

Analysis of the practical application of grey zone and hybrid operations at sea

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1. Foreword

Security communities have been using the term "grey zone operations" for over a decade, initially to describe the challenges China has posed in the maritime context, particularly concerning Taiwan. These operations, which blur the line between military and civilian activities, create substantial difficulties for legal authorities in determining the appropriate responses and procedures. China has increasingly employed grey zone tactics to pursue various goals, encompassing economic, political, diplomatic, national defence, and marine security objectives in the region. Importantly, these operations disrupt the balance of power and force.

Domestic and international laws specify distinct means for addressing irregular behaviours and criminal actions. Military responses are reserved for acts of war, while police responses are meant for situations falling outside the scope of warfare. However, the term "grey zone" underscores the challenge of categorising such behaviours. Furthermore, democratic nations must adhere to their legal authorisation, and when relevant laws lack clarity, grey zone operations can exploit legal ambiguities, creating potential national security vulnerabilities. On top of this, the hybrid application of both military and non-military actions adds another layer of complexity.

Amendments to laws such as the "Armed Police Force Law," "Coast Guard Law," and "National Maritime Traffic Security Law" have given China a legal foundation to combine and integrate the use of its military, police, and civilian forces. This provides China with operational advantages while posing significant challenges to the security of neighbouring countries.

Beyond the legal framework, early detection and warning systems are vital for a nation to respond promptly. These systems increasingly rely on integrated technologies, including satellites, aerial reconnaissance, land-based sensors, and undersea surveillance. Unmanned vehicles and vessel technologies offer operational advantages by minimising the risk of detection. We can draw lessons from cases such as the Ukraine War and HAMAS' attacks on Israel.

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This paper aims to observe and analyse potential future actions by China at sea in the context of conflicts.

2. **Grey-Zone Operations Creates Strategic Advantage**

Prior to Russia initiated its "special military operation" in Ukraine, the United States issued warnings to the Western world and Ukraine, alerting them to the potential for Russian actions. Their intelligence and analysis had identified irregular large-scale troop movements and the positioning of Russian combat units, which indicated an increasing likelihood of Russia taking military action.²

Despite the accuracy of this intelligence, the US faced a dilemma. On one hand, they wanted to deter Russia from further action by disclosing this highly accurate intelligence. However, doing so also put their intelligence sources at risk. Despite the accuracy of the information, Western countries and Ukraine were inclined to believe that Russia would remain relatively calm and not initiate another war. As a result, no preemptive measures were taken.

The intelligence indicated that Russian forces would approach from the north, flanking Kyiv from both sides, while others would move to the east of the capital through the Ukrainian city of Chernihiv. Some units would also approach Kyiv from the west.³ In hindsight, this intelligence proved to be relatively accurate compared to the actual situation, highlighting the meticulous nature of American intelligence.

Interestingly, the Western world, including Ukraine, perceived the actions of the US as provocations toward Russia rather than as deterrents. Furthermore, Ukraine was concerned that these warnings could deter foreign investments, potentially causing significant economic instability in the country.⁴ In Europe, especially in Germany, there was a belief that Western nations could ease the situation through discussions and meetings with Russian leadership. They were particularly concerned about the possibility of Russia cutting off the petroleum and gas supply.⁵ This misalignment of strategic thinking between Ukraine and NATO countries allowed Russian troops to gain advantageous strategic positions and timing.

² Guardian staff and agencies, "'Things could go crazy quickly,' Biden warns on Ukraine as talks in Berlin fail", *Guardian*, February 10, 2022, <https://bit.ly/405EQEm>.

³ Shane Harris, Karen DeYoung, Isabelle Khurshudyan, Ashley Parker and Liz Sly, "Road to war: U.S. struggled to convince allies, and Zelensky, of risk of invasion", *The Washington Post*, Aug 16, 2022, <https://bit.ly/3QueKro>.

⁴ Shaun Walker, "Don't panic: why Ukraine doesn't like western talk of imminent attack", *The Guardian*, February 2, 2022, <https://bit.ly/46Gezz2>.

⁵ Matthew Karnitschnig, "Putin's useful German idiots", *Politico*, March 28, 2022, <https://bit.ly/473VlgS>.

