

National identity is essential to deterrence and defense, not least because it helps raise military forces. Since the French Revolution, political leaders have used nationalism and national identity to mobilize mass armies. However, Taiwan's political leaders face a troubling paradox: the people in Taiwan who are most likely to identify as Taiwanese—the youth—are not motivated to also join the military.<sup>235</sup> This is a problem, since Taiwan's has struggled to attract and retain qualified personnel since shifting to an all-volunteer force despite using a range of generous (and expensive) incentives and benefits. One explanation for this strange contradiction may be that those who identify as Taiwanese do not necessarily also prefer hawkish policies towards China. Indeed, Johnston and Yin find that those who have a mixed sense of nationalist identity—that is, they believe they are to some extent both Chinese and Taiwanese—are more moderate in their views than those who are strictly Taiwanese.

A sense of ambivalence towards Taiwan's armed forces emerged in the interviews that we conducted in Taiwan in early 2018. Concerns about the military's ability to recruit, to train, and to maintain an all-volunteer force are pervasive. Nor are such concerns unfounded. Historically, Taiwan required two years of military for all 18-year-old males. Yet the transition to an all-volunteer force that began in 2011 has not been easy.<sup>236</sup> Taiwan's Ministry of National Defense has had to push back repeatedly the deadlines for finalizing the transition. It did not meet its 2017 deadline. And the newest deadline of 2019 is fast approaching.<sup>237</sup> Further compounding matters, the Control Yuan published a report stating that too few volunteers are available to respond rapidly to natural disasters.<sup>238</sup>

The Ministry of National Defense is aware of the problem. For its part, it is offering generous incentives to attract a sufficient number of recruits, including funding to support their education and leave that can be accumulated

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aspx?n=8262ED7A25916ABF&s=7C352D2DD4E6E544.

**235** Interview with Dr. Tung Chien-hung, Taipei, Taiwan, January 16, 2018; and Interview with Captain Yen Tieh-lin, Taipei, Taiwan, January 16, 2018.

**236** Interestingly, a 2015 poll conducted by Academia Sinica indicated widespread support for the continuation of conscription across every age group.

**237** Shang-su Wu, "Taiwan's Conscription Dilemma," *The Diplomat*, August 30, 2016, retrieved from <https://thediplomat.com/2016/08/taiwans-military-conscription-dilemma/>; and Shih Hsiao-kuang and William Hetherington, "Volunteer Military a Risk: Control Yuan," *Taipei Times*, December 24, 2017, retrieved from <http://www.taipeitimes.com/News/taiwan/archives/2017/12/24/2003684551>; and Interview with Dr. Mark Weatherall, Asian Barometer Survey, National Taiwan University, Taipei, January 17, 2018.

**238** Hsiao-kuang and Hetherington, "Volunteer Military."

for ten to 15 days every season.<sup>239</sup> Some experts contend that these incentives are insufficient for attracting and retaining the needed personnel. Pay and benefits remain low.<sup>240</sup> In June 2018, the Legislative Yuan oversaw reforms of the pension system for veterans. These reforms resulted in deep cuts (as high as 20%) in pay and benefits for senior officers. Although the risk of bankruptcy prompted such reforms, they compound the recruiting and retention dilemma. Another obstacle is Taiwan's political history. The memories of the White Terror—which lasted from 1947 through 1987 under the Nationalist Army—tarnish the military's image and reputation.<sup>241</sup> Recent scandals have not helped. One conscript died in July 2013 upon being punished for bringing a mobile phone with a camera to his military base. Bullying is likewise pervasive and lessens the appeal of voluntarily enlisting.<sup>242</sup>

