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Shared Situational and Domain Awareness as an Initial Framework for Strengthening the Quadrilateral Security Dialogue

GP CAPT PRASHANT AGNIHOTRI, INDIAN AIR FORCE

Abstract

The Quadrilateral Security Dialogue was formed in 2007 as a minilateral initiative between the big four democracies of the Indo-Pacific region: India, Australia, Japan, and the United States. While the dialogue displayed a lot of potential between the four nations at the time of its inception, it failed to translate into a formal multilateral organization that could counter growing Chinese belligerence in the Indo-Pacific region. While the four democracies consider China a common threat, diverging priorities, lack of leadership, and a fractured approach have prevented them from taking concrete steps together. The article contends that shared situational and domain awareness (SSDA) cooperation could cement the Quad partnership and become the cornerstone of enhanced strategic cooperation between the four nations. The article puts forth tangible solutions for integrating all-domain capabilities of the four nations and creating mechanisms through SSDA that could become a strong bulwark against Chinese aggression. The paper also provides practical suggestions for blending command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) capabilities of “non-ally” India with the ongoing US Department of Defense project of Joint All Domain Command and Control network architecture in the Indo-Pacific.

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Beijing has incrementally developed China’s combat capability, militarized the South China Sea, and inflicted a destabilizing effect within the region through coercion and intimidation tactics to establish a new normal. The PRC’s actions are defining modern-day colonialism in which its practices entrap and diminish national sovereignty. While nations have become more vocal about the nefarious activities executed by the PRC, a comprehensive and coordinated effort is lacking.

—Gen Charles CQ Brown, Jr, former commander, Pacific Air Forces

In terms of geospatiality, the Indo-Pacific extends from the eastern shores of Africa to the western coast of the United States. Since the region contains the world’s most critical sea routes, the Indo-Pacific is considered the epicenter of
the globe and has become a hotbed for strategic rivalries.\textsuperscript{1} In the last few decades, with the United States largely focused on the Middle East and Afghanistan, China has been surreptitiously gaining strategic spaces and is on course to militarize the region to its advantage. Through its Belt and Road Initiative (BRI), China also seeks to reshape the geopolitical landscape of the Indo-Pacific with an unprecedented wave of infrastructure investments.\textsuperscript{2} Lately, the United States has refocused on the region and has also renamed the erstwhile Pacific Command to the Indo-Pacific Command. However, given the enormous lead held by China, the United States and its partners need to take substantial measures to retain their influence.

The Quad started as an informal grouping of like-minded democracies of the Indo-Pacific—India, Australia, Japan, and the United States—who were connected by the common concern of growing Chinese bellicosity in the region. Characterized by China as a replication of NATO for Asia, the Quad essentially is a loose-knit network of like-minded nations with common uniting principles—democracy, a rules-based order, and a “free, open, and inclusive Indo-Pacific.”\textsuperscript{3} Although the four powers were best equipped geographically and militarily to take on China, differing priorities in the past, individual national interests, and the undefined agenda of the Quad precluded them from acting in unison. Tokyo’s defense centers around its Japan Self-Defense Force (JSDF), New Delhi largely invests in its army to defend India’s northern borders, and Australia looks to find a balance to ensure immediate regional security.\textsuperscript{4} Moreover, since the Quad economies are deeply intertwined with China, apprehensions of Chinese commercial reprisal have precluded them from giving distinctiveness to their counterstrategy or adding a military dimension to the partnership. After the Quad meeting of 2017, instead of releasing joint statements, the four nations issued four separate press releases in varied tones and languages indicating how their strategic objectives and preferences in the region differed.\textsuperscript{5} However, after the recent events of Chinese territorial aggression with India and Japan and the offensive warnings to Australia over Taiwan, the requirement of incorporating hard-power options and espousing a politico-military strategy in the four-way dialogue is being felt by the Quad.

The renewed focus in the last few years on reinvigorating the alliance is being touted as “Quad 2.0” by some strategists.\textsuperscript{6} The first in-person Quad summit hosted by President Joe Biden on 24 September 2021 demonstrated an overarching commitment by the four nations. The highlight of the Joint Statement was the release of the Quad Principles on Technology Design, Development, Governance, and Use toward high-standard innovation.\textsuperscript{7} The post-summit statements also underscored the urgency and seriousness required for addressing the core issues of lack of purpose and lack of definition within the Quad. The \textit{Indo-Pacific Strategy of the United States}, released in February 2022,-confers high importance to the grouping and calls for pooling collective
strength to bolster the Quad as the premier regional grouping. The latest strategy also highlights the much-needed sincerity from the four nations to prove through deeds, not merely words, that they are seeking out areas of alignment and cohesion.

While the combined potency of the Quad exceeds China’s organic capabilities, given the substantial Chinese strength in the region, the four nations should still avoid confrontation. An overt display of hard power could be deemed escalatory and may provoke larger Russian involvement in the region. Hence a dexterous approach involving a graduated increment of military cooperation and collective capacity building in the region is desirable. By coalescing their all-domain capabilities, the Quad would be able to collectively dissuade China’s antiaccess/area-denial (A2/AD) tactics, deter its gray zone coercion, and defend Freedom of Navigation Operations (FONOPs). To this end, shared situational and domain awareness (SSDA) cooperation provides a balanced option for positioning the Quad as a formal strategic framework of integrated partnership without giving an explicit impression of an offensive alliance. If successfully implemented, SSDA could also act as a lynchpin in strengthening the existing partnerships and could transform the security dialogue into a quasi-military alliance for the Indo-Pacific region.

The article attempts to amalgamate the informational and military dimensions of the Quad to develop a benign strategy based on SSDA cooperation that is effective but not overtly escalatory. The suggested approach is designed to capitalize on the existing agreements between the four nations to build an integrated multidomain partnership around SSDA cooperation. The first half of the article covers Chinese designs in the region, varying levels of strategic engagements at the political and diplomatic levels between the Quad nations, and the impediments due to India’s non-ally status. The second half of the paper emphasizes the importance of SSDA cooperation and recommends measures to be taken at the functional level to blend the command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) capabilities of India with the future communication network of the United States in the Indo-Pacific. The recommended SSDA cooperation is conceived on a graded response model and incorporates strategic dissuasion, offensive defense, and deterrence by active denial as part of its overarching strategy.

**Grand Chinese Designs**

With its irredentist claims in the South China Sea and the creation of “String of Pearls” facilities as part of the BRI, China has become a predominant power capable of overshadowing the US influence in the region. While Beijing has maintained that the infrastructure facilities in the Indo-Pacific reflect its legitimate economic interests, their proximity to strategic choke points and important sea lines of communication (SLOCs) provides China with an asymmetric advan-
tage. As part of the BRI, China’s Maritime Silk Road initiative is also being touted as an attempt to create an Indo-Pacific with Chinese characteristics. Since most of the BRI infrastructural projects are designed to be of dual use, the Indo-Pacific is rapidly getting militarized with Chinese characteristics. During hostilities, China would be able to leverage these facilities to form a “Great Wall at Sea,” to keep the maritime forces of the United States and its partners at bay.

At the same time, to increase its global maritime footprint, China has embarked on developing the People’s Liberation Army Navy (PLAN) into a true “blue water navy” capable of undertaking deep seas operations. Riding on sophisticated aircraft carriers with fifth-generation deck launch interceptors and ballistic missile submarines, the PLAN is rapidly becoming a multilayered force capable of high-end power projection. China is also building its naval and air forces at an alarming speed and some of these are qualitatively superior to the United States. With this tsunami of Chinese shipbuilding, Beijing aims to coercively envelop Taiwan, resolve sovereignty disputes in its favor, and carve out the region as a zone of exceptionalism to international rules and norms. The comparison of estimated major weapon systems between 2030 and 2040 with China and Quad nations in Table 1 below highlights the importance of combining the assets of the Quad nations to match China’s future capabilities.

<table>
<thead>
<tr>
<th>Weapon Systems</th>
<th>United States</th>
<th>Australia</th>
<th>Japan</th>
<th>India</th>
<th>Quad Total</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th-generation fighters</td>
<td>1,321</td>
<td>72</td>
<td>147</td>
<td>0</td>
<td>1,468</td>
<td>200</td>
</tr>
<tr>
<td>Bombers</td>
<td>88</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>88</td>
<td>150–172</td>
</tr>
<tr>
<td>Major surface combatants</td>
<td>78</td>
<td>12</td>
<td>54</td>
<td>22</td>
<td>166</td>
<td>150</td>
</tr>
<tr>
<td>Submarines</td>
<td>25</td>
<td>12</td>
<td>22</td>
<td>24</td>
<td>83</td>
<td>70</td>
</tr>
<tr>
<td>Aircraft carriers</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: All US numbers at 50 percent to account for other global activities and US homeland defense.

China has also taken significant strides in the realms of information, cyber, and space and is using leapfrogging technologies for information domination. Since C4ISR is extremely critical to the PLAN’s blue water presence and A2/AD capabilities, “informationization” has become a fundamental goal of China in network-centric warfare. In the last few years, China has made huge advances in counter-space technology, and its kinetic-kill-vehicles and electronic antisatellite capabilities have wide-ranging space security implications for the Indo-Pacific. China is also testing multiple next-generation capabilities, such as the world’s first quantum communications satellite, and plans to develop at least three new constellations. During conflicts, the persistent coverage of the Beidou satellite network would allow China to carry out precision strikes even in a GPS-denied environment. Furthermore, as part of its “Three Warfare” strategy in legal, psychological, and
information domains there has been a surge of offensive peacetime operations in these domains from China against the United States and allies.\(^\text{18}\)

More importantly, China’s intentions to provide a “Chinese solution” (Zhong-guo Fangan) to Asian countries and play a leadership role in international affairs is seen as Beijing’s intention to shape a China-centric regional order.\(^\text{19}\) The huge presence of PLAN vessels and a free trade agreement with Association of Southeast Asian Nations (ASEAN) member states are a few tools through which China is influencing the region with a combination of hard and soft power. The Chinese juggernaut is unlikely to stop until it emerges as a substitute for the United States and through the twin processes of “regionalism and regionalization,” Beijing plans to get a firm grip on the region.\(^\text{20}\) To rein China in from becoming the domineering power in the Indo-Pacific, the Quad nations need to act swiftly and coherently.

**Present Cooperation, Engagement, and Interplay between the Quad Nations**

**Quad Cooperation between the United States, Japan, and Australia**

While the four nations have been engaging with each other outside the Quad, as major non-NATO allies of the United States, in the Quad grouping, Australia, Japan, and the United States have much closer politico-military relationships with each other as compared to India. Being a part of the Australia, New Zealand, and the United States alliance and the Five Eyes intelligence network, the United States and Australia have information-sharing arrangements in multiple domains.\(^\text{21}\) Similarly, the Treaty of Mutual Cooperation and Security between the United States and Japan has been the hallmark of defense cooperation between the two countries. Additionally, the trilateral Acquisition and Cross-Servicing Agreement and the General Security of Military Information Agreement have bolstered multilayered cooperation between the US military, JSDF, and Australian Defence Force (ADF).\(^\text{22}\) Furthermore, the commonality of US-origin communication systems, network compatibility, and platform designs also allow the three nations to be well equipped for seamless interoperability.

**Integrating the Outlier India**

Among the Quad nations, India at first glance comes across as an outlier from the politico-military perspective. The cool relations from the Cold War era separated the world’s two oldest and largest democracies, the United States and India. However, since the inking of the historic Indo-US civil nuclear deal in 2007, the two estranged democracies are on the course of becoming natural al-
lies of the future. Having signed a string of foundational agreements in the last decade, the Indo-US relationship trajectory is on a huge upswing. Notably, the Logistics Exchange Memorandum of Agreement in 2016, Communications Compatibility and Security Agreement in 2018, and Basic Exchange and Cooperation Agreement in 2020 between India and the United States have facilitated the transfer of high-end technologies. These latest agreements also act as enablers for sharing of classified data and intelligence and help in mitigating the outlier tag that India holds because of the preponderance of Russian equipment. In recent years, with a strategic convergence between the United States’ “Rebalance to the Asia-Pacific Region” and India’s “Act East” policy, the United States has been seeking to reinforce India as a net provider of security in the Indian Ocean Region (IOR) and beyond.

In the last few years, India has elevated its partnership with Australia and Japan as well. The comprehensive strategic partnership in 2020 resulted in India and Australia signing the Mutual Logistics Support Agreement (MLSA), which allows for greater interoperability across defense and strategic planning. Since the inking of the MLSA, both nations have engaged in a host of air and naval exercises thereby further cementing the relationship. A second agreement in the form of the Defence Science and Technology Implementing Arrangement has the potential to enhance defense research collaboration and develop future defense capabilities. These arrangements have paved the way for greater cross-service military activity across multiple domains and could also become the foundation for building mutual trust toward intelligence sharing. With the establishment of a 2+2 bilateral dialogue between foreign and defense secretaries of India and Australia in 2017, India now holds 2+2 dialogues with each of three other Quad countries.

While India and Japan have had close political and trade relationships in the past, their geographical proximity with China and history of unresolved territorial issues have brought them together in recent years. Concerned by growing Chinese assertiveness in the region, both nations upgraded their bilateral relationship to a “Special Strategic and Global Partnership” in 2014. Since then, India and Japan have expanded their high-level ministerial contacts, diplomatic engagements, and are looking for increased avenues for cooperation in multiple areas. The Free and Open Indo-Pacific strategy mooted by Japan has become essential in international political interactions between India, the United States, Japan, and other Pacific actors in the Indian Ocean. Defense cooperation has further expanded with the signing of the memorandum on the transfer of defense equipment and technology and the Acquisition and Cross-Servicing Agreement in 2020. The agreement establishes a framework for the reciprocal provision of sup-
plies and services between the armed forces and promotes closer cooperation. The current partnership between the Quad nations is highlighted in figure 1.

**Treaties and Partnerships Across the Quad**


**Figure 1. Treaties and partnerships across the Quad**

**Military Cooperation between and among Quad Members**

The four nations have also stepped up their military cooperation in the last few years. While the US Air Force regularly operates with the Indian Air Force (IAF), Japanese Air Self-Defense Force (JASDF), and Royal Australian Air Force separately, there has been a steady increase in engagements between the three Air Forces independent of US involvement. In 2018, for the first time, IAF Su-30MKI aircraft participated in Exercise Pitch Black in Australia, and the IAF and JASDF have been conducting annual bilateral Exercise Dharma Guardian since 2018. In terms of the naval exercises, the Royal Australian Navy joining the navies of the United States, Japan, and India in the 2020 edition of Exercise Malabar was an important development and an illustration of the Quad’s stance on counterbalancing China’s rising influence. Malabar 2021, hosted by the United States off the Guam coast in the Philippine Sea, was of particular importance as it was seen
as the first riposte in China’s maritime backyard by the Quad. Australia is also keen to include India in its largest bilateral naval wargames with the United States in Exercise Talisman-Sabre, for which a formal invitation for participation in 2023 is expected.\textsuperscript{33}

Although these joint exercises by the Quad do not overtly name any country, they do send an explicit signal about the growing military dimension of the informal security arrangement with China. These exercises also portray the proactive resolve of the Quad to push back against Chinese expansionism, demonstrate collective capabilities and enhance the credibility of the grouping. While a formal multilateral security alliance may seem like a far-fetched idea for the Quad currently, its burgeoning military cooperation is laying the bedrock for the future, and SSDA could become the keystone of this cooperation.

**The Benefits of Shared Situational and Domain Awareness**

Cooperative intelligence, surveillance and reconnaissance (ISR) provides information advantage over an opposing force and helps strengthen alliances and partnerships by generating shared awareness of malign adversary actions.\textsuperscript{34} The Chinese maritime strategy in the Indo-Pacific has been mostly gray zone coercion, which relies on achieving its geopolitical objectives without triggering a tripwire that could elicit a response from the United States and its allies.\textsuperscript{35} The declaration of its air defense identification zone (ADIZ) in the East China Sea while violating the ADIZ of Taiwan is part of its broad lineup of gray zone actions to intimidate other nations in the region. By contesting operational access to foreign militaries through shadowing, harassing, and interfering in international waters, China has been attempting muscular enforcement of its territorial claims.\textsuperscript{36} The overwhelming presence of Chinese militia boats and white hulls in the Indo-Pacific requires a huge amount of monitoring, which the United States may not be capable of without the support of its partners. Cooperation in form of SSDA, therefore, becomes a strategic necessity between the other great powers of the region to expose and counter the gray zone maritime coercion of Beijing.\textsuperscript{37}

SSDA also has the potential to become a potent tool for assertive diplomacy and an important instrument for escalation control against Chinese aggression. As a subset of SSDA, cooperative C4ISR between the Quad could help predict and prevent future conflicts in the region. Sharing of air and maritime domain awareness (MDA) pictures would help locate, track, and identify potential threats in the waterways, SLOCs, and airways across the region thereby allowing the Quad nations to preempt Chinese actions. Persistent surveillance would also allow monitoring of flying activities in the Woody and Spratly Island groups, construction activities in Fiery Cross, Mischief, and Subi reefs as well as deployment
of a2/ad weapons such as antiship cruise missiles, antiship ballistic missiles, and land-attack cruise missiles.\textsuperscript{38} Going further, the amalgamation of space and cyber domains as part of the SSDA would bolster the capabilities required to conduct FONOPs against Chinese gray zone coercion. The multidomain cooperative SSDA relationship would also mesh with the Phase Zero operations of the United States designed to prevent conflicts through combined capacity building.\textsuperscript{39}

**Present Cooperative C4ISR and Network Capabilities in the Indo-Pacific**

The United States has robust multilayered information-sharing arrangements with its allies and partners in the region. Recently, Australia has adopted the US Distributed Common Ground System, which optimizes the processing, exploitation, and dissemination of intelligence between the two nations.\textsuperscript{40} These centralized nodes permit a broad range of information to be absorbed and disseminated thereby facilitating expeditious decisions by the operational and tactical commanders of both nations. With several interoperable platforms such as the Boeing P-8, MQ-9 Reaper, and MQ-4 Triton fielded by the ADF, Australia has a strong intelligence partnership in the Indo-Pacific with the United States. Being a part of the Anglosphere Five Eyes intelligence alliance, the two nations have also optimized architectures for the seamless exchange of processed intelligence.

With Japan, the “reinterpretation” of Article 9 has enabled the United States and Japan to focus on building the organic capabilities of the JSDF and engaging in a wider range of operations.\textsuperscript{41} Since 2014, there has been a spurt in the capacity building of the information architecture of Japan toward island defense. As part of the Security Consultative Committee meetings, the two countries are discussing setting up an X-band radar missile defense system and intensifying bilateral cooperation in training and intelligence.\textsuperscript{42} To enhance Japan’s ability to monitor the airspace and improve its maritime surveillance capability, the United States has signed multiple military deals with Japan. As part of these contracts, the United States is providing amphibious assault vehicles, V-22 Ospreys, E-2D Hawkeyes, and Global Hawk unmanned aerial vehicles to Japan, which will immensely enhance its military prowess in the region.\textsuperscript{43}

In addition to Australia and Japan, cooperation with South Korea, New Zealand, and the Philippines in the information domain provides the United States with a robust ISR capability in the Pacific region. However, the United States does not enjoy the same advantage in the IOR because of its low footprint and limited resources in the region. Therefore, the Indo-US strategic partnership, if manifested into SSDA cooperation, would allow the United States, India, and
Quad partners to harness each other’s capabilities and fill the current resource gap in the IOR.

**Indian C4ISR Capabilities in the IOR**

In the last few years, India has completed numerous organizational and operational changes to create a national MDA grid. Toward this end, the Indian Navy (IN) has set up the National Command, Control, Communication, and Intelligence network that hosts the Information Management and Analysis Centre (IMAC). Managed jointly by the IN and the Indian Coast Guard, IMAC is responsible for connecting, collating, fusing, and disseminating actionable information and critical real-time intelligence over its entire coastline and the island territories. The system also receives vital operational data from the coastal radar stations, automatic identification systems, long-range identification and tracking data from IOR countries of Maldives, Mauritius, Seychelles, Sri Lanka, Bangladesh, and Myanmar through white shipping arrangements.

In 2018, the scope of IMAC was further expanded with the launch of the National Information Fusion Centre–Indian Ocean Region (IFC-IOR), a maritime information hub for the region. Having established collaborative links with 97 other centers in 41 countries, the IFC-IOR coordinates with like-minded stakeholders in multilateral information-sharing networks and provides actionable information to maritime agencies. The ability to share critical intelligence posthaste results in enhanced synergy and engagements among the maritime agencies of the region. Both IMAC and the IFC-IOR at the national and international levels aim to create predictive analysis to aid in India’s MDA capabilities and highlight trends and incidents that might potentially trigger a crisis.

In the air domain, the IAF has commissioned the Air Defense Command and Control Center in form of an integrated air command and control system (IACCS) for automated controlling and monitoring of air operations. The IACCS system integrates data elements from multiple ground-based and airborne platforms to create a real-time comprehensive recognized air situation picture. As part of network-centric warfare by the IAF, all civilian and military radars including the ship radars have been integrated to form a composite picture of the aerial activity. The IAF has also digitized communication and data transmission through the Air Force Network (AFNet) and integrated air force installations and communications nodes into a high-bandwidth secure network. The AFNet provides taut communications grid links between the IAF’s command and control center, sensors, airborne early warning and control aircraft, and ISR platforms with shooters. The network architecture of IACCS is indicated in Fig.3.
Furthermore, both the IAF and IN have dedicated geostationary satellites of their own which have allowed them persistent surveillance capabilities at extended operational ranges and have also provided secure communication and data link capability. The GSAT-7A communications satellite, equipped with Ku-band transponders, allows the IAF to interconnect a variety of ground-based radar stations, airbases, and platforms and has helped to strengthen drone operations by expanding communications links from ground-based stations with unmanned aerial vehicles.\textsuperscript{50} A separate satellite, GSAT-7 provides the IN with a digital view of the dispersion of fleets, aircraft, and submarines on the high seas and allows it to monitor activities in most of India’s strategic sphere of interest, stretching from the Persian Gulf to the Strait of Malacca.\textsuperscript{51} This pervasive and dedicated satellite network has provided the IAF and IN with seamless complementarity for the conduct of joint operations in the region. Additionally, both the services have
created huge repositories of signal intelligence (SIGINT) and imagery intelligence (IMINT) of the Chinese aircraft and PLAN vessels, which would complement the threat library of Quad militaries.

**Linking JADC2 with Indian C4ISR Network**

The ongoing US Department of Defense project of Joint All Domain Command and Control (JADC2) aims to connect sensors into a single network making it compatible with all the military agencies. The JADC2 architecture would enable commanders to rapidly understand the battlespace, direct forces faster than the enemy, and deliver synchronized combat effects across all domains. The proposed network architecture also supports the integration of partners and allies through compatible protocols, secured gateways, and common data standards.

Linking JADC2 with Indian C4ISR capabilities (IACCS and IMAC) would facilitate secure data transfer and provide the Quad nations with a common operational picture. The coupling of both the networks would also allow the Quad to generate a composite picture of the aerial and surface activity and would facilitate sharing of huge SIGINT and IMINT information. In the future, with JADC2 operating as the backbone of systems such as the Air Battle Management System, enabled by joint space assets, all four nations could be networked, linked, and integrated in one common lattice.

**Obstacles to SSDA Cooperation between Quad Members**

For the SSDA mechanism to take a robust shape, political integration at the national level would be a prerequisite for the Quad. Especially for India, the convergence of its foreign policy objectives in the region with the United States would be one of the biggest challenges. While the United States wants India to play a larger role in Southeast Asia and the Asia-Pacific region, India's maritime focus is limited and there has been an inherent reluctance to participate outside the IOR. Additionally, India has always maintained a neutral approach in its foreign policy and prefers strategic autonomy when dealing with the great powers. SSDA cooperation with military characteristics with the United States in the Indo-Pacific may be viewed as India formally entering the US-led camp which may also affect its strategic relations with Russia. This would require a pragmatic balancing act between Indian foreign policy imperatives and a strategic empathy from the United States to recognize that a complete decoupling by India from Russia should not become a precondition for moving forward in this endeavor. A difficult test of the US-India-Russia foreign policy conundrum would be a Countering
America’s Adversaries Through Sanctions Act waiver, which India hopes to obtain from the United States upon inducting the Russian S-400 system.\textsuperscript{55}

The second major issue would be the preponderance of Russian manufactured weapon systems in the Indian military arsenal, which may cause concerns among the Quad for the fear of data pilferage. While these apprehensions may be legitimate, it is important to note that, barring the S-400, over the last few years India has inducted high-tech equipment predominantly from the United States, Israel, and other Western suppliers to replace its legacy Soviet systems.\textsuperscript{56} Furthermore, most of the radars, electronic warfare systems, tactical communications systems, and network-centric situational awareness solutions such as the IACCS have been built indigenously by Bharat Electronics, an Indian Defense Public Sector unit that has no Russian linkages.\textsuperscript{57} By linking these Western systems with indigenous Indian equipment; and by excluding the Russian systems from the SSDA network architecture, India could allay the concerns of the United States. Furthermore, India would need to assure the United States that its continuing military cooperation with Russia is due to bureaucratic inertia and that sensitive technology shared with India will remain closely guarded. In the ongoing Russia-Ukraine crisis, India’s abstention from voting against Russia in the UN highlights its precarious position. While India has supported the international calls for the cessation of hostilities and an immediate ceasefire, it has stopped short of condemning Moscow and maintained a neutral stand. The military dependence makes India liable to Russian retaliation which would be especially costly as it continues to be in an eyeball-to-eyeball standoff with China at various points along their shared border.\textsuperscript{58} India is also concerned with the growing closeness between its archrival Pakistan and Russia in the last few years. With an existing strategic partnership between Pakistan and China, India cannot afford a quasi-alliance between Pakistan-China-Russia in its neighborhood. Notwithstanding, India is rapidly breaking free from its conventional reliance on Russian weaponry and is undertaking large-scale efforts through diversification of imported arms from Western markets and rejuvenating the indigenous military-industrial complex.