The term "grey-zone operation" aims to pursue strategic objectives "just below the threshold of traditional armed conflicts."⁶ Activities that seek to gain an upper hand before the outbreak of a war can take various forms. These endeavours may involve tactics designed to secure operational advantages in advance of a full-scale conflict. Such activities encompass a range of strategies, including cyberattacks, espionage, propaganda, political manipulation, economic pressure, and "military operations aimed at coercion during peacetime." Since these actions don't involve direct military force, the affected party can only respond through diplomatic means and limited military actions, rather than engaging in full-scale warfare.

The primary objective of these operations is to secure strategic advantages, and a practical countermeasure involves detecting, exposing, and neutralising them to counteract these advantages. This approach was adopted by the United States before Russia initiated its attacks. While there was uncertainty about whether Russia would halt its invasion if detection and deterrence were successful, it should have, at the very least, provided the defending side with the necessary response time. Unfortunately, the revelation of this information was not taken seriously, and therefore, it did not translate into a significant advantage.

In another recent incident, a terrorist attack was carried out on Israel by HAMAS. Israel is known for its robust and intricate intelligence network. However, in this case, their intelligence failed to respond effectively to the initial actions of HAMAS in the grey zone operations in advance. This allowed HAMAS to employ drones and covert attacks to disrupt communication stations and surveillance towers along the border.

HAMAS acknowledged that the intelligence agencies of Israel were monitoring their communication channels. They used this acknowledgment as a smokescreen, claiming they had no intention to launch an attack on Israel. The intelligence community of Israel accepted this claim, thinking it was a genuine statement of intent.⁷ Although rocket attacks are typically considered acts of war, they provided adequate cover for a ground assault in this situation. Most of the casualties resulted from ground attacks rather than rocket strikes.⁸ The full-scale ground assaults resulted in over 2,000 casualties and the taking of hundreds of hostages.

Failing to detect threats is one issue while being unable to defend against drone detection and attacks is another. HAMAS gained an advantage through intelligence camouflage and prevented potential countermeasures by destroying communication and response systems through drone and surprise attacks. Despite the attacks, due to

⁶ Andrew Dowse, Sascha-Dominik Bachmann, "Explainer:: what is 'hybrid warfare' and what is meant by the 'grey zone'?", *The Conversation*, June 17, 2019, <https://bit.ly/3ZSDawg>.

⁷ Ronen Bergman, Patrick Kingsley, "How Israel's Feared Security Services Failed to Stop Hamas's Attack", *The New York Times*, October 10, 2023, <https://bit.ly/407r4kE>.

⁸ "At least 250 killed in unprecedented Hamas attack in Israel; prime minister says country is "at war"', *CBS News*, October 7, 2023, <https://bit.ly/3QdwWnF>.

intelligence misassumptions and communication disruptions, Israel failed to realise the severity of the situation, which required a timely military response.

These two cases explain that grey-zone operations could not only provide an early advantage before war, but also pursue national interests for actors during peacetime and disrupt the target country's defensive deployment and resource allocation. Even for countries such as Hamas-Israel, which are often in battle, it is difficult for drones to be directly defined as war behaviours, and it is difficult to determine what kind of performers are initiated directly—the chaos that can bring and the advantage that can be created.

3. If China conducts this action at sea, what would it look like

There are several points worth discussing based on the two cases mentioned above.

First and foremost, significant irregular grey zone operations can be used to hide true military intentions under the guise of seemingly illegal activities. For instance, if Russian troops were to conduct large-scale exercises near Ukraine's borders, they might initially appear as a significant threat. However, as time passes and these unusual military activities continue for a long time, they might not be seen as immediate threats anymore. While vigilance is still necessary, the level of concern tends to decrease. This repeated pattern can make the defender less on edge and indirectly affect the operation and deployment of regular defence measures, and the true intention could be hiding or pretending.

