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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

PROSPECTS FOR DETERRENCE, COERCION, ESCALATION

AND WAR IN THE INDO-PACIFIC

by

James A. Russell, James J. Wirtz and Michael Malley

October 2022

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Table of Contents

| | Page |
|--|------|
| Section One: Introduction James A. Russell | 1 |
| Section Two: History Matters Michael Howard, CYBERCOM | 5 |
| Section Three: Integrated Deterrence in the Indo-Pacific Michael Malley and James J. Wirtz, NPS-NSA | 10 |
| Section Four: Technology, War, and Integrated Deterrence Caitlin Lee and Josh “Doc” Holaday, Airpower Institute | 19 |
| Section Five: International Perspectives on Integrated Deterrence Henrik Stalhane Hiim, Norwegian Institute for Defence Studies “China’s Changing Approach to Nuclear Deterrence and Views of Escalation” CAPT Yann Briand, French Navy “The French Navy and a New Geopolitical Cycle” Francesco Zampieri, Italian Naval Staff College “Italian Contributions to Integrated Deterrence” | 27 |
| Section Six: Conclusions James A. Russell | 41 |

SECTION I: INTRODUCTION

Dimensions of Integrated Deterrence

In June 2021, the Naval Postgraduate School and the King's College War Studies Department, Centre for Grand Strategy, hosted a two-day workshop on the Strand Campus, King's College. The workshop identified and unpacked concepts surrounding integrated deterrence – an approach to grand strategy announced by the U.S. Department of Defense that is intended to undergird long-term planning and operations by the United States and its allies and coalition partners across the global commons. As highlighted in the Biden Administration's *National Security Strategy* released in October 2021, the concept of integrated deterrence sits at the center of that strategy.¹

The purpose of this report is to provide the Navy, specifically the N3/N5, with the perspective of subject matter experts from multiple sources: interdisciplinary academics, policy professionals, and active duty naval officers drawn from several from different countries. The project began with a focus on the Indo-Pacific, but following the Russian invasion of Ukraine in February 2022 it was clear that the United States Navy and its coalition partners faced a broader strategic challenge across the Eurasian maritime domain. Following consultations with the sponsor, we decided to broaden the geographic scope of the project to include Europe.

The workshop was attended by a multi-national collection of academic and policy researchers, active duty military personnel, and government civilians. The workshop gathered perspectives on what the concept of integrated deterrence means for the application of naval power across the global maritime commons, with particular focus (but not limited to) the Indo-Pacific. The workshop took place under Chatham House rules.

This workshop focused upon the maritime domain for the United States and those of its coalition partners, although it is clear that the concept of integrated deterrence clearly involves interactions with adversaries across multi-domains of potential conflict. One reason for a sustained focus on maritime affairs is that navies clearly have returned to the forefront of peer-state rivalry and competition. Following a 30-year hiatus for the potential of interstate war-fighting missions on the high seas, maritime confrontations are unfolding across the Indo-Pacific and Europe as a result of China and Russia's aggressive actions across the Western Pacific, northern Europe, the Eastern Mediterranean, and the Black Sea. The result? Navies today must reconnect their plans, programs, force structures, operations and tactics to the demands of fighting a potential war on the high seas and, in parallel, determine how best to meet the requirements of integrated deterrence.

¹ *National Security Strategy* (White House, Washington, DC, October 2022) 22.

What is Integrated Deterrence?

Deterrence has returned as a United States (and Navy) strategic priority – recalling an earlier era in the Cold War. As noted by Alexander George and Richard Smoke: “In its most general form, deterrence is simply the persuasion of one’s opponent that the costs and/or risks of a given course of action he might take outweigh its benefits.”² The latest iteration of the concept in applying to current circumstance is something called “integrated deterrence.” According to U.S. Defense Secretary Lloyd Austin: “...integrated deterrence means using every military and non-military tool in our toolbox, in lock-step with our allies and partners. Integrated deterrence is about using existing capabilities, and building new ones, and deploying them all in new and networked ways... all tailored to a region’s security landscape, and in growing partnership with our friends.”³ In separate remarks, Undersecretary of Defense (Policy) Colin Kahl, has emphasized the following additional elements of the integrated deterrence concept: (1) the integration of military and non-military instruments across governments; (2) making critical infrastructures more resilient in the face of disruptive attacks – attacks meant to slow coming to aid of US allies; (3) deny the enemy the ability realize short, fait accompli type scenario attacks on key allies.⁴

Unveiling the concept in April 2021, Austin emphasized that “the cornerstone of America’s defense is still deterrence, ensuring that our adversaries understand the folly of outright conflict.”⁵ Austin called for “the right mix of operational concepts and capabilities—all woven together and networked in a way that is so credible, flexible, and formidable that it will give any adversary pause.”⁶ This integration, as noted by Austin, must occur across the domains of conflict: land, sea, air, cyber, and space—knocking down barriers to organizational cooperation along the way. Austin emphasized that integrated deterrence also must be based on four additional elements:

- Must exist across platforms and systems that are not stove-piped; and which do not depend on a single service.
- Ensuring that capabilities like the global positioning system can continue even if it is attacked with missiles, cyber tools, or space-based weapons.

² Alexander L. George and Richard Smoke, *Deterrence in American Policy: Theory and Practice* (Columbia University Press, New York, 1974) 1.

³ Secretary of Defense Remarks at the 40th International Institute for Strategic Studies Fullerton Lecture (As Prepared), July 27, 2021, Singapore.

⁴ Jim Garamone, “Concept of Integrated Deterrence Will Be Key to National Defense Strategy, DOD Official Says,” *DOD News*, December 8, 2021.

⁵ “Secretary of Defense Remarks for the INDOPACOM Change of Command,” Department of Defense, April 30, 2021,

<https://www.defense.gov/News/Speeches/Speech/Article/2592093/secretary-of-defense-remarks-for-the-us-indopacom-change-of-command/>.

⁶ Department of Defense, “Secretary of Defense Remarks.”

- Employing cyber effects in one location to respond to a maritime security incident hundreds of miles away.⁷
- Integrating networks with U.S. allies and partner nations.⁸

As a sign of the importance of deterrence in the Indo-Pacific, the Biden administration is spending \$5.1 billion in fiscal year (FY) 22 for the Pacific Deterrence Initiative that is intended to “...bolster deterrence and maintain our competitive advantage.”⁹ As noted in the budget:

Given the full scope of the challenges in the Indo-Pacific, DoD views the development of advanced, asymmetric capabilities and capacity designed to operate in an anti-access/area denial environment as centrally important to Pacific deterrence. PDI [Pacific Deterrence Initiative] therefore includes investments in programs especially critical in those regards. Key among these investments are improved long-range munitions development and procurement, advanced strike platforms, expanded forward force posture and resiliency, targeted security cooperation programs to enhance the capabilities of our allies and partners, innovative exercises and experimentation, and technologically superior Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems.¹⁰

The Pacific Deterrence Initiative is clearly intended to counter China and North Korea—the two central adversarial states in the regional deterrence bargaining framework. A central purpose of the initiative is to

Demonstrate commitment to preserving a free and open Indo-Pacific. The Department is focused on maintaining and extending our military advantages in the region and is prioritizing the People’s Republic of China as our pacing challenge while deterring and countering the destabilizing actions of North Korea.

Most of the funding will be used by the Navy and Marine Corps on a variety of different programs. The Defense Department will spend \$66 billion on the Indo-Pacific region in fiscal year (FY) 22.¹¹

⁷ Department of Defense, “Secretary of Defense Remarks.”

⁸ Department of Defense, “Secretary of Defense Remarks.”

⁹ Office of the Undersecretary of Defense, *Pacific Deterrence Initiative: Department of Defense Budget FY 22* (Washington, DC: Office of the Undersecretary of Defense, Comptroller, 2021), https://comptroller.defense.gov/Portals/45/Documents/defbudget/FY2022/fy2022_Pacific_Deterrence_Initiative.pdf.

¹⁰ Office of the Undersecretary of Defense, *Pacific Deterrence Initiative*.

¹¹ Office of the Undersecretary of Defense, *Pacific Deterrence Initiative*.

The Navy faces a number of challenges as it seeks to reacquaint itself with concepts like deterrence, coercion, and escalation dominance. Although these concepts were used extensively to guide strategy during the last century, today they must be applied to new challenges, new technologies, and wholly different political settings that animated peer competition during the Cold War. In short, navies need an intellectual revolution as much as they need different planning mechanisms, war fighting concepts, new weapons, and different platforms as they search for ways to address the multifaceted challenges of deterrence and warfighting across the global commons. This workshop identified challenges facing the Navy and its coalition partners as defines, unpacks, and operationalizes the “integrated deterrence” as called for by Secretary Austin and the Biden Administration.

SECTION 2: HISTORY MATTERS

Deterrence and War: How has the concept evolved?

Michael Warner
US Department of Defense
June 2022

This contribution to the workshop on *Integrated Deterrence: Implications for Maritime Strategy and Naval Power* revolved around the theme of strategy itself – specifically, the ways in which strategy and naval power have both followed technological shifts in the processing and conveyance of information. The analysis that follows pays particular attention to something noted by Clausewitz: that strategy – which he called the use of the engagement for the purpose of the war – tends at its highest levels to become indistinguishable from policy and statecraft.¹²

Sir Lawrence Freedman in 2004 added a corollary to this problem, noting the conflation of strategy with deterrence. The study of deterrence, he lamented, got swallowed up by the Cold War nuclear stalemate; it “became synonymous with the study of the strategic conduct of the cold war.”¹³ It followed that, to understand deterrence, we should step outside of the strategic considerations of the Cold War and ask anew what it is that we want to deter: “What we need to think about is not so much how to make deterrence work, but about what sorts of behavior we now wish to proscribe, and what role deterrence measures can play in this effort.”¹⁴ In this Freedman agreed with Clausewitz that we must take care not to conflate strategy (a tool of policy and statecraft) with deterrence (one way of implementing strategy). They are different things deserving of different, if parallel, considerations.

Any such exercise in the United States should begin with grand strategy. America’s current grand strategy dates to 1941 and the Atlantic Conference between President Roosevelt and Prime Minister Churchill. This happened before Pearl Harbor, when America was still officially neutral, and FDR needed to explain why we were helping the British (and the Soviets) against Hitler.

The resulting Atlantic Charter held in embryo the four enduring tenets that have since guided US grand strategy. First, America would oppose any hegemon on the

¹² “(I)t is only in the highest realms of strategy that intellectual complications and extreme diversity of factors and relationships occur. At that level there is little or no difference between strategy, policy, and statesmanship...”

On War, Book III, chapter one, “Strategy” (Howard and Paret trans., 1976)

¹³ Freedman, *Deterrence* (Polity, 2004), p. 116.

¹⁴ *Ibid.* p. 118.

Eurasian landmass, for such a power could reach across the oceans to threaten the Homeland. Second, America would do so by aiding partners on the eastern and western coasts of Eurasia. Third, America would also encourage states to settle disputes through negotiation undergirded by international law. Fourth and finally, America would promote global trade to spread prosperity and cooperation, thereby mitigating a source of rivalry and conflict.

These tenets guided US strategy and policy through the Cold War. They justified the policy of Containment, which itself was ensured by the nuclear arsenal, as well as the commitments to allies and to the United Nations. Deterrence served as a pillar of Containment. (After 9/11, of course, America added a fifth tenet: the US would not suffer a state sanctuary for those terrorists seeking to attack the homeland who could not be contained or deterred.)