Frustrations also pervade the military with respect to the quality of training. Ironically, recruits do not find the training frustrating because it is too hard. Instead, they feel like it is a “waste of time.”<sup>243</sup> Once personnel leave active duty and transition into the reserves, the quality of training deteriorates even further, not least because of its infrequency.<sup>244</sup> The current structure of military training many not encourage rigor: when an individual's time in the military is nearing completion, their supervisor often prefers that they stay out of camp and out of trouble.<sup>245</sup> Improvements in the training regime might boost recruitment—that is, if a more rigorous training were available, then perhaps more people would be willing to volunteer, especially if the military could serve as a pathway to different careers. Yet requiring even more training may be unpopular. One legislator warned that it might be “a little bit difficult” to require core training.<sup>246</sup> Similarly, an academic cautioned that raising training requirements would be “political suicide.”<sup>247</sup> Experts at the Center for Strategic and Budgetary Assessment agree that more training is a political non-starter for Taiwan's government. This constraint is unfortunate. It behooves Taiwan to adopt military training methods more appropriate for waging asymmetric warfare, particularly as the military gap between China and Taiwan widens.

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**239** Interview with senior Ministry of National Defense official, Taipei, Taiwan, January 15, 2018.

**240** Interview with Dr. Huang Min-hua, Taipei, Taiwan, January 17, 2018.

**241** Interview with Dr. Mark Weatherall, Taipei, Taiwan, January 17, 2018.

**242** “Taiwan Defence Minister Resigns amid Conscript Death Row,” *British Broadcasting Corporation*, July 29, 2013, retrieved from <https://www.bbc.co.uk/news/world-asia-23488044>.

**243** Interview with Dr. Arthur Ding, Taipei, Taiwan, January 16, 2018.

**244** Interview with senior Ministry of National Defense official, Taipei, Taiwan, January 15, 2018.

**245** Interview with Dr. Mark Weatherall, Taipei, Taiwan, January 17, 2018.

**246** Interview with Mr. Wang Ting-yu, Taipei, Taiwan, January 18, 2018.

**247** Interview with Dr. Huang Min-hua, Taipei, Taiwan, January 17, 2018.



There is also a widespread perception that the millennial generation cannot handle the rigorous military training or service. Some refer to the Millennials in Taiwan as the ‘Strawberry Generation,’ a derisive term meant to imply that they bruise easily and cannot handle hard work and adversity. In other words, concern abounds in Taiwan as to whether the civilian population is becoming less resilient and fuller of contempt for the military than in years past. The result is for military-aged citizens of Taiwan to be even less willing to fight for the purposes of territorial defense. To be sure, there is a broader issue at play here that touches on the lack of youth engagement in existing political institutions. Brading notes that many of Taiwan’s Millennials seem “bored with politics” and more preoccupied with “employment prospects and economic growth.”<sup>248</sup>

At the same time, this pessimistic assessment about a declining resolve to fight is not universally shared. The efforts of young entrepreneurs in creating a more livable and innovative environment could simply indicate that society is making the inevitable shift toward a service-based economy. Put differently, members of the new generation remain hardworking as ever. The younger generation might have different interests, but it also operates in a different environment from what older generations have had.<sup>249</sup> Some data support this view. Just over 70% of all respondents ages 20 to 39 years indicated a willingness to go to war with China to prevent a forced reunification. This number is higher than the average across all groups (67.7%).<sup>250</sup> Taiwan’s Millennials also seem to report more negative attitudes toward China. Those born after 1968 are more likely to have less favorable views of China than those born before. Millennials have also been fairly adept at using social media to voice their policy concerns, whether with regards to conscription or economic ties with China. Despite their reputation for political disengagement, a group of students occupied the Legislative Yuan in 2014 in order to oppose the passage of the Cross-Strait Service Trade Agreement (CSSTA) that was meant to liberalize further service industries between Taiwan’s and China’s economies.<sup>251</sup> Other examples of social movements in Taiwan include the 2008 Wild Strawberry Movement and the 2012 protests against Chinese media acquisitions. Worries about the resilience of the younger generation may be exaggerated.

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**248** Ryan Brading, “Taiwan’s Millennial Generation: Interests in Polity and Party Politics,” *Journal of Current Chinese Affairs*, Vol. 46, No. 1 (2017): 146.