Similarly, the irregular harassment carried out by the Chinese Navy, Chinese Coast Guard, surveillance ships, and maritime militia has become a regular occurrence. Through tactics like Automatic Identification System (AIS) spoofing, intelligence deception, and strategic stealth, these grey-zone operations can offer strategic advantages, especially in terms of timing, deception, and creating misunderstandings, as seen in previous cases. This strategy thrives as long as these repeated deceptions and operations can be swiftly transformed into more aggressive actions when needed, disrupting the opponent's defence plans. Even if it only provides accurate positioning intelligence and surveillance at the front lines, in combination with reconnaissance satellites or other methods, it's enough to counter the opponent's covert activities and save the effort of conducting investigations.

Much like the situations in Ukraine and Israel, the Taiwanese military often considers the possibility of a sudden attack resulting from an extensive Chinese military exercise aimed at taking control of Taiwan. Consequently, the irregular extensive military exercises by the Chinese People's Liberation Army (PLA) undoubtedly capture the attention of Taiwan and its allies and lead to a reasonable response. However, there has been little discussion regarding the potential use of large-scale maritime militia as a tool for grey-zone operations. Taking a page from HAMAS' playbook, the PLA fleet conducts

図上演習で想定される主なシナリオ

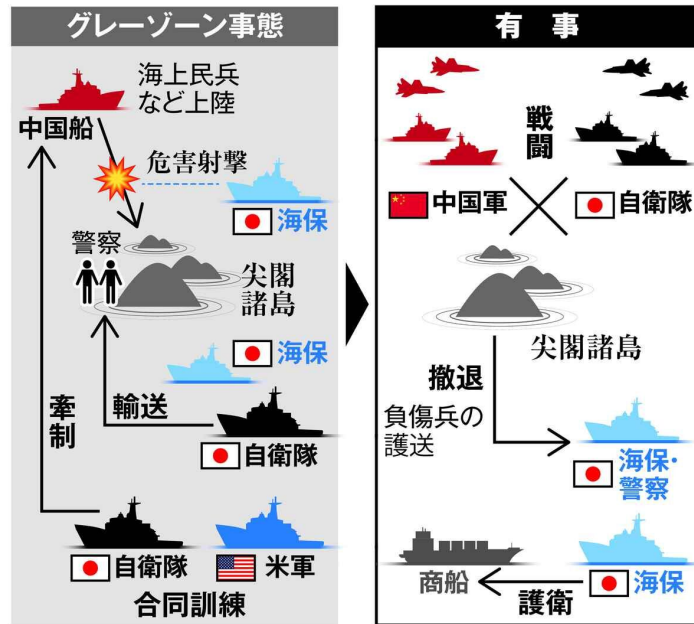


Figure 1, the current crisis management mechanism of Japan, at least three units are included, "中国による尖閣占拠を想定し図上演習 自衛隊、海保、警察が役割分担を確認", *iZa*, 2021/06/07, <https://bit.ly/4osJ5dv>.

extensive exercises around the northeast corner of Taiwan, particularly in the Nansei Islands of Japan. The maritime militia, concealed within fishing boats, can damage the propellers or turbines of Taiwan and Japan's Coast Guard and Navy vessels using specialised nets, which come to the area for surveillance at the same time. This tactic allows the PLA to reduce the response capabilities of Taiwan and Japan without direct military actions in the early stages of a conflict.

While the PLA Navy is engaged with Taiwan, the maritime militia can simultaneously carry out different operations against both Taiwan and Japan, such as island seizures. Due to Japan's legal and bureaucratic systems, the Japanese government must deploy various troops based on the different crisis stages during the 'island recapture' process. Coastguards, maritime self-defence forces, and the police handle different aspects, with joint training, communication, and cooperation having only commenced two years ago.

From China's perspective, as long as the maritime militia can successfully disrupt the coordination of Japanese maritime domain forces, they can gain strategic advantages for the PLA Navy in subsequent operations against the remaining regular naval forces. Even if the Japan Maritime Self-Defense Force (JMSDF) or Taiwan Navy regroups and fights against the PLA, their effectiveness could be compromised, with the PLA enjoying the upper hand. The maritime militias, if not yet eliminated, could launch a series of guerrilla warfare operations to assist the PLA Navy. By avoiding direct engagement with

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the JMSDF or other actions defined as international law-defined acts of war, Japan would find it challenging to respond with 'self-defence actions.'