Yet this grand strategy remained largely implicit. It was not written down in its entirety until the first *National Security Strategy* was published by Congressional mandate in 1988. That initial *National Security Strategy* explained that America sought both to contain and to reform the USSR (in a liberal direction). The military tool of national power worked to deter war and to act in US strategic interests. Note that deterrence in this formulation was a defense policy – not an end in itself.

The *National Security Strategy*, of course, has no force of law itself, being inherently rhetorical, and hence subject to debate and revision by succeeding administrations. That malleability showed even more in the cascading and successive strategy documents that have complement succeeding revisions of the *National Security Strategy*, namely the *National Defense Strategy*, the *National Military Strategy*, and (since 2000) the *National Cyber Strategy*. Indeed, a certain drift in American strategic rhetoric began soon after the Cold War ended.

To wit, in some of these documents, deterrence became the strategy, and military force a last resort, to be used only when other instruments were exhausted. 9/11 reversed this drift for a time, as the Bush Administration stated that some terrorists had to be pre-empted (as far away as possible from America).

The term great power competition returned to US strategy statements after 2010. Deterrence also returned to prominence, with a recognition that the military must still act in national interests below the level of armed conflict. The US military does not just train to fight wars – it acts. This balance became explicit in the revised *National Security Strategy* in 2017. Deterrence remained, alongside “competition” with adversaries who were seeking strategic gain without war. The latest (Interim) *National Security Strategy* (2021) tries a subtle rebalance here with its concept of “Integrated Deterrence,” which the new *National Defense Strategy*’s unclassified summary explains is one of three ways in which America will use military power for security and US interests (the other two being “Campaigning” and “Building Enduring Advantages”).

Here is where Clausewitz's observation about strategy blurring into policy takes on new salience. That American conflation of strategy, policy, and deterrence has become complete, with the terms used nearly synonymously in US national security documents and debates. This conflation has implications for American naval strategy. The Navy will now be expected to "Campaign" and to bolster "Integrated Deterrence." Happily, campaigning is something the Navy has done for roughly 7/8s of its existence since 1775.

To grasp campaigning's implications for naval power and strategy, let us revisit the root of strategic naval power, which was the application of data to navigation in the Age of Exploration. The Portuguese in the early 1500s, for instance, navigated by methods that only look crude. They actually amounted to the application of algorithms for using the positions of stars to mark points on Earth for translation into two-dimensional charts. The latter yielded obvious strategic insights for controlling trade in places like the Indian Ocean. Indeed, the Portuguese admiral Afonso d'Albuquerque conquered the Strait of Malacca in 1511 with such insights, and Western powers dominated that Ocean for centuries, fighting very few actual battles to do so.

Data found application for tactical and operational control at sea in the industrial revolution. Real-time control of ships in battle beyond line-of-sight finally became possible via radio, aided by cryptology. That capability preserved the Anglo/American maritime dominance (assisted by preeminence in global communications and intelligence in 20th Century). The ability of ships to strike targets increased from yards to miles to thousands of miles with precision intelligence, surveillance, and targeting, done first with guns aimed by analog computers, then by piloted aircraft, and finally by guided missiles. That Anglo-American dominance was not unchallenged, of course, and the missile threat grew in and after the Cold War. Yet the Anglo-American navies in concert—in two World Wars plus the Cold War—beat four tyrannical challenges (1918, 1945x2, 1989) and contained another (1953). Their "modern naval paradigm" (my phrase) maintained world order during the Long Peace and the most prosperous century ever.¹⁵

Today new challenges face that Anglo-American dominance. The surface ships that the maritime powers now employ are sophisticated systems of systems, powerful for sensing and strike but also vulnerable to disruptions of electrical power and data connectivity. Can they deter as well as campaign, or are they merely large targets?

Recent naval engagements (and incidents) do not definitively answer this question. Russia's loss of the *Moskva* in April 2022 shows the vulnerability of surface ships – yet the Ukrainian war also shows the enduring power of naval blockades (which Russia has maintained in the Black Sea despite its losses). The *Moskva*'s crew was apparently not combat-minded or capable, and thus her loss also shows how poor teamwork only heightens the fragility of naval assets. On this score, however, the US Navy should shun complacency. In 2020 the helicopter carrier USS *Bonhomme Richard*

¹⁵ John Childress and I explain these statements at length in *The Use of Force for State Power: History and Future* (Palgrave Macmillan, 2020).

burned at her pier in San Diego. Granted the fire was arson, and she had a skeleton crew aboard while under extended maintenance, but egregious command and damage control mistakes led to the total loss of a capital ship that should have rendered decades more useful service.

Conclusions

Naval power is the ability to cause change in (or preserve) international power by operating in bodies of water. Maritime strategy is the particular way that an actor chooses to operate, in light of political and technological circumstances, in order to balance the ends, means, and risks in applying naval power. Here we note the enduring salience of that technological context/variable. Historians love debating the mechanical aspects of that variable (hulls, propulsion, ordnance, etc). But it is just as important to query the technologies that *guide* the ships so they can act *in concert* with each other and with other instruments of national power.

The “modern naval paradigm” today depends on electrical power and data connectivity to unprecedented degrees. At the same time, it confronts new or at least intensified perils:

- a. Intense missile and drone threats, especially in littoral seas;
- b. Potentially ubiquitous and constant physical and even social media surveillance;
- c. Adversary capabilities in cyberspace and electronic warfare to impair the data sharing that the fleet requires for unity of action and precision strike;
- d. Adversary capabilities to attack fleet logistics, construction, and repair;
- e. Adversary focus on undermining the morale of sailors and their families via cyberspace;
- f. Adversary use of Information Warfare to shift the political narratives in which naval power and maritime strategy are exercised;

These perils severally and collectively threaten the demise of the Anglo/American global communications and intelligence pre-eminence noted above. Can that modern naval paradigm endure despite these perils, and if so, how can it contribute to Integrated Deterrence and Campaigning? Yes, it can, but only on three conditions.

- First, the perils above dictate an intense need for operational security, especially via emissions control and on-line discipline.
- Second, resilience is imperative, especially in the fields of logistics, communications, networks, morale, electrical power, and damage control.
- Third, and finally, the “paradigm navies” can ensure that all those perils listed above apply even more to their rivals. Any challenger to the modern naval paradigm must realize that he must master the digital and firepower revolutions *while also fighting off adversary naval forces that have*

already mastered them. If wise, the paradigm naval powers will ensure all of those perils above confront any challenger all at once.

Here is where campaigning works across all instruments of national power to boost deterrence. Any challenger should constantly be made to feel at risk, so challenger admirals are continually telling their masters “We are not sure we can do this...” This is a Maritime Strategy for the 2020s, one that recognizes that naval power, like deterrence, lies in the minds of the admirals and the sailors they command and the policymakers who steer them.

To return to Clausewitz and Sir Lawrence Freedman, we should embrace the confluence of strategy and policy and statecraft in the maritime domain. As we think about “how to make deterrence work” through wise policies and efficacious strategies, we should indeed ponder “what sorts of behavior we now wish to proscribe.”¹⁶ And things we want to proscribe should include the temptation for tyrannical powers to alter the balance of power and dictate to neighbors and the liberal order with naval might.

¹⁶ Ibid. pp. 116, 118.

SECTION III: INTEGRATED DETERRENCE IN THE INDO-PACIFIC

Maritime Coalitions and Deterrence: Beware the Melian Choice
Michael S. Malley and James J. Wirtz

When Bernard Brodie wrote his *Guide to Naval Strategy* in the early days of the Second World War, he emphasized that U.S. naval operations in the Pacific had to secure bases close to the theater of operations around Japan.¹⁷ Because of the distances involved, the United States could only project limited power in the western Pacific directly from ports on the West Coast or even Hawaii. Ships and supplies might transit thousands of miles to forward operating areas, but they could not make those transits and immediately enter battle. When they arrived in theater, ships had to be repaired, the force had to be re-supplied, and troops had to be shifted to a combat footing, hence the famous “island-hopping” amphibious campaign undertaken to secure ports, airfields, and staging areas ever closer to the Japanese home islands. The history of U.S. Naval operations in the Second World War is mostly about securing the operating bases needed for a final amphibious assault on Japan.

Today’s maritime strategists are in a better position when it comes to deterrence in the western Pacific. America’s friends and allies across the Indo-Pacific can provide U.S. forces with facilities in peacetime, at the outset of a crisis, or during war. The importance of friends in forward areas is not lost upon U.S. defense planners. For decades, they have understood that bases in Japan and South Korea are vulnerable to Chinese missile attacks. In response, the Navy and Marine Corps have developed a strategy that depends on distributing their forces throughout the so-called First Island Chain, which links Japan to Taiwan, the Philippines, and the island of Borneo, which is shared by Brunei, Indonesia, and Malaysia.¹⁸ Nevertheless, deterrence does not depend only on securing access to facilities in these countries. According to Secretary of the Navy Carlos Del Toro, the maritime services aim to “operationally integrate our allies and partners into strategic concepts and warfighting concepts to deter” adversaries.¹⁹ Chief of Naval Operations Admiral Michael M. Gilday explained that these concepts would entail working “with allies and partners . . . [to] launch massed volleys of

¹⁷ Bernard Brodie, *A Guide to Naval Strategy* (Princeton: Princeton University Press, 1944).

¹⁸ Wallace C. Gregson Jr. and Jeffrey W. Hornung, “The United States Considers Reinforcing its ‘Pacific Sanctuary’,” *War on the Rocks*, April 12, 2021 <https://warontherocks.com/2021/04/the-united-states-considers-its-pacific-sanctuary/>; and Donald Abenheim, *et. al.*, “American Sea Power in The Contemporary Security Environment, *Comparative Strategy* Vol. 37, No. 5, p. 400.

¹⁹ Carlos Del Toro, “One Navy-Marine Corps Team: Strategic Guidance from the Secretary of the Navy,” October 2021, p. 5.

networked weapons to overwhelm adversary defenses.”²⁰ This approach is consistent with Thomas Mahnken’s recent argument that “a maritime strategy should seek to turn geography to the United States’ advantage by using the geography of the western Pacific to constrain China’s access to the open oceans in crisis or war.”²¹

Although U.S. maritime strategy increasingly envisions direct and indirect roles for allies and partners, the United States cannot guarantee that its friends will embrace these roles, especially in a crisis when deterrence is being tested. Many countries in the region have increased their defense capabilities, granted access to U.S. forces, and have enhanced the interoperability of their militaries with that of the United States, as documented in the Indo-Pacific defense strategy report.²² Many U.S. partners and allies also have begun to engage in cooperation among themselves, often on bilateral lines. But the purposes of defense cooperation from their perspective are diverse and “there is substantial sensitivity” about cooperation when it “is framed as a reaction to China’s growing power and assertiveness.”²³

Strategists in Beijing may believe that a potential lack of solidarity among the opposing coalition is the Achilles heel of the U.S. deterrent in the western Pacific. Governments that cross deterrent red lines generally do not underestimate the opponent’s military capability; instead, they assess that the opponent’s *political* ability to act on deterrent threats will evaporate in the event of deterrence failure. The fact that a crisis in the western Pacific would occur in a *maritime* context further complicates matters because much of Washington’s thinking about deterrence is shaped by the Cold War experience of deterring a *land war* in Central Europe. The incentives and opportunities faced by members of a maritime coalition are different from those faced by members of a coalition of land powers.

Political Reliability, Maritime Dynamics, and Deterrence Failure

When strategists and policymakers speak of the governments supporting U.S. deterrence strategy, little mention is made of the political reliability of this nascent coalition, especially in a worsening crisis. This shortcoming is potentially dangerous. Because it is easier to make deterrent threats than to execute them, strategists in Beijing may assess that the requisite political determination to act would fade in some coalition

²⁰ CNO NAVPLAN, January 2021, p. 5.

