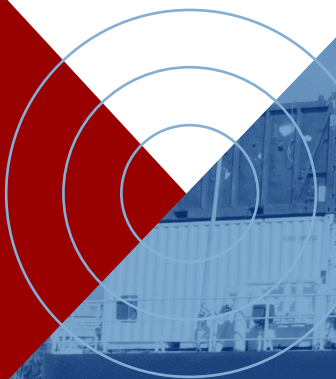


Maritime Security in an Age of Uncertainty

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ABOUT PERRY WORLD HOUSE

Perry World House is a center for scholarly inquiry, teaching, research, international exchange, policy engagement, and public outreach on pressing global issues. Perry World House's mission is to bring the academic knowledge of the University of Pennsylvania to bear on the world's most pressing global policy challenges and to foster international policy engagement within and beyond the Penn community.

Located in the heart of campus at 38th Street and Locust Walk, Perry World House draws on the expertise of Penn's 12 schools and numerous globally oriented research centers to educate the Penn community and prepare students to be well-informed, contributing global citizens. At the same time, Perry World House connects Penn with leading policy experts from around the world to develop and advance innovative policy proposals.

Through its rich programming, Perry World House facilitates critical conversations about global policy challenges and fosters interdisciplinary research on these topics. It presents workshops and colloquia, welcomes distinguished visitors, and produces content for global audiences and policy leaders, so that the knowledge developed at Penn can make an immediate impact around the world.

Introduction

<< In an era of increased global uncertainty, maritime security is threatened by rising geopolitical tensions, a shifting geoeconomic landscape, and emerging technological dangers. >>

In an era of increased global uncertainty, maritime security is threatened by rising geopolitical tensions, a shifting geoeconomic landscape, and emerging technological dangers. Hostile actors increasingly have the capability to target critical undersea critical infrastructure—such as communications cables—through sabotage and coercion, rendering much of the hardware foundational to daily life, along with important military systems, vulnerable. In addition to threats, assigning attribution and combating misinformation have become more challenging.

Two examples, in different theaters, illustrate these challenges. First, in September 2022, an explosion in the Baltic Sea severely damaged the Nord Stream gas pipelines, key conduits for natural gas from the Russian Federation to Germany. Widely accepted as an act of sabotage, the attack fueled speculation across social and traditional media, with confusion compounded by Russian state media attempts to blame the United States. Second, in August 2024, the People’s Republic of China (PRC) heightened its coercive behavior in the South China Sea when PRC and Philippine Coast Guard ships repeatedly collided near Sabina Shoal. In addition, the Philippines and PRC have been engaged in a standoff over the BRP *Sierra Madre*, a grounded ship in the disputed Second Thomas Shoal. How should the United States and its partners prepare to identify and, to the extent possible, prevent future incidents such as these?

The maritime domain sits at the intersection of several critical trends: fragmentation of the information environment, threats to undersea and on-shore critical infrastructure, increasing geopolitical competition, and the emergence of more distributed threats from non-state actors. In response to these complexities, Perry World House convened experts, scholars, and practitioners for a conference on October 29–30, 2024. The conference was organized into four panels:

Under the Sea: A New Realm for Defense and Diplomacy discussed on- and off-shore attacks on critical infrastructure. The panel focused on instances of cable cuts such as in Svalbard, Norway; the Nord Stream in the Baltic; and the Balticconnector pipeline, which links Finland and Estonia. Panelists discussed connections between hybrid threats across Europe and how Russian disinformation campaigns exacerbate attribution and response.

Geoeconomics of the Maritime Domain focused on the relationship between geopolitical tensions in the maritime domain and their effects on the global economy. In addition, panelists discussed competition with China in the South and East China Seas, the trajectory of the PRC’s “blue economy,” and the extent to which other emerging threats, such as those posed by the Houthis in the Bab al-Mandab Strait, interact with the U.S. Navy’s strategic planning for long-term competition with the PRC.

The Current State of the Maritime Security

Environment assessed the complex interplay of threats across the maritime domain, including challenges in developing coherent strategies for gray-zone conflicts. Participants examined how tensions in one region, such as the South China Sea, can ripple across other areas, like the Indian Ocean, and how roadblocks at the national and regional level might hinder deeper cooperation.

U.S.-China Competition in the Maritime Domain

assessed a number of undersea threats, including challenges in developing coherent strategies for gray-zone conflicts. Participants discussed U.S. alliance commitments to its partners across the Indo-Pacific, PRC perceptions of U.S. resolve, and the push-and-pull factors driving the PRC's long-term strategy in the maritime domain.

The *Maritime Security in an Age of Uncertainty* conference continues Perry World House's focus on transnational security issues confronting the Indo-Pacific. The recommendations and discussion in this report continue the institute's focus on some of the most important issues facing the world, such as shifting power dynamics, the impact of new and emerging technologies, and the global economy in

<< **The recommendations and discussion in this report continue the institute's focus on some of the most important issues facing the world, such as shifting power dynamics, the impact of new and emerging technologies, and the global economy in an interdependent world.** >>

an interdependent world. The conference follows other, related conversations on the Indo-Pacific at Perry World House. Previously, the institute convened workshops and conferences related to the future of Taiwan's geopolitics, new nuclear dynamics in Northeast Asia, and economic security in the region. This event also served to fulfill Perry World House's mission to leverage Penn's academic research to address global policy issues in part by "bridging the gap" between academia and the policy community for stronger policy solutions.