One can envision a complex battlefield where the JMSDF and Taiwan Navy must defend against the PLA Navy while also being cautious about harassment and sabotage by the militias. The coast guards of Taiwan and Japan must counter these militia actions. However, identifying friends and foes, planning firing lines and ship movements, selecting targets, and avoiding collisions can pose significant challenges.

Secondly, maritime militias could lay naval mines without detection before the outbreak of conventional warfare. Although this breaches international laws, it remains difficult for Taiwan, Japan, and other countries to detect and counteract them. Even before conducting any operations, ships from Taiwan and Japan might already be compromised, delayed, or damaged by these militia-laid mines. Furthermore, while China does not have a tradition of 'suicide attacks' to the extent of certain other groups, and no country has issued warnings regarding Chinese military adherence to similar doctrines or training, if maritime militias were employed to conduct suicide attacks on relevant naval and maritime vessels in the early stages of a military operation, it could lead to significant casualties and damage that Taiwan and Japan would find difficult to avoid.

From the HAMAS case, it becomes evident that, through the use of ship disguises, AIS deception, and communication language faking, it is not as difficult as one might imagine to approach the coast guard or navy of both Taiwan and Japan in a harmless manner on the open sea. Moreover, fleets of maritime militia can fabricate situations resembling accidents. According to the principles of international maritime search and rescue laws, both Taiwan and Japan are obliged to assist vessels that send distress signals. This, in turn, provides the maritime militia with opportunities to launch attacks or cause delays. As mentioned earlier, maritime militias do not need to achieve victory in formal military actions. They just need to disrupt the military operations of the target side to provide a significant advantage to the PLA navy.

In terms of more flexible application, even if maritime militia doesn't directly engage as combatants in formal wartime actions, China can still utilise them to disrupt the military balance in regular warfare or in situations where they are at a disadvantage. They can achieve this by shifting the gravity of the battlefield or engaging in guerrilla-style harassment, which can disrupt the deployment, tempo, and communication of the regular military forces of Taiwan and Japan, ultimately securing an advantage for China's navy.

Thirdly, under the modern mobilisation mechanisms, cruise ships, fish boats with huge size, could become amphibious ships transporting personnel and vehicles mobilised via high speed railway from whole Chinese province to eastern part of coastal city. China

Ocean Shipping Company (COSCO) has been included into mobilisation system even formed a "strategic projection support fleets" under the law and regulation in 2012.⁹

In a conventional military operation aimed at Taiwan, the maritime militia might have limited opportunities for direct engagement. Nevertheless, they can play various roles in supporting military efforts, such as targeting smaller islands for occupation or assisting in the transportation of supplies for such operations. In essence, maritime militias have multifaceted roles that require constant monitoring and understanding from the very beginning when dealing with them. It is crucial to have a clear understanding and adherence to rules of engagement, roles, and operational plans among different military units, with the ability to adapt to their actions.

Moreover, it is essential to consider whether there are legal provisions that grant frontline forces the authority to use force and establish legal responsibilities for exemptions. These factors are essential in determining the ability to respond swiftly and effectively to maritime militia activities. Effective communication and coordinated operations are vital in responding to maritime militia activities, whether within a single country, between the defence force and coast guard, or among different countries' defence forces and coast guards. The coordinated mechanism between JMSDF and JCG has been launched for years, and the Coast Guard and Navy Defence Force of Taiwan have also established a similar joint operational mechanism. The Coast Guard of Taiwan and Japan share limited communication channels; however, there is still none between the Navy Force of Taiwan and Japan.

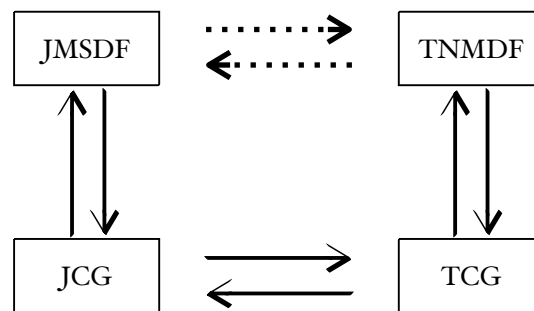


Figure II, shows the intelligence and information exchange relations between Taiwan and Japan. JMSDF indicates Japan Maritime Self-Defence Force; JCG indicates Japan Coast Guard. TNMDF indicates Taiwan National Maritime Defence Force, and TCG indicates Taiwan Coast Guard. The relations between solid lines suggest regular and unobstructed communication channels. The dot lines realise difficulties exist; however, it is still necessary to establish similar ones. Source : Author.

