

National Security

Tackling our Nation's most pressing challenges
by the TECOM Warfighting Club

Last month's *Marine Corps Gazette* introduced readers to the Training and Education Command Warfighting Club (TWC). In keeping with the TWC's goal to help ensure our Corps remains "most ready when the nation is least ready," this article's purpose is to describe our efforts in tackling arguably the most complex national security challenge facing America today: China's desire to kick the U.S. out of the Indo-Pacific region.¹ The TWC is focused like a laser on this strategic problem, specifically analyzing wargaming scenarios where China attempts to use overt military force to establish new rules above, below, and on the surface of the South China Sea, a part of the world where at least \$1.2 trillion of the U.S. economy flows annually² (see Figure 1).

In this article, we first explain the scenario that provided the foundation for our wargames. Next, we describe how we approached running the wargames, including the hypotheses that drove them. We subsequently share insights from the wargame results based on operating with current Marine Corps capabilities while presenting potential alternatives. Last, we explain key wargame observations and associated initial recommendations specific to future Marine Corps force design, posture, and employment.

TWC Priority Scenario

Given the 2018 National Defense Strategy³ guidance, the Secretary of Defense nominee's reinforcing "China, China, China"⁴ focus, and our Commandant emphasizing that "we must establish a forward deployed defense-in-depth, anchored on naval 'inside' forces"⁵ in the Indo-Pacific, our wargame scenario examined potential conflict

"China and Russia want to shape a world antithetical to U.S. values and interests. China seeks to displace the United States in the Indo-Pacific region, expand the reaches of its state-driven economic model, and reorder the region in its favor."

—2017 National Security Strategy

escalation situations in the South China Sea's contested Spratly Island chain. The scenario started with a diplomatic standoff over maritime boundaries. Chinese fishing vessels and maritime militia crowded the area in accordance with Beijing's so-called "Cabbage Strategy"⁶ (see Figure 2). In response, a Filipino P-1 maritime patrol aircraft, donated by the Japanese Maritime Self-Defense Forces (JMSDF), attacked two maritime militia vessels. The Philippines claimed they were acting in self-defense.

Chinese news reported the attack was unprovoked, leading to social media protests and spiraling unrest. A wave of cyber-attacks hit the Philippines. Additionally, mobs attacked the Filipino Embassy in China, and rival mobs attacked ethnic Chinese citizens in Manila. Chinese media outlets blamed the Philippines and countries supporting Manila's armed forces, including the United States, Japan, and Taiwan.

The situation escalated when China moved a surface action group into the

"There simply is no way to do deterrence by denial ... particularly in the Indo-PACOM theater ... unless we find a way to get more Navy-Marine Corps tooth into the blunt and contact layers, right? But then the question becomes, to your point, Mr. Secretary, what's the right mix of tooth? What's the right mix of ships, and sailors and marines? And what's the overall cost? Because it doesn't need to be all carriers."

—Rep. Mike Gallagher (R), House Armed Services Committee Department of the Navy posture hearing, April 10, 2019

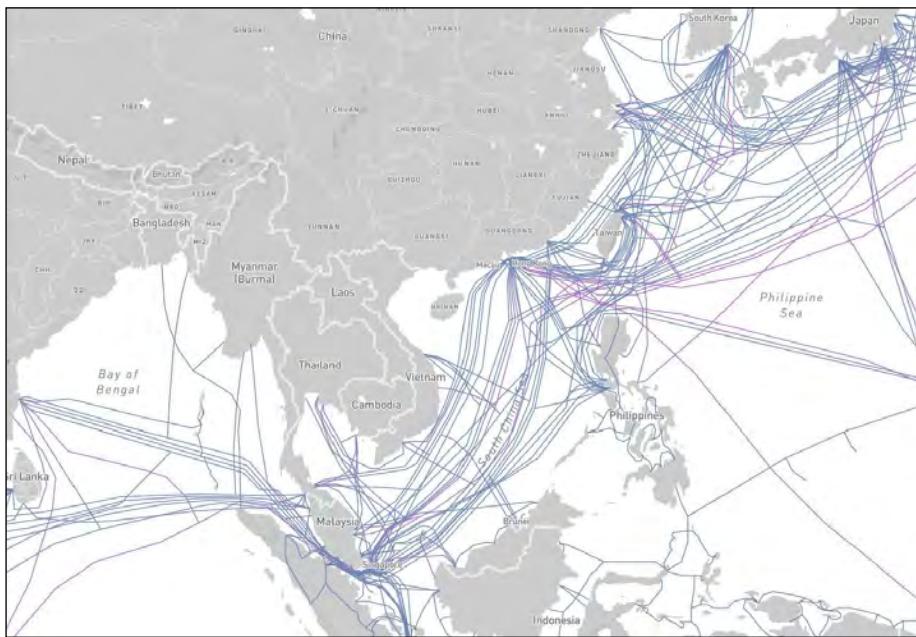


Figure 1. Undersea cable and ground-based landing station locations in the South China Sea, as well as throughout the rest of the Indo-Pacific. American companies such as Amazon, Google, Facebook, and Microsoft have invested billions of dollars on this infrastructure. (Figure provided by author.)