Outcomes

<<The concept of maritime security addresses a range of interconnected threats, geopolitical rivalries, and vulnerabilities that affect both national and global interests. >>

Assessing the Nature of the Challenge

Gray-Zone Activities, Sabotage, and the Information Domain

The concept of maritime security addresses a range of interconnected threats, geopolitical rivalries, and vulnerabilities that affect both national and global interests. During discussions, a foundational issue emerged: the need for a shared understanding of how we define “maritime security” and “threats to maritime security” so that the United States and its allies and partners can develop a coherent strategy.¹

The categorization of activities threatening global maritime security—whether termed “terrorism,” “gray-zone activities,” or “sabotage”—influences how nations perceive and respond to them. The definition and categorization of the issue also then determines the legal responses allowed. This definitional clarity is especially crucial for the United States and its allies, as it helps to guide the strategic deployment of resources and the formulation of long-term maritime security policies across the North Atlantic

Treaty Organization (NATO), security treaties, and other bilateral partnerships.

What, precisely, is the nature of the threat that the transnational community faces in the maritime domain? What are the stakes of labeling alleged Russian behavior as “terrorism” versus “gray-zone activity” versus “sabotage?” And, given the nature of the problem, how should the United States and its like-minded allies and partners think about prioritization and resource allocation?

Three major challenges to maritime security exist in the contemporary era: (1) state actors, such as Russia and China, engaging in gray-zone coercion and acts of sabotage targeting critical infrastructure;² (2) non-state actors, including groups like the Houthis,³ disrupting commercial shipping in heavily trafficked sea lanes; and (3) the role of global misinformation and disinformation—often state-sponsored and amplified via social media—which complicates attribution and response efforts.

1 Christian Bueger, “What is Maritime Security?” *Marine Policy* 53 (March 2015): 159-164, <https://doi.org/10.1016/j.marpol.2014.12.005>; Christian Bueger, “Does Maritime Security Require a New United Nations Structure?” *Global Observatory*, August 26, 2021, <https://theglobalobservatory.org/2021/08/does-maritime-security-require-a-new-united-nations-structure/>; and Christian Bueger, Timothy Edmunds, and Jan Stockbruegger, *Securing the Seas: A Comprehensive Assessment of Global Maritime Security* (United Nations Institute for Disarmament Research, 2024).

2 Håvard Guldahl and Inghild Eriksen, “This Is What the Damaged Svalbard Cable Looked Like When It Came Up from the Depths,” *NRK*, May 26, 2024, <https://www.nrk.no/tromsogfinnmark/this-is-what-the-damaged-svalbard-cable-looked-like-when-it-came-up-from-the-depths-1.16895904>.

3 Jon Gambrell, “Suspected Attacks by Houthi Rebels in Yemen Target a Ship in the Red Sea and Gulf of Aden,” *Associated Press*, November 18, 2024, <https://apnews.com/article/yemen-red-sea-attack-houthis-mideast-wars-8c86509962cbb3d41fa1ceb2e200c7b8>.

Throughout the panels, a consensus emerged defining “maritime security” as a global public good that ensures the freedom of shared maritime spaces. As with any public good, the maritime domain faces a collective action problem: no single country can manage maritime security alone, yet governments frequently struggle to coordinate responsibilities across a complex, transnational network of stakeholders.

First, state actors like Russia and China regularly engage in coercive behavior, including targeted sabotage of critical infrastructure such as undersea cables. In the Baltic region, Russia has deployed “research” vessels that function as hybrid commercial-military assets.⁴ China is learning from these tactics and is appearing to adopt similar behaviors, blending civilian and military roles within its fleet. For example, the two undersea cables connecting the island of Matsu to Taiwan were cut reportedly by a PRC civilian fishing vessel and cargo ship.⁵ This strategy raises security concerns in the broader Indo-Pacific, where undersea cables—a critical yet limited global resource—are particularly vulnerable given the vast expanse of the oceans. U.S. partners such as Taiwan have begun exploring cooperative security measures with Japan and South Korea to safeguard these essential infrastructures.

In addition to the physical vulnerability of this critical infrastructure—which, if damaged, can have catastrophic consequences on activities ranging from conducting international business transactions to accessing satellite data to sending a simple text message—sabotage on critical infrastructure is exacerbated by its effects in the information

domain. For example, during the Nord Stream pipeline explosion in 2022, Russia flooded the media space with their own false narratives within 24 hours of the incident, claiming that the United States and United Kingdom had organized a terrorist attack against Russia. Russian foreign intelligence and defense services deliberately spread this disinformation. The Russian Ministry of Defense websites offered credibility and authority to actors on social media amplifying those narratives. These narratives spread through Russian propaganda “news” outlets such as *RT* and *Sputnik*, and despite generating low viewership rates were often picked up by local bloggers and social media influencers, eventually ending up in U.S. news and social media on both the left and right of the political spectrum. Key narratives included invoking a deliberate fear of uncontrolled escalation, warning that any escalatory actions taken against Russia could lead to “World War III.” This incident reflected how Russia’s strategy in the information space uses trolls and fake accounts to spread disinformation, which eventually ends up in traditional media outlets.

In short, information is a weapon for Russia and a critical part of its strategy, contrasting with the U.S. approach to the information sphere. The concept of hybrid warfare—which encompasses both information operations and physical sabotage—emerged as a recurring theme during the conference. Hybrid threats differ from traditional warfare by operating below the threshold of conventional military conflict, posing challenges for entities like NATO, which have been hesitant to confront these tactics directly.⁶ For instance, while NATO has moved away from using the term “hy-

4 Mariana Motrunych, “Collaborating to Uncover ‘Putin’s Shadow War’ in Scandinavia,” *Global Investigative Journalism Network*, October 30, 2023, <https://gijn.org/stories/uncovering-putins-shadow-war-scandinavia/>.