⁹ 山本勝也，〈旧くて新しい中国の軍民融合：民間輸送力の戦力化〉，《特集—中国の経済的リスクと「旧くて新しい軍民融合」》，*CISTEC Journal*, 2022.3 No. 198, p. 83

4. Integrated Detection and Aligned Operation as keys to deter and offset

To mitigate the potential impact of these grey zone actions at sea, it is imperative to recognise the importance of early intelligence detection and analysis, similar to the United States' intelligence gathering and disclosure of Russian invasion plans. This intelligence should encompass both military and non-military activities, especially those that are "irregular" or unconventional in nature. Current maritime intelligence and surveillance efforts are primarily oriented toward military targets, and we need to shift our focus to monitoring non-military targets.

Regarding the monitoring of non-military targets, it is worth noting that ships over 300 tons are required to have AIS equipment under international conventions. However, challenges can arise from issues like spoofing, counterfeiting, or AIS shutdown. For instance, China attempted to evade US sanctions by sending energy transport ships to Russia through the Sea of Japan, using AIS spoofing and faking to avoid detection. On the other hand, ships under 300 tons might not be equipped with AIS, and their monitoring relies on satellites, coastal radars, and ship radars, which can have their own vulnerabilities.

Through AIS spoofing, counterfeiting, and other means, China immediately concealed that the transport ship went from the Sea of Japan to Port Vladivostok for energy supply and trading.¹⁰ However, it was only discovered after the relevant units compared the tracks afterwards. The purpose of intelligence collection and monitoring is to provide early warning and make early response and deployment adjustments to possible dangers. Through concealment and counterfeiting, the attacker's irregular forces can easily hide their whereabouts at the first opportunity and enter a favourable position early.

The key to improving and strengthening real-time monitoring methods lies in countering potential threats. Much like how the United States publicly discloses aggressive actions by Russia, we can neutralise the operational advantages our adversaries seek to gain. To achieve this, Taiwan and Japan should enhance their monitoring capabilities across the sea, air, and underwater domains. They should collaborate on sharing and regularly updating voiceprint databases and establishing real-time

¹⁰ Christiaan Triebert, Blacki Migliozi, Alexander Cardia, Muyi Xiao and David Botti, "Fake Signals and American Insurance: How a Dark Fleet Moves Russian Oil", *The New York Times*, May 30, 2023, <https://bit.ly/43kpAEg>.

communication channels. This ensures that both parties can assess and coordinate their responses effectively, even adopting a unified strategy.

As previously mentioned, ongoing irregular activities can lead to a sense of complacency in defence measures over time. For example, the sudden appearance of large fishing fleets in areas with no fish during certain seasons should serve as a warning, or at the very least, a cause for caution. On the other hand, the intentional separation, recurrence, and persistent presence of potential threats make it challenging for authorities to allocate surveillance resources effectively. Without such precautions, these targets might engage in illegal or military activities, such as early deployments, surveillance, or the placement of underwater explosives. Despite the existing communication and information exchange between Japan and Taiwan, it is crucial to avoid redundant and strenuous efforts by national resources.

Information sharing can greatly enhance effectiveness of search and rescue operations and humanitarian aid efforts during times of peace. Moreover, utilising shared platforms or interconnected UAVs can substantially enhance human safety at sea. Simply put, the joint Maritime and Aerial Communication Mechanism is crucial for effective communication in maritime rescue operations and ensuring human safety, even if we do not factor in the security aspects mentioned earlier. Japan and China have similar mechanisms to foster mutual understanding and confidence at sea, so it makes sense for like-minded countries to do the same.¹¹

Therefore, the solution lies in collaborative innovation, establishing a shared platform for underwater unmanned sensors and a web-based system for real-time information transmission. This is particularly critical for detecting objects that are difficult to spot, such as UAVs, small vessels, and submarines that may evade traditional military sensors. Sharing information and creating a common operational picture significantly enhance the effectiveness of these efforts. Small objects and UAVs, whether used for surveillance or surprise attacks, can achieve their objectives more easily if not properly monitored.

