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## JOURNAL OF ADVANCED MILITARY STUDIES

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### **Maritime Militias**

Disrupting Naval Operations in the Pacific Theater and the Case for Intermediate Force Capabilities in the Maritime Domain

Peter Dobias, PhD

**Abstract:** China aims to pursue national goals through a combination of political, diplomatic, and information maneuvering. With China's growing assertiveness against other countries in the Asia-Pacific region, the risk of a military conflict in the region is increasing. Drawing on the ideological importance of militias, during the last 10 years China heavily invested in building its fleet of maritime militias masquerading as fishing vessels. This article argues that in case of a conflict in the Asia-Pacific, these militias could be employed to interfere with the U.S. and allied forces and supply flow within and into the theater and disrupt naval and amphibious operations in the Pacific theater. While there are limited ways of engaging these forces below a lethal threshold, the intermediate force capabilities could provide the allied forces with a broader range of options, while imposing some cost and dilemmas on the adversary, and potentially contribute to the deterring of their use.

Keywords: maritime militias, naval operations, disruption, deterrence

### Introduction

 hina aims to pursue national goals through a combination of political, diplomatic, and information maneuvering (including employing diplomatic pressure, false narratives, and harassment of potential opponents)

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rather than engaging in risky and expensive head-to-head physical confrontations. Their strategy involves the use of a multitude of military and nonmilitary means to confront opponents both before and during a conflict.<sup>1</sup>

With China's growing assertiveness against other countries in the Asia-Pacific region, many of whom are U.S. allies, the specter of a military conflict in the region is increasing.<sup>2</sup> Hal Brands and Michael Beckley argue that, as the United States is awakening to the China threat and China's potential domestic problems are likely going to result in a growing gap between the United States and China, the world is entering a period of maximum danger in the late 2020s.<sup>3</sup>

During the last decade, leveraging "salami tactics"—or small, incremental changes of which none in isolation would cross U.S. and allied red lines—China succeeded in establishing hegemony over its maritime periphery, including militarization of the occupied land features in the Paracel and Spratly Island chains.<sup>4</sup> Another line of effort that China is pursuing to secure its dominant position in the Western Pacific is its military modernization program aimed at "counter-intervention" or "area denial" to counter any prospective military intervention by the United States and its allies. China thus can hope to achieve fait accompli in regional conflicts (e.g., in Taiwan), and then use its area denial capability to prevent or disrupt a roll back by the U.S. and allied forces.<sup>5</sup> Leveraging all instruments of national power (including hybrid, irregular means), China will likely attempt to achieve its objectives with the minimum escalation to minimize a risk of a major war with the United States.<sup>6</sup>

Irregular means have a long tradition in Chinese maritime strategy. Using Mao Zedong's strategic thought, Admiral Xiao Jinguang introduced the concept of sabotage warfare. This concept included employment of all available means to deliver a broad range of attacks against the enemy. A great importance was ascribed to covert actions and surprise attacks using deception to gain advantage over unsuspecting and unprepared adversaries.<sup>7</sup> In continuation of this strategic thinking, the Chinese

[a]nti-access strategy combines military with nonmilitary measures in an effort to delay the arrival of U.S. and allied forces in a particular Asian theatre of operations, preclude or disrupt the use of regional bases that are critical to sustaining U.S. military operations, and hold off U.S. power projection assets as far from Chinese waters as possible.<sup>8</sup>

Consequently, drawing on the ideological importance of militias, China relies on these to supplement its military might.<sup>9</sup> In particular, during the last 10 years, China heavily invested in building its fleet of notionally fishing vessels but were actually maritime militias so that now "there are three maritime forces in mainland China. The first is the CCP Navy, the second is the CCP