5 Huizhong Wu and Johnson Lai, “Taiwan Suspects Chinese Ships Cut Islands’ Internet Cables,” *Associated Press*, April 18, 2023, <https://apnews.com/article/matsu-taiwan-internet-cables-cut-china-65f10f5f73a346fa788436366d7a7c70>; and Wen Lii, “After Chinese Vessels Cut Matsu Internet Cables, Taiwan Seeks to Improve Its Communications Resilience,” *The Diplomat*, April 15, 2023, <https://thediplomat.com/2023/04/after-chinese-vessels-cut-matsu-internet-cables-taiwan-shows-its-communications-resilience/>.

6 Frank Hoffman, Matt Neumeyer, and Benjamin Jensen, “The Future of Hybrid Warfare,” *Center for Strategic and International Studies*, July 8, 2024, <https://www.csis.org/analysis/future-hybrid-warfare>.

brid war” in favor of “hybrid threats,” the difficulty in defining and addressing these tactics has contributed to a lack of coordinated response.⁷ Similarly, according to one speaker, the United States itself is often uncomfortable invoking the term “information war” due to its implications, which despite being a cautious approach risks failing to develop a coherent strategy for information warfare. However, despite not verbalizing it so directly, the United States is already engaged in an “information war” and “hybrid” conflict due to Russia’s behavior—a war in which the other side plays by different rules (no respect for freedom of the press, for example).

Thus, in the current global landscape, the United States and other democracies face unique challenges in countering hybrid threats from actors like Russia that operate under fewer constraints. This asymmetry demands an adaptive approach, as democratic nations must counter threats while adhering to established international norms and rules. Ironically, NATO’s focus on kinetic warfare in Ukraine may have diverted attention from developing a coherent approach to hybrid threats in the maritime domain. Throughout the conference, there was a growing sense that NATO and other alliances must reinvigorate their strategies for addressing these covert actions, especially in the maritime domain in which critical infrastructure such as undersea cables mark an emerging target for state-sponsored sabotage.

Challenges to Commercial Shipping

In addition to developing consensus around the terminology and definitions of maritime security challenges, the concept of maritime security should also be broad enough to encompass national

interests—such as shipping—that happen to take place in the maritime domain. Several participants stressed an “eye of the beholder” problem when defining “maritime security.” For the transportation industry, maritime security refers to ports; in the Coast Guard, it refers to search and rescue; and in the language of great power competition, it refers to sea power. If every government, agency, and industry have a different definition for maritime security, then it is more likely to result in uncoordinated and potentially overriding strategies. Therefore, participants highlighted a critical gap in U.S. strategy: the need for an interagency definition that integrates the interests of national security, economic vitality, and military strength.

More specifically, economic interests and maritime geopolitics intersect in two key areas: (1) the emerging shipping risks posed by smaller actors such as the Houthis and (2) the rise of “blue” economies, especially in China. The blue economy is the “sustainable use of ocean resources for economic growth, improved livelihoods and jobs, ocean ecosystem health.”⁸ Panelists discussed recent threats posed to shipping by Houthi attacks in the Bab al-Mandab Strait.⁹ While large corporations have the resources to reroute their fleets around such high-risk zones—which results in delays of roughly two weeks—smaller companies lack this flexibility and must continue using traditional routes, exposing them to significant risks.¹⁰ This highlights an uneven impact on U.S. commercial interests. While larger companies can absorb the costs of rerouting, the majority of the U.S.-flagged fleet—now reduced to approximately 77 ships trading internationally—faces greater challenges to remaining competitive.

7 Arsalan Bilal, “Hybrid Warfare – New Threats, Complexity, and ‘Trust’ as the Antidote,” *NATO Review*, November 30, 2021, <https://www.nato.int/docu/review/articles/2021/11/30/hybrid-warfare-new-threats-complexity-and-trust-as-the-antidote/index.html>.

8 “What Is the Blue Economy?” World Bank Group, June 6, 2017, <https://www.worldbank.org/en/news/infographic/2017/06/06/blue-economy>.

9 Ahmad Ghaddar, “Houthi Attacks in the Bab al-Mandab Strait Hit Global Trade,” *Reuters*, December 19, 2023, <https://www.reuters.com/world/bab-al-mandab-shipping-lane-target-israel-fights-hamas-2023-12-12/>.

10 Chris Baraniuk, “Red Sea Crisis: What It Takes to Reroute the World’s Biggest Cargo Ships,” *BBC*, January 21, 2024, <https://www.bbc.com/future/article/20240119-red-sea-crisis-how-global-shipping-is-being-rerouted-out-of-danger>.

From the vantage point of commercial shipping, the declining size of the U.S. commercial fleet is a pressing national security concern, given its limited capacity to support a prolonged conflict or national emergency. Although recent government initiatives in other industries have aimed to reduce reliance on global supply chains and mitigate disruptions, particularly in the post-COVID era, a strategic shift should incorporate this risk-reduction mindset into broader policy for the domestic shipping industry.

Additionally, the declining pace of the U.S. shipping industry is even more worrisome when compared with China's development of its blue economy. This concept, encompassing technological innovation, naval shipbuilding, and data analytics to enhance maritime security, has become an important element of China's state-led approach to improving its maritime strength.¹¹ In contrast, U.S. development of "blue economies" has largely been ad hoc, driven by the geographic distribution of maritime industries, and is primarily centered in areas like San Diego, California, rather than developed as a coordinated national strategy.