<https://media.defense.gov/2021/Jan/11/2002562551/-1/-1/1/CNO%20NAVPLAN%202021%20-%20FINAL.PDF>

²¹ Thomas G. Mahnken, “A Maritime Strategy to Deal with China,” *U.S. Naval Institute Proceedings* Vol. 146/2/1,438 February 2022.

<https://www.usni.org/magazines/proceedings/2022/february/maritime-strategy-deal-china>
²² Department of Defense, “Indo-Pacific Strategy Report: Preparedness, Partnerships, and Promoting a Networked Region,” June 1, 2019.

²³ Scott W. Harold and others, *The Thickening Web of Asian Security Cooperation: Deepening Defense Ties among U.S. Allies and Partners in the Indo-Pacific* (Santa Monica: RAND, 2019), p. 349

polities as war becomes increasingly likely.²⁴ By undermining political support for a strong deterrent posture, Beijing could begin to peel away the political commitment to provide capabilities and facilities that are critical to U.S. deterrence strategy.

The political reliability of any coalition is always somewhat problematic. Nevertheless, geography tends to limit land powers' room to maneuver – borders, terrain, and the objectives of potential antagonists highlight to friend and foe alike the probable course and location of potential conflict, creating political-military incentives that are difficult to ignore. For instance, France might have dropped out of NATO's formal command structure for a time, but no one doubted that it would also fight to defend West Germany in the event of a Warsaw Pact invasion across the Cold War's Central Front. It would be better, *ceteris paribus*, to defend France from positions in West Germany than from positions in the suburbs of Paris. Additionally, the decision to station forces on allied territory can reassure land powers about deterrent commitments in general and extended-deterrence in particular. Even if officials begin to get cold feet during a crisis, it would be difficult to move those forces out of harm's way in the event of hostilities. In land warfare, military deployments in theater or on coalition territory offer tangible evidence of political commitment to a common deterrence strategy.

By contrast, maintaining the political cohesion of a group of maritime states presents unique challenges. Determining who is in harm's way is more problematic when compared to war on land. In a maritime conflict, the attacker can use its seaborne mobility to avoid transiting certain waters or coming close to certain archipelagos while directing its efforts against its primary objective. In a maritime setting, an attacker can strike a particular target without going through or over the territory of other states in the immediate area. Using naval units to reassure regional partners also can be problematic for a defender: because its fleets can depart an area quickly in a crisis, there is no guarantee that warships will be on station as promised when most needed. Maritime strategic cultures also highlight the role of water as a key to national defense. In a crisis, leaders of an island nation might reject more dangerous coalition demands and revert to their traditional policy of relying on the protection of the sea as the basis of their foreign and defense policy. Stories of the fate of the Spanish Armada or the providence of the Divine Wind highlight the protective role of water in the defense of island nations.

Beijing could accelerate these maritime coalition dynamics by exploiting a gambit taken straight from the Melian dialogue. Told by the Greek historian Thucydides in his account of the Peloponnesian war, the islanders of Melos suggest to an Athenian naval expedition that they would adopt a strict position of neutrality in the ongoing great power conflict if the Athenians would leave them to their own devices and respect their neutrality. The Athenians' reject the offer – as the maritime power, they require the port of Melos for their operations against Sparta. By contrast, as the land power, Sparta's military position would have been enhanced by Melian neutrality – denying Athens an

²⁴ This is the calculation made by the Japanese in the run up to their December 1941 attack on Pearl Harbor see Roberta Wohlstetter, *Pearl Harbor: Warning and Decision* (Stanford: Stanford University Press, 1964)

important port contributed far more to the Spartan war effort than the military contribution made by the meager Melian military. Although the Athenians have been ridiculed ever since for gratuitously rejecting what appears to be a reasonable offer, Thucydides fails to inform the reader about the important maritime implications inherent in the Melian volte-face.

In a contest between a continental and maritime power, the continental power will be interested in denying island bases to its opponent even more than securing those bases for itself. Under these circumstances, neutrality, a political solution to this military problem, will quickly come to the islanders' mind as a "win-win" proposition. They can avoid becoming embroiled in a war over issues of less-than-existential importance and thereby avoid the deadly consequences of becoming a battleground in a great power conflict. The continental power would benefit by denying forward operating bases to a maritime opponent. The maritime power would be forced to replace repair facilities and logistical depots needed to backstop its deterrent threats. The fact that neutrality has to apply to all those involved in the conflict works to the direct disadvantage of the maritime power, whose strategy requires forward bases. Continental powers will depict islanders' decision to "opt out" of a crisis as a step toward peace despite the fact that it weakens the maritime power's deterrent threats and undermines the status quo. Allowing the United States to use island bases will be described by the continental power, and even some island states, as a step towards war and denying access will be depicted as a vote for peace.

Which Allies and Partners Will Play These Roles in Deterring China?

Although U.S. policymakers have not identified the specific allies and partners included in mounting a deterrent, the U.S. Indo-Pacific Command's (INDOPACOM) report to Congress, "Regain the Advantage," identifies high priority countries and how they are expected to contribute to deterring Chinese aggression. The most important countries are located in the First Island Chain. This region is where INDOPACOM contends that it needs to "ensure access and maneuver . . . to deter our adversaries from acts of aggression." To do so, "requires fielding an integrated Joint Force with precision-strike networks, particularly land-based anti-ship and anti-air capabilities along the First Island Chain." In addition, INDOPACOM reports that its investments in Southeast Asia "are focused on alternative facilities to support modernized and dispersed power projection airfields to support forward forces and enhance logistics with pre-positioned stores and infrastructure."²⁵

Which of the countries in the First Island Chain are prepared to do what U.S. deterrence strategy asks of them? Which countries are prepared to join the United States in launching attacks against Chinese forces, even when those forces are not attacking them? And which countries are willing to provide access to the United States today so

²⁵ Quotations in this paragraph are taken from "Regain the Advantage, U.S. Indo-Pacific Command's Investment Plan for Implementing the National Defense Strategy, Fiscal Years 2022-2026," Executive Summary, pp. 3, 7, and 8.

that it can create the infrastructure needed for the U.S. military to attack Chinese forces in the future? The answers to these questions are political, not technical. Agreeing to participate in a combined military deterrent against China would require a vast shift in the foreign and defense policies of nearly every country inside the First Island Chain. Three major obstacles stand in the way of implementing U.S. warfighting concepts and achieving the goals set by U.S. deterrence strategy.

Countries Don't Want to Help Defend Each Other

There is no overall alliance framework to bind the nations of the Indo-Pacific to each other or a common deterrent strategy. This is the central challenge for U.S. strategies that depend on the dispersal of U.S. military forces. This situation is a legacy of the bilateral alliance system that the United States put in place during the 1950s, which was designed to restrain allies rather than combine them into a unified force under a common command.²⁶ U.S. control over its allies meant that it could use access to one country to launch attacks on adversaries, as it did with bases in Japan during the Korean War and with bases in Thailand during the Vietnam War. Nevertheless, none of the treaties that bound the United States to its Asian allies then—and still bind it today—require one ally to come to the defense of another. Moreover, U.S. allies and partners have not developed mechanisms to contribute to one another's defense except in the case of Japan and South Korea, whose rocky bilateral relationship has often stymied efforts to cooperate against North Korea, one of the most prominent threats to regional peace and security.

The lack of agreement among U.S. allies and partners is hardly surprising given the ambiguity that often accompanies U.S. commitments to deter Chinese aggression. Over the past decade, U.S. leaders have felt compelled to reiterate many times that the Senkaku islands are covered by the mutual defense treaty with Japan. Only three years have passed since the United States clarified that its defense treaty with the Philippines extends to the South China Sea. And despite growing support for Taiwan, the U.S. maintains the same policy of “strategic ambiguity” that it adopted after terminating the mutual defense treaty in 1980. Among U.S. allies and partners in the First Island China, only Japan has begun to take public positions that suggest it may participate in the defense of Taiwan. None of the others have signaled they would come to Japan's defense of the Senkaku islands or any Southeast Asian country's defense of its claims in the South China Sea.

Southeast Asia Prioritize Strategic Autonomy.

The chief characteristic of Southeast Asian foreign and defense policies is the way they avoid taking sides in the rivalry between China and the United States.²⁷ Analysts

²⁶ Victor D. Cha, “Powerplay: Origins of the US Alliance System in Asia,” *International Security* 34, no. 3 (2010): 158-196.

²⁷ Jonathan Stromseth, “Don't Make Us Choose: Southeast Asia in the Throes of US-China Rivalry,” Brookings Institution, October 2019,

describe this as a policy of “hedging,” or attempting to maintain ties with both superpowers to guard against challenges from one or the other.²⁸ This approach is deeply embedded in the region’s politics, foreign policy, and ASEAN institutions. In the late 1960s and early 1970s, ASEAN members debated whether Thailand and the Philippines should be allowed to retain U.S. bases. They decided that those bases should be temporary and agreed that foreign bases would never be used against another member. They viewed great power rivalry as a threat to regional stability and adopted a proposal in 1971 to establish the region as a zone of “peace, freedom, and neutrality,” that would keep it “free from any form or manner of interference by outside Powers.”²⁹ These ideals continue to shape the region’s approach to great power rivalry even though they have never been fully achieved.

Southeast Asian countries have been unable to exclude the great powers from the region. Instead, they have sought to engage them in a set of institutions that are intended to attract the participation of as many great powers as possible while allowing ASEAN members to shape the region’s security agenda. For much of the post-Cold War era, the low level of great power rivalry afforded ASEAN wide latitude to pursue these goals. In the security arena, ASEAN established an annual forum known as the East Asia Summit, which hosts presidents and prime ministers from Southeast Asia as well the United States, China, Russia, and other great powers to discuss regional security issues. In 2010, they created the ASEAN Defense Ministers Meeting-Plus (ADMM-Plus), which included ministers from ASEAN as well as China, the United States, and six other countries.

Since then, it has become increasingly difficult for ASEAN to maintain autonomy from the great powers. Instead, ASEAN members have found themselves courted, cajoled, and pressured to deepen their ties with China and the United States. Even though ASEAN, China, and the United States agreed with other members of ADMM-Plus to conduct maritime security exercises under the auspices of that organization, China and the United States have organized their own, separate maritime security exercises with ASEAN.³⁰ The organization’s response to Chinese and U.S. invitations indicates its

<https://www.brookings.edu/research/dont-make-us-choose-southeast-asia-in-the-throes-of-us-china-rivalry/>.

²⁸ David Martin Jones and Nicole Jenne, “Hedging and Grand Strategy in Southeast Asian Foreign Policy,” *International Relations of the Asia-Pacific* (2021): 1-31; John D. Ciorciari, “The Variable Effectiveness of Hedging Strategies,” *International Relations of the Asia-Pacific* 19, no. 3 (2019): 523-555; and Jürgen Haacke, “The Concept of Hedging and Its Application to Southeast Asia: A Critique and a Proposal for a Modified Conceptual and Methodological Framework,” *International Relations of the Asia-Pacific* (2019): 375-414; and Kuik, Cheng-Chwee. “How Do Weaker States Hedge? Unpacking Asean States’ Alignment Behavior Towards China.” *Journal of Contemporary China* 25, no. 100 (2016): 500-514.

²⁹ “Zone of Peace, Freedom, and Neutrality Declaration,” November 27, 1971, <https://www.pmo.gov.my/2019/07/zone-of-peace-freedom-and-neutrality-zopfan/>.