Coast Guard, and the third is the 'maritime militia'."<sup>10</sup> While the United States generally considers only its Navy and Coast Guard as elements of national power, China is not as selective, and it has no qualms about using merchant and research vessels for nefarious activities such as intelligence collection and potentially minelaying—or using fishing vessels to enforce its excessive territorial claims. In other words, "if it floats and flies a Chinese flag, it is probably a part of Chinese sea power."<sup>11</sup> China currently employs the maritime militias to push their excessive territorial claims in the South and East China Sea, to harass and push away fishing fleets of other countries, and to obstruct navigation even outside of its claimed regions.<sup>12</sup> The last point is particularly pertinent for the argument presented in this article. For example, China has used these militias, together with its coast guard, to hamper the Philippines' resupply of the Second Thomas Shoal through a combination of dangerous maneuvers, water cannons employed by the coast guard, and causing collisions between Philippines' and Chinese maritime militia vessels.<sup>13</sup>

This dangerous development currently favors China, as the United States and its allies have limited means of countering this behavior. The U.S. Navy, in general, does not respond militarily to civilian fishing vessels. However, China's employment of these vessels continues blurring the line between the military and civilian capabilities. In response to this development, in 1919,

outgoing Chief of Naval Operations Admiral John Richards warned his Chinese counterpart, Vice Adm. Shen Jinlong, that the United States was aware that China uses a militia fishing fleet to push its illegal claims in the East and South China Seas. Richards warned that the U.S. Navy would respond to aggressive acts by those ships as though they were part of the armed forces.<sup>14</sup>

However, while justified, the use of force against notionally civilian vessels could result in an anti-U.S. narrative that China would be happy to push. Even in case of open hostilities between the United States and China, attacking unarmed vessels would easily lend itself to narratives that could undermine U.S. objectives in the region. It is easy to envision that in an aftermath of the use of lethal force against militia vessels, that a "broadcast by Chinese media outlets, [or] images of civilian death or suffering could swing political sentiment behind Beijing—not just in China, but among influential audiences elsewhere in Asia and in the international community."<sup>15</sup> Hence, the United States would be potentially faced with a dilemma to either yield initiatives to these vessels, or to risk a hostile narrative undermining its interests in the region.

This article argues that in case of a conflict in the Asia-Pacific, China could go beyond the current use of these militias as a military tool, and that it could feasibly use these militias to disrupt allied force flow into the theater, as well as the naval sustainment operations within the first island chain, including around Taiwan. It can be anticipated that in the case of a conflict in the South China Sea that "Beijing will merge nonmilitary instruments of power into its defensive efforts by using diplomacy to augment Maoist active defense."<sup>16</sup> This could be especially the case in the early stages of a conflict, when China might attempt to discourage or prevent U.S. participation without escalating to overt kinetic strikes against the U.S. targets. Alternatively, they can use the militias to provoke a U.S. or allied response against them and thus try to manipulate public opinion both domestically and globally. At present, the United States and allies have limited options short of lethal force to deal with this threat:

China is comfortable using post-Mahanian means (policing and projecting power ashore) for Mahanian (fleet battles) ends. A fishing trawler or coast guard cutter represents an implement of power politics as surely as a warplane or a hulking destroyer. For their part, U.S. naval officers find it hard to deal with white-hulled China coast guard cutters or maritime enforcement vessels trying to cement command of Chinese-claimed waters. Countermeasures for maritime militias embedded within the fishing fleet and working in conjunction with law enforcement ships are still harder to come by.<sup>17</sup>

Lack of options present a significant dilemma for the United States and its allies. Doing nothing means leaving all the initiative to the adversary. On the other hand, rapid escalation to lethal force may undermine U.S. strategic interests and provide China with the narrative advantage. However, there are emergent capabilities that could at least in part mitigate this threat at the tactical level without resorting to the use of lethal force, and thus provide the U.S. forces with expanded decision space.

The article is organized as follows. First, the importance and scale of sustainment for major combat operations is discussed, with several historical examples. Then several potential scenarios are presented. This is followed by a discussion of potential U.S. and allied countermeasures including using intermediate force capabilities.