The PRC has invested heavily in seafarers and expanding shipyard capacity. In 2023, the PRC accounted for 59 percent of new shipbuilding orders.¹² China's growing maritime ambitions are driven by a mix of push-and-pull signals. Externally, other countries are increasingly calling on China to provide public security services, such as counterterrorism support and climate change assistance—roles that China has started to embrace in response to

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international demand for maritime assets in previously inaccessible regions, such as the Arctic, where climate change and rising temperatures are opening new trade routes.¹³ While these demand signals are often underappreciated in U.S. security discourse, other states often call for China to provide public goods both privately and publicly. Additionally, China is investing in ocean-floor mapping and deep-sea operations using advanced drones and autonomous vehicles. Internally, China's military objectives include extending its reach beyond its shores, safeguarding its economic interests, and maintaining surveillance further from its coastline. In practice, these dual motivations lead China to bolster its capabilities for both contested and uncontested operations.

Participants emphasized the need for American policymakers to take a more comprehensive view of maritime security—one that addresses both immediate and conflict-specific threats from actors like the Houthis and the longer-term strategic implications of China's growing blue economy. Mapping the intersection of security and economic challenges in the maritime domain will be essential for both U.S. industry competitiveness and national security.

11 Kathleen A. Walsh, *China's Blue Economy: Evolution and Geostategic Implications* (Routledge, 2024); Shushant VC Parashar, "Blue Economy in the Indo-Pacific: The Need to Create a Cooperative Framework," *Journal of Indo-Pacific Affairs*, March 12, 2024, <https://www.airuniversity.af.edu/JIPA/Display/Article/3703814/blue-economy-in-the-indo-pacific-the-need-to-create-a-cooperative-framework/>; Lubomir Varbanov, "China's Rising Tide: Expanding Investment in Blue Finance," *World Economic Forum*, June 28, 2023, <https://www.weforum.org/stories/2023/06/chinas-rising-tide-expanding-investment-in-blue-finance-amnc23/>; and Michael Fabinyi, Annie Wu, Sallie Lau, et al., "China's Blue Economy: A State Project of Modernisation," *The Journal of Environment & Development* 30, no. 2, <https://doi.org/10.1177/1070496521995872>.

12 "China Claims 59% of New Shipbuilding Orders in the Global Market in 2023," *SteelOrbis*, January 3, 2024, <https://www.steelorbis.com/steel-news/latest-news/china-claims-59-of-new-shipbuilding-orders-in-global-market-in-2023-1321647.htm>.

13 Gabriella Griecus, "Geopolitical Implications of New Arctic Shipping Lanes," *The Arctic Institute*, March 18, 2021, <https://www.thearcticinstitute.org/geopolitical-implications-arctic-shipping-lanes/>.

Policy Recommendations:

- **Support U.S. merchant marines by encouraging the development of U.S.-flagged cargo ships.** Because U.S.-flagged ships must currently be built in the United States and staffed with American sailors, developing the U.S. merchant marine fleet is costly, and its competitiveness is difficult to maintain. Participants noted that 60 ships are subsidized under the Maritime Security Program, but expanding support beyond subsidies would help develop a healthy and competitive commercial shipping industry. For example, removing requirements for U.S.-flagged ships to be fully built in the United States could lower costs to shipbuilding and allow U.S. commercial shippers to grow their fleets.
- **Improve strategy to fight Russia in the information space.** The West needs to develop a better strategy to take on Russian propaganda in the information space. By flooding the information zone with disinformation, Russian trolls have been successful in pushing conspiracy theories and falsehoods, without a sound response from the United States and its NATO allies.
- **Establish an interagency maritime security framework to define key concepts and threats.** This framework should include a definitions-based working group tasked with creating a shared lexicon for defining the term “maritime security” that harmonizes the interests of different U.S. agencies, industries, and America’s overall national security strategy.
- **Form a definitions-based working group within NATO to establish clear and consistent terminology around critical security concepts such as “hybrid warfare” and “terrorism.”** NATO’s hesitancy to fully engage with discussions of hybrid and information warfare stems in part from concerns about the potential responses these terms could demand from the alliance. To address this challenge, the working group should prioritize aligning definitions and terms related to hybrid threats and actions. Establishing a shared lexicon will facilitate more effective intra-alliance dialogue, enable better coordination of responses, and strengthen NATO’s collective security framework.
- **Begin process to identify Russian activities as “terrorism.”** After NATO establishes clear definitions for “hybrid warfare” and “terrorism,” the next step is to begin the conversation regarding which actions taken by Russia against critical infrastructure fit within the “terrorism” category.
- **Continue to offer sustainable development assistance to small oceanic states.** Small countries, even those without navies and coast guards, can play a role in U.S. maritime strategy. These states can have strategic effects in wartime by employing asymmetric tactics related to the sea and by bolstering U.S. diplomatic support. For example, leaders in the South Pacific have played an important role in navigating the diplomatic tensions between China and Taiwan. By continuing to offer sustainable development assistance, the United States can strengthen its partnerships with these states and provide high-priority goods for small oceanic nations.
- **Invest more heavily in undersea cable ships.** The United States and its allies and partners have a dearth of undersea vessels that can lay, maintain, and repair cables. Given the vastness of the oceans and the complex nature of undersea cable sabotage, more investment in increasing the size of these fleets is vital. After all, it took approximately 50 days for the two cables connecting Matsu to Taiwan to be repaired.