Spratly Island chain and began conducting anti-surface, sub-surface, and anti-air drills at facilities in Subi, Mischief, and Fiery Cross Reefs while also establishing a large air defense identification zone (ADIZ). Using YJ-62 anti-ship missiles fired from the militarized reefs, Chinese forces sank two Filipino ships, PS-15 and 16 (both modernized Hamilton-class cutters from the United States Coast Guard). Chinese forces also downed three multi-purpose attack craft (all built in Taiwan) using

their HQ-9 surface-to-air missile systems. Beijing proceeded to enforce the ADIZ with J-10 combat air patrols. On the diplomatic and economic front, China leveraged debt obligations across the region linked to the “one belt, one road” initiative to keep other Southeast Asian countries on the sidelines (see Figure 3).

In response, Philippine President Rodrigo Duterte requested immediate U.S. assistance as part of the 1951 U.S.-Philippines Mutual Defense Treaty.⁷

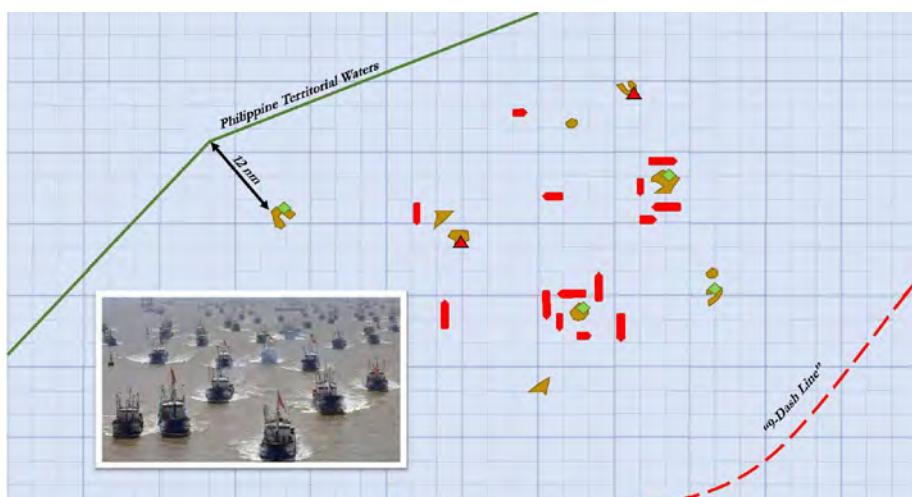


Figure 2. China’s “Cabbage Strategy” in execution, including the use of hundreds of maritime “militia” vessels. (Figure provided by author.)

When doing so, he specifically cited U.S. Secretary of State Mike Pompeo’s recent declaration stating, “Any armed attack on Philippine forces, aircraft or public vessels in the South China Sea will trigger mutual defense obligations.”⁸ The President of the United States decided to come to the Philippines’ aid, including employing overt military force to counter China’s actions within the Spratly Island chain.

U.S. Indo-Pacific Command subsequently stood up Joint Task Force 77 (JTF 77), consisting of an Expeditionary Strike Group, along with a Marine F-35B squadron from Okinawa, a guided-missile cruiser, two guided-missile destroyers, and two littoral combat ships. For the initial wargame iterations, no additional forces were available given additional People’s Liberation Army (PLA) task forces operating near Taiwan and Japan and the threat of a larger Indo-Pacific war. Later wargame iterations incorporated potential near-term warfighting capabilities as part of JTF 77. In either case, JTF 77’s objective was to specifically destroy Chinese forces in the Spratly Island chain that were implementing the ADIZ and preventing unimpeded maritime traffic through the South China Sea. A secondary JTF 77 objective was to limit the potential for PLA follow-on operations targeting the Philippines. Additionally, JTF 77’s economy-of-force mission sought to tie down PLA forces that could be used to attack Japan and Taiwan (see Figure 4).