³⁰ Singapore Ministry of Defence, “ASEAN and China Successfully Conclude ASEAN-China Maritime Exercise,” October 27, 2018,

difficulty in setting the region’s agenda and its tendency to agree to cooperate with both great powers.

The strength of the desire to maintain autonomy and avoid choosing sides is vividly illustrated by Singapore’s approach to great power rivalry. Singapore enjoys an extremely close defense relationship with the United States; it hosts a major Navy logistics command, permits broad access for U.S. military ships, aircraft, and personnel, and maintains detachments of fighter jets at locations in the United States. In 2019, it renewed an agreement that permits the United States to maintain defense facilities in Singapore. Yet that same year, Singapore also signed an updated agreement with China to expand defense cooperation. Among other things, the agreement provided for the “the establishment of a regular Singapore-China Defence Ministers’ Dialogue, a Visiting Forces Agreement for troops participating in bilateral exercises, [and] a mutual logistics support arrangement.”³¹

All countries in the FIC are vulnerable to Chinese coercion

Every U.S. ally and partner must measure the risks that the United States asks them to run for the sake of deterrence against the cost of potential Chinese economic or military coercion. Like the United States, each of them has extensive economic ties with China, which is a leading investor in, importer from, and exporter to its neighbors in the First Island Chain. China also has demonstrated a propensity to use economic coercion against several of its neighbors. In 2010, it imposed a ban on rare earth exports to Japan

https://www.mindef.gov.sg/web/portal/mindef/news-and-events/latest-releases/article-detail/2018/october/27oct18_nr; Commander U.S. 7th Fleet, “First ASEAN-US Maritime Exercise Successfully Concludes,” September 6, 2019, <https://www.c7f.navy.mil/Media/News/Display/Article/1954403/first-asean-us-maritime-exercise-successfully-concludes/>.

³¹ Singapore Ministry of Defence, “Singapore and China Step Up Defence Cooperation Through Enhanced Agreement on Defence Exchanges and Security Cooperation,” October 20, 2019, https://www.mindef.gov.sg/web/portal/mindef/news-and-events/latest-releases/article-detail/2019/october/20oct19_nr!/ut/p/z1/rZJJT8MwEIV_C4ccXTtpih1uYRGLGspSaOMLctLJAoldHNPAv2cCCAmJgpDwyTN-Hn1-z1TSJZVabepSudpo1WCdyt07Pjs8OGFhcD6bzH0W387n08n--ekN36W3VFK5zusVTZVfZCIPBQlCyEgouE9UISKyEgJyDpyHKhrUuXZrV9G0rfUKCpIb7UA7j1WmBY9p6Dui9IrABrudxxrloHPEQgOqA2wEzI88ZnJnMrBDiVs_utOWLn6jIXjMtqyY4X35Jpldhsd-yiLpLLma4IQoEnN2EbBj_iH4YUaKDHw7A6eLTQ09vdHGtmjw9R_9O2H07A3hh1di aIFNDpISJytXkVoXhi4H2- jyw7ah_LQN9fX946OMMZshjGdHl_8fDmKXjcneP1Wss7FAPgsFWLCjJ4vtyrl1t-cxj_V9PyqNKRsy5ab12HdXXtMh51clXbetGL-QhyI5GocyvZgWiZuk8c4rIFFJoQ!!/dz/d5/L2dBISEvZ0FBIS9nQSEh/?uril=wcm%3Apath%3A%2Fmindef-content%2Fhome%2Fnews-and-events%2Flatest-releases%2F2019%2FOctober%2F20oct19_nr

after the Japanese detained a Chinese fishing ship in the East China Sea. In 2012, China imposed restrictions on Philippine banana exports following a clash over Scarborough Shoal in the South China Sea. More recently, China has disrupted a wide array of exports from Australia, which has upset Beijing by banning Chinese companies from its 5G networks and calling for an independent investigation into the cause of Coronavirus 19. Similarly, China has blocked pineapple and other fruit exports from Taiwan as part of its broader efforts to increase pressure on Taipei.

Although these measures have had little impact individually, collectively they send a clear message to U.S. allies and partners that China has the ability and the willingness to impose economic costs in response to its neighbors' policy choices. The implications for U.S. deterrence strategy are especially significant in the context of China's proclivity to employ gray zone tactics to achieve limited objectives more quickly than its opponents can respond. China could easily threaten to impose economic costs on its smaller neighbors if they came to the aid of a country targeted by Beijing. In those cases, U.S. allies and partners would be forced to decide whether the benefits of aiding, say, a Japanese effort to dislodge Chinese forces from an island in the Senkaku against disruption to their own economies.

China also has shown that it can wield military and paramilitary tools as well. Capturing Scarborough Shoal from the Philippines, constructing military facilities atop artificial islands in the South China Sea, and using its air force to challenge Taiwan and Japan are obvious examples. The nearly constant presence of Chinese maritime law enforcement and maritime militia ships in the South China Sea is a persistent reminder of China's ability to take additional territory in short order. The appearance of hundreds of maritime militia vessels in Philippine-claimed Whitsun Reef in early 2021 was a stark reminder of China's willingness to use these forces to challenge a U.S. ally. It was also an indication of the risk China is willing to take, since the INDOPACOM commander had said that the U.S. would treat maritime militia vessels no differently than it treats Chinese navy vessels.³²

Although there is little doubt that Japan or Taiwan would resist a direct attack by China, interdependence among the economies of China and its neighbors enables China to impose costs that are likely to deter small countries in the First Island Chain from coming to one another's aid, let alone that of Taiwan or Japan. These considerations challenge the assumption that U.S. forces can easily or convincingly be dispersed among those countries to deter Chinese aggression.

Conclusion

U.S. strategists have their work cut out for them. The implicit assumptions in U.S. deterrence strategy and warfighting concepts are, in many ways, unrealistic. They

³² Demetri Sevastopulo and Kathrin Hille, "US warns China on aggressive acts by fishing boats and coast guard," *Financial Times* (April 28, 2019), <https://www.ft.com/content/ab4b1602-696a-11e9-80c7-60ee53e6681d>.

hold that allies and partners will do three things they have not done in the past and show few signs of being willing to do today: use their own armed forces to defend another country; allow the United States to use their territory to prepare to launch attacks against Chinese forces even when those forces are attacking a third country; and threaten China with such actions in order to deter China from attacking them or other U.S. allies and partners. None of these can be overcome simply by strengthening allied and partner capabilities, enhancing interoperability among coalition forces, or conducting more complex exercises. They are fundamentally political challenges to the cohesion of a maritime coalition. Unless they are overcome, American deterrence will be susceptible to Chinese pressure on island countries to make the same choice Melos made.

Achieving cohesion will not be easy. Maritime coalitions are uniquely challenging to construct and modern-day Melians have strong incentives to avoid taking sides in a conflict let alone—as effective deterrence demands—before one occurs. So, what can U.S. leaders do? First, they should acknowledge that strategies and operational concepts have outpaced the political support needed to put them into practice in a reliable fashion. The willingness of smaller island countries to participate in large scale exercises should not be taken as evidence that they would be willing to make deterrent threats against China. Some of them, including those with close U.S. ties such as Singapore and Thailand, also conduct exercises with Chinese forces.

Second, they should promote whole-of-government approaches to addressing the vulnerability of First Island Chain countries to all types of Chinese coercion. It is unlikely that any of these countries would suddenly make explicit commitments to defend another or decide to abandon policies of strategic autonomy. But the chief threat to the cohesion of maritime coalitions in general is pressure from a continental power to stand aside from great power rivalry. China's widespread and repeated employment of coercive tactics against First Island Chain countries illustrates the importance of that dynamic today. Without a concerted effort to bolster these countries' ability to resist coercion, the political foundations of the U.S.-led maritime coalition will remain weak and deterrence will be vulnerable to weaker countries' inclination to adopt the Melian position towards a brewing conflict.

SECTION IV: TECHNOLOGY, WAR AND INTEGRATED DETERRENCE

Technology and Airpower: Implications for Integrated Deterrence Caitlin Lee and Joshua “Doc” Holaday

What is integrated deterrence, and why should we care about it? This is a basic and important question because it is a central pillar of the Biden administration’s 2022 National Defense Strategy (NDS). In April 2022, Secretary of Defense Lloyd Austin confirmed that the “the cornerstone of America’s defense is still deterrence, ensuring our adversaries understand the folly of outright conflict.” But he also said that deterrence must now be different than in the past, characterizing the change as a move toward “integrated deterrence.”³³ The NDS describes integrated deterrence as “working seamlessly across warfighting domains, theaters, the spectrum of conflict, other instruments of U.S. national power, and our unmatched network of Alliances and partnerships.”³⁴

It goes on to suggest that integrated deterrence involves both conventional and nuclear forces, and Secretary Austin also imbued the concept with a technological component, calling for the integration of the “the best weapon systems and latest technologies that make adversaries think twice” such as “tools that make use of artificial intelligence and quantum computing.”³⁵

As Secretary Austin and other observers have already acknowledged, there is nothing new about deterrence itself, which can be defined as the threat of future pain to constrain adversary behavior. It is an ancient form of coercion, which involves manipulating “the power to hurt” with threats or limited displays of force to gain bargaining leverage.³⁶ Furthermore, it is widely recognized that actors have always

³³ Secretary of Defense Lloyd Austin, “Defense Secretary Says ‘Integrated Deterrence’ is the Cornerstone of US Defense,” Department of Defense, April 30, 2021. As of May 26, 2022: <https://www.defense.gov/News/News-Stories/Article/Article/2592149/defense-secretary-says-integrated-deterrence-is-cornerstone-of-us-defense/>

³⁴ Department of Defense, 2022 National Defense Strategy Fact Sheet. As of May 26, 2022: <https://media.defense.gov/2022/Mar/28/2002964702/-1/-1/1/NDS-FACT-SHEET.PDF>

³⁵ Secretary of Defense Lloyd Austin, “Defense Secretary Says ‘Integrated Deterrence’ is the Cornerstone of US Defense,” Department of Defense, April 30, 2021. As of May 26, 2022: <https://www.defense.gov/News/News-Stories/Article/Article/2592149/defense-secretary-says-integrated-deterrence-is-cornerstone-of-us-defense/>

³⁶ This definition is based on Thomas Schelling, who distinguished between two types of coercion: deterrence and compellence. Deterrence involves using threats to prevent an adversary from taking unwanted action. Compellence involves using threats to persuade an adversary to stop or reverse an action that has already been taken. My broad definition includes both. For a refreshing and plain-spoken take on coercion, which draws on the work of Thomas Schelling, See Tammi Davis Biddle, “Coercion Theory: A Basic introduction

coerced across domains, which are distinguished simply by their potential to provide unique bargaining leverage and so can include not just the warfighting domains of air, land, sea, cyber and space, but also geographic areas or even technological distinctions like nuclear versus conventional weapons.³⁷

Yet while none of this is new, there are still policy-relevant and urgent reasons to explicitly reframe the conversation around deterrence. First, *new technology* has increased the difficulty of selecting among coercive options and has multiplied the number of potential combinations and interaction.³⁸ Policymakers need to grasp the extent to which diversifying *means* of deterrence, operating independently or in combination, may impact deterrence success and failure. Integrated deterrence, properly described and analyzed, can provide a framework for policymakers to navigate those choices. Second, it is possible that the emergence of new technologies could create new political bargaining pathways that risk escalation on par with a nuclear exchange.³⁹ While this claim is still highly contested, it has strategic and even existential implications that demand urgent examination.⁴⁰ Third and finally, policymakers need awareness of how adversaries may seek to gain their *own* leverage to exploit US weaknesses, and need to be informed enough to make changes to US strategy, doctrine, and force structure to exploit new coercion options and mitigate our own vulnerabilities.