**Seven-Step Framework for SSDA Cooperation**

To pragmatically address the diverse issues, the Quad nations must take a graduated approach to create an effective information-sharing apparatus underpinned by mutual trust. Toward this end, a seven-step framework for SSDA cooperation is proposed in the succeeding paragraphs.
Creation of an Indo-Pacific Maritime Fusion Center

As the starting point, the Quad must create an Indo-Pacific Maritime Fusion Center (IPMFC), which could be modeled on the lines of the IFC-IOR. The IPMFC could merge and manage the MDA pictures of Quad nations and employ a single system that could fuse data feeds from other regional national MFCs (NMFCs) in the future.59 Space-based synthetic-aperture radar, electro-optical data, and surface automatic identification systems could be integrated into these NMFCs and the IPMFC. The scope could gradually be expanded to include air, space, and cyber domains to allow a composite picture available to all stakeholders. These centers could act as a central clearinghouse with an option to expand the cooperation with other nations of the Indo-Pacific Region.60 These fusion centers would also lay the foundation for the dispersed and decentralized combat operations of the future and align with the Agile Combat Employment philosophy of the United States.

Develop Robust Network Architecture

The second step of SSDA cooperation should focus on designing the information-sharing architecture and constructing flexible yet robust apparatuses that could integrate disparate elements irrespective of the make of the equipment. This would require the standardization of data, information-sharing gateways, compatible hardware, and a cloud environment in the form of a data lake acting as a repository for all information collected by any sensor and any coalition member.61 With the dispersed and distributed future architecture and the ability of small combat units to undertake independent informational and combat functions, there would be a requirement for functional coupling of these units for achieving convergent capabilities. The sensing grid architecture of the JADC2 networks should therefore apply industry data standards at the initial data life cycle, which allows collaboration and future compatibility with allies and partners.62 The adaptive wide-area information architecture of JADC2 should provide a secure “plug and play” option with accommodative security protocols for connecting the dissimilar equipment utilizing common bulk encryption units at the information gateways.

Integration of Indian Equipment and Platforms

The third step of SSDA cooperation would entail the Quad devising mechanisms to surmount the limitations of the noncompatibility of Indian equipment and platforms. India has a substantial inventory of US-origin ISR platforms in form of the Sea Guardian MQ-9B and is the largest international operator of
Boeing P-8 aircraft. As a pilot project, these two platforms could be integrated into the combined network to optimize the processing, exploitation, and dissemination of intelligence for partner operations. The integration of these two platforms with the IPMFC would enhance the collective MDA capability of the Quad substantially. Subsequently, the modalities for data-linking the C4ISR network with JADC2 to provide a composite common operational picture could be worked out.

**Strategic Dissuasion through Space Cooperation**

Strategic dissuasion seeks to prevent incitements, not through the direct threat of military retaliation but through thwarting and frustrating hostile steps through countervailing measures. Therefore, the fourth step of SSDA cooperation should concentrate on dissuading China’s A2/AD network through space cooperation to monitor, expose, and attribute malign Chinese activities in the Indo-Pacific region. Collaboration in space domain awareness and integration of space-based capabilities of the Quad would deliver game-changing predictive intelligence and provide assertive global response capabilities. Since 2014, the United States has partnered with other space-faring nations in the field of space situational awareness (SSA) through the Global Sentinel experiment. Led by the US Strategic Command, the experiment intends to formulate a fully integrated, Federation Space Operations Center to demonstrate the value of a combined and integrated C2 capability. Since India is one of the strongest space powers in the region, the inclusion of Indian space capabilities as part of Global Sentinel SSA would enhance the collective space-based C4ISR capabilities of the Quad.

**Deterrence by Active Denial**

The fifth step of SSDA cooperation should focus on deterrence by active denial strategy, which could be achieved through the integration of intelligence resources. Expansion of the Five Eyes intelligence alliance to include India and Japan would remove the current information-sharing constraints between the Quad and integrate the resources of Canada, New Zealand, and the United Kingdom. It would also allow the United States to share the burden of gathering and analyzing foreign communications intelligence in the region without overextending its resources. The initiative by the US House Subcommittee on Intelligence and Special Operations in August 2021 for possible expansion of intelligence sharing with South Korea, Japan, India, and Germany is a welcome step in this direction. The inclusion of India and Japan in the Five Eyes would increase collective intelligence contributions and permit expanded collaborations thereby providing in-
formation dominance to the Quad. It would also galvanize joint planning against the Chinese Three Warfare Doctrine, which calls for manipulating legal, psychological, and media targets.\textsuperscript{70}

**Offensive Defense**

An offensive defense strategy for building informational resilience should be the sixth step of SSDA cooperation. Such a strategy encompasses actions required for defending the physical as well as informational infrastructure while continuing to develop capabilities for offensive actions. The integration of the partners within a cloud environment would require impregnable firewalls, homomorphic encryption, distributed architecture, and strong security protocols to ensure adequate defense while permitting seamless access to the authorized users. Protecting the collaborative sensing grid should be the biggest focus in a Quad network-sharing arrangement. Designs for the sensing grid would call for a resilient, penetrating, and persistent capability equipped with disruptive technologies and the ability to cue data from sensors to sensors.\textsuperscript{71} In the future, if the SSDA cooperation takes shape of a military alliance, the sensing grid design should cater to a sensor-shooter coupling for rapid targeting of the adversary during combat operations.

**Collective Creation and Usage of Quad SSDA Infrastructure**

The final step of SSDA cooperation should be toward the shared creation and usage of SSDA infrastructure for establishing C4ISR terrestrial structures and fusion centers as well as basing for maritime surveillance platforms. With almost all the current US regional bases within the Chinese missile threat rings, there is a requirement for dispersed joint-use strategic basing options to increase China’s strategic ambiguity.\textsuperscript{72} With its proximity to the Strait of Malacca, India’s Andaman and the Nicobar Island chain (A&N) is ideal for establishing the Quad SSDA nerve center and the IPMFC. Due to its status as a key economic corridor housing the world’s busiest shipping lane, the establishment of the IPMFC in the A&N islands would allow the Quad to monitor one of the most important Chinese chokepoints. With four operational airfields and multiple port facilities, the A&N islands would also weave into the overarching US strategy of regional base cluster positioning operations and Agile Combat Employment. The existing fusion centers such as India’s IFC-IOR and Singapore’s Information Fusion Centre could be integrated with other like-minded ASEAN partner nations to create a web of information capacity in the region.\textsuperscript{73}
Conclusion

Even though in its current form the Quad appears as a patchworked forum of bilateral and trilateral cooperation, it contains all the essential ingredients to transform into a truly cohesive alliance. Since policy coordination mechanisms are prerequisites for achieving expanded intelligence sharing, functional coordination in all domains requires relentless efforts from all the members to achieve the vision of a free and open Indo-Pacific. As part of the initial framework, collaboration in SSDA could become the core of Quad cooperation to transform the informal agreement into a robust politico-military partnership. The proposed seven-step approach would strengthen relations, enhance mutual trust, and will allow shared capacity building between the four nations in a graduated manner. While the initial steps are benign and are focused predominantly on creating information-sharing mechanisms, they do set the stage for the creation of an official military alliance should the Quad nations feel the requirement of the same in the future. The opportunities for the Quad are limitless, both in terms of developing new domains of collaboration or in expanding cooperation with other nations of the Indo-Pacific. If the Quad is successful in developing and implementing its strategic framework, it would attract the Southeast Asian states to create a much larger arrangement in the form of a “Quad Plus” in the future.

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Notes


73. Deon Canyon et al., “A Network of Maritime Fusion Centers.”

A New Cold War for the Developing World?

Understanding and Responding to the Belt and Road Initiative

Dr. William M. Butterfield

Abstract

Strategic competition between the United States and the People’s Republic of China (PRC) for economic opportunities and political influence in the developing world has been compared to Cold War competition for the “Third World” between the United States and the Soviet Union, particularly since the launch of the PRC’s Belt and Road Initiative (BRI) in 2013. This paper argues that while the nature and context of current strategic competition are vastly different than what existed in the second half of the twentieth century, many lessons from the US grand strategy of containment remain instructive. The sources of Chinese conduct are similar to those that motivated the Soviet Union (USSR)—the drive to maintain regime legitimacy domestically and mitigate against external threats. For the PRC, a major source of this legitimacy is the maintenance of growing living standards for the Chinese population. Yet, given growing demographic and economic constraints, the PRC does not believe that time is on its side. The strategic economic objectives of BRI are therefore to accept increased financial risk for the potential of higher and quicker returns before these constraints become binding. Understanding that profitability is the central objective of the BRI helps clarify common misconceptions surrounding PRC intentions. Looking to Cold War parallels and examples, the study concludes that the United States and its allies should (1) clearly define which PRC practices they are trying to contain; (2) respond not by attempting to match BRI spending symmetrically, but rather by offering foreign assistance to developing countries that links more strongly to US economic interests; and (3) more actively incentivize commitment to liberal democratic values and sound development practices.

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According to Hal Brands and John Lewis Gaddis, two of the foremost scholars on the Cold War and American grand strategy, “It’s no longer debatable that the United States and China, tacit allies during the last half of the last Cold War, are entering their own new cold war.1 The differences between the Cold War and the recent worsening diplomatic relations between the United States and the People’s Republic of China (PRC) that began around 2013 seem indisputable.2 The difference that stands out most starkly is the degree of
economic integration between the two countries, each the other’s largest trading partner with substantial bilateral direct investment. Even by 1990, trade between the United States and the Soviet Union was minimal compared to American trade with Western Europe and other non-communist bloc countries.

One clear parallel, however, with Cold War competition that has emerged is the PRC’s and United States’ growing interest in economic and political influence in the developing world. The United States and its allies competed for influence in the “Third World” and Non-Aligned Movement countries throughout the Cold War. Each side offered economic and military assistance, generally with political strings attached. The PRC has emerged as a major political and economic competitor to the United States in developing regions, particularly Africa, Asia, and to a lesser extent Latin America. This competition could evolve into a serious threat given that, excluding China, 65 percent of the world’s population currently lives in these regions, and that almost all population growth over the next 30 years will be in these low- and middle-income countries, with the population of sub-Saharan Africa expected to almost double by 2050.3

Beijing views increased economic integration with Eurasia and Africa as a critical component of the PRC’s larger strategy of maintaining development momentum and projecting political power through economic might. The PRC views itself as a “developmental state”4 and “Beijing’s political and economic goals are inseparable.”5 Continued economic development, rising Chinese living standards, and an ability to satisfy growing nationalist sentiment by projecting increasing power globally, in large part through the size of the Chinese market—are therefore critical to the legitimacy and survival of the Chinese Communist Party (CCP).

Yet the achievement of the PRC’s development goals is increasingly constrained by emerging demographic and economic realities that do not put time on the side of the PRC. The PRC’s Belt and Road Initiative (BRI) must be understood as a strategy of accepting increased financial risk in the hope of realizing higher returns in the face of these constraints that will affect China’s development and ultimately the CCP’s legitimacy.6

This article aims to draw lessons from the Cold War and apply them to the current strategic competition for economic and political influence in developing countries while recognizing the limits of historical parallels. It explores the economic and political–strategic motivations of Chinese state-led overseas investment through the BRI. Moreover, the study analyzes growing debt levels in developing countries, the Chinese model of development, and the expected returns from BRI investments given the general lack of state capacity and high risks that continue to deter private investment in many developing countries. Then, the article explores the proper US strategic response to BRI, arguing that specific les-
sons from the US Cold War strategy of containment apply, including the importance of defining what should be contained, focusing on strong points of strategic interest by not attempting to match Chinese foreign investment dollar for dollar, and being self-confident about the superiority of the US development model. Finally, with the principles underlying the Marshall Plan’s objective of checking Soviet influence, the article examines what would make US foreign assistance more strategic and coherent.

**Sources of Chinese Conduct**

George Kennan, one of the founders of US Cold War strategy, argued the criticality of understanding the Soviet leadership and their underlying motivations in developing a US response to the emerging Soviet threats.” “The Sources of Soviet Conduct” first appeared in the July 1947 edition of *Foreign Affairs* magazine and was published under the pseudonym “X” to conceal Kennan’s identity since he was serving in the US Embassy in Moscow at the time. Building on his confidential “long telegram” to Department of State leadership in Washington, the article introduced the term *containment* and laid the foundation of a strategy that would dominate US foreign policy for decades. The strength of the article was based on Kennan’s recognition that before developing a response to the emerging threat posed by the Soviet Union, US policy makers first needed to understand how the Soviet leadership viewed the world. The starting point was understanding that the Communist Party regime’s legitimacy and survival were the foundation of Soviet behavior. He then built on this understanding to formulate principles and make recommendations to US foreign policy makers, which were sometimes followed, but other times abandoned.

This article follows a similar approach and applies strategic empathy to examine the dynamics concerning the CCP and PRC’s motivations for the BRI under five categories. It also reviews the key motivations behind the BRI, which constitutes just one part of the larger PRC strategy of maintaining fast-paced economic growth to avoid the middle-income trap as a critical source of CCP regime legitimacy.

**Avoid the Middle-income Trap by Moving Chinese Firms to the Lead in Global Value Chains**

The PRC views its continued economic development as central to its security, and the CCP considers growing standards of living as the source of its legitimacy. China’s recent history of poverty, famine, subjugation, and cultural humiliation by foreign powers shapes its collective identity. In this context, parallels to the Soviets’ great “sense of insecurity” described by Kennan can be drawn. Russia had
undergone recent humiliation in the Sino-Japanese War, exited from World War I after devastating losses, and had experienced foreign invasion and great loss during World War II. The CCP believes that its condition remains fragile because if development through economic growth slows, it will lose the main source of its ability to project power and to maintain the legitimacy of its one-party state.

The central fear of the CCP regime is that it will enter a “middle-income trap.”\textsuperscript{10} This occurs when rising wages cause existing labor-intensive industries and exports to become increasingly less competitive over time, slowing growth if the country is unable to transition to more knowledge-intensive and higher-productivity industries. The CCP regime is acutely aware that such transition is difficult and rare.\textsuperscript{11} The most reliable method of achieving the transition, particularly in East Asia, has been to become an active part of global value chains to export low value-added products and gradually increase the share of domestic technology and human capital in production to create lead firms.

To execute such a method, the PRC launched the Made in China 2025 plan in 2015. The plan was aimed specifically at moving Chinese firms into higher value-added manufacturing by reducing reliance on foreign intellectual property, improving human capital, and integrating more domestically produced science and technology into production.\textsuperscript{12} Key sectors currently receiving targeted public investment include electric cars, information technology (IT), shipping, aerospace and aviation, pharmaceuticals and medical equipment, telecommunications, advanced robotics, and artificial intelligence (AI).\textsuperscript{13}

Thus, the BRI is a critical component of Made in China 2025 and the CCP’s larger ambitions to move Chinese firms to the lead in selected global value chains and avoid a middle-income trap. This is because China will become increasingly reliant on imports of raw materials and intermediate goods and services to enable its own production goals.\textsuperscript{14} By increasing connectivity and lowering transportation and transaction costs through the BRI, China seeks to turn lower-income and lower-wage countries into a source of supply of the inputs needed to overcome such shortages and enable Chinese firms to direct more global value chains. If successful, the BRI would help enable China to increasingly play the role in the developing world that the firms of Western and other developed country have played in China for the past several decades.

**Chinese Sector Overcapacity**

The early Soviet economy achieved significant early successes through its communist ideological commitment to state-led public investment as a driver of industrialization and growth. Moscow relied mainly on its enormous supply and reserves of oil and gas as Soviet Union’s main source of national revenue to finance
that investment. The PRC, while being relatively much more open to the private sector and local policy experimentation than the USSR ever was, continues to rely heavily on state-led investment. Also, Beijing believes that heavy state intervention is necessary to correct market failures and sustain economic growth. In stark contrast, however, the PRC needed to raise domestic sources of saving necessary for carrying out China’s public investment priorities given its relative lack of natural resources.

The central economic development policy pursued by Beijing targeting the PRC’s high growth rates has therefore been the promotion of high rates of savings and investment. High levels of savings enabled extensive investments in China's infrastructure, which in turn boosted productivity, the most important variable for economic growth. Yet returns to further investments in China's infrastructure have diminished considerably, and consequently, opportunities for further state-led domestic spending have been shrinking. The PRC continues to try to increase consumption as a future driver of growth; however, its success has been limited so far. The PRC also found itself with a large stockpile of low-yielding US Treasury bonds that could be generating higher returns outside of China.

Another result of this development approach is the misallocation of investment that leads to overcapacity and falling returns in several sectors of the Chinese economy. Beijing provided significant subsidies to China’s steel, paper, auto parts, and solar panel sectors through the 2000s and at least through the late 2010s, before publicly announcing the government would reduce such support to address overcapacity. More recently, China has been accused of aggressively subsidizing high-technology sectors such as semiconductors, electric batteries and vehicles, and robotics.

While the subsidies provided to these industries can and have created some competitive advantages for China, they are increasingly criticized as a source of low productivity, and the profitability they bring—such as the case of return on equity in Chinese state-owned enterprises (SOE)—fell by half in the 2010s. Institutional weaknesses, protections for SOEs against competitive forces, and entrenched bureaucratic interests have contributed to the relative slowness to adopt reform. According to the International Monetary Fund (IMF), “While exceptional financial support measures [in response to the COVID-19 pandemic] have helped avoid a potential credit crunch, they also contributed to a further increase in already very high corporate debt and exacerbated existing structural problems by prolonging the economic life of non-viable and low-productivity firms, including SOEs, particularly in capital-intensive sectors with overcapacity.”

Kennan spoke of “certain branches of economic life, such as the metallurgical and machine industries, [that] have been pushed out of all proportion to other
sectors of the economy” when describing the Soviet state-led economy. The BRI is widely viewed as a way to help address the issue of PRC capital misallocation. According to the US Department of Defense, “(The BRI) also helps China’s state-owned enterprises (SOEs) find productive uses for their excess capacity in the cement, steel and construction sectors, as well as creating investment opportunities for China’s large reserve of savings.” Reflecting the PRC’s over-accumulation of dollar reserves, most all BRI loans are denominated in dollars, with just more than 10 percent in Euros and renminbi.

**Diversification of Access to Markets**

During the Cold War, US grand strategy toward the Soviet Union was containment, first outlined by Kennan and then transformed into formal policy in National Security Council (NSC)-68 in 1950 by the Truman administration. The PRC complains that it is now the target of a containment policy by the United States and its allies, one with the potential to limit China’s access to international markets. In 2016, 80 percent of China’s imported oil passed through the Indian Ocean and Strait of Malacca into the South China Sea. If US–Chinese relations deteriorated and a conflict was to occur, the US Navy and its allies could blockade the Strait of Malacca and impose enormous damage on the Chinese economy.

China’s vulnerability to a naval blockade has been called the “Malacca dilemma.” However, Beijing’s access to markets is also threatened by the PRC’s neighbors, particularly India, with which China has a continuing poor relationship. The willingness of the United States to increase tariffs on Chinese imports over a range of grievances, such as the Trump administration did in January 2018, also creates a perceived threat to the Chinese economy.

These fears drove much of the PRC’s overseas investment in energy resources. Often, loans for infrastructure construction are securitized against the value of a future revenue stream from oil or mineral extraction. Projects associated with reducing reliance on transporting energy resources through the Strait of Malacca include pipelines and port construction in Pakistan, the Kazakhstan–China oil pipeline completed in 2009, and the Russia–China oil and gas pipeline that was expanded in 2015. Of a total of 29 countries classified as “oil resource-rich,” 11 are along the PRC’s Maritime Silk Road and five countries are along the Silk Road Economic Belt. Physical infrastructure and Chinese-managed port operations in Gwadar in Pakistan and Kyaukpyu in Myanmar are designed in large part to open Chinese access to the Indian Ocean, allowing more trade to bypass Malacca. The BRI presents the PRC with an opportunity to mitigate its vulnerability to intentional or incidental supply disruptions, diversify China’s access routes to
energy and other critical natural resources, and increase the Chinese economy’s resiliency to international price shocks.

**Building Alliances That Support the PRC’s Policy Priorities**

During the Cold War, the United States and the Soviet Union had established competing blocs of formal alliances (e.g., NATO and the Warsaw Pact) and fiercely competed for political influence in Non-Aligned Movement countries, mostly in the developing world. For most developing countries, given the already high degree of economic interdependence they have with both the PRC and the United States, local leaders do not want to choose between one or the other, rather they generally wish to maintain good relations with both countries.

However, the PRC is using its economic influence to project economic power in large part through the BRI. Beijing’s objective is to augment ties with the PRC’s growing network of friendly states, most notably Pakistan, increasingly Iran and Russia, and many African and developing Asian countries. The PRC maintained “strategic partnerships” with 67 states as of 2020 that were mostly based on financial incentives and economic cooperation. On top of the BRI and economic engagement, through increased diplomatic engagement, student and professional exchanges, and the creation of official event platforms such as the Forum on China–Africa Cooperation, Beijing has improved China’s international image.

By increasing its share of value-added in production and positioning more Chinese multinational corporations as the lead firms in global value chains through the BRI, the PRC seeks to make China the undisputed economic hub of the larger Eurasian continent. Such a setup could be seen as reflecting the East Asian “tribute system” that existed 1368–1841. The tribute system was a political, economic, and cultural hierarchy whereby China was recognized as the regional hegemon, and other smaller surrounding countries had to pay tribute or kowtow to Chinese imperial leadership to, among other benefits, gain access to the large Chinese market.

Regaining what many Chinese perceive as their rightful historical place at the top of the regional, perhaps even international, hierarchy would bolster the CCP regime’s legitimacy by responding to the existing and growing nationalist sentiments in Chinese society. It would also succeed in magnifying China’s diplomatic, political, and military influence.

What the PRC ultimately seeks from this enhanced influence is increased support for its domestic practices and foreign policy goals. A key objective of the PRC and other developing countries, particularly nondemocracies, is to strengthen norms of “non-interference” in domestic affairs shared by the international community. Support for the “One China” policy and the diplomatic isolation of Taiwan is also at the top of the list. Beijing seeks to silence criticism of the PRC’s
domestic practices such as censorship, suppression of dissent, crackdowns on democracy in Hong Kong, and China’s actions in the Xinjiang region, where it has been accused of human rights violations. Ultimately, the PRC seeks for its strategic partners to support Beijing’s efforts to reshape international institutions such as the United Nations so that these organizations are more favorable to Chinese interests. The PRC believes that international institutions were created by and mostly serve the interests of Western, developed countries. By getting other developing countries to accept this narrative, Beijing is building the PRC’s own network to reshape international norms.

The Issue of Time

According to Kennan, at the beginning of the Cold War, the Soviet leadership believed time was on their side—that the spread of communist ideas and the collapse of the capitalist system were inevitable. This belief allowed the Soviet regime the luxury of some strategic complacency. General Secretary Xi stated in January 2021 that “time and the situation are in our favor.” Chen Yixin, Secretary-General of the Central Political and Legal Affairs Commission, reached a similar conclusion: “The rise of the East and the decline of the West has become a global trend, and changes of the international landscape are in our favor.”

Despite these statements, the reality is that the CCP likely understands that due to demographic and economic realities, the Chinese economy will inevitably slow down unless prompt and aggressive investments are made. The foremost issue confronting China is demographics. China’s old-age dependency ratio in 2020 was about 17 percent, which is considered low globally. Yet that dependency ratio will exceed 75 percent by 2055, much higher than the global average. Regional comparator countries that avoided the middle-income trap—Japan, Korea, and Taiwan—were each demographically much younger when they made the transition to high-income status. One World Bank report bluntly averred “Simply put, China will grow old before it grows rich.” The PRC ended its one-child policy in 2016 and has since offered financial incentives to increase fertility rates, yet in 2021 the birth rate plummeted to just 1.1–1.2 per woman, far below the 1.7 forecasted by the UN.

The other emerging constraint to the PRC’s grand strategy is the shrinking fiscal space available to continue its aggressive public investments. At $2.4 trillion, the country’s total stock of corporate, household, and government debt was estimated to have exceeded 300 percent of GDP by the middle of 2019, before the COVID-19 pandemic. This debt level was growing at a rate of around 11 percent per year. Since China’s average GDP growth over 2010–2020 was just more than 7 percent, and its projected GDP growth over 2021–2026 is projected at
about 5.5 percent, China’s debt has grown faster, and will likely continue to outpace its GDP growth. As public and private Chinese debt continue to increase, it will become increasingly more difficult for the PRC to continue to pursue growth through state-led investment and SOEs that enjoy implicit guarantees against default and preferential access to credit.

The BRI can therefore be seen as a part of a more aggressive grand strategy by the PRC to overcome these likely impending demographic and economic constraints before they become binding. At least through 2019, it appeared that the PRC was willing to accept increased risk for the potential for higher returns to beat what could be viewed as a race against time.

**What the Belt and Road Initiative Is and Is Not**

During the Cold War, the United States and its allies were deeply suspicious about the economic assistance given to developing countries by the Soviet Union. Many Western observers believed that such assistance was driven by political motivations and was ultimately a disruptive and corrupting force in these countries. The Soviet Union believed the same of, for example, the US Agency for International Development (USAID), which did have strong ties with the Central Intelligence Agency (CIA) at the time. As described above, Chinese motivations behind the BRI are primarily economic but also involve security and political considerations. This section extends the previous analysis for understanding what the BRI intends to accomplish and what it can be expected to accomplish toward those grand strategic motivations in three parts around common claims about the BRI: (1) that it is intentionally creating unsustainable levels of debt for developing countries, (2) that it aims to export Chinese development ideology, and (3) that it is an example of a successful grand strategy that thinks in terms of the long game. This section argues that there is some truth to each claim but that the reality is more nuanced.