Finally, as mentioned earlier, maritime grey zone operations aim to undermine the legal foundations of democratic nations. In response to this, regional actors should at least consider amending their domestic laws to classify specific actions as acts of war under the scope of international law. Even without uniforms or obvious insignias, specific behaviours conducted by maritime militias would still be considered actions of war.¹² International Laws do not prohibit countries from launching self-defence as long as one is considering being attacked. Further, fast and accurately determining the necessity of

¹¹ see Yasuhiro Kawakami, "Japan-China Crisis Communications Are Improving but Face Challenges", *United States Institute of Peace*, October 4, 2023, <https://bit.ly/3FHwkSu>.

¹² Yamamoto Katsuya, 'Maritime Security & Safety of the Sea Issues in the East China Sea for People Living with the Sea', "Securing Maritime Security and Safety and the Law of the Sea", *Global Ocean Regime Conference, Korea Maritime Institute*, November 2023, p. 2

isolating, detaining, arresting, and cutting off communication is necessary while dealing with the militia. Suppose actions are not considered as an act of war. In that case, the laws must also recognise the prohibition and authorise the coast guard to use necessary measures to maintain order within certain areas, including introducing force.

The *Maritime Traffic Security Law* of China authorises the CCG Units to establish a "law enforcement area" while necessary even beyond its territory waters, meaning if the militia were to fail to conduct their mission and be expelled by the coast guard, the CCG could intervene after receiving an invitation by militia, and establishing area isolate the JCG or TCG by force.¹³ Hence, fast and accurate isolating and detaining maritime militia after recognising the fact of violating the laws is critical to securing the safety and security of coast guards.

5. Conclusion

To conclude, China's maritime militia, operating in the grey zone, can bring both military and non-military benefits and advantages to China. From a military perspective, they can engage in various activities, including monitoring, interference, support, and even direct participation in military tasks. This maritime militia can effectively challenge the legal rights of other countries at sea, disrupt legitimate activities of other nations, and bolster China's presence in the region while engaging in military, policing, and unlawful actions.

For Taiwan and Japan, it is crucial to jointly address these behaviours in the neighbouring waters, and here are the key points they should focus on:

1. Establish a real-time coordination and communication mechanism between maritime law enforcement units and implement a joint training program to ensure seamless coordination and consistency in law enforcement across units.
2. Collaborate on reconnaissance and intelligence collection, share information instantly, and maintain real-time communication. Bilateral agreements should govern the scope and procedures for sharing and revealing information. This collaborative effort should serve to deter and counter China's attempts to use force in this area beyond the bounds of international legal standards. It is crucial to make the world aware of China's efforts to undermine international rule of law and regional stability.
3. Collaborate on the joint development and sharing of surface and underwater reconnaissance vessels and systems for linking these vessels with traditional

¹³ see government report of : 翁明賢，〈中國大陸海上交通安全法施行之影響及我國因應策略之研究〉，《海洋委員會委託研究》，海洋委員會，2022年08月，<https://bit.ly/3QDLsHo>。

platforms. This can help reduce the cost of continuous and real-time water surveillance.

4. Amend domestic laws in both Japan and Taiwan concerning grey zone operations. Specify actions that could be considered acts of war, as well as actions that, while not acts of war, violate specific conditions and the rights of nations. Clearly define when the Coast Guard and Maritime Defense Force can intervene, providing both legal authority to counter illegal actions. Ensure alignment between the regulations and concepts of both countries to prevent individual responses to China's actions.

5. Engage in bilateral war-gaming simulations and discussions on potential encounters with grey zone operations, conducting joint exercises and training. This preparation will enable both countries to respond swiftly and effectively to any further grey zone operations developed by China.