This essay examines the extent to which the signaling and use of a particular type of technological change – drone innovation – may be employed as part of a broader coercion strategy to achieve decisive outcomes short of the nuclear threshold. Drone innovation is a particularly interesting case for three reasons. First, technology is uniquely vital to the coercive potential of airpower, and we might therefore expect to see new coercion opportunities emerging early in the air domain because air arms have such a powerful incentive to pursue them.⁴¹ Second, while drones operate under the same

for Practitioners,” Texas National Security Review, 3.2 Spring 2020, . As of May 27, 2020: <https://tnsr.org/2020/02/coercion-theory-a-basic-introduction-for-practitioners/>

³⁷ Jon R Lindsay and Erik Gartzke’s edited volume excellent job of explaining how technology makes domains, or bargaining paths, more or less salient. For a specific relevant comment see p. 336, but the whole book is a gem in this regard. Jon R Lindsay and Eric Gartzke. *Cross Domain Deterrence: Strategy in an Era of Complexity*, Oxford: Oxford UP, 2019. Secretary Austin specifically references AI and quantum computing as shaping the future of integrated deterrence. See Austin, April 30 /

³⁸ Lindsay and Gartzke, 2019, p.336.

³⁹ Rebecca Hersman, “Wormhole Escalation in the New Nuclear Age,” *Texas National Security Review*, Summer 2020. As of June 9, 2022: <https://tnsr.org/2020/07/wormhole-escalation-in-the-new-nuclear-age/>

⁴⁰ Some scholars have begun to doubt that the introduction of new technology can independently cause escalation and global instability. See, for example, Caitlin Talmadge, “Caitlin Talmadge, “Emerging Technology and Interwar Escalation Risks: Evidence from the Cold War: Implications for Today,” *Journal of Strategic Studies*, August 22, 2019

⁴¹ On the vital role of technology in airpower, see, for example: Karl Builder, *Masks of War*, 1989.

environmental and physical conditions as other air instruments, they do have some distinct technological characteristics that could plausibly alter their political bargaining power.⁴² For “current generation” drones, from the fixed wing US MQ-9 Reaper to the Turkish TB-2 to Ukraine’s R-18 octocopters, a main feature is that they remove the pilot from the cockpit. In so doing, they have the potential to reduce the expense of the aircraft (although this depends on the normal range, payload and speed trade-offs involved in building any aircraft), to dramatically reduce risks to aircrew; and to limit reputational stakes of losing an aircraft. Next-generation drones, as defined here are more autonomous—meaning they can operate with greater degrees of independence from human control—which gives them the potential to operate without communications links to a human, and make some or all decisions without a “human in the loop.” They fall under the Defense Department definition of “lethal autonomous drones” because they can select and engage targets independently of a human operator.⁴³ Third, the possibility that drones may provide new leverage in inter-state conflicts needs urgent examination. The pacing threat for the US national security apparatus, China, is rapidly pursuing drone innovation, and new research on the 22 countries that now possess armed drones suggests these states face higher risks of interstate conflict.⁴⁴ The U.S. Navy needs to pay attention to this area as it seeks to position itself across the warfare domains to operationalize integrated deterrence.

Drones and Integrated Deterrence

To understand the role of drones integrated deterrence, it is important to nest the discussion in the current “strategic studies drone literature.” The literature on drones and coercion is very sparse. One obvious reason is that coercion theory, which has received lots of attention in the nuclear deterrence theory and crisis bargaining literature, was developed during the Cold War, before modern armed drones were widely deployed.⁴⁵ Another reason might be that strategic studies literature, with its focus on global balances of power, has tended to emphasize the impact of emerging technology on strategic stability: i.e. does the technology start or prevent conventional or nuclear wars, or escalate or de-escalate them? In general, scholars argue for and against the destabilizing effects of drone innovation, but far less attention has been paid to the other side of the coin: coercion. That said, the stability debate does provide valuable insight for those

⁴² Limitations on coercive airpower operations in general can include environmental limitations, such as weather, terrain, lighting and ground cover, and physical limitations, such as speed, range and payload. See Phil Haun, “Airpower Versus Ground Forces,” in Jon R Lindsay and Eric Gartzke. *Cross Domain Deterrence: Strategy in an Era of Complexity*, Oxford: Oxford UP, 2019, pp 148-150

⁴³ Department of Defense Instruction 3000.009. This DODI is currently being updated. Gregory C. Allen, “DOD is Updating its Decade-Old Autonomous Weapons Policy, but Confusion Remains Widespread,” CSIS, June 6, 2022.

⁴⁴ Michael Horowitz, Joshua Schwartz, Matthew Fuhrman, “Who’s Prone to Drone? A Global Time Series Analysis of armed Uninhabited Aerial Vehicle Proliferation,” *Conflict Management and Peace Science*, 39.2, 2022, p. 136

⁴⁵ Zegart, 2020,

interested in understanding the coercive effects of drone innovation, since both are really about escalation dynamics. In one case, the concern is whether drone innovation can cause escalation that destabilize geopolitics; in the other, the concern is how actors can harness and constrain that escalatory potential for their own political gains.

Drones and Strategic Stability

The Defense Department and the academic community have tended to view the service's current-generation armed drones, (the MQ-9 Reaper, RQ-4 Global Hawk, and RQ-170 Sentinel) as having little to no impact on strategic stability.⁴⁶ In this conservative view – which persists even following the TB-2's successful performance at the start of Russia's 2022 invasion of Ukraine⁴⁷ – current-generation drones are *unlikely* to play a decisive role in altering the strategic balance in interstate disputes. First, from a technology perspective, drones are vulnerable to the kinds of air defenses that most major powers possess.⁴⁸ Given their perceived inability to enter the fight in the first place, they provide “little utility” in interstate disputes, and are therefore unable to impact strategic stability – especially compared to technologies like nuclear weapons.”⁴⁹ Second, from a political perspective, because drones reduce costs in terms of blood, treasure, and reputation, they do not send the kind of “costly” signals that are widely viewed as most credible for supporting coercion success.⁵⁰ Given these factors, some argue that drones might even be *good* for strategic stability because actors may be less likely to escalate a conflict if a drone, rather than a manned aircraft is shot down.⁵¹

Conversely, others argue that current-generation drones can and *do* have a destabilizing impact on international politics because they *increase* the risks of interstate violence.⁵² First, they note that drones *do* enter conflicts with air defenses, and it is not

⁴⁶ Michael Horowitz, for example, offers a pessimistic assessment of drone coercion based on assessment of current-generation drones. See Michael Horowitz, Sarah Kreps, Matthew Fuhrmann, “Separating Fact from Fiction in the Debate Over Drone Proliferation,” *Journal of Strategic Studies*, 41.2, Fall 2016, pp. 7-42.

⁴⁷ Antonio Calcara, Andrea Gilli, Mauro Gilli, Rafaele Marchetti, Ivan Zacagnini, “Why Drones Have Not Revolutionized Warfare: The Enduring Hider Finder Competition in Air Warfare,” *International Security*, 42.4, spring 2022.

⁴⁸ Horowitz, 2016, p. 1; David Roza, “The Air Force Wants to Kill the Drone that Ground Commanders Say They Can't Live Without,” *Task and Purpose*, Nov 23, 2021. <https://taskandpurpose.com/news/air-force-reaper-drone-retirement/>

⁴⁹ Horowitz, 2016, p. 16.

⁵⁰ Michael Horowitz, for example, offers a pessimistic assessment of drone coercion based on assessment of current-generation drones. See Michael Horowitz, Sarah Kreps, Matthew Fuhrmann, “Separating Fact from Fiction in the Debate Over Drone Proliferation,” *Journal of Strategic Studies*, 41.2, Fall 2016, pp. 7-42.

⁵¹ Eric Lin-Greenberg, “Wargame of Drones: Remotely Piloted Aircraft and Crisis Escalation,” SSRN, Dec. 15, 2018.

⁵² Jason Lyall, “Drones are Destabilizing Global Politics,” *Foreign Affairs*, Dec. 16, 2020. AS of May 3, 2022: <https://www.foreignaffairs.com/articles/middle-east/2020-12-16/drones-are-destabilizing-global-politics>

clearly a losing proposition for them, as seen in conflicts in Libya, Nagorno-Karabakh, Syria and Ukraine.⁵³ Second, from a political perspective, they cite classic deterrence literature to note that any offensive weapon – but especially drones – can be destabilizing by enhancing the prospects of a dramatic and effective first strike, thereby encouraging adventurism on the part of the actor with the offensive weapon, and escalating fear on the part of the actor without.⁵⁴ Drones are increasingly cheap and disposable, making such adventurism more possible and thereby extending the temptation for new actors to employ them to grab territory or break stalemated interstate conflicts – and keep on fighting because drones expend minimal blood and treasure.⁵⁵ Ukraine’s employment of lumbering but deadly TB-2, far less capable and less expensive than the Reaper in terms of range or payload⁵⁶, to smash Russia’s military strength – armored columns, air defenses, artillery positions, you name it—is a prime example of how even modest air vehicles can help gain ground in a conflict when combined with artillery and armor.⁵⁷

To be sure, policymakers need to understand the potential of drone innovations to shift the strategic balance independently. But more immediately, they also need to understand how drones might contribute to broader coercion campaigns, involving a variety of instruments of national power. This reframing echoes a similar shift in how airpower theorists have conceived of the strategic effects of airpower since its inception. The original theorists – such as General Giulio Douhet and General William “Billy” Mitchell – argued the airpower could decide the outcome of wars independently of other force elements.⁵⁸ However, modern airpower theorists have come to realize that this argument was beside the point (although perhaps necessary at the time for the fledgling United States Air Force to hold its own relative to the Navy and Army). More than a century of air combat suggests that airpower *alone* cannot win wars, but it nevertheless has tremendous strategic value (war-winning potential) when combined with other domains, particularly land power.⁵⁹ Similarly, drone innovations do not have to

[16/drones-are-destabilizing-global-politics](#). For a view on how drones will be further destabilizing with the introduction of tactical and general artificial intelligence, see Kenneth Payne, *Strategy Evolution and War: From Apes to Artificial Intelligence*, Georgetown UP, 2018.

⁵³ Lyall

⁵⁴ Robert Jervis, ‘Cooperation under the Security Dilemma’, *World Politics* 30/2 (January 1978), 167–214.

⁵⁵ Lyall,

⁵⁶ TB-2 unit cost is \$5 million; unit cost for MQ-9 is about \$30 million.

⁵⁷ Oryx, “A Monument of Victory: The Bayraktar TB-2 Kill List,” Feb 23, 2022. As of June 3, 2022: <https://www.oryxspioenkop.com/2021/12/a-monument-of-victory-bayraktar-tb2.html>

⁵⁸ For a thorough and insightful discussion of the origins of the debate over airpower’s strategic effects, see Lambeth, 2000, pp 263-274.

⁵⁹ See especially Robert Pape, Robert A. Pape, *Bombing to Win: Air Power and Coercion in War*, New York: Cornell UP, 1996, pp. 39-47. Pape is critical of many airpower theorists who claimed war-winning effects for other coercive approaches involving strategic bombing. But his finding that airpower’s greatest coercive impact can be found

independently impact strategic stability to contribute to airpower's coercive potential. Even if they only provide a temporary advantage in conflict – and even if they are rather quickly rendered obsolete countermeasures – they can still deliver or contribute to successful coercion outcomes if they are in the right place at the right time.