**BRI Lending Is Creating Lots of Debt, but Is Not “Debt-trap Diplomacy”**

During the Cold War, the United States and the Soviet Union fought for influence over the developing countries, and the West offered subsidized loans as part of a system of carrots for keeping these states from drifting into the Communist bloc. Moscow also provided lending but was considerably more resource-constrained. The early 1970s through the late 1980s was the first major debt wave experienced by the developing world that resulted in the Latin American debt crisis of the early 1980s and later led to the Heavily Indebted Poor Countries (HIPC) Initiative for debt relief, particularly in Africa, launched in 1996 by the World Bank and IMF.
There was a consensus that Western donors and institutions, led by the World Bank, overstepped during this period. Similarly, there is growing concern that the PRC is committing similar mistakes, in large part through the BRI.

Beginning at the turn of the century, China has emerged as the largest bilateral creditor to the developing world, accounting for approximately 65 percent of total official bilateral lending by 2018. According to the World Bank, “Low- and middle-income countries’ combined debt to China was $170 billion at end-2020, more than three times the comparable level in 2011.” Much of this debt is difficult to measure and not reported because about 70 percent is not lent directly to governments but rather through local SOEs and to some private-sector entities. According to one estimate, 42 countries now have levels of public debt exposure to China amounting to more than 10 percent of their GDP. This level of indebtedness was comparable to developing country multilateral debt to the World Bank. However, while most of the PRC’s lending has a concessional grant element that averaged 28.4 percent over 2000–2017, this was significantly lower than the average grant element of OECD–DAC lending institutions at the 64 percent level.

Growing debt distress in the developing world and the significant role that the PRC and the BRI have played have led to accusations that China is pursuing “debt-trap diplomacy” whereby “the creditor country is said to extend excessive credit to a debtor country to extract economic or political concessions once the debtor country becomes unable to meet its repayment obligations.” The case in point most often cited in defense of this idea is the Sri Lankan Port of Hambantota (see box below). The Hambantota Port, however, appears to be the only such incidence that could be considered a Chinese quasi-seizure of a distressed asset in a debt-for-equity swap. More than 60 percent of PRC lending is collateralized by liquid assets, insurance, or government credit guarantees; very few are backed by physical infrastructure. PRC state institutions also demonstrate strong sensitivity to risk. In addition, PRC lending was much more likely to be collateralized in countries with higher fiduciary risks and corruption.
Understand the Case of the Hambantota Port

Under then-president Mahinda Rajapaksa, Sri Lanka borrowed over $1 billion from the China ExIm Bank beginning in 2007 to build a commercial port that private companies had previously turned down. In 2015, Rajapaksa lost the presidential re-election bid to challenger Maithripala Sirisena, who vowed to reduce the country’s massive overall level of debt. Of the total debt service owed by Sri Lanka in 2017, five percent was related to Hambantota. The port was losing money, and the Sri Lankan government took IMF advice to sell it and hand over management to an experienced operator. “The only two bids came from China Merchants and China Harbor; Sri Lanka chose China Merchants, making it the majority shareholder with a 99-year lease, and used the $1.12 billion cash infusion to bolster its foreign reserves, not to pay off China Exim bank.” The Hambantota Port was only expected to become fully operational by 2022, and it is far from clear if the massive Chinese investment in the port will generate returns given its history of poor performance. Overall, it is highly doubtful that this was part of a strategic maneuver by the PRC as it would have almost certainly been more cost-effective for China simply to have negotiated a build-own-operate (BOO) contract directly with the Sri Lankan government if it wanted to own the port. There is no evidence that such a discussion ever occurred.

As detailed above, the primary motivation behind the BRI is economic profitability. Predatory lending has never proven to be a successful strategy because it is difficult to make money by lending money to entities with a high risk of not paying it back. Thus, while the BRI is indeed contributing significantly to the growing debt issues in the developing world, it is not intended to create debt traps.

BRI Offers a Competing Model of Development Finance, but It Is Not Attempting to Export Chinese Ideology

The competition for influence in the “third world” during the Cold War was described as a “competition between two social systems, for the U.S.S.R. and the United States of America represent alternative models of social and economic development.” Today, the PRC is often accused of attempting to export its development philosophy through the BRI. Like the response to such accusations by the PRC today, defenders of Soviet interventions countered that “Soviet aid has
no neocolonialist strings attached, as is usually the case with the economic assistance of industrialized Western states.\textsuperscript{55}

The term “Beijing Consensus” began to gain attention in the mid-2000s to contrast it to the “Washington Consensus,” coined in 1989 by John Williamson of the World Bank. The Washington Consensus was the predominant set of development and stabilization recommendations advocated by World Bank and IMF officials headquartered in the District of Columbia.\textsuperscript{56} By the early 2000s, however, there was growing doubt about the ability of such reforms to produce economic growth, as highlighted perhaps most famously by William Easterly’s scathing critique of the program\textsuperscript{57} and Williamson’s admission of disappointment.\textsuperscript{58} It was only later in the 2010s that evidence of the effectiveness of Washington Consensus reforms for economic growth began to emerge, including by one of its original critics, Easterly.\textsuperscript{59}

Yet the impression remains that liberal reforms if they work at all, take a long time to bear fruit.\textsuperscript{60} Most developing countries want to emulate the rapid economic transformation that China accomplished and have been open to the PRC’s advice on the matter. The meaning of a Beijing Consensus continues to be debated, but the overall focus is on the central role of the state in directing public investment, focused heavily on infrastructure development and industrial policy. Also attractive to nondemocratic developing countries is the emphasis on strong central leadership by the ruling political party. Ultimately, what most developing countries will continue is the high propensity for quick money for infrastructure, rather than governance advice, which makes the PRC an attractive partner.

The PRC believes that its economic development model was successful and is popular among nondemocracies with strong leadership. Yet the PRC appears to be mostly uninterested in advancing any specific economic ideology and is mostly indifferent as to how countries pursue their development objectives, so long as Chinese firms are not disadvantaged.\textsuperscript{61} As demonstrated above, the primary purpose of the BRI is economic profitability. BRI commitments across countries are uncorrelated with measures of democracy, and major borrowers are countries that are more closely allied to the United States and have limited interest in the Chinese development model.\textsuperscript{62} Most importantly, the PRC’s development approach was not based on a strict set of rules or ideology.\textsuperscript{63} Rather, it focused on policy experimentation, offering incentives to local government units to identify what worked and what did not, and then scaling up.\textsuperscript{64}

For the foreseeable future, developing countries will continue to look to both Washington and Beijing for development models and direction. What results will likely be a hybrid type approach for most, with developing countries continuing to accept Chinese finance and incorporating parts of the PRC development
model, while also picking and choosing which types of advice and assistance to accept from the United States and its allies. Such an outcome could be similar to Pres. John F. Kennedy’s vision of “a world safe for diversity,” where the differing ideologies of the Cold War could compete peacefully.

**While BRI Investments Offer the PRC Some Strategic Economic Advantages, Many Projects Will Likely Fail**

Throughout the Cold War, both the Soviets and the Chinese believed that there existed a universal desire of “third world” countries to be liberated from Western influences and move toward communism, creating a natural alignment. Citing Alvin Z. Rubinstein (1990), Stephen Walt claims “This theory of cooperation was flawed on both counts, which helps explain why Soviet efforts to build influence in the developing world were costly and disappointing.” The PRC views itself to be very much a part of the developing world, the leader among developing nations, and an advocate for their interests. Given this assumed confluence of interests, it is likely that Beijing believes that the PRC can better manage financial and political risks involved in BRI projects, offering higher returns.

BRI investments are intended to offer the PRC strategic economic advantages, and these investments are indeed paying off across several sectors. The Asian Development Bank (ADB) estimated that the developing countries of Asia collectively will require $26 trillion in infrastructure investment over 2016–2030 to sustain growth. The BRI corridor region has suffered from years of underinvestment, and natural barriers greatly increase trade and investment costs. China’s lower-income western provinces would stand to gain comparatively more through increased connectivity with Central Asia, consistent with PRC’s announced priorities to eliminate poverty and “backwardness” in these areas. Beijing also likely believes that growing incomes in Xinjiang and Tibet could mollify antiregime sentiment in these areas, which have been a continuing source of international criticism of the PRC.

According to the Center for Strategic and International Studies, “If successfully implemented, the BRI could help re-orient a large part of the world economy toward China. This may empower China to more readily shape the rules and norms that govern the economic affairs of the region.” Indeed, the PRC currently exerts disproportionate influence over several critical supply chains, particularly for essential minerals. The PRC now controls, for example, significant port operations, IT infrastructure, and satellites across several BRI countries, offering significant commercial advantages. Contracts to Chinese firms to operate...
port facilities might evolve into naval access agreements that could limit outside access to these ports, creating barriers to markets.⁷¹

A significant competitive advantage resulting from the BRI is the increasing adoption of Chinese technical standards, particularly in telecommunications, through the Digital Silk Road component of the BRI. On top of Made in China 2025, there is the less discussed but perhaps more important “China Standards 2035” initiative, through which Beijing seeks to use the PRC’s influence through BRI investments to create IT networks that rely on Chinese digital infrastructure.⁷² The growth in demand for bandwidth will be highest in Africa and developing Asia through 2050, due to a lower baseline of the population with access to the Internet together with fast-growing populations. Chinese technology giant Huawei had built 70 percent of the 4G networks in Africa by 2021.⁷³ The greater China’s market share in these regions, the greater ability Beijing will have to lock these countries into a single supplier dependency. On top of telecommunications, standards underpin Internet-connected appliances, modern physical infrastructure such as high-speed rail, AI, and cloud computing.⁷⁴ Unlike traditional physical infrastructure through the BRI, digital infrastructure is disciplined by the market to a much greater extent, relying on internationally competitive suppliers. While there is widespread agreement that countries within the BRI corridor require substantial additional resources to upgrade infrastructure, relatively poor infrastructure is more a symptom rather than a cause of larger regional connectivity issues. Most of the constraints to increased private investment fall on the project supply side, not from a lack of demand or available capital.⁷⁵ Despite trillions of dollars in private capital and sovereign wealth funds seeking higher rates of return in the recent era of low interest rates, “regulation, risks and cross-border investment rules often limit investor appetite for infrastructure projects” in developing countries.⁷⁶ Ethnic tensions, poor governance, and endemic corruption remain pervasive in most lower-income countries, magnifying financial risks and deterring investment. Of BRI member countries, 60 percent have sovereign debt ratings that are classified as “junk” or are not rated at all.⁷⁷

Foreign direct investment (FDI) in developing regions by the private sector has been in decline since the global financial crisis (2007–2008) and dropped a further 42 percent following the COVID-19 pandemic. Private FDI will likely remain low in developing countries largely because returns continue to be lower than investment in high-income countries.⁷⁸ A rough estimate of the rate of return to the overall stock of Chinese outward FDI was just 3.4 percent between 2016 and 2018, comparatively much lower than the 5.9 percent rate realized by foreign investors in China, leading to one conclusion that “On balance, China still borrows expensive money and loans it out cheaply.”⁷⁹
The estimates for the global benefits to the BRI specifically are also not very promising. The World Bank estimated that for BRI corridor economies, the reduction in trade costs from full BRI implementation would increase corridor trade in a range between just 2.8 and 9.7 percent. The same report found that much larger gains (2–4 times the value of reduced transport times) could be achieved through improvements in soft infrastructure, such as implementing reforms to reduce border delays and liberalizing trade.\(^8\) This finding is consistent with the experience of multilateral development efforts since the founding of the World Bank in the 1940s, where initially it was believed that if poor countries could simply increase their stock of capital, in large part by investing in infrastructure, faster growth would result. This idea was abandoned decades ago, as research has pointed to the more critical role of human capital, good policies, and sound governance institutions as the fundamental cause of long-run economic growth.\(^8\)

The PRC’s state-owned development banks face increasing exposure to their current liabilities, particularly since a majority of BRI countries in Africa are now in debt distress or at a high risk of debt distress.\(^9\) On top of officially reported debt to sovereign borrowers, liabilities to foreign SOEs and the private sector are generally unreported but were estimated at $385 billion through 2019, equivalent to 45 percent of the PRC’s total official financial commitments under the BRI.\(^10\) The same study estimated that “35% of the BRI infrastructure project portfolio has encountered major implementation problems, such as corruption scandals, labor violations, environmental hazards, and public protests.”\(^11\) The time to implement an infrastructure project under the BRI compared to similar non-BRI projects was estimated to be 36 percent higher, also indicating higher costs and risks.\(^12\) Another estimate finds 185 “troubled transactions” estimated at $82 billion, or one-quarter of China’s total BRI investments over 2013–June 2021.\(^13\) In June 2020, PRC officials estimated that 20 percent of BRI projects were “seriously affected” by the COVID-19 pandemic, while another 30–40 percent were “somewhat affected.”\(^14\)

Early Chinese successes at supporting its domestic development relied much on public investment through SOEs. The process was successful in large part due to its decentralization and the incentives provided by the regime for local governments to experiment and scale up what worked. The BRI, however, is completely central government–led and driven by the interests of large, politically powerful SOE construction companies such as China National Machinery Industry Corporation (Sinomach) with implicit central government guarantees against losses, undoubtedly creating moral hazard problems. The IMF estimates that Chinese SOEs are on average 20 percent less productive than Chinese private-sector firms in the same sector.\(^15\) According to US Department of Defense analysis, “the
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(PRC) party-state lacks the expertise necessary to assess comprehensive risks in most (BRI) participating countries.”

On top of financial risks, there are increasing political risks. In numerous BRI participating countries—including Myanmar, Malaysia, Sri Lanka, Cambodia, and even Pakistan—the PRC’s opaque investments have been used as a political weapon against incumbent governments, often with considerable success. The terms of several BRI projects have been revised in response to such pressures, and the PRC was taking part in the Debt Service Suspension Initiative of the G20.

These compounding risks—together with lower realization of returns—must explain a significant part of the collapse of lending by the China Development Bank (CDB) and the Export-Import Bank (China Ex-IM) for the BRI from $75 billion in 2016 to just $4 billion in 2019, before the onset of the COVID-19 pandemic. At peak lending in 2016, the combined loan portfolio of CDB and China Ex-Im was $700 billion, larger than the balance sheet of all six major multilateral development banks. New BRI investment projects in 2020 fell to just $20 billion from the 2016–2019 average of more than $40 billion per year, and over January–June 2021 were estimated at just $8.5 billion.

The idea that the PRC is playing “the long game” and making patient strategic investments seems farfetched. Rather, through the BRI, Beijing appears to be willing to accept higher risks in the shorter run in the hope of corresponding outsized returns to maintain China’s economic growth momentum, which underpins CCP regime legitimacy. John Lewis Gadis and Hal Brands suggest caution in historical context: “While China is trying, through the BRI, to create a system that maximizes its power, it may end up building, through its relationships with insecure and unstable regimes, just the sort of inverse dependency that vexed the Cold War superpowers. That can be a formula for volatility: history is full of instances in which local actors embroiled larger powers.”

The next section incorporates this understanding of the status of the BRI and offers recommendations for a well-defined US strategic response.

Recommendations: Toward and Effective US Response to the BRI

During the Cold War, Pres. Richard Nixon’s strategy of détente was effective at increasing diplomatic dialogue and reducing the number of strategic nuclear arms—in part by convincing the Soviets that such limitations were in each nation’s mutual self-interest. Containing the number of low-quality, environmentally and socially destructive projects must start with diplomatic efforts to convince Beijing that it is in the PRC’s interest to reduce these types of projects. Just as they did during the Cold War, international institutions continue to play a pivotal role in mitigating competing state interests in international relations by
creating forums for discussion and rules that can be mutually beneficial for individual states and the larger global community. If the BRI proves to be mostly successful, China will have gained strategic economic advantages in the world's fastest-growing markets, which could greatly affect the ability of the United States to compete in these regions, particularly for technology standards. The BRI could also lead to the emergence of competing trading blocs, with one group of countries more closely integrated with Western markets and others with China, creating regional barriers to entry and economic balkanization. The proliferation of free trade areas within or across regions over the past several decades has been a mostly positive development that has not overly prejudiced market access from countries outside of these regional agreements. However, if political tensions continue to mount between the United States and the PRC, regional free trade areas could devolve into competing protectionist camps.

If the BRI proves to be mostly unsuccessful, growth will slow down more sharply in the PRC, and the CCP would be incentivized to search for other sources of legitimacy. The result could be an increasing emphasis on Chinese nationalism, international aggression, and perhaps an attempt to annex Taiwan. A major Chinese recession would also likely produce global spillovers and contagion, particularly given the current degree of integration between the Chinese and American economies.

The United States has a strong strategic interest in preventing long-run disadvantages to American firms from evolving in Asia and Africa. Washington also has a strategic interest in helping to ensure not only that the BRI does not continue to contribute to debt distress and other problems in developing countries but also that it does not become a factor in a significant economic slowdown in the PRC that creates global economic and political externalities.

In the “X Article,” Kennan outlined several core strategic recommendations to US policy makers that became the basis for the nearly four decades-long strategy of containment. With the various iterations of the US Cold War strategy, US policy makers strayed from these recommendations, which arguably led to numerous experienced setbacks and major failures. The lessons of the Cold War have applicability for strategists today in the development of a successful US response to the BRI. This section applies the strategic logic outlined by Kennan to offer recommendations for how the United States should respond to the BRI in a way that maximizes economic and political benefits while minimizing risks of overreaction leading to overextension.
Defining What Should Be Contained

First, Kennan believed that the US focus should be on containing the Soviet Union specifically and not to view communism as a monolithic threat. Yet the United States often lost sight of what exactly it was trying to contain. The Kennedy and Johnson administrations, for example, wanted to employ increasing US resources toward containment of the spread of communism as an ideology, leading to the strategy of “flexible response.” Yet the growing number of communist political movements globally created increasing commitments, allowing means to drive ends, ultimately leading to the overextension epitomized by the Vietnam War.

Therefore, American strategists must clearly define what exactly the United States is attempting to contain and deter with respect to the PRC’s state-led overseas lending in developing countries. Foreign affairs agencies in the federal government refer to “countering malign influencers,” which generally means the PRC, Russia, and sometimes other states and antihegemonic coalitions. Yet, the specific types of malign influence that the United States seeks to counter is often not well defined, which could create problems like those faced during the Cold War. Concerning the PRC’s influence in the developing world, the United States should focus on containing investment and lending practices that are detrimental to the long-term development objectives of low- and middle-income nations. The three main areas where the United States should focus are countering projects with poor financial viability, negative environmental impacts, and adverse social consequences.

BRI projects generally operate outside of international standards and are instead mostly conducted through bilateral negotiations that are not transparent, which has led to accusations of poor project quality and outright corruption. BRI projects have been criticized as environmentally destructive and lacking environmental quality standards and safeguards, as infrastructure construction is negatively affecting biodiversity, creating air and water pollution, and generating excessive carbon emissions. Socially, BRI projects are also accused of a lack of local inclusion and weak or nonexistent labor standards and safeguards for African and other developing country workers. These factors combined not only mean poor development results for growing debt for developing countries but also mounting risks for the PRC that could further exacerbate Beijing’s own troubled debt position, potentially sparking a regional or perhaps global financial contagion given the high level of integration between the US and Chinese economies.

What is needed is more systematic and best-practice financial, environmental, and social impact assessments, evaluations, and standards for all BRI projects, which are now mostly absent. The United States and its allies should increase diplomatic pressure on BRI countries to mandate such analysis and standards for
all bilateral investment projects. The Blue Dot Network, launched by the United States, Japan, and Australia, certifies infrastructure projects that meet international standards and could play an important role. The United States could emphasize providing grants and technical assistance to help pay for international expertise that could perform needed project analysis, evaluation, and certification. The goal would be to help partner countries to institutionalize such analysis and regulatory procedures through their own agencies.

**Focusing on Strong Points and Responding Asymmetrically**

Kennan argued that the United States should focus on containing and deterring the Soviet Union in predefined strategic global “strong points,” rather than attempting to counter Soviet influence along every front where it attempted to expand its influence. Kennan also argued for US response to be “asymmetric,” emphasizing a tailored approach that the United States should pick and choose among a range of well-targeted economic and political interventions with specific objectives rather than trying to counter efforts at Soviet expansion with equivalent military and/or economic resources.

Some commentators have argued for a more balanced US response to the BRI, accusing the United States and its allies of placing too much focus on “neoliberal” policy reforms rather than offering developing countries what they want and need—increased financing for physical infrastructure. Chinese construction companies, however, won almost half of all engineering, procurement, and construction contracts across Africa—including from international sources like the World Bank where bidding is transparent and competitive, meaning Chinese firms have a demonstrated comparative advantage in this sector. It would be foolish for the United States to compete with the PRC in terms of infrastructure financing in developing countries. More importantly, as described above, it is unlikely that the BRI will offer the PRC the strategic advantages and economic returns that Beijing hopes to secure, so trying to match these investments would be unwise.

The United States is responding to the BRI and the PRC’s growing influence in the developing world by placing a greater emphasis on project finance. The US Development Finance Corporation (DFC) was created out of the BUILD Act in 2019, transforming its predecessor, the Overseas Private Investment Corporation, by granting it the authority to make equity investments on top of debt and guarantee instruments. The United States also launched the interagency “Prosper Africa Initiative” in the same year, which “seeks to empower businesses with market insights, deal support, and solutions to strengthen business climates.” Then in June 2021, the Biden administration launch the Build Back Better World (B3W)
Initiative to “collectively catalyze hundreds of billions of dollars of infrastructure investment for low- and middle-income countries in the coming years.”

Each of these measures is flexible and more limited in comparison to the magnitude of Chinese commitments. The DFC has an authorized global liability limit of $60 billion (doubling OPIC’s $29 billion maximum), but current rules make direct equity investments difficult. The DFC should have the ability to offer US businesses more of the financial tools they need to reduce the risks of entering developing country markets while resisting the temptation to respond dollar for dollar to counter Chinese influence. Rather than providing direct financing to counter the BRI, US foreign assistance should offer tools and solutions that more directly address the binding constraint to increased investment in developing countries—improving governance and the business environment while facilitating access to markets through private-sector partnerships. Such flexible and diplomatically focused mechanisms are critical since the PRC’s commercial service attachés in Africa are estimated to outnumber US Foreign Commercial Service Officers on the continent by 15 to 1.

The United States should not be afraid to use USAID, DFC, and other foreign-assistance agencies to pursue strategic economic objectives that may not offer immediately clear development objectives. Such interventions should be limited and focused on countries and industries where the United States has a compelling strategic economic interest to increase its commercial involvement (i.e., strong points). To achieve this, US development assistance must become more integrated with foreign policy objectives to better serve American strategic geoeconomic interests, such as preventing the widespread adoption of Chinese technical standards.

A key objective of US assistance must be reducing the real financial and political risks that continue to limit private investment in the developing world; risks that also present headaches for the PRC.

**Set an Example and Demonstrate the Benefits of Openness**

Finally, Kennan argued that the Soviet system was inherently economically inefficient and politically rotten from the inside, and that given time and well-measured pressure from the United States, it would collapse of its own accord. Rather than focus on the inherent advantages of the American economic and political system, US strategy was often driven by diffidence, leading to overestimation of the actual risks that communism posed to the global order. To succeed, “the United States need only measure up to its own best traditions and prove itself worthy of preservation as a great nation.”

During the Cold War, the globe was broken into competing political alliances where each bloc offered security and economic benefits to other members. To be
offered such “club goods,” aligned countries were required to share the norms of the other states. For NATO countries, this generally required a commitment to democracy as well as economic and political openness, while for Warsaw Pact nations it required a commitment to a communist ideology and state-led development.

At the end of the Cold War and the fall of the Soviet regime, it was widely assumed that the democratic model had won and would naturally spread globally. Yet according to Freedom House, “Democracy has never been the only game in town, but for more than two decades after the transitions that ended the Cold War, leaders and politicians continued to pay lip service to the democratic model. Over the past decade, however, amid the erosion of the liberal democratic order and the rise of authoritarian powers, the idea of democracy as an aspirational endpoint has started to lose currency in many capitals.”

The source of the confusion as to why history did not end following the Cold War is that the collapse of the Soviet Union demonstrated that the communist economic model did not work, not that authoritarianism could not be effective in promoting economic development. Developing countries are now asking themselves what the benefits are of moving toward greater liberal democratic norms in a world marked by an emerging East-West bi-polarity, where democracy and economic development have seemingly become uncoupled. Leaders no longer believe that political openness promotes development, and this is the underlying cause of the global democratic recession.

The United States and its allies have observed the recent economic success of the PRC and become diffident about the value of liberal democratic norms. As this article has argued, many BRI projects are currently at risk of failure or at least major cost overruns. It is also very possible that the PRC will not succeed in its race against time to avoid the middle-income trap as Chinese economic growth projections continue to decline. The reason for the current Chinese growth slowdown includes policy-induced over-investment (particularly in real estate) and must also be related to the growing political repression led by General Secretary Xi.

While state-led investment can be beneficial in coordinating investments, providing critical infrastructure, and reducing market failures such as first-mover disadvantages, these returns diminish as an economy develops and creates other problems such as were being seen in Ethiopia beginning in 2021. According to economist Tyler Cowen, “The problems with the Beijing Consensus are larger yet. For much of the last decade, Ethiopia had been following a version of the Chinese model, relying on industrial policy and growth in manufacturing. For a while, this worked, and Ethiopia had double-digit rates of economic growth [...] But the growth of state power fractured any political equilibrium that might have held Ethiopia to-
gether. The state became such a locus of control that various ethnic groups felt threatened and made a bid to seize power, and Ethiopia collapsed into civil war.”