### **Maritime Operations and Sustainment**

Naval operations, due to the distances involved, present a significant sustainment challenge, both in terms of sustaining combat operations, and in terms of the flow of forces and supplies to the active theater from the homeland.<sup>18</sup> At the same time, any disruption to the sustainment can significantly disrupt operations, as was obvious in early 2024 in Ukraine, where the lack of ammunition hampered Ukrainian defensive operations.<sup>19</sup> It is estimated that a single Marine Expeditionary Unit (MEU) will require almost 500 tons of supplies per day, with the majority being fuel and water.<sup>20</sup>

World War II in the Pacific demonstrated many of the logistics and sustainment challenges that the U.S. and allied forces would face in case of another conflict in the Asia-Pacific region. As Fleet Admiral Ernest J. King put it:

The war has been variously termed a war of production and a war of machines. Whatever else it is, so far as the United States is concerned, it is a war of logistics. The ways and means to supply and support our forces in all parts of the world—including the Army—of course have presented problems nothing short of colossal, and have required the most careful and intricate planning. The profound effect of logistic problems is described elsewhere in this report, but to all who do not have to traverse them, the tremendous distances, particularly those in the Pacific, are not likely to have full significance. It is no easy matter in a global war to have the right materials in the right place at the right times in the right quantities.<sup>21</sup>

A prime example of the importance of logistics was the Battle of Guadalcanal. This battle was the first U.S. amphibious operation of the war and a critical test for both U.S. Marines and the Navy.<sup>22</sup> Amphibious doctrine was developed in the interwar years by the U.S. Navy and Marine Corps, and Guadalcanal would be the Navy's first practical indoctrination into amphibious warfare. In the end, it became a battle of logistics: "For both the United States and Japan, logistics was the critical element and the outcome came down to our ability to keep Guadalcanal resupplied and Japan's inability to do so."<sup>23</sup> The Japanese inability to sustain their units made it impossible to conduct military operations, and the longer the U.S. forces resisted, the worse off the Imperial Japanese Army became. Their supply lines could only provide approximately 40 percent of the actual requirements.<sup>24</sup> Eventually, 75 percent of the Japanese casualties were a result of malnutrition and disease rather than of U.S. actions.<sup>25</sup>

The high intensity operations will require large numbers of ammunition, missiles, and fuel. For example, Ukraine requires upward of 7,000 155mm shells a day to hold Russian forces.<sup>26</sup> During Operation Desert Storm, more than 14,000 tons of ammunition and 16,000 tons of fuel were needed daily by Coalition forces.<sup>27</sup> Given the volume of ammunition and fuel required to conduct major combat operations, any significant delays or disruptions of the sustainment fleet would have significant impact on the conduct of operations in the operational theater.

The easiest way of achieving such disruption is through kinetic strikes against the U.S. fleet and regional bases, in the same way Germany tried to strangle Great Britain or the United States strangled Japanese logistics in World War II.<sup>28</sup> With the current long-range strike capabilities, these efforts might also include kinetic strikes against North America. However, such kinetic actions would be highly escalatory. While China may count on such strikes to undermine the U.S. national will to act in the Asia-Pacific theater, it must be certainly aware that they could also create significant national resolve not unlike in the aftermath of the Japanese strikes against Pearl Harbor.<sup>29</sup> Leveraging a variety of hybrid means to minimize the risk of escalation with the United States, China can disrupt U.S. force flow below the kinetic threshold. For instance, it could use cyberattacks against ports and bases, or it could put political or even military pressure on the countries hosting U.S. bases or providing support to U.S. sustainment. Using their maritime militias is one of the possible options, especially if, as discussed above, China is looking at the problem of sea denial holistically, combining military and nonmilitary means to achieve its objectives.<sup>30</sup> Especially in early stages, before significant U.S. military involvement, China might prefer using hybrid means to outright kinetic strikes against U.S. targets, and subsequent U.S. casualties, in the hope of discouraging a war with the United States. Even in the case of an actual conflict, China may try to create dilemmas for the United States with the objective of seizing the narrative and turning public opinion both internationally, and possibly even within the United States, against the continued U.S. involvement in the conflict. To achieve this, China, being an authoritarian regime with strong domestic control over the information environment, might be willing to sacrifice their militias to win the narrative globally.