The TWC approached the scenario with two hypotheses. The first hypothesis posited that the allocated forces, employed using a traditional deterrence-by-reactive punishment construct, would fail to accomplish the mission and suffer tremendous losses in the process. This hypothesis will likely not come as a surprise to most *Gazette* readers given our Service capstone concept stating clearly:

The Marine Corps is currently not organized, trained, and equipped to meet the demands of a future operating environment characterized by complex terrain, technology proliferation, information warfare, the need to shield and exploit signatures, and an increasingly non-permissive maritime domain.⁹

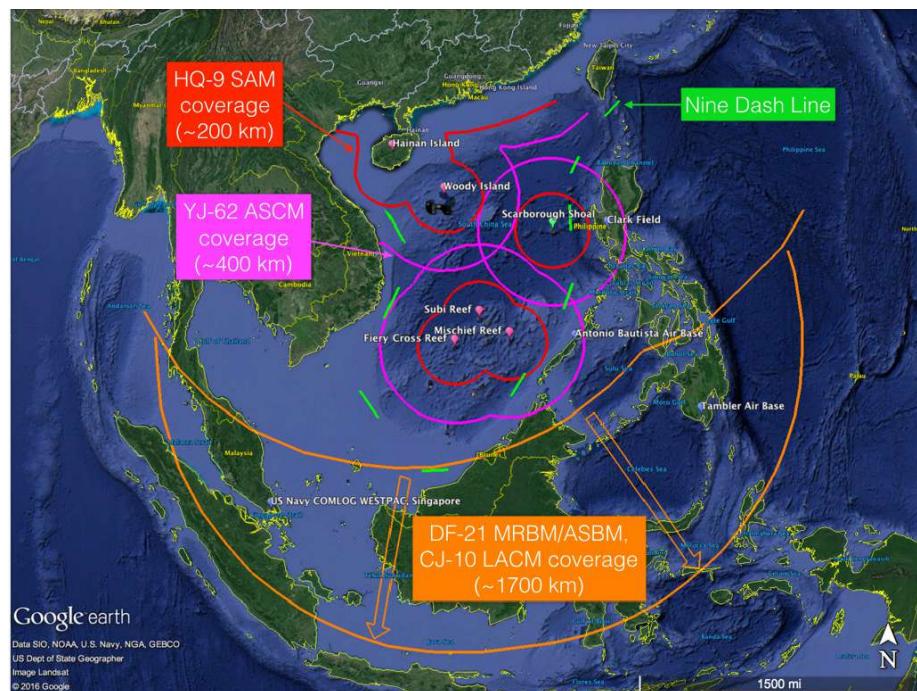


Figure 3. Chinese military capabilities in and around the Spratley Island chain accounted for in the wargame scenario. (Figure provided by author.)

Moreover, the hypothesis will likely not come as a surprise to *Gazette* readers familiar with the recent bi-partisan National Defense Strategy Commission report.¹⁰ This report warned that, “The U.S. military could suffer unacceptably high casualties and loss of major capital assets in its next conflict. It might struggle to win, or perhaps lose, a war against China or Russia.” Specific to these competitors, the Commission’s

report stated, “The challenge China presents is particularly daunting.” For these reasons, the TWC felt it important to test the first hypothesis to establish a firm baseline understanding of the problem.

The second hypothesis allowed for flexibility in warfighting organizations and capabilities. These were based on factors such as advancements in loitering munitions technologies,¹¹ the Unit-

ed States exercising its right to withdraw from the Intermediate-Range Nuclear Forces Treaty,¹² and the Philippines expressing interest in obtaining long-range, ground-based conventional missiles as part of its strengthening relationship with American military forces.¹³ As a result of these factors, when testing the second hypothesis, JTF 77 included a truly integrated and partnered naval force headquarters, employed mobile, land-based, conventional long-range missiles from Palawan in the Philippines, and incorporated dozens of low signature fast attack craft equipped with swarming loitering sensors and munitions. This hypothesis posited that if U.S. Marine and Navy forces were organized, manned, trained, equipped, and postured differently in the future—with a partnered deterrence-by-denial mindset—JTF 77 would be able to accomplish its mission.

Wargame Results

Thus far, the TWC has executed the wargame nine separate times. Six of the wargames tested the first hypothesis. The other three wargames tested the second hypothesis.

Unfortunately, as we anticipated, the first hypothesis turned out to be true in all six wargame iterations. The “Next Battle of Salvo Island” resulted in JTF 77 losing vast numbers of Marines, Sailors, Naval, and air assets during every engagement. The TWC encountered these same results no matter how much we changed the sequence of assets flowing into the objective area, as well as regardless of how we sequenced assets to execute attacks. JTF 77 failed to accomplish the mission every time, just as our Service capstone operating concept and the National Defense Strategy Commission report predicted.