The PRC will also find it increasingly difficult to move into higher value-added industries that rely on the free flow of information and human capital with growing censorship and repression of free speech and civil society. The United States and its allies should recognize the growing weaknesses of the Chinese economic model and advertise this message diplomatically.

The United States and its allies no longer offer clearly defined club goods as they did during the Cold War for commitment to political and economic openness. Good ideas already exist but are either underutilized or are flawed in design. For example, the Millennium Challenge Corporation (MCC) was created in 2004 to reward good behavior in developing countries.\textsuperscript{113} To qualify for grant-based project assistance through MCC, countries must pass a “scorecard” of third-party indicators that measure economic and political freedom and good governance. The intent is to create incentives for reform and commitment to liberal democratic norms—what they term the “MCC effect.”

The MCC is a great example of the type of club goods that the United States and its allies should be offering the developing world. Yet the FY18 budget of MCC was a meager $800 million, not nearly sufficient to generate an MCC effect. The MCC also makes commitments based on one-off “compacts,” which are voted on by a board of directors and are subject to heavy political scrutiny. Rather than all-or-nothing compacts for specific projects, the MCC should pay out fixed amounts directly to developing country governments for incremental improvements in the scorecard indicators. This would more directly link payments to performance, enhancing the incentive effect. USAID and other development agencies would provide needed technical assistance to partner governments to help them improve their scores and secure the rewards.

Through a combination of continued reassurance that liberal democracy offers the best development model, together with clear incentives to adhere to the policies and practices that make development more effective, the United States and its allies can regain their influence in the developing world while countering the threat posed by the practices of the PRC through the BRI.

**Conclusion**

The fundamental cause of the fall of great powers is economic mismanagement.\textsuperscript{114} The Soviet Union fell because it essentially went bankrupt.\textsuperscript{115} Deng Xiaoping studied the fall of communism at the end of the Cold War intently and concluded that the CCP’s legitimacy and survival were tied inextricably to economic management. He believed that Mikhail Gorbachev’s mistake had been to
open the Soviet Union politically before enacting needed economic reforms.\textsuperscript{116} Drawing these lessons from the collapse of the Soviet Union further constructed the identity of the PRC as a developmental state dependent on maintaining rising living standards for the Chinese people—yet without the need for undertaking any unnecessary political liberalization.

The BRI must be understood in this light. Imminent demographic pressures, rising public and private debt, and the inherent difficulty of making a transition out of middle-income to upper-income status drive the PRC to accept riskier investments in search of higher returns needed to help preserve the economic growth that underpins CCP legitimacy. As of early 2022, the BRI appeared to be in considerable danger as initial political and financial risks compounded with risks generated by global economic events. The COVID-19 pandemic was still ongoing, and it appeared that the PRC’s borders would remain closed for the remainder of the year, making continued investments more problematic and placing existing ones at increased risk. Inflationary pressures in the United States will result in US Federal Reserve interest rate hikes that will raise the cost of financing developing country debt burdens, including BRI projects that are almost completely denominated in dollars.\textsuperscript{117}

The Marshall Plan was the first nonmilitary strategic response targeted at countering the communist threat facing Western Europe in the initial phase of the Cold War. George Kennan played a key role in the design of the Marshall Plan because he felt it would be an effective strategic response to the dire Western European fiscal situation since “economic maladjustment . . . makes European society vulnerable to exploitation by any totalitarian movements.”\textsuperscript{118} Poor economic management continues to create strategic vulnerabilities for the United States in the developing world today, as demonstrated by the BRI. The Marshall Plan is widely considered to have been successful at helping prevent a regional economic collapse that would have undermined US foreign policy objectives in the early postwar era. It was successful precisely because it was strategically aimed at furthering US foreign policy objectives through clear guiding principles.

Will Clayton, then Undersecretary of State for Economic Affairs working on the development of the Marshall Plan, stated “Let us admit right off that our objective has as its background the needs and interests of the people of the United States. We need markets—big markets—in which to buy and sell,”\textsuperscript{119} meaning the Marshall Plan was a “foreign policy for the middle-class” decades ahead of its time. The initiative for assistance “must come from Europe, the program must be evolved in Europe, and the Europeans must bear the basic responsibility for it” and assistance must “come as a joint request . . . not as a series of isolated and individual appeals,” meaning local ownership must exist and assistance must not
be ad-hoc. Ultimately, the Marshall Plan had to enable the “principal European countries to exist without charity,”\textsuperscript{120} meaning there had to be a clear exit strategy for all foreign assistance under the plan.

Such clear strategic objectives frequently do not exist in present-day US foreign assistance programs. All too often, such programs are not well integrated with larger foreign policy objectives, do not link strongly to US economic interests, lack local ownership, are ad-hoc, and do not have clear graduation plans. These issues raise serious questions as to how these programs contribute to larger US grand strategy.

While reconstruction is a vastly different undertaking than development, correctly applied lessons from history can offer valuable insights for adaptation. US foreign assistance that is more strategically targeted, rewards partner government commitment to policies that are proven to deliver beneficial outcomes, increases commercial ties with American businesses while benefiting US consumers, and is consistent with American values is the best response to the PRC’s BRI.

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**Notes**

2. Throughout this article, the “PRC” refers more specifically to the current government of China, while “China” and “Chinese” connotes the nation-state or the whole of the people that constitute it and their shared history.
6. While global power projection through its military will also continue to influence Chinese foreign policy objectives, this article limits analysis mainly to economic and, to a lesser extent, political issues that link back to the PRC’s program of state-led overseas investments. Such an approach is consistent with the central thesis of this article; that it is economic development issues that dominate PRC strategy and are most central to CCP legitimacy and survival.
11. According to a World Bank report, “Growing up is hard to do. In the postwar era, many countries have developed rapidly into middle-income status, but far fewer have gone on to high-income status. . . . Of 101 middle-income countries in 1960, only 13 became high-income by 2008”; and World Bank and Development Research Center of the State Council, the People’s Republic of China, China 2030: Building a Modern, Harmonious, and Creative Society (Washington, DC: World Bank, 2013), 24.
12. In 2014, Xi Jinping described three transformations that will be required to achieve the objectives of Made in China 2025: “From China speed to China quality; from China’s products to China’s brands; and from ‘Made in China’ to ‘Created in China’”; and Lower productivity manufacturing remains an important part of the Chinese economy. Processing trade still accounted for 32 percent of China’s total exports in 2018, but this was down from about 50 percent in 2010. About 40 percent of China’s exports were directed by foreign-owned enterprises in 2018, also down from about 50 percent in 2010.
14. For example, China accounts for about 60 percent of global demand for semiconductors but only produces some 13 percent of global supply. China also wants to lead in the production of electric cars. Cobalt is an essential material to produce lithium-ion batteries, and about 54 percent of the global cobalt supply comes from the Democratic Republic of the Congo, where the PRC is investing heavily through BRI; McBride and Chatzky, “Is ‘Made in China 2025’ a Threat to Global Trade?,”; and Maçães, Belt and Road.
15. For example, the PRC has frequently been accused of manipulating its currency to achieve cost advantages in international trade. The PRC manages the value of its currency at a fixed level by purchasing dollars as needed to maintain its target exchange rate. An independent monetary authority and a fixed exchange rate are possible only by limiting capital flows into and out of China, a policy that the PRC maintains, also in part to limit the appreciation of the Yuan. The effect of this policy has almost certainly been a systematically undervalued Yuan, making Chinese exports relatively less expensive and imports more expensive, thus incentivizing domestic saving.
16. In 2010, Chinese savings rates hit the extraordinary rate of more than 50 percent of GDP, declining only slightly to 44 percent of GDP in 2019. This coincided with a massive buildup of foreign reserves stemming from large trade surpluses.
18. Maçães, Belt and Road, 153.
21. “Soon after the launch of the Belt and Road, Hebei Province announced plans to move capacity for 5.2 million tons of steel, 5 million tons of cement and 3 million units of glass abroad by 2018. The targets for 2023 are even more ambitious, with capacity for 20 million tons of steel,
30 million tons of cement and 10 million units of glass waiting to be relocated abroad.” - Maçães. Belt and Road, 83.


24. Maçães. Belt and Road, 21


28. The BRI consists of three separate yet integrated parts: the overland Silk Road Economic Belt, the Maritime Silk Road, and the Digital Silk Road. The Silk Road Economic Belt is envisioned as a vast network of infrastructure focused on energy pipelines, highways, and railways that lead either directly to China or ports. The Maritime Silk Road, the connecting network of ports, would allow China to access economic inputs westward toward Europe and Central Asia, and southward, mainly to Pakistan, Southeast Asia, and, ideally for China if relations improve, India. The BRI is also about reducing tariff and non-tariff barriers by creating special economic zones across participating countries. The PRC’s Digital Silk Road initiative, announced in 2015, is the third leg of BRI and focuses on building the digital infrastructure that will allow Chinese Information Technology (IT) firms to set technical standards and enhance market access through fifth-generation (5G) networks, satellite navigation, artificial intelligence (AI), and other technologies for domestic use and export.


33. X (George Kennan), “A final push was needed from a revolutionary proletariat movement in order to tip over the tottering (Capitalist) structure. But it was regarded as inevitable that sooner or later that push be given.”


36. Defined as the ratio of the population aged 65 years or over (retired, not-working) to the population aged 15–64 (working age). This lower this ratio, the greater ability of an economy to produce economic growth, since the share of the population that is retired is not working and is dependent in part on public transfers of resources.


42. IMF, “Recovery During a Pandemic”, World Economic Outlook, October 2021.


46. Malik, et al., Banking on the Belt and Road.


48. Malik, et al., Banking on the Belt and Road.

49. $204 billion for the International Bank for Reconstruction and Development (IBRD) and $177 billion for International Development Association (IDA).

50. The China Development Bank offers fewer concessional terms (18.1 percent average grant element) than state-owned commercial banks (22.1 percent average grant element), while China Ex-Im offers more concessional terms (41.5 percent average grant element). PRC lending is slightly progressive, with grant elements for low-income countries averaging (41 percent), lower-middle income countries (37 percent), and upper-middle income countries (21 percent). Malik, et al., Banking on the Belt and Road.

51. In the aftermath of the first wave of the COVID-19 pandemic, the ratio of debt to gross national income (GNI) rose to an average of 42 percent in 2020 (37 percent in 2019) in low- and middle-income countries excluding China, and the debt-to-export ratio increased to an average of 154 percent (126 percent in 2019).

52. This definition is from the Wikipedia entry on the term, indicating how widespread the idea has become. In 2018, Vice President Mike Pence used the term. https://en.wikipedia.org/.

53. Malik, et al., Banking on the Belt and Road.


56. These recommendations were mostly “liberal” economic reforms focused on liberalizing trade, reducing unnecessary regulatory burdens, privatizing SOEs, and improving macroeconomic stability through budgetary priorities.


60. Recent research concluded, “Countries that had sustained reform were 16% richer 10 years later.” See Grier and Grier, “The Washington Consensus Works.”

61. Xi Jingping stated in May 2017 that “All countries should . . . respect each other’s development path and its social systems.” From full text of speech at Opening of Belt and Road Forum, *Xinhuanet*.


63. As noted by John Williamson, “The interesting thing is that most people who are simply talking about (the “Beijing Consensus”) seem to be non-Chinese . . . and they’ve tried to suggest that there is this consensus . . . (but) there’s no list of propositions comparable to those that I suggest constituted the Washington Consensus.” Interview with John Williamson, “Beijing Consensus versus Washington Consensus?” *Peterson Perspectives*, 2 November 2010.


66. Including China.


71. However, PRC leadership wants to avoid costly overseas commitments whereby a Chinese military presence causes tensions with the local population. “Most analysts advocate a more cautious approach that places greater emphasis on private security forces and efforts to improve the capacity of the host governments to maintain stability and project Chinese interests.” See Phillip Saunders, “China’s Global Military-Security Interactions,” in *China and the World*, ed. David L. Shambaugh (New York: Oxford University Press, 2020), 181–209.

72. “The PRC makes diplomatic agreements—such as memorandums of understanding—incorporating PRC technical standards extensively within the BRI realm as a major policy component of its action plans,” Ray Bowen, senior analyst at Pointe Bello, said in a written testimony
Butterfield


74. General Secretary Xi has stressed “first-mover advantages” in technology, particularly due to their link to standards dependency.


83. Malik, et al., Banking on the Belt and Road.

84. Malik, et al., Banking on the Belt and Road, 1.

85. According to Department of Defense analysis: “The growth of China’s global economic footprint also makes its interests increasingly vulnerable to domestic political transitions in participating countries, international and regional turmoil, terrorism, piracy, and serious natural disasters and epidemics, which places new requirements on China to address these threats.”


90. For example, the China–Pakistan Economic Corridor (CPEC) is a central part of the BRI that began in 2013, currently involving $62 billion worth of projects. Since the 1950s, the United


92. Eisenman and Heginbotham, “China’s Relations with Africa . . .,” 299.


98. The strategy of “Flexible Response” was introduced by the Kennedy administration and largely abandoned the “New Look” approach of the Eisenhower administration, which relied heavily on nuclear deterrence alone to contain the Soviet Union, limiting both American ends and means. “In Gaddis’s analysis, Kennedy’s strategy of flexible response marked a return to the philosophy of NSC 68: America’s means must be expanded to match America’s interests, and the economy would not only not suffer, but actually gain from the effort.” Source: Stanley Hoffmann, “Review of Varieties of Containment, by John Lewis Gaddis,” Reviews in American History 11, no. 2 (1983): 279–81. https://doi.org/10.2307/2702156.


107. The current administration is continuing the strategic shift of the previous administration toward a foreign policy with clearer benefits for the United States (i.e., From “America First” to “Foreign Policy for the Middle Class”). Demonstrating benefits to Americans should continue as a priority for development assistance.


113. According to their website, “MCC forms partnerships with developing countries that are committed to good governance, economic freedom and investing in their citizens.” See https://www.mcc.gov/about.


115. This was due to the collapse in the price of oil in the 1980s on which it was overly dependent for its exports, years of poor polices that ultimately lowered economic growth rates and caused inflation to surge, together with unsustainable military expenditures.


117. On 16 January 2022, General Secretary Xi Jinping publicly warned against interest rate increases that could “slam the breaks” on the global economy at the World Economic Forum’s Davos Agenda.


FEATURE

The Future of the Bomber in an Air Superiority Role

Fighting an Adaptive, Complex Enemy in the Pacific

Dr. Mel Deaile

Abstract

Since 2001, low-observable aircraft have grown in capabilities and numbers. Stealth has relied on the unique low-observable characteristics of the platforms coupled with tactics that take advantage of those characteristics. Air superiority will likely be localized in the future and grow wider while still devoting an allocation to “maintaining” that condition. Swarming, coupled with the saturation of enemy defenses, offers the best chance to pry open vertical windows of opportunity. Several operating initiatives must be perfected to ensure success like Agile Combat Employment and the ability of B-21s to remotely control unmanned aircraft. Joint All Domain Command and Control will be essential to reduce the kill chain. An attrition and quick-reaction bomber contingent must be a part of the daily apportionment, which has not happened in 30 years. Bombers have played a vital role in gaining air superiority—they will be more important when facing the tyranny of distance against a Pacific competitor.

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A Tale of Two Flights: Ten Years of Evolving Airpower

When Desert Storm began 30 years ago, I was serving as a copilot on the B-52 Stratofortress and deployed to the tropical island of Guam. I arrived on the island about a week before Pres. George H. W. Bush commenced the campaign to liberate Kuwait. Ironically, one week prior, I completed a nuclear alert tour at Barksdale Air Force Base, Louisiana. On the first night of combat air operations, I flew a bomber from Guam to Diego Garcia that would serve as an attrition reserve for the anticipated losses the 4300 Provisional Bomb Wing expected on the first night. As I flew over the Pacific, formations of B-52s penetrated Iraqi air defenses. Flying close to the ground to evade Iraqi air defenses, these bombers dropped weapons on critical runways. There were no losses that night. After arriving at Diego Garcia, my crew entered the bombing line-up. Eleven times we took off in a three-ship bomber formation, flew to Iraq, dropped our full load of 45 gravity bombs on one target, and returned to the island. That was 1991.
Desert Storm showed the strategic effects airpower could generate and became the impetus for a decade-long investment in and advancement of airpower thought, technology, and training. On 8 October 2001, I flew another combat sortie at the beginning of an air operation. This time President Bush’s son, Pres. George W. Bush, authorized an air campaign against Taliban targets in Afghanistan in response to the 9/11 terrorist attack. By this time, I had left the B-52 and transitioned to the B-2 Spirit. On this record-setting 44-hour flight, my stealth bomber now carried 16 Global Position System (GPS)–aided Joint Direct Attack Munitions (JDAM). Instead of one target, my bomber dropped multiple weapons on multiple targets with near precision. Much like the first night of Desert Storm, this night’s attacks focused on Afghanistan’s airfield and air operations. While the aircraft type and targets were similar, much had changed in the intervening years.

In the span of a decade, airpower application evolved in multiple areas, including technology, munitions, and the concept of operations. In Desert Storm, formations of multiple bombers attacked the same target; now one bomber serviced multiple targets per plane. The precision revolution reached a tipping point. Fewer than five percent of the weapons dropped in Iraq during the 1991 operation were precision. Following the war, the US Air Force (USAF) added the GPS-aided JDAM to its arsenal; precision weapons became a majority of the weapons employed during Operation Enduring Freedom (OEF). Whereas B-52s flew dangerously close to the earth in Desert Storm to evade enemy radar, in OEF, B-2 low-observable aircraft employed weapons from safer altitudes undetected by enemy radar. The Guidance, Apportionment, and Targeting (GAT) process pioneered in Desert Storm morphed into the Air Force’s Joint Operations Planning Process for Air (JOPP-A) and its accompanying 72-hour air tasking order (ATO) cycle. One thing remained the same—the objective. Since the advent of airpower, air superiority has been the first objective in campaigns.

The USAF soon plans to field its newest bomber, the B-21 Raider. At the same time, advancements have made US weapons more precise, more effective, and more responsive. The objective remains unchanged—establish air superiority, then exploit that advantage in all surface domains to achieve the campaign’s objective. The question unanswered is how the next generation bomber will help achieve air superiority in future combat environments. For 20 years, the USAF operated with air dominance over Iraq and Afghanistan, performing armed overwatch for US forces operating on the ground. Is the USAF prepared in thought, technology, and tactics to achieve air superiority in a nonpermissive environment? Desert Storm saw the construction of daily ATOs, which launched more than 1,200-plus sorties on their respective missions. After decades of scheduling overwatch in the Middle East with little concern for attrition, can the modern air operations center
craft a 1,000-plus-sortie ATO with the understanding that some may not return? These are all questions under consideration. The quest for air superiority begins as most operations do—with a theory of victory.

**Evolving Theory on Attaining Air Superiority**

Italian airpower theorist Giulio Douhet was among the first to recognize the importance “command of the air” provided. Douhet defined *command of the air* as “to be in a position to prevent the enemy from flying while retaining the ability to fly oneself.”¹ The nation that achieved this position, Douhet theorized, would emerge victorious in war.² The opposite of this condition would mean defeat, and, according to Douhet, “acceptance of whatever terms the victor is pleased to impose.”³ To attain air superiority, the Italian theorist believed in the viability of bombers. These aircraft would penetrate the enemy’s defenses and “break the eggs in the nest.”⁴ Striking aircraft before they took flight, he argued, was the most effective application of airpower. Once aircraft were airborne, they become more elusive to find and destroy. Douhet’s theory relied on one decisive bomber attack that would obliterate the enemy’s force on the ground yielding command of the air.

Douhet wrote while airpower was still in its infancy—before advanced concepts like radar and antiaircraft artillery (AAA) became prominent in a nation’s defense against attack from the air. Writing on the eve of World War II, British strategist and theorist, J. C. Slessor, offered a slightly nuanced approach to air superiority that paralleled some of Douhet’s ideas. Slessor argued that air superiority “enables its possessor to conduct operations against an enemy and at the same time deprive the enemy of the ability to interfere effectively by use of his own forces.”⁵ For the British theorist, however, air superiority was not a permanent state—something to be achieved in one attack. Air superiority must not only be attained; it had to be maintained. Specifically, Slessor said, “Air superiority is not a definite condition to be achieved once and for all.”⁶ Having achieved command of the air, the nation still had to devote a portion of the force constantly to the maintenance of the condition.

Slessor believed that attaining command of the air would be a joint venture. He argued that “air superiority is obtained by the combined action of bomber and fighter aircraft.”⁷ Although the effort required fighters and bombers, Slessor’s role for the bomber remained consistent with Douhet’s vision. Slessor proposed bombers attacking enemy forces on the ground, aerodromes (airfields), bases, aircraft deports, and technical establishments.⁸ Fighters, on the other hand, would seek and destroy the enemy’s forces in the air, which he theorized would be over the enemy’s airfields or close to approaching bombers of the attacking nation.
After World War II, thinking on strategic airpower took a brief hiatus. Decades of fighting proxy wars in Korea and Vietnam tended to focus the application of airpower on coordination with ground forces fighting insurgencies. While attending National War College, Col John Warden, USAF, authored a paper that would eventually become his first book, *The Air Campaign*. Echoing those who had written before, Warden defined *air superiority* as having “sufficient control of the air to make air attacks on the enemy without serious opposition and, on the other hand, to be free from the danger of serious enemy air incursions.”9 Decades removed from Douhet’s initial proclamations, Warden drew a thread of continuity through two World Wars and the proxy wars of the Cold War concluding that “no country has won a war in the face of enemy air superiority . . . no state has lost a war while it maintained air superiority.”10 Different from pervious theorists, Warden offered the idea of air supremacy—a condition above air superiority. The concept Warden defined as “the ability to operate air forces anywhere without opposition.”11 Having air superiority meant a nation could attain its objective without prohibitive interference from the enemy; air supremacy gave a nation the ability to operate from the air with impunity.

Warden’s scheme for achieving air superiority differed from his theoretical predecessors. Whereas Douhet and Slessor both had roles for specific aircraft, Warden’s approach was not platform specific. Instead, Warden’s system focused on the target—all that mattered was that the platform delivered the desired effect. He arranged his target sets in five concentric rings with target types in the middle having more strategic payoff than targets in the outer ring (much like a bullseye). Leadership and command-and-control (C2) targets had the most value. From there, the rings expanded to organic essentials (electricity, petroleum), infrastructure, population, and fielded military (the least payoff).12 In such an approach, command centers that orchestrate the moves in an integrated air defense system (IADS) would have more payoff than the individual systems that fire on approaching aircraft. Oil would have a better payoff than runways. This model served as the genesis for the air operations plan in Desert Storm.
Desert Storm proved the utility of the nation’s investment in stealth and precision weapons. As in every war, not everything went as planned, and friction reared its ugly head. When Iraq’s president Saddam Hussein lit his oil wells on fire, the smoke prevented the USAF from employing laser-guided bombs. Following the conflict, the USAF began an acquisition program to field an all-weather precision capability. The result was the JDAM program. Additionally, the USAF soon added a stealth bomber to its arsenal, in addition to the proven F-117 stealth fighter. Besides technology, thinking about targeting evolved as well.

Following Desert Storm, Warden published a more developed theory on targeting the nation-state. He viewed the state as a system and postulated that modern airpower, which was growing in precision capability, had the ability to induce strategic paralysis. Drawing on his study of J. F. C. Fuller, who theorized the concept during the interwar years, Warden claimed airpower could target multiple nodes in the enemy’s system rendering it incapable of acting. Strategic paralysis relied on simultaneously attacking multiple critical targets that would render the adversary incapable of directing forces. The growth in precision capability meant the USAF was going through a paradigm change from planes per target to targets per plane. Warden’s thinking introduced the notion of parallel warfare, which meant that aircraft, unencumbered by geography, could strike targets on multiple rings in the same mission. Warden’s theory assumed a highly organized state. In *The Starfish and the Spider*, Ori Brafman and Rod Beckstrom categorize various
types of organizations. Those organizations with a hierarchical command structure and a known figurehead are spider organizations. Targeting the head, much like that of the spider, would leave the rest of the organization paralyzed. Warden’s theory works best with spider organizations.

David Deptula, who worked under Warden and served as a daily architect of the Desert Storm air campaign, put forward the concept of rapid decisive operations (RDO) using an effect-based operations (EBO) targeting scheme. RDO relied on less mass but greater rapidity, which increased precision weapons in the air made possible. Like Warden before him, Deptula argued that the target and the desired effect should be the focus in the application of airpower—he was agnostic as to the platform selected. Combining a target-based system and parallel warfare would yield “control over the set of systems relied on by an adversary for power and influence.” Furthermore, the increase in precision weapons meant the need for fewer aircraft in the target area. Deptula argued that stealth and precision redefined the need for “mass” in achieving air superiority. Parallel attack, EBO, and swiftness in the attack could yield air superiority on an unprecedented timeline.

Thinking on how to achieve air superiority advanced and evolved as the technology did. Douhet recognized the importance air superiority, or command of the air, would provide the nation that attained it. Slessor brought forward the idea that air superiority is not an end state but rather something that must be constantly maintained. While Douhet never thought airpower would achieve a level of precision greater than artillery, the Gulf War and subsequent air campaigns highlighted the multiplicative value of precision weapons. As Warden and Deptula noted, parallel attacks against an organized enemy system could induce strategic paralysis leading to air superiority, which would enable further operations against an adversary state. This was the theory; what was the reality?