### **Maritime Militias**

The military use of civilian vessels during war is nothing new. States traditionally mobilized (requisitioned, commandeered or purchased) their merchant vessels (cargo ships, oilers, fishing trawlers) to support armed forces during armed conflict.<sup>31</sup> The main difference between past mobilization of civilian vessels and the Chinese use of their militias is that China has mobilized fishing boats and fishermen in peace time and possibly will mobilize them in wartime in a peculiar manner.<sup>32</sup> China's National Defense Law Article 22 also states that "the militia, under the command of military organs, shoulders the task of preparations for armed conflict and defense operations and assists in maintaining public order."<sup>33</sup>

The maritime militia can be deployed in support of the PLA Navy (PLAN) defense operations and also sabotage and intelligence operations.<sup>34</sup> The scenarios below fall either in the first (defensive operations, e.g., a blockade), or the second category (sabotage, e.g., purposeful scuttling of a vessel or a false

accident). To preserve ambiguity, maritime militias operate disguised as private fishermen. This creates a problem for the United States and its allies of identifying whether the vessels are legitimate fishing vessels or Chinese government agents.<sup>35</sup> Understanding this ambiguity, and how China can leverage it, is important for the United States and its allies to better identify and attribute responsibility for potential Chinese hostile acts. Due to the wide implications of the threat these militias pose both in competition, crisis, or a conflict, it is no surprise that in recent years a broad range of analytical works addressed their origins, capabilities, potential modus operandi, etc.<sup>36</sup>

These militias are notorious for their use in the South China Sea, often in conjunction with the Chinese Coast Guard. They played a major role in a number of incidents in Scarborough and Thomas Shoal.<sup>37</sup> This is because, "according to the Chinese rationale, the militia can be deployed to strengthen control of China's 'maritime territory' while avoiding the political and diplomatic ramifications that might otherwise be associated with military involvement."<sup>38</sup> As such, they provide plausible deniability, and enable PLAN (and by extension the PRC) to de-escalate by denying any official affiliation of these vessels. Yet, many regional actors often hesitate to challenge these vessels because of the fear of a forceful PLAN response.

However, their potential employment goes far beyond simple assertion of Chinese illegal claims through harassment of other countries' vessels. A study by the Center for Strategic and International Studies identified two distinct classes of maritime militia vessels designated as maritime militia fishing vessels (MMFV) and Spratly backbone fishing vessels (SBFV) that differ in their features and likely intended use.<sup>39</sup>

The MMFV include features such as weapons storage facilities and large water cannons.<sup>40</sup> While less capable, SBFV do maintain some ability to integrate with military operations. They are required to participate in training and are expected to provide support to PLAN when needed.<sup>41</sup> In fact, China's war planners are leaning hard on its militia as it dwarfs the regular navy, and it provides China's senior military leaders with a key support asset in a protracted conflict.<sup>42</sup>

Apart from a support role, these militias could be employed in more active ways as an actual paramilitary force. For example, Shuxian Luo and Jonathan G. Panther identified a number of possible military ways of employing these militias, especially in a disruptive role (rather than presenting a kinetic threat):<sup>43</sup>

• Even in limited numbers they can at the minimum inhibit some types of naval ship's operations, such as towed array and flight operations (thus by extension disrupt antisubmarine warfare).

- Reconnaissance support, especially given their low detection profile and the fact that they can pose as normal fishing vessels.
- Potentially even supporting mine-laying operations.<sup>44</sup>
- Potentially helping PLAN in targeting adversary's naval vessels.

In the last two types of employment, they would qualify as combatants providing a broader range of options to challenge them.

### **Disrupting Sustainment**

There are numerous ways in which the maritime militias could be used to disrupt allied sustainment, while leveraging their ambiguous status. This may create dilemmas for the allied forces, as they might need to decide between leaving initiative to the militias or countering them and risk potential backlash in the information environment. As discussed above, while it may be within the legal bounds to use lethal force against these militias, it may not be desirable as it could provide China and other U.S. adversaries with the narrative advantage. Below are four broad scenarios outlining some of the possible uses of maritime militias to disrupt sustainment operations. These scenarios are speculative and purposefully left generic. They are based on the observed Chinese actions against the Philippines in the South China Sea and considerations of major maritime accidents such as the ship collisions with bridges in Baltimore, Maryland, and Galveston, Texas-and how similar actions could challenge U.S. and allied freedom of action in contested waters.<sup>45</sup> The use of these scenarios was somewhat validated by the use of similar actions by the red teams in the two wargame series attended by the author that explored the options to counter hybrid threats to allied freedom of movement.<sup>46</sup> Among the actions the red team employed was an attempt to use a hijacked merchant vessel to strike a bridge, trying to ram a fishing vessel into a dock, and sinking several fishing trawlers in the mouth of a port.