Coercion, Drones and Great Power Competition

So what is the logic for thinking that drones might effectively contribute to future coercion campaigns in strategic competition with China? Arguments for and against the destabilizing effects of drones, based largely on US counterinsurgency experience, provide a critical frame of reference. But far less has been said specifically about the coercive impact of drones in inter-state conflict, and we know that the success and failure of coercion (deterrence and compellence) is context specific. Classical deterrence notions have to be applied to specific cases because “deterrence does not work in general; it works in specific ways against specific aggressors.”⁶⁰ Therefore, any investigation of the role that technology might play in integrated deterrence needs to consider the unique characteristics of the coercive relationship between the actors in question.

For the US and China, their evolving story of coercive diplomacy began back in the early 1990s, at the dawn of the information age. At that time, the Department of Defense began to warn of a coming “military technical revolution,” – later known as “transformation,” and, finally “the third offset” – which would allow forces to employ new battle networks of emerging sensor and shooter technologies to rapidly accelerate the process of detecting, targeting and striking threats.⁶¹ Early signs of the information revolution emerged in the 1991 US-led invasion of Iraq, which featured the networked employment of space assets and precision guided munitions.⁶² US strategic thought henceforth emphasized the revolutionary potential of emerging information warfare technologies, but US defense spending did not keep up.⁶³ Meanwhile, China and Russia began to fill the void with their own asymmetric approach designed to hit the US where it is weak. They watched Desert Storm closely and began developing their own information-centric strategies that network together command and control, intelligence surveillance and reconnaissance, and long-range fires to hold US forces at risk – all at a fraction of what the US spends on major military platforms, from carriers to stealth aircraft.⁶⁴

in denial strategies has won backing from imminent present-day airpower theorists, including Benjamin Lambeth and Colin Gray. See Lambeth, *The Transformation of American Airpower*. Santa Monica: RAND Corporation, 2000, p. 7 and Gray, *Airpower for Strategic Effect*, Maxwell AFB: Air Force Research Institute Press, 2012, p. 282. See also Biddle, 2020.

⁶⁰ Michael Mazarr, *Understanding Deterrence*, Santa Monica; RAND Corporation, 2018.

⁶¹ Christian Brose, “The New Revolution in Military Affairs,” *Foreign Affairs*, May – June 2019.

⁶² Bruce Berkowitz, “War in the Information Age,” *Hoover Digest*, April 30, 2002.

⁶³ Brose, June 2019.

⁶⁴ Bruce Berkowitz, “War in the Information Age,” *Hoover Digest*, April 30, 2002.

Imposing *costs* on the adversary is therefore central to the emerging strategic competition between the US and China.⁶⁵ Cost imposition involves “using the targeted investment of resources to drive up the costs an opponent must pay to maintain his strategic position.”⁶⁶ Because the competition between the US and China occurs below the threshold of war, the incremental accumulation of advantage, by imposing costs, is the main measure of whether the terms are shifting in one’s favor.⁶⁷ What is interesting about cost imposition, however, is that it turns the concept of *coercion* on its head. The classical deterrence literature predicts that coercion is most credible when the coercer signals a willingness to bear *high* costs in blood (lives lost), treasure (financial costs) and reputation (for both domestic and international audiences) to prevent a state from pursuing an unwanted action or force a state to reverse ongoing bad behavior.⁶⁸ The classic example is deployment of ground forces to Europe during the Cold War. These forces were not expected to survive a conventional Russian onslaught; risking American lives was meant to send a credible signal to the Soviet Union and allies that the death of Americans would inevitably draw the US and nuclear forces into war.⁶⁹

Potential Implications US Strategy and Doctrine

This review of recent drone employment in interstate conflict and an analysis of hypothetical scenarios involving the employment of drones in a future US-China confrontation suggest that major powers can employ drones as a cost imposition strategy to shift the military balance in its favor, with implications for coercion at all levels of war. If drones are just as good at coercing as more expensive manned technologies, great powers (and lesser powers) can be expected to ramp up their efforts to pursue drone innovation. However, the states most likely to see global power balances shift in their favor will be able to not only buy emerging technology, but also make the organizational changes necessary to fully *integrate* that new technology into national strategy, including coercive diplomacy and warfare.⁷⁰ Examples include the combined formations of WWII employed for rapid and deep penetrations—blitzkrieg, and establishing aviator squadrons for use on ships (carrier flight squadrons).⁷¹

Given the importance of capacity for organizational change, the United States may have trouble keeping up with peers in drone innovation. As previously noted, critics

⁶⁵ Michael Mazarr et al, *Understanding the Emerging Era of International Competition*, 2018.

⁶⁶ Hal Brands, “Cost Imposition in the Contact Layer: Special Operations Forces and Great Power Rivalry,” American Enterprise Institute, July 6, 2021.

⁶⁷ Brands, 2021.

⁶⁸ For a good summary of the importance of costly signals for coercion, see Amy Zegart, “Cheap Fights, Credible Threats: The Future of Armed Drones and Coercion,” *Journal of Strategic Studies*, 43.1, 2020.

⁶⁹ Zegart, 2020. P. 16.

⁷⁰ Michael Horowitz, *The Diffusion of Military Power*, New Jersey: Princeton University Press, 2010, pp. 1-17.

⁷¹ RUSI, “Transformation of Chinese Military Organization, March 17, 2005.

see the US moving too slowly to embrace the information revolution, and the large, entrenched cultural and material incentives of the Pentagon's bureaucracy may not be helping the matter. In contrast, China has demonstrated significant capacity for organizational change in recent years, although these changes, such as moving to a "joint" structure, are not battle-tested.⁷² Nevertheless, the US may be even worse shape. In the past, the US Air Force in particular has struggled with incorporating current-generation drones into the force structure, largely because of a cultural preference for manned flight.⁷³ The same calculus holds for the US Navy.⁷⁴

Conclusions

While scholars have already begun to address the effects of drone innovation on strategic stability, much less has been said about their utility as a tool of coercion. Policymakers need to understand how drones and other emerging technologies might create new forms of political bargaining leverage, either alone or in combination with other coercion instruments. This is important both so they can leverage these coercive tools and also predict how adversaries may seek to do the same.

Drone innovations can open up new possibilities for coercion if they are used as part of cost imposition strategies that lower the costs of fighting but still extract high costs from the adversary. Drones reduce the risk to aircrew, but it is not a given that they are cheaper, or that they will reduce reputational risks, and so policymakers should seek to minimize the cost of drones to gain the greatest coercive effects. Furthermore, the evidence from recent conflicts suggests that while cheap, current-generation drones do provide unique coercive leverage – by lowering the costs of fighting, increasing the certainty of punishment, and sustaining participation in conflicts – these advantages are only possible if the drones are integrated with artillery as part of a tactical battle network. Next generation drones, in contrast, may be able to achieve these effects independently of organic support – or any human intervention at all – but also carry more escalatory risk. For the US, keeping a "human in the loop" is likely to remain a priority in the future for this very reason, but adversaries like China may not take the same approach.

⁷² Steve Sacks, "China's Military Has a Hidden Weakness," *The Diplomat*, April 20, 2021.

⁷³ Caitlin Lee, *The Culture of US Air Force Innovation: A Case Study of the MQ-1 Predator Program*. Doctoral dissertation, King's College London: 2016.

⁷⁴ For more Navy pilot struggles with drone innovation, see Noah Spataro, Trevor Phillips-Levine, and Andrew Tensbusch, "Winged Luddites: Aviators are the Biggest Threat to Carrier Aviation," *War on the Rocks*, Jan. 10, 2022.

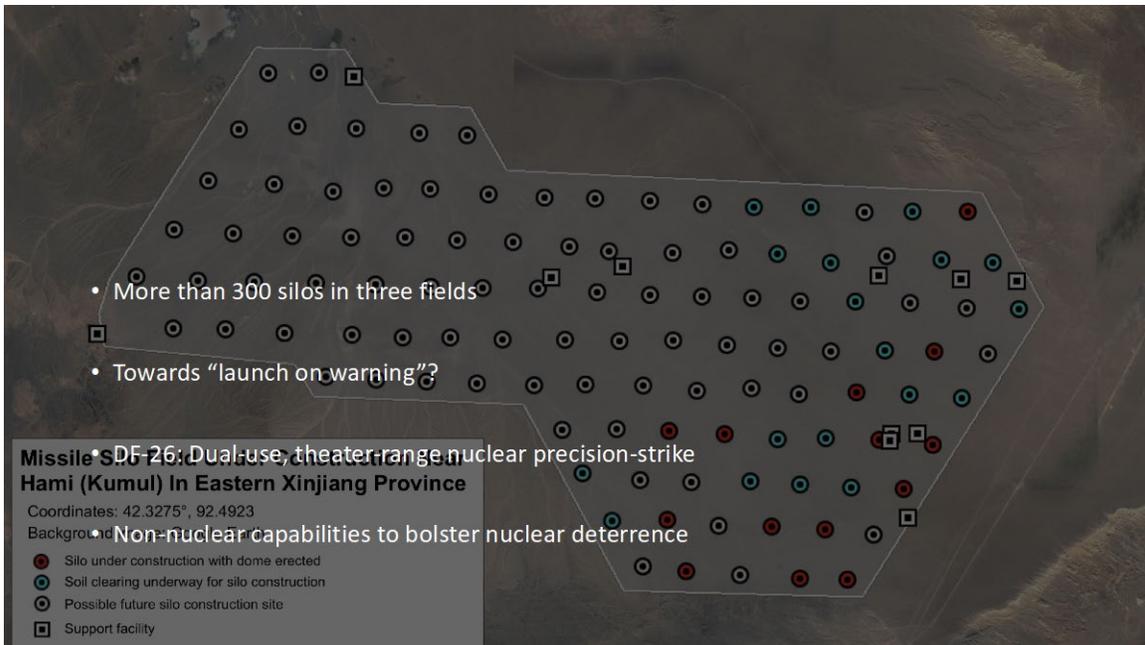
SECTION V: INTERNATIONAL PERSPECTIVES ON INTEGRATED DETERRENCE



Traditional views

- Deterrence and countering blackmail only
 - No first use
 - Small force, kept at low alert
 - Strategy: Assured retaliation
- Skeptical of control of nuclear escalation
 - Limited nuclear use unlikely





Is Chinese strategy changing?

- Perceived threats to assured retaliation:
 - Missile defense
 - Conventional precision-strike
 - Demise of INF Treaty
 - Nuclear counterforce capabilities
- Chinese nuclear forces “lack redundancy”
- Few signs in Chinese writings and official statements of change in strategy
- Caveats:
 - Improved capabilities may enable shifts
 - Improved confidence could enable aggression



Views of escalation

- Chinese strategists more concerned about escalation
- Limited first-use by United States
- Perception of shift in U.S. policy, lowering the threshold for nuclear use
- Offset Chinese conventional power
- US DOD: “By late 2018, PRC concerns began to emerge that the United States would use low-yield weapons against a Taiwan invasion fleet.”
- Some sources point to a dilemma – how would China respond to limited first use?
- Speculation about China needing «escalation management» tools (primarily DF-26)



Non-nuclear weapons to bolster second-strike

- Discussions in Chinese journals about targeting U.S. missile defense
- Enabling capabilities (satellites, etc)
- “system confrontantion”
- Particularly counterspace, but also conventionally-armed missiles, etc.
 - Far from the only reason China is investing in counterspace – but an important one

Implications for strategic stability

- Chinese buildup and the US response – arms race instability
- Mutual fear of limited first nuclear use
- Investments in advanced non-nuclear weapons:
 - Seen as (at least partly) defensive by China
 - Seen as threat in conventional conflict scenarios by United States

The French Navy and the New Geopolitical Cycle

By Captain Yann Briand - head of the Strategy & Policy office – cabinet of the Chief of the Navy, France

Opinion disclaimer: the views and opinions expressed are those of the author and do not necessarily reflect French official policy or position.