Developing Strategies to Address Complex Problems

Another central theme of the conference focused on the interconnected nature of maritime security challenges—how issues arising in one area can reverberate across regions, making it difficult to craft a cohesive diplomatic and security strategy. Participants highlighted the complexity of creating strategies that address such interlinked problems effectively given that tensions in one part of the world often have wide-ranging implications elsewhere. Referred to as “systems effects” by political scientists,¹⁴ in the maritime domain this means that seemingly small issues in one region may have unforeseen and outsized implications elsewhere due to the dense networks that connect a large number of actors.

For example, conflicts and tensions in one region frequently impact others. The Indian Ocean Region (IOR) is increasingly securitized as a result of China’s aggression in the eastern Pacific. China’s actions in the eastern Indian Ocean have heightened regional threat perceptions, with many countries fearing that Beijing’s assertiveness could spread westward in the IOR.¹⁵ These concerns are further compounded by the U.S. framing of the Indo-Pacific, which often excludes the western half of the Indian Ocean, potentially leaving key areas vulnerable to PRC influence. While high-profile maritime disputes are less frequent in the IOR than in the South China Sea, the region has seen increased reliance on international legal mechanisms to address maritime challenges. For example, countries in the IOR, including those involved in disputes in the Bay

of Bengal, have turned to international law to resolve issues and reinforce global norms. France, as a key U.S. ally with territories in the Indian Ocean, plays a significant role in strengthening international norms in the region, underscoring the importance of legal frameworks in promoting stability and cooperation.¹⁶ This approach contrasts with the South China Sea, where China has historically disregarded international rulings.

How can the United States structure its military to address such a multifaceted set of threats? Participants debated the best way to address both emerging and long-term threats, as well as likely roadblocks to cooperation.

Managing Both Emerging and Long-Term Threats

How can the United States address two very different challenges—those emanating from non-state actors versus great power competition—with a single force and strategy? Because the U.S. Navy and allied forces are structured to operate in combined operations against other national navies, adapting this force structure to confront asymmetric threats from non-state actors poses significant challenges. Conference participants debated the trade-offs in shaping U.S. force structure to balance the more distributed non-state actors that threaten commercial shipping, such as the Houthis, with the long-term challenge of China.

First, participants discussed how larger shifts in the global maritime environment have transformed the traditional understanding of power and coercion. Maritime power is no longer solely defined by the number of ships or military assets, but rather

14 Robert Jervis, *Systems Effects: Complexity in Political and Social Life* (Princeton University Press, 1997).

15 Zack Cooper, “Security Implications of China’s Military Presence in the Indian Ocean,” *Center for Strategic and International Studies*, April 2, 2018, <https://www.csis.org/analysis/security-implications-chinas-military-presence-indian-ocean>; and Darshana M. Baruah, “Surrounding the Ocean: PRC Influence in the Indian Ocean,” *Carnegie Endowment for International Peace*, April 18, 2023, <https://carnegieendowment.org/posts/2023/04/surrounding-the-ocean-prc-influence-in-the-indian-ocean?lang=en>.

16 Judy Dempsey, “France’s Strategic Footprint in the Indian Ocean,” *Carnegie Endowment for International Peace*, May 14, 2019, <https://carnegieendowment.org/europe/strategic-europe/2019/05/frances-strategic-footprint-in-the-indian-ocean?lang=en>.

by how strategically and flexibly these assets are used to exert influence. In other words, what separates the global, interconnected environment from the past is the relationship between power and the ability to coerce. China has demonstrated the ability to leverage its maritime assets for strategic coercion, reflecting its capacity to distribute power in ways that maximize leverage without resorting to open conflict.¹⁷

While these trends emphasize America's comparative disadvantage relative to China, economic interdependence could act as a restraint, potentially reducing the likelihood of full-scale conflict. For instance, in the context of mutually assured destruction (MAD), both the United States and China recognize that disrupting global trade would carry profound economic consequences for both countries. It is unclear whether trade interdependence would actually moderate PRC incentives for conflict. Some speakers emphasized the stabilizing effect of trade, arguing that unlike the PRC, it is the non-state actors that are more threatening because they do not operate under the same strategic constraints, introducing vulnerabilities that state actors do not face. In contrast, while China often speaks of interdependence, its policies are aimed at increasing self-sufficiency. Not only does China promote policies aimed at reducing reliance on politically volatile supply chains but also those that increase its influence in global ports. For example, PRC firms have equity stakes and/or operational oversight in over 100 ports—including 30 in Europe.¹⁸

In addition to the relationship between economic interdependence and PRC aggression in the maritime domain, the other outstanding question

in maritime security is how well China's navy, the People's Liberation Army Navy (PLAN), can operate during wartime given it has not fought a war in decades, let alone a naval war. The PLAN's capabilities may not necessarily translate into influence because it depends on how well the PLAN can operate its fleet, how (un)contested the mission is, and how reliable China's access to foreign territory is. In a contingency within the first island chain, access to basing will likely matter less than a larger-scope conflict. The PRC's bases are more limited than those of the United States, with the PRC having one official overseas base in Djibouti and a likely base in Cambodia, and its basing arrangements are not underpinned by an alliance. Thus, if a host country decides it is too dangerous to let China's naval bases operate there, it could, hypothetically, deny China access. In the case of Djibouti, the United States, France, Japan, and Italy also all have military bases in the country.¹⁹ Relatedly, the risk of crisis escalation in the South China Sea might be more acute than in Taiwan because China is aware of U.S. red lines in the Taiwan Strait.