### **Scenario 1: Passively Blockading Access Points**

The civilian vessels can be used effectively to blockade key access points such as navigation channels, port entries, or even narrow straits. It is also possible to use them at sea, but in that case, they would be required in large numbers to avoid simply being bypassed. In the first scenario the militia vessels passively block naval ships. This could be done under the pretense of fishing, but in some cases the Chinese militia has been doing it openly (e.g., in the confrontation with the Philippines).<sup>47</sup> Such an approach could be very effective in navigation channels or narrow straits, where the militia vessels could leverage their shallower draft than large supply vessels. While in peacetime the blocking function of the militias is often executed in coordination or collaboration with the Chinese Coast

Guard, it is easy to envision the militia ships working on their own or within large groups harassing allied supply convoys.

For example, the militias could create a staggered line of trawlers actively fishing in a strait, ignoring any communications or warnings. If the naval vessels want to avoid a collision (that could be costly for the ship as well as the trawler) or getting the nets entangled in the propellers, they might have to wait until the fishing vessels clear the area. As they can possibly move back and forth, it could take hours or days. Even if legally justified, the narrative advantage that the use of lethal force against these notionally civilian vessels could still result in political pressures and hostile narratives. Furthermore, the use of lethal force might in fact make the situation worse, as the allied ships would need to deal with the wreckage or uncontrollable militia vessels as well as aiding the crew of these vessels.

The next scenario is similar but involves more aggressive militia behavior.

### Scenario 2: Disrupting Navigation, Causing Accidents

Similar to the previous scenario, the militias can aggregate at key choke points. However, rather than being a passive obstacle, they can interfere with the naval convoys more aggressively. They can sail directly into the path of ships, potentially forcing them to change course or even cause accidents. They can ram the supply ships, trying to cause disorder and distraction.<sup>48</sup> Such collisions could then be leveraged to spread misinformation, blaming coalition forces for the accidents.<sup>49</sup>

Groups of militia vessels can swarm either individual ships or the convoy as a whole. Despite their individual vulnerabilities and limitations, the swarms have potential to overwhelm the abilities of the allied navies to effectively counter them. Multiple militia vessels can run into the way of larger supply ships with the specific intent of causing accidents. In some cases, they can employ water cannons to further distract the allied ships.<sup>50</sup> This could also be effective as a disruption during the resupply at sea (RAS) operations.

These two scenarios could also be more sinister. The militia vessels, either through passive interference with navigation, or through actively running into convoy lines, could cause distraction, background noise, and delays, all the while providing targeting data (as is mentioned above) that could be leveraged by PLAN to engage the convoy through military (kinetic) means.

The following scenario could apply to both choke points and points of embarkation and disembarkation.

### **Scenario 3: Armed Interference with Allied Operations**

In this scenario there are two possibilities. The militias could target either the allied vessels or allied maritime facilities. They would be employed to penetrate

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the defenses under the disguise of being a civilian vessel, and then would either directly ram the target, or they could use weapons and explosives to cause damage to either ships or to infrastructure.<sup>51</sup> They could even employ maritime drones launched from trawlers, similar to how Ukraine uses such drones to attack the Russian fleet.<sup>52</sup>

While such an employment would certainly cross the legal threshold that would allow the use of lethal force against them, by the time these civilian-like vessels would be identified as threats, it may be too late to prevent the attacks. Also, the lethal response may be taken out of context and provide narrative advantage to China, feeding its narrative of defending itself against aggression of others. The last scenario deals with the threat to ports and maritime infrastructure, rather than naval ships directly.