**249** Interview with Dr. Arthur Ding, Taipei, Taiwan, January 16, 2018.

**250** Liu and Li 2016, 273.

**251** *Ibid.*

## 6.2 RECOMMENDATIONS

### *KMT and DPP Parties Should Strive to Agree on a Basic Security Framework*

Agreement on a basic framework that stipulates the importance of maintaining Taiwan's territorial integrity could serve as a foundation on which to build social resilience and resolve. The dramatic differences that currently exist between the two major political parties—the KMT and the DPP—make it unlikely a national consensus can be forged. To the greatest extent possible, discussions on a framework should take place privately to promote trust between the parties and to avoid antagonizing China. The formulation of the framework would need to account for cultural sensitivities on both sides of the Strait and any Chinese red lines. The framework may be most effective if maintained as a classified document, potentially as the introduction to a national security strategy or military operations plan.

### *Issue a Joint Think Tank Report*

The National Policy Foundation and New Frontier Foundation—the think tanks of the KMT and the DPP, respectively—should consider issuing a joint statement or, possibly, a full report on the importance of territorial integrity and, by extension, the preservation of Taiwan. This document represents an unclassified version of the previously discussed framework. Its purpose is to help unify public opinion in Taiwan and to reduce the available space for partisan differences. The statement may also lead to a more muted reaction from China, since it originated in the think tanks and not political leaders.

Partisanship currently inhibits Taiwan's ability to craft and execute a coherent strategy for preparing its own territorial defense. The degree to which the DPP and KMT can agree will be instrumental in building resolve among the population.

### *Consider Universal Military Training*

The current pool of 2.5 million reservists will continue to shrink as Taiwan shifts away from conscription. Therefore, Taiwan might want to consider introducing Universal Military Training (UMT). Like conscription, UMT would require that every military-age citizen (male and perhaps female) receive a limited amount of military training. This training could take the form of an intense three- or four-month block after high school, but it could also be structured as a required college course akin to the U.S. reserve officer training corps. Unlike conscription, UMT does not require that every military-

age citizen serve on active duty after completing his or her training. Instead, UMT graduates would transition directly into the Territorial Defense Force and be subject to annual training and wartime mobilization for a set period of time. In this way, UMT can focus specifically on fostering the mindset, skills and tactics, techniques, and procedures unique to guerrilla warfare. UMT has another advantage: to the degree that Taiwan's citizens believe that the training is rigorous and useful, UMT will likely increase the degree to which they identify with Taiwan and its defense.

### *Prepare for Forever War: A Whole of Society Approach*

Taiwan's government can also consider learning from the "best practices" of the insurgents currently fighting in Afghanistan, Syria, and elsewhere, and develop a plan for "forever war" as a counter to any invasion of the island. Credibly signaling to China that conflict might drag on for years—if not decades—may well serve as the strongest deterrent. It would strike at the heart of what many interviewees believe are China's two greatest fears: a lengthy conflict and high Chinese casualties.

Part of this effort should include the recommendations for social denial that we introduce in Chapter 5, including incorporating insurgency into Taiwan's official war-fighting doctrine and reorganizing Taiwan's Reserve Command as a Territorial Defense Force. However, there are other steps the government can take. For example, the government can discuss a continuity of leadership plan if an invasion occurs. The plan's primary goal should be to deny China the ability to control the population by infiltrating and coopting government agencies. Therefore, the plan might involve the physical dispersal of government officials throughout the country. Additionally, the plan could establish flatter—or even cell-like—lines of authority structure designed to prohibit China from controlling a single government representative who would be able to surrender on the population's behalf.

Conceptually, Taiwan's government wants to complicate any Chinese invasion to the maximum extent possible and to ensure that China understands those complications ahead of time. One way to achieve that goal is to render China's potential capturing of the Presidential Office Building or the Legislative Yuan irrelevant. Alternatively, the government can sponsor more civil defense exercises. The exercises would be designed to increase the population's confidence in their government and achieve buy-in on the appropriateness of fighting to defend Taiwan, while not being so intrusive as to risk alienating the public. Building resolve would be the primary goal of the drills. Lessons learned could be gathered from, for example, South Korea.

### ***Foster National identity***

Ethnic identity is a powerful motivator to fight. Some scholars argue that ethnic groups want to “control territory because it means securing their identity.” And a secure identity is critical because it assures the group’s continuation. Others note the potential power of nationalism to “heighten the senses that all obstacles can be overcome.” And still other scholars observe that a strong sense of ethnic identity connected to myths and symbols can evoke tremendous emotion, which can be used by elites to instigate war.