A Deep Change in Naval Affairs

During the 10 years that followed the fall of the Berlin wall, armed forces were involved in crisis management operations. After 09/11, their main mission became the fight against terrorism. During that time, many Western armed forces were structured by two main tendencies: the "peace dividend" which led them to reduce their size and to disinvest, and the focus on the expeditionary capabilities, due to the lack of any "peer competitors" in almost all the planned engagement scenarios.

As far as the French Navy (FN) is concerned, a full spectrum of warfighting capabilities was more or less maintained. The obligation to remain the main contributor to the national nuclear deterrence posture as well as NATO training and certification processes played a significant role in our ability to maintain high standards in the way we operate at sea. However, the FN has spent the last several decades conducting medium to low-intensity operations facing poorly-equipped enemies which threatened our forces mostly along their littoral with suicide boats or homemade mines. Most of the regular operational tasks undertaken during this period required only basic training such as to allow a team to visit a merchant vessel suspected of trafficking, or to undertake the evacuation of nationals. Accordingly, this required the application of standard operating procedures without the need to apply much thought. The sea was a "save heaven" from which aircraft of the French Carrier Strike Group were able to conduct power projection missions in support of land operations. And, except on rare occasions, air supremacy was easily acquired. In the same vein, naval gunfire support missions and the engagement, from LHD, of Helicopter Strike Groups, during the 2011 Libyan crisis, were conducted without significant opposition.

It is clear that these priorities have profoundly changed. There were many warnings, such as the intensification of the operations carried out in the North Atlantic area in cooperation with our closest partners of the US Navy and Royal Navy, the massive rearmament in the Indo-Pacific (ex: for the last 3 years, China produced 1 destroyer or frigate per month, while France in 2022 commissioned 1 FREMM type frigate. In other words, Beijing produces the equivalent of a French fleet every 3 to 4 years) and Mediterranean regions and the ever-growing difficulty to hide on the high seas.

The War in Ukraine has abruptly changed the "level of the game." It is obviously too early to draw conclusions from this conflict. However, it is already possible to identify two main trends:

- The central role of nuclear deterrence in this conflict. From the very first days of the invasion, the Kremlin as well as the West, through their decisions and declarations, have brought the nuclear question back to the centre of the debate, with a fundamental role for the Navies in this context ;
- The return of violence at sea. As we commemorate the 40th anniversary of the Falklands War, the operations in the Black Sea and the Sea of Azov remind us of the fundamentals of naval combat: violence, speed and attrition. This last point underlines the relative fragility of the model of many Western Navies. If it takes 3 years to replace a tank, 15 years are required to replace a frigate, while 23 ships deployed by London in 1982, were destroyed or damaged.

How does the French Navy Face a New Geopolitical Cycle?

In the light of the rapidly deteriorating geopolitical landscape, the Chief of the French Navy released in January 2021 his strategic plan: “Mercator Accélération”. It recognised that the FN already had a solid foundation in its culture of autonomy and the innovation of its sailors, its daily commitment in operations and capacity to work in joint forces as well as in international coalitions. However, the plan aimed to broaden on three main axes: increase FN’s ability to fight at sea, better integrate new technologies and optimize the use of each sailor’s skills.

In the short term, it is indeed necessary to build up a capital of "moral strength" to the same level as that of Major Howard's men who seized Pegasus Bridge, or that of Major Rudder's rangers at the foot of Pointe du Hoc, or even that of Kieffer's commandos who landed at Ouistreham. In short, the priority is to arm our sailors with that breath. Without it, the battle is lost before it has even commenced. We have to accept that we will fight with what we have. We must sublimate the existing equipment with our intelligence. This may come from a diverted use of our capacities, or from very short-term additions of low cost and quickly accessible capacity enhancers. Our ability to fight in a contested cyber and electromagnetic environment is also taken into consideration via “back to the 80’s” exercises.

Then, in the medium term, we will keep on reinforcing our fleet, through the replacement of aging units with those that can play at the same level as our competitors. This is particularly true overseas, where some of our ships no longer have the minimum military value needed to meet the challenges imposed by the widespread rearmament that we are witnessing.

We will also find a way to upgrade our capabilities more quickly, in an incremental way, with a timeframe that corresponds to the rapid evolution of technologies. We cannot wait 15 years to put a new capability on board a frigate. Within this framework, we will be able to rapidly integrate new technologies that allow us to face, at a lower cost, the new threats that we see emerging. For example, directed energy weapons are one of the appropriate responses to the evolution of space capabilities, the growth in the use of drones and the prohibitive cost of the latest generation of anti-aircraft missiles.

Finally, now and in the long term, one of the major challenges we face is the ability to maintain sufficient interoperability to fight together in the future. This means that our respective procurement programs must be designed to be fully interoperable and

complementary where possible. In the light of the limited number of units operated by the FN, we are fully aware that the forces critical mass will come from interoperability with our allies. Interoperability doesn't necessarily implies the standardisation of the allied order of battle. The diversity of cultures and military means is a disadvantage to our adversaries. It complicates their task and their calculations. We must ensure that we are combined and coordinated enough to create these complications.

In that perspective, interoperability requires a very strong will from all parties. Without that strong will, we risk seeing our capabilities diverge. Less than a century ago, a common language enabled us to carry out the largest combined joint operation in history. Limiting our ability to communicate and operate together in combat would be a terrible step backwards, at a time when the level of threat at sea seems to be growing day by day, against all of us.

The French Navy and Integrated Deterrence

In this most unstable and complex context, France's role in the Indo-Pacific is multifaceted and covers a wide range of fields, from culture and trade to diplomacy, education, humanitarian aid and, of course, defence.

France is a sovereign nation of the Indo-Pacific with more than 1.6 million citizens living there. The protection of these territories and their populations is at the heart of the regalian functions of any State. We have the second largest EEZ in the world, and 90% of it is in the Indo-Pacific. This characteristic distinguishes France from its European partners, with whom it also shares many economic interests in the region. Another example of this commitment to the region is that France invests nearly 100 billion euros in the region every year.

At the 2019 Shangri-La Dialogue, the Minister of the Armed Forces highlighted the priorities of our defense strategy for the Indo-Pacific region:

- Defend the integrity of our sovereignty and ensure the protection of our nationals, territories and EEZ;
- Contribute to the security of the regional areas around our territories by promoting military and security cooperation;
- Preserve, with our partners, free and open access to common spaces and ensure the security of maritime communication routes;
- Participate in maintaining strategic stability through global action based on multilateralism.

The second point of interest is that France has no coast guard force. Commanding officers of every FN's ship have the legal authority to conduct law enforcement at sea missions. This flexible use of our assets is a force multiplier. While involved in a "grey zone" operation (ex: fight against illegal fishing actions done by one of our competitor's maritime militia), a FN ship can shift, without any delay, to high intensity warfare.

Divergences between the Integrated Deterrence and French Policies and Strategies

In his February 2020 speech on the Defense and Deterrence Strategy, President Macron reaffirmed that "our nuclear deterrence force remains, as a last resort, the key to our

security and the guardian of our vital interests. [...] Should there be any misunderstanding about France's determination to protect its vital interests, a unique and one-time-only nuclear warning could be issued on the aggressor State to clearly demonstrate that the nature of the conflict has changed and to re-establish deterrence". Even if "our defence strategy is a coherent whole [where] conventional and nuclear forces constantly support each other," **there's no "conventional deterrence" in the French policy**. On the contrary, the Integrated Deterrence might be understood as a willingness to create a sort of continuum between conventional and nuclear deterrence.

Lastly, bearing in mind that one of the main objectives of the Integrated Deterrence is to address "grey zone threats" in cooperation with allies and partners, **the wide spectrum of civilian and military tools that the European Union has the ability to operate** in the framework of its comprehensive approach towards crisis management would deserve to be taken into consideration. In this vein, it is worth mentioning that the EU has played a key and successful role in the fight against piracy in the horn of Africa (the naval mission ATALANTA being only one of the different initiatives launched).

Integrating Integrated Deterrence: Perspectives from Allies. The Italian Contribution

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Today's International Scenario

Various challenges and threats characterize the International Scenario and heavily affect international relations. Firstly, the re-emergence of geopolitical and geostrategic competition and ongoing economic competition. Secondly, terrorism has not disappeared, although it has experienced a decrease in its range. Thirdly, pandemics, climate change, and uncontrolled migratory flows are problems no less insidious than those mentioned above and fuel tensions between states. Finally, the cyber and space dimensions represent further friction and confrontation between states.

The close correlation between all the threats described has led scholars to define our age as one characterized by a "competition continuum". This definition describes a world of enduring competition conducted through a mixture of competition below armed conflict, conflict, and return to competition. These descriptors refer to the relationship among states and between a state and a non-state strategic actor.

It is possible to express the concept of the competition continuum with the picture of a circle. The essential element is the violence's threshold: below this "red line," the competition is peaceful; beyond this threshold, the competition becomes a violent conflict. Deterrence is the key to reconducting the competition in an acceptable dimension. If the normal condition in international relations is competition, finding an enormous area of the action below the use of violence is not strange. This area is characterized by economic, diplomatic, and geopolitical competition, the grey zone's actions, and hybrid warfare. We can define grey zone operations as methods and activities that target the opponent's vulnerabilities. If the interests and goals of the user of grey areas methods and activities are not achieved, the situation can escalate into hybrid warfare, wherein the role of the military and violence will increase significantly.

The Maritime environment and the various threats

The maritime environment is exposed to the hybrid and grey zone's threats. The international sea trade can be subjected to sabotage, cyber threats, denial of access to critical port facilities, and the seas are exposed to environmental damage. The energy supply chain and undersea cables, the maritime borders, and exclusive economic zones (EEZ) of coastal nations can be disrupted and contested by hybrid actors acting on behalf of a state to contest the governance of their sovereign territory. In adjunct to all these threats and vulnerabilities, it is essential not to forget the conventional threats. The emergence of peer adversaries (China and Russia) and near-peer adversaries (North Korea and Iran) suggest that Western Countries rediscover and update tactics, techniques, and procedures of the Cold War era, firstly the anti-submarine warfare

capabilities. The Russian-Ukrainian war gives us evidence of the role of the new weapons as unmanned vehicles and hypersonic missiles. The Russian Navy demonstrated the relevance of the land strike from the sea, using very small warships. The «Bujan-M» class corvettes (Project 21631) can fire «Kalibr» or «Zircon» missiles, and they are so small that they can also sail alongside rivers.

The maritime domain is a complex scenario in which the naval, terrestrial, air, cyber, and space domains, which generally involve different stakeholders and technologies, merge to form a single picture. So, naval forces must be able to conduct Multi-Domain Operations. The relevance and sophistication of new threats require another step in naval warfare, from Multi-Domain Operations to Joint All-Domain Operations (JADO). In JADOs, it is essential to share (or at least make interoperable) Tactics, Techniques & Procedures between the various national and multinational Armed Forces. NATO must develop a new CONOPS, designed on the U.S. Distributed Maritime Operations. For the European Navies, it is impossible to act singularly in a DMO scenario. However, they can and must develop a similar operational concept to integrate their capabilities with the U.S. Navy.