**Backtesting the Theory**

The last three air campaigns by the USAF—Desert Storm, Allied Force, and Enduring Freedom—offer insights into the validity of the above theoretical approach to achieving air superiority. While Operation Iraqi Freedom is technically the last major air campaign conducted by the USAF, a decade of Southern and Northern Watch had already shaped the battlefield and provided partial air superiority prior to the launch of major operations. Therefore, it could not be offered a true validation of the theory above. What follows is a brief discussion of these campaigns. It is not an exhaustive discussion of the campaign but rather offered to highlight the strength of the opponent, the size of the force arrayed by the US coalition, the role of strategic bombers in the respective campaign, the effectiveness of precision weapons, and the time necessary to achieve air superiority.
**Operation Desert Storm**

Operation Desert Storm, aimed at liberating Kuwait from Iraqi control, began with a focused air campaign on 17 January 1991. The first objective was to secure air superiority. On the first night, low-level B-52s attacked Iraqi runways, taxiways, and aircraft shelters. At the same time, the F-117s, the only stealth aircraft in operational service, hit 22 leadership and command targets in downtown Baghdad using precision weapons. Simultaneously, six B-52s from Barksdale AFB launched multiple standoff weapons, which were the conventional version of the air-launch cruise missile (CALCM) toward electric generation facilities. Additional sea-based standoff munitions, the Tomahawk Land Attack Missile (TLAM) focused on the Iraqi IADS. Fighters based in nearby Saudi Arabia attacked known surface-to-air missile (SAM) locations as well as airfields along the Iraq–Saudi Arabia border. Accompanying the strike aircraft were 100 fighters that flew offensive counterair (OCA) and suppression of enemy defense (SEAD) missions to carve a path for striking aircraft. In all, 1,300 sorties flew in the first night, attacking more targets than all of Eighth Air Force hit from 1942 to 1943.

Prior to the war, Iraq boasted an integrated air defense composed of 16,000 SAM systems and 7,000 AAA pieces. What the system relied on, however, was centralized control. According to Lt Gen Buster Glosson, USAF, the director of the campaign plan, the first night’s objective was to disrupt that control within the first 24 hours. The USAF achieved that objective 16 hours early. Coalition forces gained air superiority within a week and shifted their weight of effort to attacking individual aircraft that remained on the ground. Within 36 days, airpower set the condition for the final phase of the campaign—a land invasion to liberate Kuwait. A hundred days later, the war was over. In the postwar assessment, stealth and precision accounted for only two percent of the total sorties flown but attacked 43 percent of the planned targets. As the war drew to a close, Hussein lit his oil wells on fire, limiting the USAF’s ability to employ laser-guided weapons. Following the war, the USAF began an acquisition program to field an all-weather precision capability. The precision revolution had started.

**Operation Allied Force**

By 1999, the USAF had two new capabilities in its arsenal. First, the B-2 Spirit, the first stealth bomber, with considerably more payload capacity than the F-117 (16 bombs to 2 bombs), had begun operations. Second, the USAF fielded its first all-weather precision capability—the GPS-aided JDAM. Both would be called upon as the USAF began actions against the Federal Republic of Yugoslavia and its leader Slobodan Milošević.
Yugoslavian air defenses relied heavily on former Soviet systems. The country possessed three SA-2 battalions, 16 SA-3 battalions, and five SA-6 regiments. In addition to this, the country had numerous man-portable infrared shoulder-fired systems (MANPADS) and 1,850 AAA pieces. Furthermore, Yugoslavian operators gained knowledge from the Iraqis about US tactics used in Desert Storm. More than Iraq, Yugoslavia set up a defense in-depth operated by a very professional corps. Some noted that Pentagon planners on the eve of operations “estimated before opening night that NATO could lose as many as 10 aircraft in the initial wave of strikes.” The political context of the operation presented several challenges as well. The objective of Operation Allied Force (OAF) was to put pressure on Milošević to force him to cease ethnic cleansing in Kosovo and return him to the bargaining table. While the first objective of the campaign, as in any campaign, was to establish air superiority, there were operating limits placed on attacking air forces. For example, attacking forces had to stay above a hard deck of 15,000 feet to prevent the loss of an aircraft to AAA fire or MANPADS. Furthermore, planners did not expect a long campaign; so, a limited number of aircraft were initially committed to the operation.

Combat operations started on 24 March 1999 with the launching of long-range standoff munitions. CALCMs launched from B-52s and sea-based TLAMs hit hardened enemy structures and power generation. Standoff munition attacks were followed up by fixed-wing, stealth fighter, and B-2 stealth bombers strikes against C2 targets as well as SAM batteries. Additionally, air strikes targeted airfields in Serbia and Kosovo. Of the 400 sorties flown the first night, only 120 were strike sorties attacking 40 targets in the theater of operations. Five airfields, army garrisons, C2, and supply depots constituted most of the target sets. Yugoslavian operators learned from the Iraqis about US SEAD operations and adapted their procedures to counter expected tactics. While coalition forces managed to shoot down two Mig-29s over Serbia, SAM operators managed to down a F-117 on the third night of the operation. The limited and restrictive nature of the operation, European cloudy weather that hampered laser-guided bomb employment, and Serbian reactive, adaptive SAM operators prevented the coalition from achieving its objectives on the proposed timeline. In fact, “It took 12 days to hit the same number of targets as the Desert Storm Coalition hit in the first 12 hours.” B-2s, initially planned for only the first few nights of the operation, used only six aircraft to provide continuous bombing when European cloud cover prevented other platforms from employing laser-guided bombers. Eventually, coalition air forces established air superiority over the former Yugoslavian state, but it took as long as Desert Storm—even though the operation had more precision, more stealth, and fewer targets than in Iraq.
Operation Enduring Freedom

OEF began weeks after the 9/11 attacks, when terrorists brought down the World Trade Center. The purpose of the operation was to remove from power the Taliban, which had provided a safe haven to Osama bin Laden and his al-Qaeda organization. The Taliban had air defense systems (SA-3 and AAA) but hardly presented an “integrated” air defense system. Four airfields staged the nearly 50 fighters the Taliban had in its arsenal, but intelligence estimated that fewer than 40 pilots could fly them.

Combat air operations began on 7 October 2001. Similar to previous operations, standoff munitions, TLAMS, were the opening salvo and targeted fixed leadership and C2 sites. Sea-based fighters and land-based bombers from Diego Garcia (B-52 and B-1) attacked Taliban and al-Qaeda training camps. Meanwhile, two B-2s penetrated deep into Afghanistan airspace, targeting Taliban airfields and radars and using the aircraft’s synthetic aperture radar (SAR) to find and destroy the Taliban’s air force. B-2s would conduct similar operations the following two nights, including a record setting 44-hour mission, ensuring the coalition had air superiority in short order. From there, the Diego Garcia–based bombers continued the fight against the Taliban that eventually led to the overthrow of the regime. Air operations would eventually transition into overwatch as ground operations continued.

Summary

A few threads can be drawn through the above recent operations that provide validity to airpower theories and targeting strategies. First, air superiority remains the number-one priority of the USAF. Without air superiority, an operation or nation cannot succeed. OEF was a threshold moment where precision weapons became a majority of the weapons employed. This technological milestone enables ideas like EBO and the achievement of strategic paralysis. Whereas Desert Storm saw formations of B-52s attacking a single airfield, Afghanistan witnessed B-2s striking multiple airfields in a single mission. OAF showed what happens when an adversary studies and learns from US enemies. Despite firing numerous anti-radiation missiles, coalition forces rarely hit any active radars because the operators understood US tactics. Furthermore, the United States lost a stealth asset to a radar guided missile—a result of the enemy adapting faster than the coalition. Finally, and this cannot go without notice, since 1991 the USAF has not had to mount an air offensive with more than 1,000 aircraft nor combat an opponent that can field more than 1,000 aircraft over 20-plus airfields.
Table 1. Comparison of Desert Storm, Allied Force, and Enduring Freedom (created from sources above)

<table>
<thead>
<tr>
<th>Campaign</th>
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**Future Operating Environment**

Looking at the history of airpower theory development and the execution of airpower in past campaigns offers insight into the future fight for air superiority. It also offers an idea of the role bombers will play in attaining air superiority. Before delving into the role bombers will likely play going forward, it is necessary to define the future operating environment. During his address to the Air Force Association Convention in Orlando, Florida, Secretary of the Air Force Frank Kendall said that, despite Russia’s aggressive action in Ukraine, China remains the pacing threat. Looking at the Chinese threat, coupled with the past, yields an idea of how the future will unfold.

**People’s Republic of China**

When the Department of Defense (DOD) assessed the Chinese military in 2000 per Congressional request, the department concluded that China was an archaic military. Fast forward 21 years and the Chinese have caught up. The 2021 report to Congress on the Chinese military emphasized how the People’s Republic of China (PRC) continues modernize and grow capabilities that will enable it to “fight and win wars . . . against a strong enemy.” While the PRC certainly has grown more overt in its military actions, the country retains a defensive posture. “Active Defense” remains the stated national defense strategy of the PRC. Under this strategy, the PRC is not simply defending territory but fielding offensive capabilities as well. While the strategy seeks to defend PRC interests, it also reserves the right to employ overwhelming force, if necessary, when forcefully challenged. As the Chinese themselves say, “we will not attack unless attacked, but we will surely counterattack if attacked.”

The increase in PRC offensive capability has resulted in the People’s Liberation Army Air Force (PLAAF) fielding the third-largest air force in the world. Currently, the PLAAF has more than 2,800 aircraft, of which 2,250 are combat coded. Within the 2,250 combat aircraft, 1,800 are fighters, and within that number
800 are assessed to be fourth-generation fighters. Added to the fighter force, the PLAAF fields the H-6 air-refueling capable H06 bomber that now forms the third leg of the service’s recently announced strategic nuclear triad. The vast area of the PRC is a strategic asset of its own. The great expanse of China also allows the country to disperse its air force through a network of airfields. Some estimates claim the PLAAF currently operates out of as many as 70 military airfields.

In addition to a network of airfields and a large fighter force, the PRC relies on a “robust and redundant” IADS system to protect its shores. Within 300 nm of the coast, the PRC operates early warning radars, fighters, and a variety of SAM systems to warn of an impending attack. China’s encroachment into the South China Sea (SCS) has allowed Beijing to extend its radar coverage by placing radars and defensive system on PRC outposts in the SCS. In addition to the PRC’s highly capable CSA-9 SAM system, the country fields considerable Russian-made capabilities as well in the SA-10, SA-20 (S-300), and the SA-21 (S-400). The array of these systems in an integrated fashion would present a challenge the USAF has not previously faced. The table below compares the PRC’s capabilities to previous American adversaries.

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<td>3 max</td>
</tr>
<tr>
<td>PRC (PLAAF)</td>
<td>2,250</td>
<td>70+</td>
<td>Unknown</td>
<td>90%+</td>
<td>B-52, B-21</td>
<td>Unknown</td>
</tr>
</tbody>
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**Future Bomber Concepts of Operation**

The PRC threat picture offers an unprecedented challenge for the USAF. Air superiority has been, is, and will be the number-one priority should conflict occur between the United States and China. Without air superiority, the probability of success declines exponentially. Air superiority, as highlighted by Douhet, Slessor, and Warden, is a condition where one side in a conflict can achieve its objective in the air without prohibitive interference from the other side. Achieving air superiority will not be an end to itself. As Slessor argued, it is a condition that will require the constant allocation of resources. Although NATO forces managed to gain air superiority, High-speed Anti-Radiation Missile shooters still had to accompany strike aircraft to ensure mission success.
In 2017, RAND conducted a study that looked at US requirements to gain and maintain air superiority in either a “defense of Taiwan” or a “SCS—Spratly Island” conflict.\(^3\) At the time, China had 700 fourth-generation fighters, today it has 800. RAND’s assessment was that it would take at least 30 (72 aircraft) wings for the Taiwan scenario and 10 (72 aircraft) wings in the Spratly scenario to defeat Chinese aggression in the air.\(^4\) Most of this assessment pitted US and coalition fighters against Chinese fighters.

The strategic bombers’ role in the air superiority fight is still as Douhet outlined—”to break the eggs in the nest.”\(^5\) Fixed and mobile targets on the ground fit well with the bomber’s capacity and capability. Today’s eggs form a diverse collection of targets. Bombers can penetrate the enemy’s air defenses while targeting C2 nodes, enemy radars, airfields, and even the individual aircraft themselves. This penetration capability was proven under fire. Despite the prognostications of Saddam Hussein, the Iraqi IADS could not prevent the penetration of F-117 stealth assets and low-level B-52s. B-2s avoided Soviet SA-3s over the skies of Yugoslavia and Afghanistan. However, it should be noted that low-observable aircraft are not invisible to radar. In fact, making current and future stealth aircraft capable of evading radar requires a combination of low-observable design and tactics. When an aircraft is said to be stealthy, what that term really means is the combination of low-observable technology and intricate planning that maximizes the aircraft’s capabilities against an enemy radar’s vulnerabilities to take advantage of a platform’s management of the electromagnetic spectrum. The B-52 became primarily a standoff platform as IADS capability outpaced the bomber’s ability to evade advanced radar systems. Technological advancements in the S-300/400 SAM could negate the penetration capability of the B-2. In the coming decade, the USAF’s main penetrating bomber will be the B-21 Raider.

Most of the capabilities of the B-21 Raider remain classified. What is known has mostly come from USAF press releases and open-source reporting. Northrup Grumman has six B-21s under construction, and the USAF expects a rollout of the platform in 2022. Ellsworth AFB, South Dakota, will initially house the B-21, and construction on support facilities for the new bomber should be completed by 2024. The payload capacity remains classified, but the USAF expects to buy 100 to 200 of these platforms in the coming decade.\(^6\) Given what is known about the bomber, coupled with airpower theory and previous campaigns, it is possible to postulate how this bomber would be used in a conflict with the PRC.

**It Starts with the Objective**

For 20 years, the USAF enjoyed air supremacy over Iraq and Afghanistan. Should there be conflict with an adaptive peer adversary, achieving air superiority will re-
quire seizing the initiative and exploiting it, because it may be fleeting. A future operation will likely begin as have the three previous operations, with a salvo of long-range standoff munitions. Since OEF, the CALCM has been replaced by the Joint Air-to-Surface Standoff Missile (JASSM), which is a low-observable conventional cruise missile. Bomber-launched JASSMs would likely be synchronized with sea-based TLAM strikes. Such strikes should follow the tactic of “swarming saturation.” As put forward by John Arquilla, swarming is the notion of attacking the enemy from all sides. Updated for today’s environment, that concept can include numerous attacks in multiple domains (air, space, and cyber). Saturation will need to couple swarming; the Chinese SAM systems protecting its critical vulnerabilities will have to be overwhelmed with munitions to make sure the SAM system expends all its munition on incoming targets, opening a window of vulnerability.

On my OEF mission, 70 percent of the targets changed from takeoff to entering Afghanistan airspace. Luckily, crossing the Pacific and Indian Oceans provided ample time to reconfigure target files and alter mission timing. Fighting a reactive, adaptive enemy will not afford future aircrews such luxury. Upon assuming his position as Chief of Staff of the Air Force, Gen Charles “CQ” Brown published his guidance, “Accelerate, Change, or Lose.” In the document, General Brown warns that if the USAF cannot adapt fast enough it threatens to lose future conflicts. Joint All Domain Command and Control (JADC2) attempts to connect all joint sensors in a networked framework. Without getting into particulars, JADC2 leverages artificial intelligence, cloud technology, and networked systems to provide “man-on-the-loop” management of dynamic targeting to compress the kill chain. If the Chinese employ tactics similar to the former Yugoslav republic (turning SAM systems on and off to complicate adversaries’ ability to find and fix them), there will be limited time to find and fix Chinese IADS nodes. In addition to pre-planned cruise missile shooters, the air planning staff needs to position standoff reserve bombers ready to launch on dynamic targeting within minutes. The addition of planned hypersonics to the bomber fleet could further reduce response time to target fleeting targets.

Once long-range weapons have opened a window of opportunity, B-21 bombers must exploit the vertical breach to induce strategic paralysis. As stealth is the combination of low-observable capabilities couples with tactics, the Raider fleet will still need force support to maximize its ability to penetrate. Upon taking office, Secretary Kendell outlined his seven operational imperatives. Several of those imperatives affect this mission set. Placing unmanned aircraft on various locations other than traditional bases would complicate China’s targeting ability. These dispersed drones could help achieve the concept of Agile Combat Employment (ACE). Once launched, the drones could rendezvous with US-based air-
borne B-21s that have traversed the tyranny of distance. This airborne manned-unmanned teaming would mean that instead of 20, 30, or even 40 B-21s penetrating enemy airspace, the enemy would see five times that amount. Much like previous air campaigns, B-21s should use their full complement of precision weapons to target airfields, fuel storage, command nodes, and individual aircraft. In OEF, B-2s had the ability to carry 2,000lb-class or greater precision munitions. In the 20 years since, the USAF has developed a greater array of precision weapons, including a 500lb JDAM (GBU-38) and a Small Diameter Bomb (SBD) with a 250lb warhead. These developments allow planners to employ EBO with more finesse. Since bombers can now attack multiple targets per plane and conduct parallel warfare, formations of B-21s should plan to saturate air defenses and strike critical C2 nodes to paralyze the enemy (make the enemy incapable of coordinating a response). The PRC’s Active Defense relies on the its forces’ ability to coordinate a retaliatory response. Crippling C2 hampers a critical component of the PRC’s defense strategy. Air superiority will likely begin in a localized concentric circle and slowly expand with follow-on strikes. A portion of the striking force (approximately 10 percent) will have to remain in a ready-reserve airborne status to prosecute mobile targets using small-diameter bombs (SDB) and or hypersonics launched from B-52s/B-21s. This requirement will likely have to be met with decreasing effort but ever present to “maintain air superiority.”

One thing future planners will need to consider is a strategic reserve. On the first night of Desert Storm, reserve aircraft were Diego Garcia bound in anticipation of projected losses before the first bombs dropped in Iraq. The USAF cannot get lured into a false sense of security given the success of the past three campaigns. Attrition will likely be a factor in a coming fight with a peer competitor. This leads to an even greater consideration of planning—the size of ATO for a given day. In Desert Storm, ATOs grew to 1,000–1,200 sorties a day. Can the United States replicate that level of effort today—not just from an execution perspective but also from a planning and control perspective? Besides perfecting the tactics once the B-21 gains initial operating capability (IOC), the USAF must practice planning, building, and executing a 1,000-sorties-a-day ATO that assigns bombers to a standoff mission, an “on-call” standoff mission, a penetrating mission, a mobile, dynamic targeting mission, as well as attrition reserve bombers. This requires more than just planners planning; it is a synergistic effort between operations, maintenance, and intelligence.

Conclusion

In the decade between my combat bomber flights, technology, tactics, thinking, and airpower application grew rapidly. While technology has advanced, two decades
of the USAF enjoying air dominance has allowed ideas on the fight for air superiority and the role of bombers in that fight to atrophy. Bombers have played a role in air superiority dating all the way back to the development of airpower theory. The unique characteristic of bombers—payload capacity, persistence, and range—make it the ideal aircraft for breaking the eggs in the nest. Over the past three air campaigns, the USAF has opened with standoff attack on fixed targets followed by bombers attacking multiple targets sets to establish air superiority. OAF showed what happens when an enemy learns from previous operations. It took almost two weeks to strike as many targets as were serviced on the first day of Desert Storm. Enemy persistence made NATO and the United States devote aircraft to the maintenance of air superiority each night. China has had decades to observe US air operations, which means tactics will need to outpace the adversary’s ability to adapt.

Since 2001, low-observable aircraft have grown in capabilities and numbers. Stealth has relied on the unique low-observable characteristics of the platforms coupled with tactics that take advantage of those characteristics. Air superiority will likely be localized in the future and grow wider while still devoting an allocation to “maintaining” that condition. Swarming, coupled with the saturation of enemy defenses, offers the best chance to pry open vertical windows of opportunity. Several operating initiatives must be perfected to ensure success like ACE and the ability of B-21s to remotely control unmanned aircraft. JADC2 will be essential to reduce the kill chain. An attrition and quick-reaction bomber contingent must be a part of the daily apportionment, which has not happened in 30 years. Bombers have played a vital role in gaining air superiority—they will be more important when facing the tyranny of distance against a Pacific competitor.

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Notes

13. See Ori Brafman and Rod A Beckstrom, *The Starfish and the Spider: The Unstoppable Power of Leaderless Organizations* (New York: Penguin Group, 2008). Brafman and Beckstrom argue that spider (hierarchical) organizations can be crippled by attacking the head. Starfish organizations respond to an attack by splintering into other factions. If you cut off the arm of a starfish, the original grows the arm back and the original severed body part can grow another starfish. Starfish organizations could be called complex adaptive systems.
17. SEAD is the suppression of enemy air defenses, which can involve jamming or the destruction of enemy air defense (DEAD).
22. Lamberth, *NATO’s Airwar for Kosovo*, 17.
27. Herbet, “The Balkan Air War.”
The Future of the Bomber in an Air Superiority Role

Assessing China’s Motives
How the Belt and Road Initiative Threatens US Interests

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Abstract
China’s Belt and Road Initiative continues to be a source of debate across the international community. Some foreign policy experts contend it is a means for China to establish an alternative to the existing liberal international order. While it is certain to provide some positive outcomes to the Chinese people and participating countries, considerable evidence suggests that China’s motivations and means for implementation warrant concern. Critiques accusing China of debt-trap diplomacy have considerable merit. Additionally, should the Belt and Road Initiative achieve its planned vision, it is on the trajectory to challenge the national interests of the United States and its European and Indo-Pacific allies and partners. Forging strong multinational efforts that focus on targeted infrastructure investments and shift supply-chain dependence away from China will be necessary to balance the influence obtained by the Belt and Road Initiative.

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The United States has been the global leader and provider of security since World War II and led the establishment of the liberal international order (LIO), which continues to serve as the prevailing concept steering international relations in the present day. The benefits of the LIO, coupled with the end of the Cold War leaving no clearly defined security challenge, allowed the United States to focus on international stability against terrorism, climate change, and other problems of modernity in the interest of a global common good. Meanwhile, China quietly gained influence over the past three decades as Beijing selectively operated within the LIO on its own terms while foregoing some commitments and responsibilities as a participating member. China now threatens the relative post–Cold War stability and vision of a peaceful future within the international community, and many believe China’s rise will be the single most defining factor that shapes the future of international relations.\(^1\) US and allied policy makers believed that increased and sustained engagement—a containment by integration strategy—would lead to political liberalization of the People’s Republic of China (PRC). China benefited from globalization and open trade, establishing the “fastest sustained expansion by a major economy in history.”\(^2\) China’s rise has underpinned the realization that geoeconomics will be one of the primary
domains of strategic competition. Announced in 2013, The Belt and Road Initiative (BRI) is the cornerstone of President Xi Jinping’s foreign policy and the Chinese Communist Party’s (CCP) primary mechanism of economic statecraft. With more than 140 participating countries, the BRI has allowed China to upset internationally established global regulatory and technical standards at the expense of the Western order. A growing sphere of influence will diminish existing US partnerships, expand illiberalism, and deprive the United States of critical market access. The potential impact of this threat demands a comprehensive multinational response that competes with China while operating within the bounds of the rules-based international order.

Different Narratives on the Belt and Road Initiative

China has long sold the BRI as an extensive network of land and maritime interregional routes logistically connecting China with Southeast and South Asia, Central Asia, Pacific Oceania, Africa, and Europe. As China shifts away from a low-profile international approach, it aims to support infrastructure and industrial development through improved connectivity and cooperation to meet long-term national interests. China’s stated national goals for the BRI are to (1) supplement regional development through economic integration, (2) improve Chinese industry while exporting these same improved industrial standards, and (3) resolve issues from excess industrial capacity.

On the domestic front, inequality between prosperous eastern seaboard states and traditional western frontiers such as Xinjiang, Tibet, Inner Mongolia, and Yunnan has frustrated the CCP. With a slowing domestic economy, China hopes to provide an outlet for state-owned enterprises (SOE) that have absorbed massive industrial excess capacity across various sectors. Using the BRI to create international business opportunities for building highways, bridges, ports, and power plants is a means for managing the excess. As a secondary effect, this expanded global economic footprint has strong potential to lead to the renminbi’s internationalization, possibly providing a competitive alternative to the US dollar. The BRI also provides a potential solution to China’s Malacca dilemma. The Strait of Malacca carries 80 percent of the oil imported to China, a dependency China believes exposes it to a chokepoint vulnerability from a US maritime blockade.

China formalized its commitment to the BRI on its national agenda by incorporating it into its constitution in 2017. China’s memories of its century of humiliation underpin the CCP agenda toward a formalized strategy of reclaiming its status as a global power. The BRI serves to accomplish this through expanded economic growth and interdependence, eliminating the restrictions China has absorbed based
on past errors, and ultimately, the widespread inequality between the wealthy eastern seaboard provinces and the much less developed inland western regions.

**Defining the Threat from the Belt and Road Initiative**

International criticism of the BRI widely perceives the initiative as an aggressive geopolitical move that violates the rules-based LIO by normalizing China’s practices of coercion and forced cooperation toward vulnerable countries. The United States generally questions the motives and methods behind China’s employment of the BRI and has described it as predatory and a means for deriving influence through corruption and debt-trap diplomacy. For the United States and many of its partners and allies, the BRI is most aptly described as a mechanism for accelerating the CCP’s revisionist agenda made possible by discarding Deng Xiaoping’s strategy to “hide your strength and bide your time.” Xi Jinping has asserted that the time has come to exert strength and reclaim what belongs to China. The result is the widespread perception that China is now shedding its insular image by implementing its version of a modern-day Marshall Plan, but not necessarily with pure intentions.