Given the China challenge, and the extent to which structuring a force to address the PRC could be in tension with structuring a force to address more distributed and smaller non-state actors, how should the United States balance its force specialization and adaptability? Countering these complex challenges does not necessarily require a larger fleet. Rather, it demands strategically distributed forces and affordable solutions that enable rapid response in crisis situations. For instance, the United States should focus on maintaining a presence in key locations and developing cost-ef-

17 Thomas J. Shattuck and Robin Michael U. Garcia, "Responses Against China's Coercion in the Indo-Pacific: Developing a Toolkit from the Philippines and Taiwan," *Perry World House*, March 2024, <https://global.upenn.edu/sites/default/files/perry-world-house/responses-against-chinas-coercion-in-the-indo-pacific.pdf>.

18 Zongyuan Zoe Liu, "Tracking China's Control of Overseas Ports," *Council on Foreign Relations*, August 2024, <https://www.cfr.org/tracker/china-overseas-ports>.

19 Tommaso Cassinelli, "The Strategic Importance of Djibouti for the World Superpowers," *Istituto Analisi Relazioni Internazionali*, June 12, 2024, <https://iari.site/2024/06/12/the-strategic-importance-of-djibouti-for-the-world-superpowers/>.

fective ways to respond to smaller threats, rather than relying exclusively on large, high-cost assets. For example, using expensive missiles to counter low-cost threats, such as drones, is unsustainable—a key issue in the Bab al-Mandab Strait. Instead, a more flexible, distributed force structure could address these threats without overstressing resources. At the same time, this type of strategy could have the unintended effect of making the United States less prepared for a contingency with the PRC. Such a specialized approach might strain resources, as the United States cannot realistically build separate forces for each specific threat. The U.S. Department of Defense’s budget—while large—constrains its ability to build and maintain forces for every conceivable threat. There is added importance to using existing assets creatively to counter emerging security issues. Although the U.S. military has traditionally emphasized large platforms like aircraft carriers, there is growing recognition of the need to develop flexible responses to asymmetrical threats, partially as a result of the conflicts in Ukraine and Gaza.

Challenges to Intra-Governmental and Cross-National Solutions

Developing coherent strategies to address the complex and interlinked challenges in the maritime domain is particularly difficult. The convergence of gray-zone challenges—where hard power, such as the deployment of naval vessels, intersects with “sharp” power tools like economic coercion, psychological warfare, disinformation, and the manipulation of legal and diplomatic norms—complicates the situation. This mix of traditional and nontraditional tactics makes the problem even more acute. The increasing reliance on the latter two tools—economic pressure and information warfare—reflects China’s broader strategy to erode resistance to its maritime claims and to test the

resolve of its adversaries. This raises a key question for the United States: How should it respond when actions fall below the threshold that would trigger a military response?

The implications of the U.S. response to China’s assertiveness are particularly evident in the recent standoff between China and the Philippines at the BRP *Sierra Madre*. A robust U.S. response could lead to two potentially contradictory outcomes. First, strong U.S. engagement, similar to the 2014 U.S. involvement in the dispute between China and Japan over the Senkaku/Diaoyu Islands,²⁰ could help prevent further escalation by drawing red lines. On the other hand, an “escalatory” or “spiral” framework suggests that increased U.S. support for its allies in the face of PRC aggression—such as by escorting resupply ships to the *Sierra Madre*—could provoke a more aggressive PRC response. China has divergent perceptions of the U.S.-Philippines and U.S.-Japan alliances, in which China is more willing to challenge the U.S. relationship with the Philippines than with Japan. Beijing appears to be less concerned about escalation with the United States in this context, potentially punishing U.S. allies such as the Philippines when the United States offers additional support. This leads to an “entrapment dilemma”²¹ in which U.S. regional allies may not invite deeper involvement due to fears of provoking PRC retribution. Participants stressed that what is often framed as a bilateral, U.S.-China issue is, in fact, a trilateral issue.

Another challenge lies in the difficulty of developing formal processes to address incidents that often occur ad-hoc and fall below the threshold of traditional warfare. Some participants critiqued America’s “lapse of diplomatic imagination” in generating new solutions to these emerging challenges. In addition to the domestic challenges to a coherent

20 Todd Hall, “More Significance than Value: Explaining Developments in the Sino-Japanese Contest Over the Senkaku/Diaoyu Islands,” *Texas National Security Review* 2, no. 4 (September 2019), <http://dx.doi.org/10.26153/tsw/6668>.

21 Glenn H. Snyder, “The Security Dilemma in Alliance Politics,” *World Politics* 36, no. 4 (July 1984), <https://doi.org/10.2307/2010183>.

U.S. strategy for maritime security, cross-national challenges hinder effective solutions. Two major obstacles exist: (1) addressing the security needs of U.S. allies and partners and (2) overcoming bureaucratic inefficiencies and coordination problems that slow down the development of coherent responses.

First, participants discussed the security needs and demands from partner states, especially those in Southeast Asia. Most states seek to avoid entanglement in U.S.-China competition, and this desire is underappreciated in U.S. policy, which often pressures states to choose a side. For many smaller states, particularly in the Pacific Ocean, climate change is the most urgent concern. Their primary question is whether existing powers, particularly the United States, will provide the necessary support for climate resilience and green energy development. “Minilateral” efforts, which include smaller, more focused coalitions of countries, tend to be more effective than large, U.S.-led diplomatic initiatives because they can be more responsive to regional needs and tailored to address specific issue sets. For these reasons, future agreements and initiatives are likely to be ad-hoc and minilateral.