The four inland seas or “Mediterranean seas”

If we look at the world map, we can appreciate that there are only three large islands on the globe: the American continent (north and south), the Eurasian-African landmass, and the Antarctic continent. The oceans divide these blocks of land, but the oceanic sea routes and the regional articulations of these three big islands are linked to each other by significant inland seas. According to the theory of Italian Admiral Giuseppe Fioravanzo, all-these inland seas can be named Mediterranean Seas: they are the Latin Mediterranean (the authentic Mediterranean), the American Mediterranean (Gulf of Mexico and Caribbean), the Australasian Mediterranean (formed by the South China Sea and the Arafura Sea) and, finally, the Japanese Mediterranean (the East China Sea and the Sea of Japan). All the described conventional or unconventional threats are hazardous in the inland seas.⁷⁵ These Mediterraneans are the connectors among lands, and so they are crossed by various sea routes. These Mediterraneans have common characteristics. Firstly, all these seas are internal seas or seas among lands. Secondly, all four "Mediterranean Seas" are divided into two basins by a prominent peninsula or an island: the Italian peninsula in the Latin Mediterranean; the Yucatan peninsula and Cuba in the American Mediterranean; the Korean peninsula in the Japanese Mediterranean; the island of Borneo in the Australasian Mediterranean. Finally, all four “Mediterranean Seas” connect each other sea routes and broader oceans.

Nowadays, the most important Mediterranean is the Australasian Mediterranean because it is the center of the U.S-China rivalry. From a geographic point of view, this

⁷⁵ See Giuseppe Fioravanzo, «I quattro Mediterranei» in *Basi navali nel mondo*, Rome 1936, Istituto per gli Studi di Politica Internazionale.

Admiral Fioravanzo was one of the “intellectuals” of the Regia Marina (Italian Royal Navy) during the Twenties and Thirties; together with admirals Bernotti and Di Giamberardino, he was one of the primary authors of the development of Italian naval doctrine.

Mediterranean is part of the Pacific Ocean. However, from a geopolitical point of view, it is a buffer zone between the Indian and Pacific Oceans, particularly in its western basin, the South China Sea.

For Italy, the most important Mediterranean is the Latin Mediterranean, now named “Wider Mediterranean” (Mediterraneo Allargato). It comprises the Mediterranean Sea, the Black Sea, the Red Sea, the Persian Gulf, the Indian Ocean in the east, the Atlantic Ocean until the Gulf of Guinea in the west, and the Arctic region in the north.⁷⁶ Maritime Security in this area and the protection of the related choke points (Gibraltar Strait, Turkish Straits, Suez Canal, Bab el Mandeb Strait, and Hormuz Strait) are vital for Italy.

Nowadays, Russia and China are strongly present in the "Wider Mediterranean," and they influence some Countries in the Sahel and sub-Sahara region.⁷⁷ The geopolitical disputes close to the choke points (Bab el-Mandeb, Turkish Straits, and Hormuz) represent a threat to a Mediterranean country like Italy. So, the defence of the Italian interests in the region requires a forward presence and control of the Straits.

The deterrence capabilities of maritime forces

A maritime power can execute many of the abilities necessary for successful conventional deterrence. Maritime power is minimally intrusive because it does not require a footprint on the land. The "genomic characteristics" of the naval forces are relevant for deterrence missions: maritime forces can project and sustain forward-deployed, combat-credible power in peacetime, crises, and war.

A core ingredient of successful deterrence is that the deterrer’s threats are credible to the adversary. Credibility is based on three many pillars:

1. military capability;
2. situational awareness;
3. political resolve.

The **military capability** derives from three elements: a modern military instrument, proven combat readiness, and strong and credible military alliances.

A modern military instrument is costly but necessary. In response to Moscow's aggression, Germany has reoriented its foreign policy, pledging to increase defence spending radically. Japan seems also closer than ever to a similar transformation. The common element of these military expenditures is the need to modernize the military instrument.

⁷⁶ Italian attention to the Arctic region is justified by the Italian membership in the Arctic Council and by the relevance of the Arctic waters in the strategic scenario.

⁷⁷ Russia returned to the Mediterranean region with renewed naval bases in Syria and (maybe) in Libya, all with robust A2/AD capabilities. The backbone of the Russian Mediterranean Squadron is the Black Sea Fleet. Its warships are old, but they can fire hypersonic missiles: the relevance of these weapons in a small operational theatre is self-evident.

The Mediterranean is subjected to some EEZ claims and ambitions, and these make a naval rush by Algeria, Egypt, and Turkey, characterized by the growth of the submarine capabilities.

The second element of military capability is combat readiness. Although the United States and other NATO countries maintain significant militaries, two decades of European under-investment and U.S. military engagement in the Middle East and Afghanistan have left NATO unprepared to return to a strong deterrent posture. A credible deterrence now requires greater visibility and forward presence than was the case before Russia attacked Ukraine or China threatened Taiwan. That requires a strong deterrent presence in Europe and the Far East and a significant commitment to increasing spending for the long run. Combat readiness is a function of efficiency and continuous training.

The third element of military capability is represented by the membership in solid and credible military alliances. Washington is affording to convince Europeans that they will need to align with the United States against Russia and China if they want to continue to benefit from U.S. support. Parallely, it is essential to create an Asian NATO, pivoted on U.S. military capabilities but with the fundamental contribution of Australia, Japan, and South Korea.

Focusing on the “Wider Mediterranean”, Italy's main strategy is to avoid direct threats against its territory or the national interest abroad. Consequently, the National Security and Defence Strategy require a capable Navy, ready to act overseas and forward from the sea. It must be the core of the Italian military credibility. The *Marina Militare* is a key factor in national deterrence. The Navy is modernizing its instrument: the main pillars of the Italian Navy capabilities are: 1) an aircraft carrier group with fifth-generation fighters; 2) very capable amphibious forces and special forces; 3) a modern submarine force. Distributed deep strike capabilities (on surface and submarine assets) and state-of-art anti-Ballistic Missile Defence capabilities are other key elements of a credible deterrence; Italy is also improving its Cyber Defence. The modernization of the Italian naval assets is possible thanks to the excellent industrial capabilities and collaboration with European and U.S. allies. The efficiency of the military instrument is also a function of training focused on warfighting more than crisis response operations. The interoperability with allies is another key element: the European Carrier Group initiative, the common training, language, and procedures of the Italian and U.S. naval aviators make possible and efficient the cooperation between Italian and U.S. carrier groups. The acquisition of US F-35 «Lightning II» and German «U-212» submarines give the *Marina Militare* state-of-art technology.

1. The second pillar of deterrence is perfect **situational awareness**. It is fundamental to avoid the adversary's surprises. For deterrence to be credible, an adversary must believe that we can know its intentions and initiatives. The Navies are the main tool for credible and efficient situational awareness. Situational awareness is based on the forward presence and surveillance, international cooperation, and information sharing: the last two are crucial elements in the alliances. The *Marina Militare* recognizes the relevance of situational awareness and is engaged in numerous missions of presence and surveillance in the “Wider Mediterranean”. These missions are under the national flag, or they are NATO's missions or European missions. The most important are the missions for

the containment of Russia in the Central and Eastern Mediterranean and the anti-piracy missions off the Horn of Africa and the Gulf of Guinea.

As written in the previous pages, Situational Awareness is also a function of sharing information.

The Italian Navy was a pathfinder in the adoption of the net-centric systems for sharing information in the Maritime Surveillance and Maritime Security Awareness. The Virtual Regional Maritime Traffic Centre (V-RMTC) is an interactive network for managing information on maritime trades among the navies of the Wider Mediterranean Sea. In adjunct to this, the “Five plus Five Initiative” is an effective form of cooperation among some European Countries and sMiddle Eastern countries. Finally, the Trans-Regional Maritime Network is themirror of the will to enlarge the sharing of information.

The third and last pillar of deterrence is **political resolve**. The political resolve requires the identification of a leader in alliance, efficient risk management, and, finally, a "whole of government effort". The Western interests are global, and they require a subdivision of responsibilities in the various operational theatres. In the Wider Mediterranean, France and Italy are the key powers, but they have different capabilities. In a shared deterrence in the Mediterranean, France, and Italy must cooperate in the name of European and Western interests. These countries' military capabilities are interoperable and based on some common assets.

France seems more practical than Italy in risk management due to more stable governance and an "imperial tradition". Independently from specific interests, the two Mediterranean countries can cooperate in a turbulent theatre. If France and Italy can be the pivot for deterrence in the Latin Mediterranean, Germany can act similarly in the Baltic and Northern Seas regions. This pivotal role does not underestimate the U.S. role or responsibilities in the European defence, but it assigns more tasks to the European countries. Contemporarily, Europeans must increase their capabilities to cooperate with the U.S. in the warfighting. The Europeans must also coordinate and rationalize their military expenditures (using the PESCO model), and they must integrate their amphibious capabilities. The model could be the UK-Netherland amphibious initiative and interoperability. The European countries must also develop enablers (an autonomous satellite surveillance constellation, deep strike weapons, cyber, strategic transport) to act autonomously in the European theatre.

Finally, the Europeans must acquire an independent nuclear deterrent, which requires a French leadership: Europe must be a nuclear power, and the French *Force de Frappe* can be the core element of this capability. A European nuclear capability would give more credibility to European deterrence, and this would be a clear message of unity and common will against a potential challenger.

Conclusions

In an era of revisionist Powers, rogue states, and transnational challenges, deterrence dynamics are much more complex than in the bipolar Cold War structure or

during the American hegemony era. So, it is essential to identify the keys to an efficient deterrence against all threats and challenges. The Navy's capabilities play a central role in the ability to threaten a challenger.

The Mediterranean Sea remains a strategic theatre for NATO and Western Countries, and here NATO must assure a credible deterrence in front of new challengers like China and Russia. The Mediterranean Navies are key assets in deterrence: to assure its contribution, the Italian Navy is increasing its combat posture, interoperability with allies, and capability to manage challenges and threats in its area of responsibility.

CONCLUSIONS

The implications of the preceding analysis are indeed profound and suggest the need for coordinated plans across the United States Navy's functional warfighting domains, its educational system, as well as its many international maritime partners if it is to successfully operationalize the requirements of integrated deterrence. Observations from the attendees at the London workshop, some of which are spelled out in the papers provided in this report are as follows:

1. Navies have an instrumental role to play in the framework of integrated deterrence, but their specific roles are not well understood.
 - a. The U.S. Navy must unpack the structure of integrated deterrence and decide which role(s) it will play vis a vis its sister services across the US military departments. Ideally this effort initially should be mounted at the OPNAV, senior leader levels before being given specific roles by the Combatant Commands.
 - b. Allied and partner navies must play critical and supportive roles in the Indo-Pacific and Atlantic-, Mediterranean, and Black Sea areas. Hence it is critical that these partners clearly understand the roles they are expected to play in support of the US construct of integrated deterrence. These partners are willing to help and participate, but they need to be closely consulted on expectations and requirements. As highlighted in the report's sections by the French and Italian authors, there may be significant seams and gaps between our partner navies on the meaning of integrated deterrence.
 - c. Partner navies as well as those navies on the sidelines need particular attention across the Indo-Pacific. As highlighted in this report, the lack of formal alliance consultative mechanisms must be somehow overcome if the U.S. Navy is to make its integrated deterrence framework relevant to counter the Chinese.
2. The U.S. Navy should consider convening educational workshops to familiarize its senior leaders with the concepts of deterrence and the role that the deterrent roles the Navy has filled in the past.
3. It is clear that technology is influencing the conduct of military operations and deterrence across the domains of war: land, sea, air, cyber, undersea, space, etc. As trenchantly noted in this report, drones provide only one example of a technology that will become increasingly ubiquitous over the rest of the century with friends and enemies alike – with profound implications for the coercive and deterrent functions of weapon systems. The Navy needs to form study groups to keep abreast of these developments to determine their impact on its force structure, concept of operations, tactics, as well as the broader effect on its deterrence missions.

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