### Scenario 4: Creating "Accidental" Obstacles (Direct or Indirect)

Accidents can cause significant obstacles to shipping, and the remediation or mitigation of problems they cause can take a long time. For example, the incident in March 2021 when the huge container ship *Ever Given* became wedged in the Suez Canal and closed the canal for six days, resulting in \$10 billion a day damage to the shipping industry.<sup>53</sup> Such accidents could be replicated in diverse locations, including Suez, Panama, but also entrance to major ports such as San Diego, California. It does not have to be a fishing vessel. Large container ships or tankers may also serve such a purpose, in the latter case adding an environmental disaster to further complicate the remediation. And if one or a few ships are scuttled on purpose, while making it look like an accident, the delays could be in weeks to months till the problem is remediated.

Another option is to use fake accidents to damage/destroy port infrastructure, or even the land access routes. A large trawler, or another ship can be run into a dock or a pier, damaging it enough to render it unusable, or a ship approaching a port can be rammed into bridges as happened in Baltimore in March 2024.<sup>54</sup>

While the militia vessels can be used directly to cause accidents, the fake accidents could also be caused by nefarious actors through cyberattacks against merchant vessels without their knowledge.

### Countering the Threat: Enter the Intermediate Force

While in many, if not most scenarios, the allied forces could feasibly resort to lethal force; the militias, even if unarmed, impede military operations and arguably threaten the allied forces. However, just because something is legal does not mean it is prudent or desirable. While using lethal force may be legally justified, it can still serve Chinese propaganda, especially among nonaligned countries.<sup>55</sup> Any forceful action against a militia vessel by a naval ship, even if

justified, is likely to be condemned by the Chinese government as hostile and unlawful.<sup>56</sup>

An additional problem that the militias present is their sheer number. Furthermore, many of the confrontations in the above scenarios are likely to happen over relatively short distances and often in the vicinity of other friendly or neutral vessels. Due to the short distances involved, many longer-range systems would not be usable; at the same time, decision and reaction times may be very short. That points to the need to expand capabilities to gain more time and space to counter these militias.

Since the militias can have a strategic effect on the outcome of a conflict in the Asia-Pacific region through potential delays and disruptions of the U.S. and allied force and supply flow into and within the theater, they could possibly be dealt with at a strategic level. Thomas C. Schelling discusses how the adversaries can manipulate risk to deter unwanted behavior.<sup>57</sup> In this case, the United States would need to increase the risk to the Chinese that the confrontation may get out of hand and have disproportional consequences beyond the immediate location of the confrontation. The Chinese planners need to understand that the employment of militias may have significant costs attached to it. For instance, the friendly forces may attack the home port of the militias, thus increasing the risk of an all-out war. Despite this risk, the Chinese may determine that it is worth the perceived benefits; for example, a delay in the arrival of forces or supplies by several days may provide the Chinese with a significant strategic advantage in a local conflict, and they may calculate that the United States would be hesitant to attack the Chinese homeland post fact. Therefore, the United States and its allies also require tactical capabilities to decrease the likelihood of the successful employment of these militias against the U.S. and allied naval vessels.

Such a role can be possibly fulfilled by intermediate force capabilities (IFC). The draft NATO IFC concept defines intermediate force (IF) as the force below lethal intent. The IF fills in the space between mere presence and intentional use of lethal force. Subsequently, the IFC were defined as active means of employing force below lethal intent. IFC means include nonlethal weapons (NLW), especially directed energy, cyber, electromagnetic warfare, information operations, and others (e.g., the use of special operations forces, stability policing, etc.).<sup>58</sup> While there are superficial similarities between non-lethal weapons and IFC, as shown above, IFC represent a much wider concept. For one thing, IFC development considers the wider strategic context in which these capabilities are expected to provide escalation management options and enhance deterrence. Furthermore, they exploit a full range of emergent technologies (i.e., cyber, directed energy, artificial intelligence) across domains, including the information environment.<sup>59</sup>

The following proposed use of IFC is based on two wargame series conducted under the auspices of the NATO Science and Technology Organization. The first series was conducted as a part of Systems Analysis and Studies (SAS) 151.<sup>60</sup> The second series is more recent and has not been officially documented yet. However, some observations are incorporated here based on the direct observations and analysis of the wargame by the author. Since many of the discussed capabilities are developmental, the article does not address potential financial considerations and focuses on the operational benefits of IFC as the potential acquisition cost of many of these capabilities is currently unknown.