These smaller forums may also serve as promising vehicles for norm-setting given China has increasingly sought to establish its own norms in multilateral diplomacy.

Beyond ad-hoc minilateral efforts, at the alliance level, there are inherent coordination difficulties in streamlining efforts across several bureaucracies. For example, friction between various ministries in one country—such as the Ministry of Energy and Climate and the Ministry of Defense—which can lead to discord within one state, are amplified when these structures are replicated across an alliance. As an example, NATO and the European Union lack dedicated funding streams to support region-wide domain awareness and response capabilities. While some funding mechanisms exist, several Baltic states, for example, struggle to access

<< **Two major obstacles exist: (1) addressing the security needs of U.S. allies and partners and (2) overcoming bureaucratic inefficiencies and coordination problems that slow down the development of coherent responses.** >>

NATO support due to the lack of clear pathways for requesting assistance. Industry partners, while helpful in filling in some of the gaps—especially in areas like detection capabilities—often lack a coherent policy framework that integrates their expertise into decision-making processes. Additionally, there is a significant disconnect between the management of land-based and maritime security issues within NATO, further reducing the alliance’s ability to develop a coherent maritime strategy. To address these challenges, there is a critical need for more streamlined coordination, dedicated funding, and a unified policy framework across NATO and the EU to enhance the effectiveness of maritime security strategies and partnerships.

Policy Recommendations:

- **Develop a coordination mechanism for strategies and an alliance-based approach to understanding maritime threats and crafting responses.** This approach should begin at the domestic level, focusing on enhancing inter-agency coordination, such as the establishment of a National Security Council-level working group to synchronize efforts. In collaboration with its allies, the United States should consider pursuing more minilateral strategies. For example, the Quad could invite the Philippines to working-level discussions, fostering informal engagement and cooperation, and raising the costs of maritime aggression for China. Additionally, engaging with other countries on public-goods issues could serve as a stepping stone to deepening relationships on security-related matters. For

example, humanitarian assistance and disaster relief, in particular, offers the United States and its allies the ability to practice cooperation in ways that satisfy partner demands and strengthen channels for further partnerships.

- **Build the legal, budgetary, and regulatory framework across the NATO alliance to pursue a coherent strategy of addressing maritime security challenges.** Even if allies are aligned on their vision for a free and open maritime domain, the United States and its allies and partners should build a policy framework to employ joint capabilities. Bringing in more allies to undertake activities such as Freedom of Navigation Operations beyond the United States will solidify principles in United Nations Convention on the Law of the Sea and diminish the narrative of these contestations being purely U.S.-China issues. The United States might consider a U.S.- or alliance-level combined maritime task force that would address a host of issues beyond the military domain, such as piracy issues, illegal fishing, and climate challenges—which all require the strategic allocation of member states’ maritime resources.
- **Establish a senior coordinator to combat misinformation at the National Security Council.** A position is needed within the White House to bring the interagency together to better coordinate and develop a strategy to combat malign misinformation from abroad.
- **Streamline U.S. Combatant Commands in the Indian Ocean.** The Indian Ocean is covered by three separate U.S. Combatant Commands: AFRICOM (Africa), INDOPACOM (IOR and Pacific Ocean), and CENTCOM (Middle East). The dispersion across three separate entities makes proper policy and military planning difficult. The expansion of PACOM to INDOPACOM in 2018 was made in recognition of the connection between the Indian and Pacific Oceans, but it may be time to establish a separate INDOCOM.
- **Emphasize the connection of mutually assured destruction to the global economy.** Considering the immense economic impact that potential conflicts, such as one in the Taiwan Strait, would have on the global economy, the United States and its allies and partners must begin to emphasize the catastrophic impact that such a war would have. A Taiwan Strait conflict alone is estimated to cost the global economy about \$10 trillion, or 10 percent of global gross domestic product.²² Such an alignment could have an impact on state actors, but it has little meaning for non-state actors like the Houthis.

22 Jennifer Welch, Jenny Leonard, Maeva Cousin, et al., “Xi, Biden and the \$10 Trillion Cost of War Over Taiwan,” *Bloomberg*, January 8, 2024, <https://www.bloomberg.com/news/features/2024-01-09/if-china-invades-taiwan-it-would-cost-world-economy-10-trillion>.

Conclusion

<< Balancing long-term geopolitical threats with smaller but distributed threats poses significant resource allocation and force structure questions that will require the United States and its allies to make difficult prioritization decisions. >>

The *Maritime Security in an Age of Uncertainty* conference gathered academics, policymakers, and national security professionals to assess the nature of trends and threats to global maritime security and offer comprehensive suggestions for improving the U.S. and its partners' collective ability to bolster maritime security in the contemporary era. It underscored that doing the "definitional" work—by defining key terms and coming to shared definitions of maritime security and the types of challenges in the maritime domain—is a critical

first step for crafting smart strategy. Balancing long-term geopolitical threats, such as those posed by Russia and the PRC, with smaller but distributed threats, such as the Houthis, poses significant resource allocation and force structure questions that will require the United States and its allies to make difficult prioritization decisions. Finally, the conference emphasized a need to understand the often-unpredictable systems effects of threats to the maritime domain in one area, such as in the South China Sea, in different domains and regions.