The good news is that the second hypothesis proved true as well. The TWC found incorporating mobile, conventional land-based missiles extremely valuable in destroying PLA high-value targets on the reefs. Swarms employed from unmanned fast attack craft proved critical, especially when employed in close coordination with the missiles. To our surprise, the wargame iterations found that physical, kinetic effects from



Figure 4. A screenshot of the TWC wargame scenario from Command: Chains of War Wargame Design and Execution. (Figure provided by author.)

"If there is one central theme in American strategic culture as it has applied to the Far East over time, it is that the United States will not tolerate any other power establishing exclusive hegemonic control over Asia or the Pacific."

—Michael J. Green, By More Than Providence: Grand Strategy and American Power in the Asia Pacific Since 1783

swarms were less important than their ability to provide coordinated electronic attack. These added capabilities, when employed by a partnered naval force headquarters and with the aforementioned JTF 77 assets, resulted in mission accomplishment, albeit still with significant combat losses.

Initial Recommendations Based on Wargame Results and the New Strategic Guidance

Over the past few months, the TWC has learned a great deal about our own and our potential adversary's warfighting capabilities. Conducting realistic wargames, focused on our Nation's most complex strategic problems, has proved invaluable. Throughout this process, leveraging high fidelity commercial wargaming software, such as *Command: Chains of War*, has proven extremely valuable as well. Our four primary initial insights are included below:

Moving beyond platitudes and PowerPoint slides when discussing true, persistent, forward deployed, and distributed naval integration is essential. The TWC lost each wargame iteration when using our Corps' traditional and current organizational constructs. We accomplished the mission, however, when changing these constructs and incorporating different warfighting capabilities. Our findings in this regard are similar to those described by Capt. Nick Oltman in a recent article titled, "EABO Needs a New Naval Command and Control Structure," in which he stated, "Without a significant C2 overhaul, the Marine Corps cannot adapt to the new operational paradigm."¹⁴

Adapting our Corps' force design and posture away from its current deterrence-by-reactive punishment toward one of deterrence-by-denial is also essential.¹⁵ The TWC learned consistently and repeatedly that forward deployed and forward-based warfighting capabilities were far more effective than those attempting to enter the objective area after "shooting commenced." Achiev-

ing this force design and posture will require foundational changes to how the Corps prioritizes forces distributed in the National Defense Strategy's contact and blunt layers in contrast to the institution's current, predominant focus on surge layer missions.¹⁶

While the TWC found much success employing swarms, we no doubt "fairy-dusted" many required changes that must occur before leveraging such capabilities. First on the list of required changes is *DODDir 3000.09, Autonomy in Weapons Systems*, being updated.¹⁷ As *DODDir 3000.09* stands today, it does not authorize employment of swarming munitions in the ways in which TWC employed them—even if the PLA appears to already have such capabilities.¹⁸ Once the required *DODDir 3000.09* changes are made, our Corps will have to demonstrate an arguably unprecedented level of aggressive spirit in embracing such systems. This is no small task, particularly considering it is 2019

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and no Marine MOS, in any MEF, has a training and readiness requirement to employ even remotely piloted, much less fully autonomous, loitering munitions. It is important to note here that U.S. Special Operations Command personnel, including those assigned to Marine Corps Special Operations Command, have been employing such systems for at least six years now.¹⁹

While the TWC found mobile, conventional land-based, long-range missiles incredibly valuable, multiple variables involved in their employment were also “fairy-dusted” and need to be addressed before this became a real capability. Fortunately, unlike DODDir 3000.09 challenges, our government is in the final stages of completing its withdrawal from the INF Treaty, eliminating the biggest obstacle. Moreover, Congress already ordered the DOD to “establish a program of record to develop a conventional road mobile ground-launched cruise missile system with a range of between 500 to 5,500 kilometers,”²⁰ and our Corps is already moving out based on this guidance.²¹ For these reasons, it is perhaps not too much of a stretch of the imagination to forecast Marines in the contact and blunt layers having persistent access to such fires in the near future. Perhaps the biggest hurdle will be employing the weapons from locations such as Palawan, as we did when testing the second hypothesis. This said, given the Philippines’ recent interest in fielding such systems organically, along with Manilla’s request for the U.S. Government to publicly communicate that an attack on Filipino personnel, vessels, or aircraft in the South China Sea would trigger U.S. mutual defense treaty obligations, we argue that it is certainly within the realm of possibility for such land-based missile systems to be available in the not-too-distant future.

Having offered these insights, we assert it is important to provide a caveat acknowledging that the TWC has only scratched the surface in tackling the described problem set. We have much work left to do, and we fully intend to keep *Gazette* readers informed as our efforts continue. As explained in our first article last month, we welcome you

to become a member of the TWC and help us along the way!

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