The BRI will serve as a mechanism for weaponizing the global supply chain and gaining technology dominance. It will position China in the center of Eurasian trade markets, leading to unequal market leverages in the region and driving other regional countries to submit to China’s interests. China will gain greater capacity to affect regional actors’ political trajectories in a growing CCP sphere of influence centered on China’s values, which are predicated on short-term economic gains while devaluing democracy and human rights. China’s ability to establish certain global regulatory and technical standards will provide market advantages to Chinese companies and many SOEs under its control. Despite these circumstances, many countries find the BRI very enticing as the benefit from the opportunities of global connectivity and the allure of Chinese investment appear, on the surface, to address some of the developing world’s domestic problems. Many countries also perceive no other options to seek these opportunities and are willing to pay the political and social cost as an entry fee. Also, some countries may not have alternatives because past behaviors prevent them from being credible on the international stage, inhibiting them from being considered for targeted investment by the United States or its partners.

The BRI is a means to further CCP national interests and a primary tool for its execution is debt-trap diplomacy. The provisions of loans that China has authorized in regions where other lenders would otherwise not invest has saddled countries with unsustainable debt and set conditions for the CCP to garner control of foreign assets, unrestricted military access, and compel international support for
Assessing China’s Motives

regional issues and within the United Nations. Additional impacts for accepting China’s unregulated loans are the erosion of national sovereignty, corruption on both ends of the loan, and a general inability to resist CCP political pressure that may not coincide with individual state interests. As examples, Kazakhstan, Mongolia, Malaysia, Indonesia, Vietnam, Cambodia, and Laos have adjusted their domestic national development strategies to meet mandated requirements of certain BRI details. By accepting loans beyond the government’s capacity to repay, China inevitably restricts sovereign governments’ ability to maneuver while locking successive governments to the same financial obligations.

Several elements of BRI lending practices have drawn legitimate scrutiny from the broader international community. Many BRI target countries lack the technical expertise to fully evaluate project contract conditions or internal debt sustainability and cannot navigate complicated dispute or arbitration resolution processes that arise with BRI projects. Since these loans operate outside the standard international monetary system, there is limited protection, and the affected countries have fewer options for recourse. Therefore, China establishes a favorable position to extract nonstandard concessions that infringe on national sovereignty. Given the lack of regulative oversight, the conditions are ripe for inefficiency since many countries involved in the BRI exhibit high levels of internal corruption. This inefficiency is exacerbated by China’s lack of enforcing its anti–foreign bribery laws on SOEs operating overseas.

China’s Asian Infrastructure Investment Bank (AIIB), which, on the surface, aids in negotiations with BRI countries for low interest rates and zero cash payment loans in exchange for resources or transportation node access, has served as the primary administrative mechanism of debt-trap diplomacy. Essentially, the AIIB aids the weaponization of the BRI as it provides the CCP significant global advantages if the BRI countries cannot follow through with loan completion. Loan defaults allow China to exercise rights to ownership of the natural resources or the freedom to administratively control those transportation nodes under the loan terms.

Consequently, the AIIB allows China to circumvent the primary economic institutions that underpin the LIO. The AIIB acts as a less-regulated alternative to the World Bank and the International Monetary Fund (IMF) by allowing BRI countries to seek investment conditions that otherwise would not be available. Of roughly 5,000 loans totaling $520 billion, more than half went unreported to the World Bank or the IMF. Given China’s willingness to ignore debt sustainability, or possibly the intentional tactic to do so, eight countries currently hold a significant risk of debt distress; Djibouti, the Maldives, Laos, Montenegro, Mongolia, Tajikistan, Kyrgyzstan, and Pakistan. Should some of these countries succumb
to debt issues, they are at risk of posing geostrategic consequences for the United States and its allies, particularly with the transportation nodes at Djibouti, the Maldives, and Pakistan.\textsuperscript{28} Although the Western world widely perceives these loan conditions as predatory, there is still widespread interest given the empty vacuum of investment in poverty-stricken nations.

SOEs have served as one of the primary tools for carrying out many BRI projects. SOEs are significant as these organizations, heavily influenced by the CCP, can change the international structure consistent with long-term CCP ambitions. The BRI is a means for securing that change and SOEs will invest and operate according to the direction of the CCP. They will sacrifice profits to gain a strategic advantage for the CCP since subsidies or government bailouts are usually guaranteed. The result is the short-term freedom to explore opportunities in volatile regions that potentially do not deliver monetary profits for the CCP, SOEs, or BRI country in the long-term.\textsuperscript{29} This practice does not occur in a democratic society, and it runs counter to the rules of the free market and open trade that the LIO safeguards.

China’s pursuit of an economic and infrastructure foothold has widespread geostrategic implications. Sri Lanka received an AIIB $1.3 billion loan for the modernization of the Hambantota port that included conditions for China’s Communications Construction Company to perform the construction.\textsuperscript{30} However, when Sri Lanka defaulted on the loan, it opened the door to negotiate a lease for the port for the next 99 years and enabled China to establish a strategic geographic position in the Indo-Pacific theater.\textsuperscript{31} This acquisition demonstrates the multidimensional nature of power in China’s execution playbook. Port Hambantota will eventually permit power-projection capability as it holds deep water piers and is suitable for supporting aircraft carrier battle groups.\textsuperscript{32} China’s selective disregard for the region’s actual needs is also in question, as it was arguable whether Sri Lanka even needed a modernized port. The Port of Columbo in Sri Lanka processes over 95 percent of the nation’s annual trade products, and only 175 cargo ships passed through Hambantota in 2017.\textsuperscript{33} Whether the value of this port was meant for China at the expense of Sri Lankan debt is justifiably open to debate. The precedent this sets for the future as China builds a model to secure strategic locations while preying on the vulnerable poses significant strategic consequences for the United States and its allies.

The China-Pakistan Economic Corridor (CPEC), widely considered the BRI flagship project, is critical to China’s strategic pivot to the Indian Ocean. The project aims to connect China’s western provinces to the Arabian Sea through 1,800 miles of highways, oil pipelines, and railways with an estimated investment value of $62 billion.\textsuperscript{34} However, as the project is still ongoing, it is riddled with questionable optics that have plagued other vulnerable BRI countries. Pakistan
provided China a 43-year lease for land at the Gwadar Port, a key logistical node for CPEC, in exchange for constructing a special economic zone. This came in addition to a 40-year lease and 91 percent of revenue collection going to the China Overseas Port Holding Company for Gwadar Port itself. There is also a high potential for dual-use for Gwadar Port as it has a 14-meter depth and will be more than capable of docking Chinese aircraft carriers. China’s investment in Pakistan came at a critical time as the United States withheld aid starting in 2018, and CPEC emerged as a means for overcoming a gap in expected monetary inflow. Now that Pakistan is economically liable to China and has somewhat separated itself from its previous economic dependence on the United States, the ability of the United States to use soft-power influence on Pakistan is diminished. Currently, Pakistan is on the losing end of unfavorable loan conditions and has already publicly acknowledged that it has been excluded from the CPEC implementation process and, therefore, unable to capitalize on the economic revenue associated with port activity.

The Hambantota and Gwadar port projects are two examples of China’s strategy to own and control globally significant logistics nodes that the international community relies on. China’s control over the handling of goods at major ports also provides the ability to prioritize certain economic zones over others by setting conditions for ground transport from these logistical nodes. China’s administrative oversight of the ports will allow it to prioritize its strategic exports over its economic competitors, namely the United States, ultimately impacting the US gross domestic product (GDP). This control further allows China to influence market prices by intentionally inhibiting the availability of goods and commodities by “slow-rolling” deliveries or simply letting perishable goods expire in port by denying loading or lifting rights.

China’s control over geographic logistical nodes and ports has ramifications in the event of conflict or threats abroad that affect US national interests. With control of infrastructure, power grids, and railroads, China can shut down necessary logistical support the United States may need to support an ally while simultaneously collecting intelligence on US military operations. Consequently, the logical outcome of China’s outward growth will be a need for a greater military posture as it attempts to provide security to BRI investments abroad, placing it in conflict with traditional US security requirements. The People’s Liberation Army (PLA) will encounter a greater need for noncombatant evacuations, humanitarian assistance, disaster relief, and counterterrorism missions through a broader overseas presence. The 2019 Chinese Defense White Paper instructed the PLA to seek out international logistical supporting nodes. Furthermore, China’s National Defense Strategy outlines the role of frontier defense and the need for
strategic buffers along the BRI corridors. This raises the potential for unplanned military encounters as US and allied military forces operate closer to the PLA as part of the existing US and international interests of protecting the commons. China has long held that it holds a noninterference policy and does not wish to interfere in the sovereignty of other nations. Although it rarely had an interest in the stability of other countries before now, the BRI will force China to confront instability to preserve its economic interests and will require both offensive and defensive measures abroad.

**Concerns of US Partners and Allies**

The European Union (EU) and North Atlantic Treaty Organization (NATO) have significant interests in Asia as the EU is the second-largest trade partner in the region, constituting 35 percent of European exports to the region. Therefore, any scenario that increases China’s ability to exercise greater control and influence over the global commons has economic and security concerns of geostrategic importance. Accordingly, unhindered freedom of navigation in the region is vital to EU members. China’s growing economic influence in Europe also highlights the interlinkages of the instruments of power as China’s economic footprint in the European theater provides an effective mechanism for acquiring soft power over various governments. However, the North Atlantic Treaty provides the institutional leverage and justification to counteract China’s coercion. Article 2 of the treaty moves the institution to “seek to eliminate conflict in their international economic policies.” The unilateral agreements that China has reached with at least 17 European countries on BRI projects have already endangered a cohesive and unified China policy. In some areas, particularly in the less-wealthy eastern and southern portions of Europe, the BRI is much more attractive. Despite the NATO 2030 document classifying China as a systemic rival, there continues to be division within the EU and NATO on a unified position and identification on whether China is an immediate threat. Regardless, there appears to be more consensus within the EU versus NATO. In 2018, a leaked report indicated that 27 of the 28 EU ambassadors endorsed a letter to the CCP indicating their collective position that the BRI “runs counter to the EU agenda for liberalizing trade and pushes the balance of power in favor of subsidized Chinese companies.” Hungary was the only country that abstained, not surprising given the Hungarian government was being investigated for violating EU transparency requirements for a BRI-championed rail line to Serbia. However, Italy’s recent signing of a memorandum of understanding signifying its intent to cooperate with China on future BRI endeavors has broader symbolism for China as it shows formal intent from a member of the Group of Seven (G7).
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China’s unilateral agreements with vulnerable countries undermine EU cohesion and pose significant competition to European companies with trade, investment, and market access in Europe and Asia. Hungary prevented a unified EU position on The Hague’s United Nations Convention on the Law of the Sea (UNCLOS) ruling against China in the South China Sea, and Greece prevented an EU statement meant to censure China for human rights abuses. The Chinese footprint in Europe continues to grow. Currently, SOEs own or partially own more than a dozen European ports or control nodes, which jeopardizes access to critical logistics points and pose similar issues as those in the Indian Ocean region. China’s aggressiveness is further reinforced by the perceived and growing cooperative military relationship the CCP is developing with Russia, a relationship indicated by joint exercises, most recently in the Caucasus in 2020 and Beijing’s diplomatic and financial support for Russia’s invasion of Ukraine. While an improving China–Russia military relationship should not be seen as a zero-sum hedge against the United States; it provides a mechanism for China to better support the BRI. Should China encounter issues within the Russian sphere of influence, if these projects create value for Russia, the CCP may capitalize off Russia’s influence over BRI countries within its periphery.

In the Indo-Pacific, the impact of the BRI has required other strategic partners to establish narratives based on their independent circumstances. Japan has remained somewhat neutral and recognizes the role of harsh rhetoric in the region. While Japan views the BRI as a Chinese “power play,” Tokyo maintains that outright opposing the initiative would be counterproductive. Although, Japan does hold similar concerns regarding China’s ability to set international standards and increase PLA power projection capabilities. To the west, India has remained firmly opposed to the BRI and perceives the initiative as a violation of sovereignty, particularly regarding CPEC. New Delhi’s perception of security better defines India’s BRI concerns. In what India would associate with its own sphere of influence, China’s land grab in Sri Lanka and enhancing the military power projection of strategic rivals such as Pakistan through CPEC with planned corridors through Kashmir have India concerned with Chinese encirclement. In 2014, Sri Lanka permitted a People’s Liberation Army Navy Song-class submarine to dock at the Port of Columbo, potentially foreshadowing future Hambantota Port operations. Given New Delhi’s documented concerns with the BRI and India’s long history of conflict with Pakistan, the significance of the China–Pakistan relationship and its ability to counter the growing Indian economic footprint in the region is liable to further increase tensions.

Great-power competition (GPC) has unfortunately caught the Association of Southeast Asian Nations (ASEAN) in the middle of various issues. The BRI has...
many ASEAN member nations making short-term economic decisions at the expense of long-term autonomy to China. At the same time, the majority of ASEAN members are attempting to remain on good terms with both the United States and China. While there are varying degrees of commitment across the 10 ASEAN countries, they all have poverty issues that need to be addressed, making short-term investments enticing. The BRI has been the only perceived significant injection of capital to address such concerns. Consequently, commitments to the BRI have also made ASEAN nations vulnerable, and there are growing concerns that future dependence on China’s capital will make each participating ASEAN country susceptible to China’s influence on matters of trade and geopolitics.62

Missed Opportunities for the United States

The BRI’s success has been enabled by recent US foreign policy, particularly in the ASEAN region. However, the foundation for poor policy regarding China was established in the 1990s. As the United States led efforts to bring China into the World Trade Organization (WTO) in the early 2000s, there were widespread assumptions that containing China through integration was the path to a future Chinese democracy. While Pres. Barack Obama’s pivot to Asia was certainly a recognition of the potential threat of China, this was largely military-focused and even then resources were not fully matched to the stated policy. Although it has taken several years for the United States to appreciate China as a rising economic threat, a coherent policy to address this rise has not yet surfaced. Developing a long-term policy is complicated by oscillations in the United States’ commitment to economic relationships with strategic partners, particularly the importance the United States places on multinational trade agreements. The Trump administration’s withdrawal from the Trans-Pacific Partnership (TPP) postured the BRI as the only available option in the region as it promises infrastructure, trade, and investment linkages—at least on the surface.63 Pres. Donald Trump’s bilateral commitments and his explicit narrative to provide “an incentive for our trading partners to diversify, look for their way, have conversations and negotiations in which we will not be participants” left an economic vacuum that China was more than willing to fill.64 The perceived US absence of a regional vision left many ASEAN countries concerned about long-term abandonment.65 As no single country can manage the international system, it was unlikely that bilateral trade agreements would ever be capable of keeping pace with the rapid increase in Chinese influence in the region. This is especially true considering China’s continual disregard for international norms, ensuring the playing field becomes more uneven as time passes.
To move forward, it is time the United States recognizes that a deliberate geo-economic strategy is necessary. Grand strategies since the early 1990s focused on combating the worst-case scenario militarily but never truly reflected the civil side of competition. At the same time, particularly recently, the United States has not prioritized strategic partnerships to harness the economic potential of like-minded partners. China has also been much more successful in using information in strategic regions and within its own borders to perpetuate its preferred narrative. While the CCP has never let morals or ethics get in the way of behavior, it has also never been able to rely on legitimate allies. The United States, unlike China, has partners and allies it can rely on that can collectively build powerful and meaningful alternatives to the BRI. These partners’ collective capacity to generate effective outcomes represents the United States’ essential asymmetric advantage over China.

Exposing Vulnerabilities and Finding Opportunities

Lofty ambitions come with increased risk, which is true for China as the BRI has exposed and created many potential vulnerabilities. These vulnerabilities start with China’s narrative, which strongly publicizes the BRI as an economically open win-win for all participants. However, at the core of the BRI proposal, it is an initiative led by China, dictated by China, dominated by Chinese investment, and tied to the Chinese standard. Developing countries have acknowledged the realization of these circumstances by expressing public concern over China’s reach. They find themselves directly competing in many sectors China is now exporting through the BRI. Malaysia, for example, is leading the regional charge to push back against certain BRI investments originating under unfavorable terms and is actively seeking alternative investments from other partners such as Japan. Even as recently as December 2021, protests in Pakistan have questioned the value of CPEC and the lopsided benefits provided to China over Pakistan. As deep-sea trawlers run by the Chinese have pushed out the Baloch fisherman, the primary means of the local economy, there is widespread concern over the long-term viability of CPEC as it has yet to show any tangible benefits to a frustrated local population.

Additionally, some governments cannot thoroughly vet and assess Chinese contracts for debt repayment or lifecycle costs, and many often have insufficient human resources to oversee BRI projects. The United States and its partners must capitalize on this disillusionment fanned by “mounting debt, erosion of sovereignty, and uneven benefits associated with Chinese infrastructure projects” with many countries searching for or awaiting another economic alternative. The role of information is critical and an extensive coordinated campaign to fully
publicize and share the actual intangible costs that have come to represent some of the significant BRI projects may serve as leverage for swaying states from bilateral partnerships with China.

There is reason to suspect that the BRI has not fully manifested itself in the way the CCP envisioned at its inception. A potential indicator is that China committed to almost $1 trillion in investments and loans but had only paid out $50 billion as of 2018. Should China not follow through with these commitments, there is further potential that those countries expecting future investment will look elsewhere based on China’s unreliability. Furthermore, while China focuses its attention outward, it also has significant domestic issues such as environmental degradation, income inequality, and maintaining CCP legitimacy in an era of widespread information sharing. If China addresses these expensive domestic issues as well, it may find it challenging to resource its foreign policy initiatives fully.

If the BRI has proven anything to the broader international community, it is that the economic domain is not zero-sum. There is always an opportunity to create value, but for regions with widespread poverty, inequality, and poor infrastructure, no single nation, be it the United States or China, can be expected or willing to fill that void. However, aid and foreign direct investment provide opportunities. The Asian Development Bank identified a need for $26 trillion in infrastructure investment in Asia from 2016 to 2030, a value barely addressed by the BRI, and most definitely exposes a continued need regardless of participation in the BRI.

There is no single solution to addressing the BRI, and given its widespread popularity, developing a policy that recognizes the BRI’s place in the international system is logical. However, there is plenty of room to maneuver for the United States and its allies. This maneuver space exists within the LIO, and there are adamant opportunities for effective US policies and collective multilateral efforts. These efforts should emphasize developing a cohesive international response, not to block the BRI but to provide high-quality, competitive alternatives that meet international needs. At the same time, as the current global hegemon, there are some positions that the United States can unilaterally take that will inhibit the CCP’s nefarious activity outside the LIO.

**US Influence and Policy**

Geoeconomics is just one domain of GPC, and there are multiple opportunities for the United States to influence this domain. Using information to exploit unfavorable practices is a domain that offers significant potential. First, the United States can help fund the means for more expansive investigative journalism in BRI countries. The goal would be to enable greater domestic capacity for raising
Awareness of China’s lending practices, the environmental and economic sustainability of BRI projects, and the resulting forced displacement of any domestic populations impacted by the projects.\textsuperscript{76} While some governments and populations will be more amenable to this information, it sets conditions for debate if it does not already exist within a BRI country.

Additionally, through the WTO and other monetary institutions, the United States can advocate for increased international pressure on Beijing and countries that trade directly with China to fully understand their supply chain. Knowing if violations occur regarding human rights and labor laws in connection with goods and services originating in China may pressure the governments of participating countries to seek alternatives. There certainly would be a domestic impact on the United States, but placing public pressure on US corporations that abdicate to China’s labor force may force changes here in the homeland. The free market allows the US population to hold its corporations accountable, and exposing corporate greed in the pursuit of shareholder profits at the cost of labor law violations may force US corporations to rethink their China strategy.

Washington must develop a strategy that allows the United States to better compete in foreign markets instead of working on the bilateral trade imbalance currently shared with China. While China has sought economic opportunities, the United States focused on other issues in the Indo-Pacific. Specifically, the United States used its influence to enforce environmental policies, women’s rights, child-labor regulations, democracy promotion, and anticorruption measures.\textsuperscript{77} These are all credible issues to address, but movement on these topics will not compete with China. Instead, the United States needs to use diplomatic and economic influence to address chronic poverty in Asia through investment in physical infrastructure that bolsters and creates manufacturing and industry sectors. The United States must take advantage of existing bilateral relationships to promote development through its private sector in the short term. In doing so, it can maintain influence and presence in strategic locations while offering a non-state-sponsored alternative. Congress should coordinate tax incentives for participating corporations in countries designated as strategic priorities.\textsuperscript{78} To facilitate this, US embassies must fully employ the information instrument of power by highlighting the poor quality, sustainability risks, and lack of transparency to BRI projects while advertising willing US corporations.\textsuperscript{79} This global campaign is critical and must be a primary talking point by US embassies and encouraged domestically by the federal government. It does not require new institutions or appropriated funding and capitalizes on existing capabilities.

Federally-funded research and development (R&D) must become a greater strategic priority, particularly within the science, technology, engineering, and math...
(STEM) sectors. China uses the BRI to enhance its STEM-heavy Made in China 2025 initiative; therefore, emphasis on retaining US-educated foreign STEM experts should be an intentional effort. These efforts could offset any comparative advantage provided by Made in China 2025 and more aggressively promote US preeminence in certain technology sectors. A targeted STEM R&D program ensures some mechanisms are in place so the United States does not find itself in the position of offering equal or inferior products while demanding higher standards.\(^{80}\)

A critical sector is the future 6G environment. The United States abdicated its leadership role in the race for 5G standards despite 5G’s applicability in artificial intelligence, automated vehicles, and other emerging technologies.\(^{81}\) China invested $180 billion to secure dominance in the 5G arena, and a similar US investment in universities and labs will be necessary in the race for 6G, which will likely be replacing 5G in the next 15 years.\(^{82}\) As the BRI expands, China will set many technical standards with its 5G equipment, and to compete in the long-term, the United States must lead the definition of technical standards with 6G.

The United States must fully exercise its leadership role in the global economic institutions it has influence over, notably the World Bank, IMF, and WTO. The World Bank remains the best existing global alternative to the BRI. Washington can leverage US influence to ensure these economic institutions’ credibility and employ necessary reforms that lead to strategic investments that benefit the developing world. These institutions also can provide a credible international voice for exposing Chinese corruption and general monetary violations of the LIO. Additionally, US admission to the Comprehensive and Progressive Agreement for Trans-Pacific Partnership will signify the agreement’s commitment as an alternative to China’s trade in the region and a formal means to shape trade policy in a critical region consistent with the LIO.\(^{83}\) It also provides tariff preferences, binding commitments on market access, digital trade, intellectual property protections, restrictions on SOEs, and requirements for adopting agreed-upon labor and environmental commitments internationally.\(^{84}\) Many, if not all of these standards are well beyond the CCP’s current ability or interest level.\(^{85}\) By recommitting to the TPP, the United States will establish a more comprehensive economic presence in a critical region that perceived a US absence during the Trump administration.

**Multilateral Economic Options**

Fortunately, several countries that have already adopted the rules-based order have similar concerns as the United States, making the prospects of multilateral agreements very promising as a means for offering BRI alternatives. Effective multilateral efforts require a coordinated narrative representing the Western world’s vision versus the Chinese misinformation campaign. This narrative must
demonstrate the truths regarding choices, upholding sovereignty, investment with guaranteed long-term value versus debt-trap diplomacy, surveillance cities, corruption, and China’s questionable follow-through. These agreements represent a renewed focus on the formal and informal role of strategic partnerships. The essential underpinnings of any multilateral agreement are that their conditions will be more favorable than the Chinese alternative. While there are impediments to establishing a common narrative, particularly within the EU, establishing a joint approach with EU partners will help add stability to an organization lacking cohesion. Germany has already called for a “one Europe approach to China,” and the United States must use its influence to reinforce its establishment, aiming to align these like narratives.

US support and representation in the Quadrilateral Security Dialogue (Quad) has numerous possibilities for Japan, India, Australia, and the United States. The Quad shares many traditional positions related to the free and open Indo-Pacific and respects the LIO as defined by sovereignty, freedom of navigation, and open markets. This partnership has specific utility for the United States by offering a broader forum for Japan’s already established Indo-Pacific strategy and India’s Act East policy, which already conducts foreign infrastructure investment. Translating these partnerships into broader formal structures that represent the coordinated goals of like-minded states, unified in economic policies that empower and enhance the capacity of the developing world, can be the cornerstone of a multilateral geoeconomic response. Creating viable infrastructure for the developing world can be better coordinated and strategically targeted through these like-minded relationships. Building quality infrastructure aimed at manufacturing, providing foreign aid for required training, and assistance with understanding the viability of BRI loans are unique means for restoring geoeconomic competition against China. Geopolitically, these efforts provide alternatives to China, expose the reality of China’s strategic goals, and educate the developing world before accepting unfavorable loan conditions. It allows the United States to leverage the optics of more popular partners such as Japan, which has a more favorable reputation in the region than either the United States or China. For example, a renewed emphasis on the agreement between the US-led Overseas Private Infrastructure Corporation and its Japanese counterpart, the Japan Bank for International Cooperation, would better establish a US long-term commitment in the region. As a means for offering high-quality infrastructure investment in the Indo-Pacific region, this agreement capitalizes on widespread Japanese popularity, which is growing given the $260 billion Japan had invested in Asia versus China’s $58 billion as of 2020.
The secondary objective of any coordinated effort should be to shift the global supply chain out of China. The development of infrastructure is a means for achieving this goal. The BRI is attempting to harness China’s power as the world’s labor force. While it does not have to be shifted to the United States, creating capacity outside of China should be the objective of any multilateral partnership. The COVID-19 pandemic has exposed the substantial overreliance on the Chinese supply chain to the free world. Much of the international reliance on China has hinged upon the lower labor costs, existing skilled labor, and established mass production facilities. However, labor costs in China are no longer low relative to other international skilled labor forces. All three of these have the potential to be resolved with dedicated multinational programs that fund mass-manufacturing facilities in targeted countries and provide training to local populations. There should be no false hope that this will be cheap or that the end state will no longer have substantial manufacturing labor coming from China. Particularly with tech industries, the training alone will be costly, but this concept builds on itself and will set conditions that attract more industry over time.