All else equal, the more citizens identify as Taiwanese and the more intensely they feel about that identity, the more likely they will fight to defend their country. History includes ample examples of nationalism seemingly taking on a life of its own and leading to disastrous consequences. In a sense, purposely manipulating Taiwanese identity to ensure the country is ready for war is similar to handling a powerful but unstable explosive. To that end, government officials may want to commission a study on this topic before considering any policies for implementation.





“A simple,  
radical  
solution:  
elastic  
denial-in-  
depth.”

# 7

## Conclusion

**SECURITY EXPERTS** often say that in international environments where danger lurks, a country faces uncertainty. Yet the word “uncertainty” is inappropriate for Taiwan’s context. We believe that Taiwan’s leaders and defense planners have a very different problem: too much certainty exists over China’s intentions with regards to Taiwan. China simply wants to restore political control over the island. What remains unclear is how China would proceed to realize this ambition or how much time needs to pass before it can. Such danger needs to have a more disciplining effect on not only Taiwan’s defense policy but also how its society should think about China.

Our argument is as simple as it is radical. It is simple insofar as we contend that Taiwan should embrace an elastic denial-in-depth posture. That means Taiwan should not plan for set piece battles against China. It should prepare its society for an asymmetric campaign that entails not only fighting a much stronger country but also using relatively low-tech weapons and guerrilla warfare to make the costs of invasion and occupation prohibitively high for China. It is radical because our proposed strategy means that Taiwan should reconsider—if not renounce—its predilection for wanting high-end military platforms, prepare its society for fighting an insurgency campaign, and plan most intensely for a war that would not see the United States coming to its rescue. These changes may require challenging and even overturning long-held orthodoxies in Taiwan’s strategic thinking, but we believe that they are necessary if Taiwan wishes to retain its *de facto* independence indefinitely.

We mentioned once in passing that Taiwan should learn from the example of Estonia and, by extension, the other Baltic states. Some readers might object to this claim because Taiwan is an island country that has a trillion-dollar economy and about four times the population than the Baltic states do in aggregate. Yet

we insist that their example is instructive for Taiwan. Those states have many benefits that Taiwan unfortunately lacks: extensive international recognition and representation as well as security treaty links with 26 countries that include the United States. These benefits have not translated to complacency, however. Some uncertainty abounds as to Russian intentions toward the Baltic region. Although the Kremlin has declared the protection of Russian minorities in its geopolitical neighborhood a priority, doubts exist over whether Russia will go so far as to use military force against any of the three NATO members.<sup>252</sup> In light of this uncertainty, the Baltic countries have taken a number of measures to improve their denial capabilities lest Russia would attack them. They have increased their defense spending to meet their NATO commitments, reintroduced conscription, and maintained—at least in the case of Lithuania and Latvia—a robust volunteer militia force. These countries do not have their own air forces and lack any significant naval assets. Nor do they have any ambition to acquire any major military platforms. They understand that these platforms would be lost in the opening phases of any full frontal assault on their lines if Russia were to attack.

Taiwan might have the buffer of the Strait that complicates any invasion plans that China could have. Still, water ultimately does not have stopping power: coastal defenses and manpower do. The future does not look like the past, when China lacked the maritime capabilities to mount an assault across the Strait for the longest time. Though we acknowledge that amphibious operations are perhaps the most difficult to do militarily, China's efforts at modernizing its armed forces do not bode well for Taiwan. Even if we suspect that China prefers to resolve Taiwan's status peacefully, we know from historical experience that wars can still happen. Beijing might feel pressure to exploit a window of opportunity, whether or not Taipei realizes it. Accordingly, Taiwan needs to prepare for the worst-case scenario in the appropriate manner: making sure that it can last as long as possible in a military confrontation with China without the help of others.