The required tasks in dealing with the maritime militia vessels include warning, stopping, or moving the vessels (either by acting against the vessels or against the crew), disrupting or suppressing the crew, disrupting the militia's communications and navigation, and disrupting operation of any weapon capabilities (lethal or nonlethal, such as water cannons) that the militias may have. At the same time, these tasks need to be completed in a manner that would provide the allied forces with the narrative advantage.<sup>61</sup>

There are a number of directed energy NLW capabilities available or in development that could fulfill these tasks. To warn the militias at a distance, even if they turn off the radio, could be done via optical or acoustic warning devices. This could be done over relatively large distances. For example, the long-range acoustic device (LRAD) produced by Genasys can push clear acoustic warning or other sounds to ranges of 3,000-5,000m for larger systems; even the portable systems are effective to the line of sight of about 500m.<sup>62</sup> The laser dazzler, such as Glare LA-9/P used by the U.S. Navy, can now send a warning out to 4 km at night and 1.5 km during daylight; it can also suppress potential hostile action to ~500m.<sup>63</sup> The blue force in the above-mentioned wargames used warning in conjunction with video recording to provide a counternarrative to the adversary's information operations proving that the adversary was the one initiating the aggression. If warnings go unheeded, the U.S. and allied forces could potentially use the LRAD playing unpleasant sounds alone or in combination with laser dazzler to push the militias out of the way. These capabilities might work in scenario 1 and 2; in any case, they would likely provide the narrative advantage to the allied navies.

While the primary purpose of LRAD or a laser dazzler would be a cognitive compliance of the crew—even the unpleasant sound or a bright light would in the end require willing compliance, as it could be possibly countered—there are other possible intermediate force capabilities that do not rely on the compliance and act either directly on the materiel (in this case vessels and their equipment) or in the counterpersonnel role, depending on physiological reaction.

The militia vessels could be slowed or stopped—and thus prevented from maneuvering into the way of the U.S. and allied vessels—through mechanical

or electromagnetic means. An example of a mechanical vessel stopping device is a propeller fouler such as the Running Gear Entanglement System, a compressed air-launched net with weighted loops.<sup>64</sup> The net stops propeller propulsion by entangling its propeller. These would not only affect the speed but also the maneuverability of the militia vessels, which could be deployed from small boats or from the air, and thus would limit their ability to interfere with the main convoy. There are other developmental technologies that would enable covert deployment, providing the ability to interfere with hostile vessel movement without any negative narrative. They work similarly to the entanglement net but also affect water pump intakes. During wargaming, a covert employment of these mechanical vessels and vehicle stopping capabilities was often initially attributed to mechanical problems of the target, providing additional time to the blue force and providing them with tools to protect critical infrastructure from being rushed by the hostile vessels.

Radio frequency (RF) and high-powered microwave (HPM) could also be employed to slow or stop vessels and to interfere with their control and maneuverability. The main limitation of the RF systems is their range (in tens of meters).<sup>65</sup> That would preclude their effective use from main platforms and the effect delivery would have to be through smaller mobile platforms. HPM capabilities, currently tested by the U.S. Navy, are longer range, and could be feasibly employed against both surface and aerial threats, including possible maritime and aerial drones launched by the militia vessels. However, the effectiveness of directed energy means against steel-hulled vessels may be limited.

The limitation of the vessel stopping devices is that they cannot be used to compel movement. Hence, they could be feasibly used in scenario 2 to prevent the militia vessels from approaching the convoy and could even be employed in scenarios 3 and 4 to protect approaches to critical points, especially if there is an intelligence indicating imminent threats.<sup>66</sup> However, they could not be employed in scenario 1 as they would simply freeze the stationary militia vessels in place (not the desired objective). Another limitation, particularly applicable to the RF and HPM systems, is that they might have limited effects on steel hull vessels. They might still work on exposed navigation and control systems but are unlikely to affect ship engines directly.