To fully realize this, multiple countries will have to make their own unique decisions regarding their corporations that have chosen to move their business to China. For example, the United States could offer tax incentives, temporary relaxation of antitrust laws, and even develop federal programs to finance worker training and relocation expenses. Japan and Germany have already instituted formal subsidy programs to either return corporations to their countries or implement legislation that permits state-sponsored investment that prevents foreign influence from pulling companies away.

**Conclusion**

No single multilateral organization or multinational agreement will be the silver bullet to the BRI. However, the collective impact and influence of US-led multinational agreements that focus on infrastructure development that creates manufacturing and supply chain capacity serve as a powerful mechanism for providing a global alternative to the BRI. While the intent is not and should not be to eliminate international sources of wealth based on free trade and open markets, the net effect should be on creating capacity and wealth accumulation in the developing world that is not conditions-based. Providing incentives for large corporations to leave China is up to individual governments. Although, bringing corporations out of China and back home will decrease the risks associated with forced technology transfer that China has been known for and upholds the rules-based order values.
Assessing China’s Motives

If the United States does not show resolve against the BRI, the wider international community will have no choice but to question how the United States perceives its role as an economic power. Restoring US leadership on a global scale while providing alternatives for partners and allies to support the developing world to fully capitalize off the benefits of globalization is the vision that widespread multilateral agreements provide.

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Assessing China’s Motives

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Reenergizing Indian Security in the Indian Ocean Region

Analyzing the Security Problem through Bilateral and Multilateral Arrangements

Virain Mohan

Abstract

John H. Herz describes security dilemmas as those that occur when one state’s actions to increase its security threaten the security of others and hence cause a reciprocatory effect. The effect has a higher likelihood of occurring when the intentions of the prior states are either uncomprehensive or have adverse effects on the former. Such security complexes have arisen in the region of the Indo-Pacific, where China has synthesized its expansionist ideologies and modernized its naval power to address its security issues, but in turn has also led other players in the region to appraise their own security concerns. For India, the advent of the Chinese naval presence in the Indian Ocean Region, along with security threats emanating from Pakistan as well as Afghanistan, has led to the perception of a “two-front war.” For an area where regional security complexes are dominated by China’s regional convictions and movements, different states along with India have been compelled to act. This article delves into the security position of India with the escalation of Chinese involvement, along with threats emerging from Pakistan and a destabilized Afghanistan, and sees to what degree bilateral and multilateral arrangements help India to solve its security concerns in the region. Along with that, this article seeks to answer the question of what role India could play in the region to incentivize the regional security dynamics.

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India has historically had two rivals to its north, one being Pakistan and the other being China. Regarding the former, India–Pakistan relations have been historically sour and, in the future, also seem to lack any positive turn of events, but regarding the latter, India has been mindful not to aggravate China. But despite it being cautious, it seems that China does not address India’s concerns for its safety in the region and has been continuously provoking aggression because of its revisionist and expansionist ideologies. From increasing naval presence in the maritime regions surrounding India to malicious economic investments in India’s neighboring countries, China has continuously challenged India’s notion of being the hegemonic power in the region. This has also been the reason why India has been keep-
ing itself out of the Quadrilateral Security Dialogue (Quad), so as not to provoke China. But with the recent turn of events in the Ladakh region and the continuous standoffs in the border areas along the Sino-Indian border adding to the Chinese advancing economic expansionism in the Indian Ocean region (IOR), India has been driven to express renewed interest in being a part of the Quad.

The reason for India being concerned about not poking China has been China’s massive economic and military might. Adding to that, the security threats emerging from Pakistan and Afghanistan could lead to a dire situation for India in the future in terms of its territorial security. China’s Belt and Road Initiative (BRI) has also been pumping massive investments into South Asian nations such as Pakistan, Sri Lanka, Maldives, Nepal, and Bangladesh, which has also helped China acquire bases for sea lines of communication (SLOC) in the Indian Ocean such as the Hambantota and Gwadar Port in Sri Lanka and Pakistan, respectively. India has shown renewed interest in such matters in South Asia but competing against a giant such as China in economic and military aspects would not be an easy task for New Delhi. The Quad has emerged as a counterbalance to China in the Indo-Pacific region, and India’s active participation in the Quad could result in a solution to New Delhi’s problems. Apart from solving India’s security issues, New Delhi could also revitalize its “Act East” policy by cooperating with Japan, Australia, and the United States in providing aid, investment, and security to the region.

Theoretical Framework

The Regional Security Complex Theory (RSCT) developed by Barry Buzan and Ole Weaver states that regional security complexes are generated within regional boundaries that are separated from other regions through geographical barriers. These barriers are easily identifiable, such as oceans, mountains, or in some cases, may even involve a neutral state between two regions. The theory states that security matters in each region may differ from one another, and hence, the security policies and concerns of nations within the region are dominated by the security complexes dominant in those regions. There could also be the involvement of global powers in such regions, and the actions of such powers are also shaped by these regional security complexes.

The Copenhagen School of Thought also defined security from an elevated viewpoint from that of a traditional security perspective, which had been largely shaped by military issues. For the school of thought, security complexes have been categorized into five divisions: military, political, cultural or social, economic, and environmental. The theory states that each division plays an important role in the security dynamics of a region, and each and every division has been interlinked with each
other to some degree. Hence, when dealing with issues of security, states must think about securing all five elements.

Furthermore, the Copenhagen School of Security, propounded by scholars of RSCT, presents the concept of a referent object. The referent object can be used as an indicator to define a security problem in each of the five dimensions. An issue can be analyzed through a referent object that makes an issue a security concern and differs in each category. The referent object is easier to define in some cases, such as in military (survival of the state or the armed forces) or political (survival of the rule of law or ideologies that define one’s aspirations) lenses and difficult in others, such as the economy (for firms it may mean not going bankrupt and for nation-states it may mean survival of economic supply chains so as to not threaten states’ supply of basic necessities), cultural (survival of the established societal hierarchy), and environmental (making sure biological and natural resources do not go extinct).

The theory also states what issues can be defined under the banner of security—for example, what does it take to see that an issue has become a security concern? The scale on which one determines if the point at which the referent object becomes an issue of security also changes according to each observer’s threshold, and a way to be assured of the threshold is determined through major moves being made by the observers, such as major changes in functions or major changes in military expenditure. With these changes being made we can determine that those issues are security issues for observers. Such steps are also called securitization. Hence, securitization steps can be an indicator for issues being concerned as those of security for the mentioned nation.

Through the RSCT, further theories can be attached to regional security dynamics, such as the Balance of Power (BOP), which will be used to study regional power dynamics and various bilateral and multilateral arrangements to address the security concerns. The theory of limited hard balancing under the BOP will be used in this article, which is an intermediary theory between the hard balancing and soft balancing theories. Limited hard balancing advocates the use of soft power mechanisms to balance along with limited military coordination. These theories will be used to analyze the regional security complexes and how India can use these bilateral and multilateral arrangements to minimize such complexes.

India’s Threat Perception:

The Importance of the Indian Ocean to China

China has been experiencing fast-paced development, and its crude oil demands have been on a marked rise. China is the world’s largest importer of crude oil and
imports around 10.5 million barrels per day. The major import destinations are from the Middle East and Africa, supplying almost 50 percent of China’s imports. With the increase in demand for crude oil and falling domestic production, China has to look for outside sources to meet its oil demands. With the strategic ellipses producing 70 percent of global crude oil and 10 of 14 states there deemed unstable in nature, securitizing its oil sources has become critical for not just China, but for any nation. China came up with aid and investment policies to protect its oil sources, such as its peace missions to Mali in 2013 to minimize its militant outburst against its oil rich neighbors or China’s inclusion in peace talks in South Sudan. Securing not just the sources but even the SLOCs has become an important aspect to which China has responded through the arrangement of a Chinese base in Djibouti along with various naval forces being deployed in the Indian Ocean to secure the SLOCs there. But for China, its geostrategic location and routes of trade have given rise to another of security issue, the “Malacca Dilemma.” Coined by Hu Jintao in 2003, the dilemma sheds light on the strategic importance of the Strait of Malacca for China and its potential to impair the Chinese economic machine in times of disagreement with a foreign nation. The Strait of Malacca is an important geostrategic location for China as 60 percent of its trade passes through the Strait and almost 70 percent of its crude oil passed through in 2016. Analyzing China’s security issues through the RSCT, it becomes evident that the military and political aspects of the IOR serve as security issues for China. Along with that, the presence of the United States as a regional player, challenging China’s role as a leader in the reformation of the global governance system, has led to a wide array of military, political, and economic security complexes.

**Chinese BRI in South Asia**

To secure its interests in the Indian Ocean, China has been aggressive in its approach to providing alternate routes for transportation of its imports as well as structuring its presence in the region by providing aid and investment, such as it has achieved through its BRI. The importance of the BRI for China can be ascertained through its induction into the Chinese constitution, and analysts believe that the BRI aims to promote regional integration, infrastructure connectivity, and economic development as well as assert influence on international economic governance, construct and control key supply chains and energy routes, and advance China’s soft power globally.

China, since its introduction of the BRI in 2013, has been pressing its objectives of the BRI throughout the globe, and such investments have been seen in South Asia. Under the banner of the China-Pakistan Economic Corridor, Pakistan is at the forefront of the receiving end, followed by various other port, power, and trans-
portation projects in Sri Lanka, Bangladesh, Myanmar, and even Nepal. China's major investments in South Asia have been visible in two countries, namely China and Sri Lanka, with China investing in major ports, transportation, infrastructure, and oil and gas pipelines. China, through its investment in these countries, has been able to gain control of the strategic ports of Hambantota and Gwadar on lease for 99 and 43 years respectively. The ports provide China with an alternate route to import goods, reducing its dependence on the Strait of Malacca as a checkpoint for Chinese naval vessels in the region, reducing China's distance from the Strait of Hormuz as well as revenue generated from the ports and a location to refine its crude imports. The BRI has brought massive debts to the receiving nations as well as an increasing Chinese investment foothold into key sectors of banking, military, stock exchanges, electronic and IT sectors, which have potentially tightened China's grasp on the economy as well as politics of the client countries.

China has also been rapidly modernizing its naval power, as has been evident from the sporadic growth of its naval vessels and missions. China has taken an adamannt stance in the South China Sea as well and has emerged as a strong challenger to the US Navy and its allies in the region. Through its economic ventures, China has also been able to propagate its ideology and backing, which has been seen multiple times on various international platforms. Hence, China has taken multiple economic, military, and political steps to securitize itself in the region.

**“String of Pearls” or “Places not Bases”**

Chinese expansionism and its own ventures to secure its interests in the region have given rise to security complexes for other players in the region. This has created a security complex that has seen the involvement of global players as well due to the economic and geopolitical potential the region holds. Consequently, Chinese investments made through the BRI have given rise to a geopolitical theory of the “String of Pearls,” which concludes that Chinese investments in South Asia could hinder Indian aspirations in the IOR, as these investments could result in Chinese military domination in the region—even though they are currently being made as commercial investments. While many political analysts believe in the theory, many others believe after analyzing the investments that China's policy is a “Places not Bases” policy.

The level of investment made in the bases and the infrastructural development required for these bases to be militarized is far from enough. Daniel Kostecka talks about the “dual-use logistics facility” or the “Places not Bases” policy by analyzing the low development and installation of defense mechanisms in the pearls. The policy states that the bases that China has been investing in play a role in sustaining its forces in the region rather than providing a base for China to operate its military
endeavors from. David Brewster also lays emphasis on the “Places not Bases” policy but also cautions against the security dilemma that has been formed in the Indian Ocean, which has led China and India to pursue their own security challenges, and has in turn led to a more coercive and suspicious relationship. He states that although China’s policy has not been one to challenge India militarily in the Indian Ocean, China could eventually give rise to an alternate policy to counter Indian presence in the IOR and securitize its own SLOCs in the region. Christopher Yung, Ross Rustici, Scott Devary, and Jenny Lin also disapprove of the “String of Pearls” policy and lay more emphasis on the dual-use logistics facility. But on the contrary, the research also states that India and the United States should be wary of China’s naval development as, according to them, “China’s buildup of naval forces in the IOR would be a better indicator of Chinese military ambitions in the region rather than the String of Pearls.” The researchers recommend India to modernize its naval fleet and the United States to develop its bilateral and multilateral relations in the South Asian region so as to safeguard their interests against an unfriendly Chinese presence in the IOR in the future, in case such a situation arises.

Although the analysts and advocates for dual-use logistics facilities refute any claims of militarized Chinese behavior from the pearl bases, they also do not reject the notion of an aggressive Chinese policy implementation in the IOR. The rapid modernization of the People’s Liberation Army (PLA) Navy and the emphasis given to its development and application, along with China’s desire to expand its influence further into foreign nations, as has been evident from its white papers, raise suspicion of Chinese ambitions in the IOR for India. One argument against the use of pearl bases by China has been the unwillingness of the host nations to participate in an aggressive stance against India in the region. The only exception to the case has been Pakistan, whose dislike for India could drive it to pursue said policy. Pakistan’s new drive to securitize its bases and the involvement of Pakistan’s military in the same give emphasis to India’s suspicions. The instability in Afghanistan has further heightened India’s worry about insurgency along its borders. The distrust among Indian policy makers toward Pakistan and China’s motives against India have brought into discussion the theory of a two-front war.

“Two-front war” is a military term that describes a nation facing two opposing forces in two geographical areas. The joint forces engage in such a war to increase their chances of winning and, in turn, put less pressure on their own forces and reserves. For India, clashes with China in Doklam, the Galwan Valley, and the most recent Pangong Tso have scarred the confidence it laid in China’s acceptance and consideration of the peace deals between the two nations. Also, continuous conflict in Arunachal Pradesh has been a cause of worry for India as the region holds major
political and religious aspirations for China, and their activities on the border greatly threaten India's sovereignty.

The clashes have also fueled debate about a potential two-front war and whether India is capable of fighting on both fronts. Unfortunately for the Indian side, the discussions do not have a positive outcome if such a conflict arises, raising further discussions on what steps India should take to protect itself from such adversaries. Hence, it has become important for India to securitize itself from Chinese aggressive policies, so it can shoulder the threat of a two-front war. This article will stress the importance of countering China more than Pakistan. China is a larger threat to India than Pakistan both militarily and economically, and also, the disintegration of Pakistan's confidence in its ability to wage a conflict with India without China's support on the second front will contribute a concluding effect of balancing China.

Here arises the need for the BOP theory, according to which, when a nation or a group of nations is threatened by the increase in power of another nation, they either try to increase their own power or try to form coalitions with other like-minded nations to balance against the power of the former. When interpreting the BOP through RSCT, it becomes clear that alliances and coalitions must be formed to address security concerns of not only military but also political, economic, cultural, and environmental aspects as well. These aspects are also noticeable in “The Spirit of the Quad,” where the member states commit to a free and open Indo-Pacific where the rule of law, freedom of navigation and overflight (economic), peaceful resolution of disputes (military), democratic values, and territorial integrity are upheld (political). The Quad has also supported the Association of Southeast Asian Nations (ASEAN) centrality (cultural and societal), and an increased importance is also shown toward environmental issues such as vaccine production and supply during the COVID-19 pandemic and relief provisions during natural disasters. The decreasing US influence in the region, coupled with the increasing economic and military might of China, has brought the importance of balancing China through the formation of coalitions and allies. Thus, based on the same outlook, India should also move forward to form bilateral and multilateral arrangements to securitize its interests in the regional security domain. India will have to produce internal as well as external reforms, changes that will allow India to defend itself in case some form of combat erupts, and secondly, to balance China in the Indo-Pacific. The article will mainly focus on areas distant from the Indian northern borders, into the maritime domain, Southeast Asia, and rest of South Asian countries, as India’s attempts to balance China in these regions would lead to the best preferred outcome.
Securitizing India’s Interests through Economic Undertakings

The Challenge

One of the aims of the Quad involves provision of loans for infrastructural and technological advancements in the Indo-Pacific region. China's ambitious BRI has been successful in investing in major infrastructural projects in multiple nations worldwide, and those include nations from the Indo-Pacific as well. India fears the encirclement that has been caused due to such investments, referred to earlier as the “String of Pearls,” and to counter it India would have to step up into the forefront and counter Chinese investments with its own. One of the reasons why Chinese investments were heavily desired in the South Asian region was the neglectful nature of India toward its neighbors and the impression that India had been acting as a hegemon in the region, which could be effectively counterbalanced through Chinese economic intervention.24 Recently, a change in the political dynamic in the region can be seen as Chinese “dept-trap” diplomacy has garnered backlash from not just its global rivals but also the receiving countries, and has caused new nations acquiring such investments from China to be cautious of becoming trapped themselves. India has also started to act in accordance by providing various investments to countries such as Sri Lanka, Bangladesh, and Maldives.25

China's growing presence in the IOR demonstrates the region's importance to all global powers, owing to the massive volumes of global trade that pass through the region, its resources, and its geopolitical significance. China's massive investments in port and pipeline projects in the littoral nations would enable China to secure its SLOCs in the Indo-Pacific. But it can also, in turn, pressure global trade and China's detractors in the region. The Quad's aim of the formation of a “Free, Open, and Inclusive Indo-Pacific” is in direct opposition to China's activities in the region, and India has shown full support for the initiative. Prime Minister Narendra Modi proposed “5 Principles for Global Maritime Security,” and the doctrine of Security and Growth for all in the region, or SAGAR, which can also be viewed as opposing China's maritime activities in the Indo-Pacific.26

Advancing the “Act East”

Southeast Asia has emerged as a focal point for the great powers in the contemporary era. For India too, the region holds importance as India's major oil imports and 40 percent of its total trade passes through the Strait of Malacca.27 The importance of the region for India can be appraised through the “Look East” policy that eventually morphed into “Act East” under the current ruling government. If India is to achieve its goal of becoming an economic power while also unlocking the poten-
tial of its northeastern states, it must establish ties with Southeast Asian nations. Setting up supply chains and construction of infrastructure will go a long way for India to not only link India to its Southeast Asian neighbors economically but also politically. India has signed various deals with the ASEAN nations such as the Comprehensive Economic Cooperation Agreements with Singapore and Malaysia in 2005 and 2011 respectively, a trade in goods agreement in 2016, free trade agreements with Japan as well as held security dialogues and memorandum of understanding with Australia but has still felt lacking in its economic (aid and investment) and security ventures. India has pushed forward its ASEAN venture but as Bajpaee states, “India has lost its focus on the ASEAN centrality. India has been timid in enforcing its efforts on security posts along its immediate borders, and has been unable to set up economic links with the ASEAN as it is only the 9th largest trading partner, with smaller nations such as Taiwan and Hong Kong racking up more number.”

India has also left itself out of the Regional Comprehensive Economic Partnership that could have enforced its “Act East” out of fear of Chinese malpractices, but India has been pursuing other projects to form links with ASEAN: the various infrastructural projects such as the India-Myanmar-Thailand highway, which is now being planned to envelop Cambodia, Laos, and Vietnam along with Bangladesh, the Kaladan Transit Project, and various other envisioned programs with members of the Quad to connect India’s northeast to Southeast and East Asia. India has also been looking to form other alternate routes to trade with the ASEAN nations that exclude dealing with China.

**Afterimage of the Asia-Africa Growth Corridor**

Another area of focus for India could also be the Asia-Africa Growth Corridor initiative by New Delhi and Tokyo and announced in 2017. The plan envisioned the creation of quality infrastructure to promote development and people-to-people partnerships. As the goals of both the nations aligned with the rule of law, political liberalism, and the market economy, the initiative showed great strength in India-Japan unity but has shown no consecutive gains. The initiative was envisioned as a counter to China’s BRI, but rather than pursuing the goals further, the plan was scrapped, and in its place are other initiatives with similar goals, such as the Platform for Japan-India Business Cooperation in the Asia-Africa Region or the India-Japan Development Cooperation in the Indo-Pacific, including Africa. The initiative showed that India and Japan can work in tandem to produce infrastructure in the Asian and African nations and have also worked on it to some extent by funding projects such as roads and hospitals in Africa. As such, it can help India to further its aims not just in the Southeast Asian region, but also in Africa as well as South Asia. India’s External Affairs Minister S. Jaishankar stated that Japan and India
have been looking forward to working together on island nations in the Pacific and South Asia as has been seen in Sri Lanka and under various banners of the Quad, ASEAN, and East Asia Summit.\textsuperscript{32} As a part of Japan's “Exit China” strategy, South Asian nations could also benefit from foreign direct investment (FDI) as a result of Japanese industries moving out of China, and they have also seen its presence grow in countries such as Sri Lanka, Bangladesh, and Myanmar.\textsuperscript{33}

**Economic Enterprising with Regional Allies**

India and the United States have also moved further in their cooperation to achieve mutual aims in the Indo-Pacific region. Although mutual aims and cooperation between both nations have been majorly seen in the defense and security aspects, with the Quad and maritime security gaining importance in the region, the leaders of both nations affirmed the importance of building strategic partnerships and working together with other groupings such as ASEAN and the Quad.\textsuperscript{34} The United States could also play a major role in India's periphery by directly coordinating with India to help construct infrastructural development, capacity building, and help revive a region on the path of a post-pandemic recovery.\textsuperscript{35}

The Indian Ocean currently accounts for 4 percent of gross domestic product (GDP) through blue economy ventures, and the scale of that proportion will balloon with global estimates rising for demand in the sector. India will have to venture into developing its blue economy sectors besides production of infrastructure, security, and promotion of a rules-based order. India has enhanced its maritime cooperation with Australia in this sense. India-Australia maritime cooperation has raised concerns about tackling the issues of promoting peace, stability, and a rules-based maritime order based on international law while combating terrorism, piracy, drug trafficking, and environmental challenges such as climate change, ocean acidification, while preserving marine ecology and promoting resource sharing.\textsuperscript{36} Hence, India and Australia have strengthened their cooperation to safeguard their interests in the Indo-Pacific region.

Along with bilateral arrangements, the region has seen a rise in trilateral arrangements such as the India-Japan-Australia supply chain initiative as well as the Australia-India-Indonesia and the India-Australia-France groupings.\textsuperscript{37} The groupings will promote a “free and open,” peaceful, and law-abiding Indo-Pacific, focusing on economic, security, and environmental challenges in the region. Meanwhile, the India-Japan-Australia Supply Chain Resilience Initiative (SCRI) will focus on forming resilient supply chains in the sectors of petrochemicals, automobiles, pharmaceuticals, and textiles in the wake of the COVID pandemic.\textsuperscript{38}
**Provision of Alternate Sources of Investment**

China has been successful in achieving its goal of promoting its BRI across multiple nations in Asia and Africa and has been able to do so on its own terms and conditions. One of the major reasons for that has been the absence of other major economic powers in the scenario to provide aid and investments to these states, as they usually involve tackling weak rule of law and weak protectionist laws for incoming FDI, hence investors from other countries remain hesitant to invest.\(^3\)\(^9\) Even if such investments are offered, they are offered with tight ends, which leaves the countries no better option than Chinese investments through which China has been able to invest in main sectors of the local economy and has been able to grab the “guts” of the economy.\(^4\)\(^0\) India needs to work in this respect along with other regional powers, because the oversight of investment demands by the developed world has been one of the key factors for the increase in Chinese presence in Asia and also in the African nations. The recent joint venture by the United States, Japan, Australia, and New Zealand to build a Papua New Guinea power grid shows the Quad wants to move further in this direction.\(^4\)\(^1\) India should capitalize on the move by increasing its collective presence in Southeast Asian nations to exert pressure on China from regions other than the Indian Ocean.

**Maintaining Military Interests**

**Investing in and Modernizing Military Capabilities**

India’s most comprehensive military coordination in the Indo-Pacific has been with the United States. With the United States shifting its priority to the “Asia-Pacific,” as was stated under the Obama administration, the United States has also prioritized India’s role as being centric to the United States’ “Pivot to Asia.”\(^4\)\(^2\) The India-US shared vision gained formal recognition in the year 2015, and gained pace under the United Progressive Alliance (UPA) government headed by Narendra Modi with the finalization of three essential agreements: the Logistics Exchange Memorandum of Agreement, the Communications Compatibility and Security Agreement, and finally the Basic Exchange and Cooperation Agreement.\(^4\)\(^3\) The three agreements will aid both nations to restock each other’s designated military facilities, secure communication between their militaries, and supply high-tech equipment and intelligence, respectively.\(^4\)\(^4\) Along with the said deals, the United States also cleared sales of Guardian unmanned aerial vehicles and the US-P8I patrol aircraft, both of which will aid India in countering Chinese naval and, notably, submarine presence in the Indian Ocean.\(^4\)\(^5\) If the United States wants India to aid it in its “Pivot to Asia,” and if India wants to secure itself in the maritime domain
against Chinese aggression, then India has to upgrade its naval capabilities, which the above stated agreements have been specifically designed to do. Along with the procurement of technology and equipment, India and the United States have also furthered their capabilities through military exercises, with India hosting the highest number of military exercises with the United States among all its allies. The India-US Malabar exercise, which is specifically aimed at joint operations in the maritime domain, has seen great leaps, with Japan joining the exercise officially in 2015 and Singapore and Australia being unofficial participants. India has conducted multiple other naval exercises categorically with Asia-Pacific countries such as Japan, Singapore, Indonesia, and the Philippines, which saw the participation of anti-submarine corvettes, multi-role guided missile stealth frigates, and P8I long-range maritime patrol aircraft.