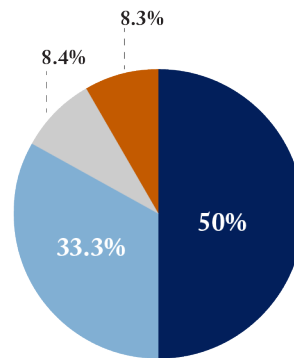
Survey Questions

Perry World House asked participants to fill out a short survey on key issues related to the theme of the conference. The following figures are based on participants' responses. Not all participants answered all questions, and these charts should not be interpreted to represent any individual panelist's view.

Q:

How successful has Houthi military action been in diverting commercial shipping away from the Red Sea?

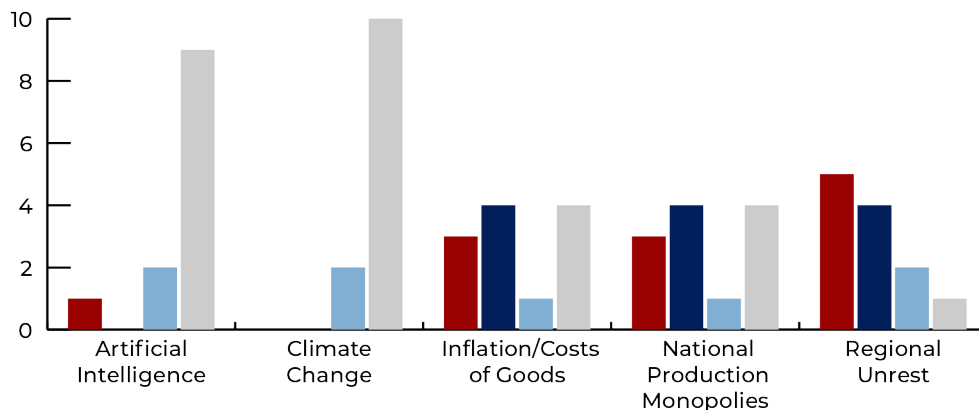
- Successful
- Somewhat successful
- Neutral
- Somewhat not successful
- Not successful



Q:

Please rank the top 3 factors influencing global supply chains prior to January 1, 2028.

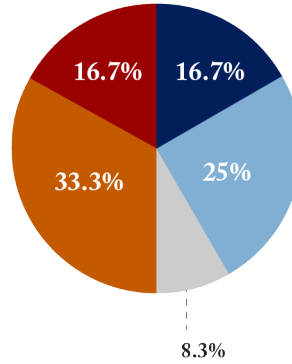
- #1 factor
- #2 factor
- #3 factor
- Not a top 3 factor



Q:

How likely is it that the People's Republic of China (PRC) will initiate a military invasion of Taiwan prior to January 1, 2028?

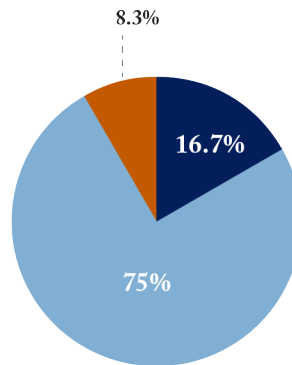
- Very likely
- Somewhat likely
- Neutral
- Somewhat unlikely
- Very unlikely



Q:

How likely is a fatality due to deliberate action involving a resupply mission of the BRP Sierra Madre in the Second Thomas Shoal prior to January 1, 2028?

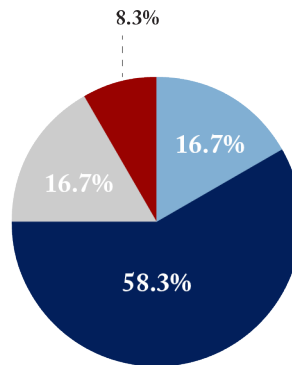
- Very likely
- Somewhat likely
- Neutral
- Somewhat unlikely
- Very unlikely



Q:

How many new overseas bases do you think the PRC will open and operate prior to January 1, 2028? (Currently, the PRC formally operates one overseas naval base in Djibouti.)

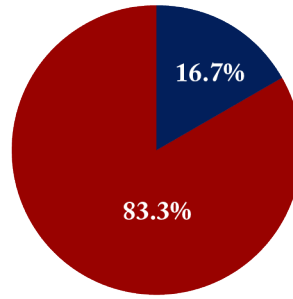
- No change
- 2-3
- 4-5
- 6-7
- 7+



Q:

Will Ukraine successfully destroy the Kerch Strait Bridge connecting Crimea to Russia prior to July 1, 2025?

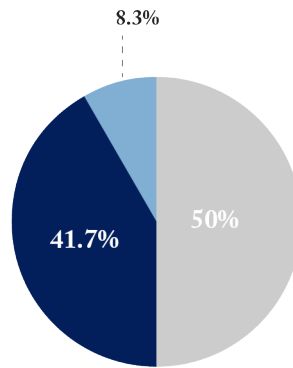
- Yes
- No



Q:

How many new rare earth mines will the United States open in the United States prior to January 1, 2028? (Currently there is only one rare earth mine operating in the commercial market in the United States.)

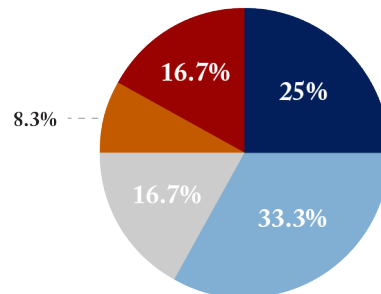
- No change
- 2-3
- 4-5
- 6-7
- 7+



Q:

How likely is it that an undersea cable will be deliberately severed by a nation-state prior to January 1, 2028?

- Very likely
- Somewhat likely
- Neutral
- Somewhat unlikely
- Very unlikely





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