The last IFC discussed here is the active denial technology (ADT). It is based on a millimeter wave beam, penetrating a very thin layer of skin and creating a feeling of unbearable heat with no actual damage.<sup>67</sup> The technology relies on a physiological response to the heat; it is effective to approximately 1,000m. The employment of this technology would be against the crew. While it would be ineffective against the crew covered by the steel hull, it could be used to force the crew off the deck, and thus prevent any potential use of lethal or nonlethal systems mounted on the deck (e.g., water cannons, potential mounted machine guns, or personnel-carried weapons), and thus be very effective in scenario 3. The ADT could also be employed against small vessels that expose the crew to the beam. During earlier wargaming, the blue force employed the ADT against exposed personnel on the deck, including deck gunners. It enabled them to counter hostile actions without resorting to lethal force, and to de-escalate a crisis situation while maintaining information advantage.<sup>68</sup>

In the course of development of the NATO IFC concept, a series of wargames was conducted to explore potential uses of IFC in competition and crises.<sup>69</sup> One of the wargames conducted to support the development of the NATO IFC concept looked specifically at a maritime scenario that is relevant for the discussion in this article.<sup>70</sup> This particular scenario considered a complex, very tense security environment, in which any miscalculation or excessive use of force could lead to uncontrolled escalation. The hostile country and its proxy used maritime militias employing go-fasts and rigid-hull inflatable boats and other military vessels, as well as medium-size UAVs to impede a NATO maritime task force's navigation in a constrained waterway.<sup>71</sup> The wargame concluded that coalition vessels had limited time and space to deal with harassing vessels impeding navigation and air operations. Similar to scenario one, Red had the initiative when NATO did not have IFCs. However, NATO had the initiative with advanced IFCs, and Red's activities had less of an effect on the NATO mission.<sup>72</sup>

This wargame also highlighted that

managing escalation at the tactical level (e.g., managing the threat of the use of force by the adversary's paramilitary units without resorting to lethal force) and extended decision-making space proved invaluable for strategic escalation management.<sup>73</sup>

These observations reinforce the argument that while the IFC will not provide a silver bullet to all foreseeable interactions between Chinese maritime militias and allied vessels or protecting key infrastructure and key access points necessary for force flow and sustainment, they would expand the range of available options to the allied forces, would cause some dilemmas on the adversary, and could help steer the narrative in favor of the allied forces. Finally, they would telegraph U.S. and allied resolve and contribute to the increase of mutual risk of further escalation. Consequently, the use of intermediate force capabilities would enhance the deterrence of the further use of these militias.<sup>74</sup>

### Conclusions

In the last decade, China invested heavily in building their maritime militias, a paramilitary force masquerading as a fishing fleet. It was designed to create ambiguity and serve as an extended arm of the Chinese government while providing it with plausible deniability.

In the case of a conflict in the Asia-Pacific, these militias could be employed to interfere with the U.S. and allied force and supply flow within and into the theater, and thus they would have the potential to disrupt military operations in the Pacific theater. Some of the possible scenarios include using the militias to block access points, directly interfere with navigation, sabotage, or feigned accidents. Because of their ambiguous status, China could leverage any use of force, particularly lethal force, against the militias for a strategic narrative painting the United States and its allies in a negative light, especially among nonaligned countries. This could undermine broader U.S. geopolitical influence and even undermine domestic support for a conflict.

There are limited ways of engaging these forces below lethal threshold. Deterring their use through raising the risk to both China and the United States could work. Intermediate force capabilities (a class of active means below lethal intent) could also help the U.S. and allied militaries to partially mitigate the threat and to counter the militias at the tactical level. Some of the possible means include long-range warning systems such as LRAD or a laser dazzler, vessel stopping capabilities, and countercrew systems such as the active denial technology.

While not a silver bullet, these capabilities provide the allied forces with a broader range of options, while imposing some cost and dilemmas on the adversary. Furthermore, these capabilities would provide a means of messaging the United States and allied resolve to China below the lethal thresholds, all the while increasing the risk of further escalation to both China and the United States, thus strengthening the deterrence and possibly discouraging a broader militia use. At the minimum, a gradual escalation would provide the U.S. and allied forces with the narrative advantage.

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