We conclude with two thoughts. The first is that although Taiwan should plan on the assumption that the United States will not provide military support in the event of an armed crisis with China, we would contend that our strategy in fact *increases* the likelihood of U.S. assistance. Of course, no one knows—not even U.S. decision-makers—the conditions under which the United States will intervene to rescue Taiwan. Nevertheless, the United States will likely not rush into war on Taiwan's behalf if China can pull a dramatic *fait accompli* for the island. However, Washington will very likely provide assistance if it sees that Taiwan can effectively resist China for an extended period of time on its own. The case of Ukraine is partly instructive. The United States initially imposed a

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**252** For a review of Russia's probable intentions, see Alexander Lanoszka and Michael A. Hunzeker, *Conventional Deterrence and Landpower in Northeastern Europe* (Carlisle, PA: Strategic Studies Institute, 2018): Chapter 1.



few sanctions on Russia after its illegal annexation of Crimea and little more. Over time, as Ukraine has demonstrated its battlefield resiliency against Russian forces, the United States began increasing its military support. Taiwan does not have the territorial depth of Ukraine and so much less time would be on its side, but what matters is that Taiwan may need to demonstrate that it can properly help itself before it can receive the help from others.

The second thought concerns the very desirability of pursuing a conventional military strategy. Some readers might conclude from this monograph that the balance of power is so hopeless for Taiwan that Chinese victory is inevitable. As such, the nuclear weapons option ought to receive consideration. Such assessments would be terribly wrong, however. The worst thing that Taiwan could do is to reopen the nuclear question. To begin with, Taiwan would be unable to reconstitute a nuclear weapons program in secret. Throughout the 1960s and the 1970s, Washington was aware of Taiwanese efforts to procure sensitive nuclear technologies. In 1987, a double agent informed the intelligence community in the United States of Taiwanese activities.<sup>253</sup> The likelihood that this sort of intelligence experience would repeat itself, whether with a Chinese or U.S. double agent, is high. Disclosure of this program would almost certainly provoke the very thing that the nuclear weapons would purportedly seek to deter: a Chinese military attack. Even if Taiwan were somehow to succeed in secretly developing nuclear weapons, it would have to disclose those capabilities eventually in order to realize their deterrent benefits. Yet such a gesture would still be profoundly destabilizing because Chinese decision-makers would probably feel intense domestic pressure to use military force before Taiwan acquires reliable delivery vehicles or a survivable second-strike capability. Worsening this situation is that Taiwan would remain highly vulnerable precisely because it chose to neglect its own defenses. A robust conventional military posture is thus the safer and more prudent posture for Taiwan because it will not encourage such dynamics.

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**253** See Alexander Lanoszka, *Atomic Assurance: The Alliance Politics of Nuclear Proliferation* (Ithaca, NY: Cornell University Press, 2018): 143-147.



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# A QUESTION OF TIME

## Enhancing Taiwan's Conventional Deterrence Posture

“Taiwan should be one of the most secure places on earth. It is a flourishing liberal democracy that boasts a vibrant, globalized economy, a well-educated population, and a high standard of living. Yet Taiwan's future is anything but secure. Whether or not China might someday attack Taiwan is a matter of much debate. Whether or not Taiwan should take steps to convince Chinese leaders that the costs of waging such a war will outweigh any possible benefits is not.

This monograph suggests a holistic strategy that Taiwan can use to enhance its conventional deterrence posture. It is no longer obvious that Taiwan can afford to maintain qualitative or quantitative parity with China. Therefore, we argue that Taiwan should embrace a highly asymmetric, elastic denial-in-depth posture.”

— from *A Question of Time*

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This important study breaks new ground in thinking about Taiwan's security requirements in the face of China's rise. Strategists and military planners will find many concrete recommendations to consider; scholars of the region's political dynamics will also be provoked to think about how Taiwan's remarkable political and economic achievements may not guarantee its security vis a vis a determined and increasingly confident China. Preventing worst case scenarios on Taiwan continues to be a high priority for policymakers in Washington. The Schar School's Professor Michael Hunzeker and University of Waterloo's Alexander Lanoszka and their team have made a worthy contribution to the public conversation about stability in East Asia. —*Ming Wan, Associate Dean, Schar School of Policy and Government, George Mason University*



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