Hence, India has begun to gain traction in upgrading its naval capabilities and operability, but one area where it has lagged is in its budget allocation to the Navy. The Indian Army takes up 56 percent of the budget, and proportionally so as it is the largest branch, but only 15 percent is handed out to the Navy. Based on numerical values, the Indian Navy has the least proportion of expenditure in both revenue and capital expenditure. That indicates neglect and disregard, despite the increasing importance of the required naval capabilities to counter maritime threats to India. Even when compared to other Quad members, India spends less on its Navy, with the United States, Japan, and Australia allocating 30, 23, and 25 percent of their budgets to their respective navies.

Harnessing Geopolitical Assets

India’s Andaman and Nicobar Islands also play a vital role due to their geographical location. The islands, which are close to Southeast Asian nations and the Malacca Strait, provide a great geostrategic position for India to operate its military functions, such as the already established Tri Service Command. But despite developments on the island, it is generally criticized for not being vitalized to its full potential. Within the changing political and strategic environment, the islands can be used for the naval capabilities of Indian allies in the region, such as Australia, Japan, the United States, and France, among others. This could meaningfully increase cooperation among regional allies, especially considering the Quad’s aims and outreach. If India opens the islands to other navies, it can also enable infrastructure, technology, and intelligence upgradation through collective participation and development of the islands, especially with greater influence being put into the region seen even with the establishment of the new United States Indo-Pacific Command.
The Indo-Pacific from the Indian interest perspective ranges from the eastern coasts of the African continent to the western shores of the American continent, and if India is at the strategic end of one part of the region, then Australia is at the important junction where the Indian Ocean and the Pacific meet, and this geopolitical strategic value of both the nations has made the nations realize the importance of each in achieving their aims in regard to the future of the Indo-Pacific. This has also enabled the promotion of relations between the two nations, with India and Australia signing agreements covering a broad range of interests, including military interoperability, intelligence cooperation, technology cooperation, and maritime capabilities.

India has a strategic and geographical advantage over China when it comes to control of the Indian Ocean, but economically, China has been aggressive in connecting itself to the Indian Ocean, connections that have been hampered by the harsh geographical landscapes between the Indian Ocean and China. When it comes to a conflict situation between India and China, India would want to push the conflict to the maritime region, but with an increasing Chinese naval presence over the years through facilitation of ports and by participation in antipiracy missions, India needs to find allies in the form of its neighbors. India has used its geographical position and leadership to form and lead initiatives such as the Bangladesh, Bhutan, India, Nepal (BBIN) Initiative and Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) to promote the concept of trade, transportation, communication, tourism, counterterrorism, energy, and other areas that could reduce demand for Chinese investments and increase Indian influence over such countries.

**Increasing Intelligence Network Effectiveness**

Abhijnan Rej states that to achieve dissuasion and deterrence against China in the Indo-Pacific, the political military means that the Quad should use include logistics networks and interoperability through joint exercises, defense diplomacy, and patrolling and presence operations in the maritime domain. India also needs to conduct intelligence and reconnaissance operations both on the land borders as well as in the maritime domain to carry out precise and accurate operations, failing which, China could gain the upper hand.

To achieve decisive and practical results, legitimate and precise intelligence information is an important element. India’s intelligence history has many instances that have shown major intelligence breakdowns, such as during the 1962 Sino-Indian war, the 1999 Kargil War, the 2001 Parliament attacks, the 2008 Mumbai attacks, the 2016 Uri attacks, the 2016 Pathankot attacks, and the most recent 2019 Balakot airstrikes. Indian intelligence has suffered from overlapping
responsibilities and shortcomings in administrative structure, communication within the intelligence hierarchy, and data analysis—as well as leadership challenges during dire moments. Indian intelligence agencies have not just lacked in their functioning but in evolution as well. While intelligence agencies tend to evolve, learning from their failures, Indian intelligence agencies have suffered under the pressures of the Indian bureaucratic system, with every new government making changes to the previous governments’ decisions to revamp the intelligence structure, halting any progress in the process.

An obvious solution to India’s lack of an intelligence sector could be through intelligence sharing and agreements with partner nations in the region. A major step for India in this avenue has been the signing of the Basic Exchange and Cooperation Agreement with the United States. This includes the sharing of unclassified as well as to some degree classified information, which drastically improves the Indian military’s ability to strike its enemies with pinpoint precision. Another agreement that has been highlighted is the “Five Eyes.” Joining the agreement would pave way for India to receive quality intelligence information from advanced equipment that would improve India’s preparedness against border infiltrations, along with opportunities to train and develop its lacking intelligence capabilities. India has also been pursuing intelligence sharing with Australia and Japan, as well in diversified fields such as counterterrorism and cybersecurity.

Supplementing Significance through Soft Power

Soft power is a concept that has gained major prominence in the contemporary international relations setting, with countries focusing on their foreign policies and cultural propagation to further their relations with other countries. Joseph Nye, the designer of the concept, stated that there is a third form of power that dictates one country’s relations with another, and unlike the coercive methods of military and economic powers, is a more compassionate and humble method. The COVID-19 pandemic came as an opportunity for India to become a vaccine production hub for the globe, and through collaboration with the Quad, India’s ambitions have started to take form. India had exported 66 million doses of vaccine to other countries before it hit a halt due to internal turmoil.

Soft power can be used as a competent tool for persuasion and attraction, but for the Indian side, its soft power diplomacy has not been effective. Despite continuous efforts by the Indian side, internal political turmoil and conflicts, along with the shutting down of various industries due to the pandemic, have put a halt to India’s soft power diplomacy. Although India has tried to grasp the opportunity of the moment through its vaccine diplomacy, the mismanagement of the pandemic internally has put a dent on India’s hope to be the pharmaceutical hub.
globally, while Russia and China push forward in this respect.\(^5\) With the country’s stability restored, India has resumed its push to export vaccines, with Iran, Bangladesh, and Myanmar each receiving a supply of one million doses.\(^6\) There has also been an extensive growth in the production of vaccines, which gives the Indian government relief to push its national vaccine movement in tandem with its global commitments. Hence, vaccine diplomacy can be used as an efficient political tool to increase India’s soft power globally, and India could step up its image as the “pharmacy of the world.”

India has recognized the importance of a positive self-image in the Indo-Pacific and has given rise to multiple policies of “neighborhood first,” “Act East,” and several bilateral and multilateral arrangements. T. V. Paul states that globalization has led to a form of BOP in South Asia between India and China, giving the smaller nations options for investments without having to bandwagon in the process.\(^7\) Because of this India has lost its domination over the smaller states. If the same logic can be used in the context of Southeast Asia, India’s pursuit of economic and diplomatic linkages could also go a long way to counter China in the region. Another agreement signed by India with its Southeast Asian neighbors on the same topic was the Mekong Ganga Cooperation, which not only aids India to strengthen its relations with the region’s nations, but also aids it to improve its soft power through initiatives in the fields of culture, agriculture, health, and education.\(^8\)

**Conclusion**

India has been using several soft and hard balancing options for countering China in the Indo-Pacific, along with multiple policies and developments that have taken place internally to counter deficiencies and increase preparedness. The pandemic has exposed major global economic and political inadequacies and adding to India’s already existing internal and external instabilities has brought out new desires and ventures from the Indian side. For India, the regions in the Indo-Pacific are divided into immediate neighbors and further to the western borders of Africa and east toward Southeast Asia, and through this article it has been laid out that India needs to venture outside its neighborhood, and it has lately started to give importance to the greater Indo-Pacific region given China’s intervention in the region. Also, we can see a partial shift in the Indian political stance against China, where India has shifted from a passive to a nonchalant yet active stance. India has started to shape its policies and its stance to achieve limited hard balance against China in the Indo-Pacific. To achieve that goal, India has cooperated with multiple regional allies and will continue to do so in the future. These arrangements provide India with a feasible and effective way to balance China without resorting to a direct confrontation, which India is unlikely to want.
Through the implementation of the RSCT theory along with BOP, we see India securitizing against not just conventional but unconventional threats as well. Through various economic, cultural, political, environmental, and military agreements, India has been balancing as well as countering Chinese security threats in the region. As discussed, this could be an effective solution to India’s “two-front war” threat. As one, it would be beneficial to stop any Chinese aggressiveness on the borders by compelling China to be mindful of India’s aspirations. Secondly, countering Pakistan without a coercive Chinese threat on the second front would be a much more desirable stance for the Indian side. With India’s desire to become a global power in mind, India’s involvement in the Indo-Pacific could be a productive step to achieve that goal.

India could play a leading role in the region considering its massive geographic, economic, military, and cultural might. Various regional players with shared mentalities have all shown interest in coordinating with India. Countries such as Japan, Australia, the United States, and France have shared interests, but even the smaller nations have benefitted from such arrangements and have shown the desire to commit to such endeavors. Countries that have been dominated by China, such as Laos and Cambodia, have also been reached through various ventures. Although some of these arrangements are fairly new and insufficient as of now against China, with continuous efforts and participation, they could become a significant strategy to balance China.

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Notes


Reenergizing Indian Security in the Indian Ocean Region


A Case for Indo-Russia Cooperation in the Indo-Pacific

RUSHALI SAHA

Abstract

The intensification of strategic competition between the United States and China and Russia—reminiscent of the Cold War era—is changing geopolitical equations across the globe. However, unlike the Cold War era, strategic competition is unfurling in a hitherto unknown multipolar, interconnected world where rising powers such as India will have an indelible say in shaping the future world order. Nowhere is this clearer than in the Indo-Pacific—which is emerging as a prominent theater of bipolar strategic competition—where India has made its deep presence felt. With the Indo-Pacific in flux, India’s approach to the region confers on it a degree of flexibility in action, without compromising its core values. Such a position allows India to engage with Russia, which despite its criticism of the Indo-Pacific, has important stakes in the region, opening the possibility of cooperation between these two traditional partners. This article outlines how India’s unique and independent position within the evolving and dynamic Indo-Pacific concept is well suited to alleviate Russian concerns about the Indo-Pacific, which are squarely directed toward only Washington’s conception of Indo-Pacific. It outlines how Russia is crucial for India to advance its inclusive vision for the region, and India for Russia, to achieve its ambitious “Greater Eurasia” vision, among other reasons. Despite the challenges, this article makes a case for Indo-Russia cooperation in the fluid and dynamic Indo-Pacific theater.

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The Indo-Pacific as a geostrategic concept is rapidly replacing “Asia-Pacific” as a framework to define Asian regionalism. Like its predecessor, the Indo-Pacific is best understood as an imagined space, which emerged as a response to the changing reality where Asia is replacing Europe as the theater of world politics. Arif Dirlik’s work shows how terms such as “Asia-Pacific” and “Pacific Rim” are “ideational constructs” that “define the physical space they pretend to describe.” He analyzed how the Pacific “as a region” was a “Euro-American invention” that emerged in “historical consciousness as an extension of the conquest and consciousness of the Americas.” As it was the commercial and political activity of Euro-American actors that defined the region, it came to be seen as a “periphery to a European core” but it had a “strong Asian orientation” represented
by the strong presence of the Chinese economy with Guangzhou (Canton) as the trade hub. Subsequently the emerging economic power of Asia-Pacific societies during the late 1960s, particularly Japan, impacted the discourse on the Pacific. Due to the rapid economic rise of these countries, they came to be seen at once a part of the industrialized and highly advanced Pacific economies and Asia. Thus “economism” emerged as the ideological foundation of the Asia-Pacific discourse, which was further strengthened by the emergence of the “Asian Tigers” in 1980s. However, the Euro-American conceptualizations continued to hold “hegemonic sway over consciousness” and United States’ military-strategic representations of the region were crucial in the overall representation of the region. Intertwined with the larger Cold War dynamics, the Asia-Pacific became a “site of struggle and contestation between US, China and their allies in the ‘region’ on one hand, and the Soviet Union and its ‘client states’ like Vietnam on the other.” In essence, the Asia-Pacific discourse at once reinforced Washington’s crucial security and economic role in the region while also accommodating the success of East Asian countries in the regional economy.

Similarly, the Indo-Pacific is also a “political term” that is “neither purely descriptive nor value neutral.” The intellectual origins of the term can be traced back to Karl Haushofer who laid the “natural foundation of the ‘Indo-Pacific’ space” by tracing the “routes of fishes swimming from Madagascar to the Austroasiatic coasts.” Even before that, going back to the eighteenth century one can see how in European maps, Asia stretches from “the Indian Ocean rim, through Southeast Asia to China, Korea and Japan” corresponding with the contemporary Indo-Pacific arc. However it emerged in contemporary discourse from changes in balance of power equations, particularly due to the rise of India, which “reversed” the split of Asia into smaller units, largely as a result of Cold War geopolitics. Contemporary geopolitical and strategic interest in the Indo-Pacific began with Prime Minister Shinzo Abe’s 2007 speech in the Indian Parliament where he spoke of the “confluence of the two seas” (the Pacific and the Indian Ocean) without directly using the term. Despite some activity around the idea, resulting in the first iteration of the Quadrilateral Security Dialogue (Quad) consisting of India, Japan, the United States, and Australia, which met in 2007, it dissolved quickly in 2008. Australia—which is generally blamed for the demise of Quad 1.0 as it was the first to step out of the arrangement—was the first country to formally introduce and outline the country’s interest in a “stable Indo-Pacific region” with its 2013 Defence White Paper. The Indo-Pacific reemerged in Japan after Shinzo Abe unveiled the “Free and Open Indo-Pacific” strategy in 2016 at the Sixth Tokyo International Conference on African Development. The following year, the United States released its National Security Strategy,
which noted the emergence of “geopolitical competition between free and repressive visions of world order” in the Indo-Pacific region. In May 2018, the US Pacific Command changed its name to US Indo-Pacific Command, which officials stated was a “recognition of the increasing connectivity between the Indian and Pacific Oceans.” Subsequently, official documents, most recently the Indo-Pacific Strategy of the United States released in February 2022, broadly outline Washington’s approach to the region and policy initiatives, geared mostly to work with allies and partners to contain Chinese influence in the region. In June 2019, ASEAN leaders formally adopted “The ASEAN Outlook on the Indo-Pacific” indicating the importance Southeast Asians accord to the region. Regional survey reports show that the concept is gaining more traction among Southeast Asians. In 2020, the ISEAS-Yusof Ishak Institute regional survey revealed that more than half (54 percent) of the respondents thought that the Indo-Pacific concept is “unclear and requires further elaboration,” whereas in 2021 only 11.8 percent of the respondents thought so. Prior to the EU releasing its “Strategy for Cooperation in the Indo-Pacific” in 2021, countries such as France, Germany, and the Netherlands adopted their own Indo-Pacific strategies in 2018 and September 2020 and November 2020 respectively. The United Kingdom also announced its “Indo-Pacific tilt” on 11 October 2021 through its Integrated Review 2021. This indicates that both regional and extraregional powers are actively participating in shaping the narrative surrounding the Indo-Pacific to ensure their interests are well represented. However, this has also led to the “concept” of the Indo-Pacific increasingly being conflated with “strategy,” which mistakenly leads to the assumption that the discourse on the Indo-Pacific is only shaped by the position countries take in the region.

Researchers have shown that the “prospects for multilateral partnership” are also an important variable in the definition of the Indo-Pacific, where some prioritize the security component, while others the economic. In terms of geospatiality, it is broadly understood as the integrated theater that includes the Indian and Pacific Ocean, however, the countries that advocate the term Indo-Pacific have often geographically adjusted their conceptualization of the region to suit their national interests. Due to the different priorities of each country, a unified adoption of the concept remains elusive thereby making a single vision for the region a distant reality. Nevertheless, it is clear that the Indo-Pacific concept is increasingly gaining traction, despite the differing perception among key actors in the region.
“Indo” in Indo-Pacific: Understanding India’s Definition of Indo-Pacific

In view of the Indo-Pacific’s increasing strategic importance as the fastest growing region in the world, it is not surprising to see policy makers in India reorient the country’s focus to prioritize the Indo-Pacific. This is a result of greater appreciation of India’s maritime identity and recognition of New Delhi’s growing stakes in ensuring a stable regional order. India has a rich maritime heritage and an acute awareness of incorporating maritime perspectives to further its own national interest—evident from the writings of Indian historian, diplomat, and strategic thinker K.M. Panikkar in the 1940s. Indeed, current narratives about the region advanced by New Delhi can be traced back to the works of Panikkar. His definition of “strategic arc” has been “realigned and reinvigorated” to suit India’s current definition of the region. However, preoccupation with continental threats immediately after independence and former Prime Minister Jawaharlal Nehru’s (hailed as the architect of India’s foreign policy) “formal rejection of geopolitics” as a foreign policy driver, resulted in a willful ignorance of maritime focus. It was only in 2011 that the phrase “Indo-Pacific” appeared in India’s foreign policy discourse, but as early as the 1990s India had been exploring the notions of an “extended neighborhood” comprising “countries in the ASEAN-Pacific region, Central Asia, the Gulf, West Asia and North Africa and the Indian Ocean Rim” to exploit economic opportunities. Domestically the idea of the Indo-Pacific emerged as an extension of the Look East Policy, due to imperatives of economic development owing to its incipient liberalization, which had led to increased trade in resources through maritime routes crossing the Indian and Western Pacific Ocean. New Delhi’s “Indo-Pacific” narrative focused on cultivating trade and investment linkages with countries across its extended neighborhood and promoting free and open sea lanes of communication to ensure no disruption to its economic development.

Under the current government in power since 2014, New Delhi has complemented its economic focus with deeper political and diplomatic engagement with the region, especially through minilaterals such as the Quad. Prime Minister Narendra Modi provided the clearest exposition of India’s vision of the Indo-Pacific in his remarks at the 2018 IISS Shangri-La Dialogue, where he defined the region as stretching “from the shores of Africa to that of the Americas.” It is here that he also extended India’s SAGAR (Security and Growth for All in the Region) vision—which was introduced in 2015 in the context of the Indian Ocean—to the larger Indo-Pacific region. Inclusivity, ASEAN centrality, partnerships rather than alliances, rules-based order, free and open trade, and connectivity emerged as the core aspect of India’s approach to the region. This vision dictates New Delhi’s
policy priorities and initiatives in the region, which are mostly through issue-specific collaborations. Through this, India is positioning itself not as a passive recipient, but an active participant in the nascent regional order formation of Indo-Pacific. Such a position is an extension of the fundamental drivers of its foreign policy, such as maintaining strategic autonomy and independent decision making. India’s engagement in the region is best described as “involvement, rather than entanglement” as evident from the core aspects of its vision.

China looms large in any discussion on the Indo-Pacific, including in India, where several commentators linked India’s rising activism in the Quad as a response to the Chinese challenge along their shared border. Scholars have pointed out how focus on maritime security in India’s Indo-Pacific discourse “directly links to China’s increasing activity in the IOR”—despite strong denials from official quarters about China’s role as a driver of India’s Indo-Pacific policy. Noted scholar Rajesh Rajagopalan has characterized India’s Indo-Pacific strategy as a “subset of its China policy,” identifying the “primary objective” of India’s Indo-Pacific policy as “preventing China from dominating the region.” At the same time, he identifies reassuring China as a crucial component of its Indo-Pacific strategy and characterizes India’s attempts at balancing China’s rise through coalitions while reassuring it as “evasive balancing.” Undoubtedly, Chinese activity in the Indian Ocean is a direct threat to India’s interest, which Indian officials have openly expressed their concerns about. However, India’s strong reliance on Chinese imports dictates that it cannot afford to alienate China, which also explains India’s careful calibration of ties with partners in the region, most visibly through its advocacy of a limited security role for the Quad. Unlike the United States, Japan, and Australia, India shares a continental border with China and any activity on the maritime domain will undoubtedly affect the status quo on the border. New Delhi, while staying firm on national security questions with China, has also engaged with Beijing on questions of regional order, setting it apart from Washington’s position in the region, which is primarily concerned with “losing strategic primacy to China in Asia.” Unlike the United States, India is reluctant about a “securitized role” in the region, which comes from India’s traditional role as a “non-securitized actor” in Southeast Asia, where its post–Cold War engagement has been “gradual and non-threatening, emphasizing the importance of economic linkages and exchange.”

Not surprisingly, such a stance does not come without its challenges. As argued by Rajagopalan, for New Delhi, evasive balancing is unviable due to its fundamentally unwieldy posture. As other scholars have also pointed out, although India espouses an inclusive vision for the region, the “premise of mini-literalism that the Quad presupposes” goes against it. Despite New Delhi’s clarity on the Quad not
being directed against China or any third country, there remains a visible confusion on how India views Chinese participation in the region, especially in the light of worsening bilateral relations with Beijing since the fatal clashes in Galwan Valley in 2020.\textsuperscript{43} Worsening relations between Russia and the United States on one hand and China and the United States on the other significantly reduces New Delhi’s room for maneuver to justify its independent position. Convincing both the domestic and international audience that New Delhi remains committed to inclusivity while strengthening strategic ties with the United States is a challenge.

**Russia in the Indo-Pacific: Rhetoric versus Reality**

Despite the increasing prominence of the Indo-Pacific as a strategic reality among many Asian countries, Russia—which has its own legacy of dispute over whether it belongs to Asia or Europe in the debate over its civilizational identity\textsuperscript{44}—has shown outright hostility toward the strategic construct. The strongest Russian criticism is directed against the Quad, which Russian Foreign Minister Sergei Lavrov once described as a “devious policy” that was “divisive” and “exclusive”—constructed by Western powers to engage India in “anti-China games.”\textsuperscript{45} The Indo-Pacific, in the Russian psyche, is an effort to recreate a Cold War–era two-bloc system in Asia while simultaneously trying to “contain” China.\textsuperscript{46} Russia has expressed this concern through multilateral forums, such as the Shanghai Cooperation Organisation, especially highlighting its exclusionary character.\textsuperscript{47} Russia’s position is that the Indo-Pacific strategy “undermines the core role played by ASEAN,” which becomes particularly important in light of President Putin’s increased Southeast Asia outreach through increased engagement with ASEAN.\textsuperscript{48} In January 2020, Lavrov condemned the United States’ Indo-Pacific strategy in harshest terms describing it as “destructive” and aimed at dividing the region into “interest groups.”\textsuperscript{49} Worsening relations with the United States, particularly since 2014, complemented by growing Sino-Russian ties has undoubtedly contributed to negative Russian perceptions of the region. However, despite this strong rhetoric opposing the Indo-Pacific, Russia has important stakes in the region especially in view of its increasing ties with important Indo-Pacific players, namely India, Japan, and ASEAN as a whole. A closer scrutiny of Russia’s criticism of the Indo-Pacific reveals that it echoes its concerns about the perceived domination of the West, which misreads the complex reality of the Indo-Pacific. In fact, several Russian scholars have pointed out that viewing the Indo-Pacific “as a single (US-led) anti-Beijing front is simplistic and misleading, obscuring a variety of approaches by the region’s state.”\textsuperscript{50} Individually none of Russia’s concerns, whether it is fears about the Quad developing as an Asian NATO or diminishing ASEAN centrality, do not hold up to careful scrutiny. On several accounts, New
Delhi has clarified that far from being an “Asian NATO,” the Quad is a “grouping of four countries” that have “common interests, common values” and who together address global challenges. As a flexible “group of likeminded democracies,” the Quad does not have any collective defense obligation comparable to Article 5 of the NATO charter. ASEAN support for the Indo-Pacific is also evident in its 2019 ASEAN Outlook on the Indo-Pacific, which specifies that ASEAN “may also seek to develop, where appropriate, cooperation with other regional and sub-regional mechanisms” in the region, undermining Russia’s claims of the Indo-Pacific concept diluting ASEAN centrality. Seemingly to navigate these tensions and maintain its “privileged” partnership with India, top Russian diplomats have expressed support for “India’s vision of the Indo-Pacific” while continuing to express concerns about the Quad. In fact, even China, which has staunchly opposed the Indo-Pacific construct, has acknowledged India’s Indo-Pacific initiative, an indicator of India’s unique, independent vision of the region.

Moscow also has a notable military presence in the region. Russia’s presence in the Indian Ocean and Pacific predates its modern existence and can be traced back to the Soviet era. The Pacific Fleet, one of the largest and strongest single fleets in the Soviet Navy, emerged as a “symbol of Soviet military strength and an indication of the seriousness of its commitment and its stake in the region.” The Soviet Union deployed naval forces in the Indian Ocean in 1968 and had a permanent presence by 1969. Some records shows that Washington’s permanent naval force presence in Indian Ocean was small when compared with the Soviets, yet others point out that the Soviet Indian Ocean squadron’s role was primarily “political” indicated by “its limited offensive capability and power projection.” Despite the debatable strength of the Soviet Navy in the Indian Ocean, it is undeniable that the Soviets did have a naval presence in the Indian Ocean. Following the dissolution of the Soviet Union, the Pacific Fleet was officially declared as an asset of the Commonwealth of Independent States but in 1992 it became the Russian Pacific Fleet. Among the four Russian fleets, the Pacific Fleet covers the largest area of responsibility, spanning across both the Pacific and Indian Ocean and extending to the Persian Gulf. Maritime concerns did not figure prominently in Russia’s strategic calculations immediately after the end of the Cold War, resulting in the reduced funding and activity of the Russian Navy. For example, by mid-2000, the Pacific Fleet’s overall strength had been reduced by 40 percent from 1991, and the number of ships and personnel had also been reduced by more than half. After a prolonged period of decline, the Russian Navy received a significant boost as a part of its overall “pivot to Asia” in 2014, which experts then assessed would transform the fleet “from its smallest to its biggest naval asset.” Since 2019, the frequency of antisubmarine warfare exercised by the Russian Pacific fleet has been increasing,
indicating the modernization of the fleet. Over the past few years, the Pacific fleet has received nearly 20 new and upgraded warships and supply vessels, and reports suggest that it will receive more new warships and submarines in 2022.

Beyond the Pacific, Russia has revived its interest in the Indian Ocean, most evident in its 2015 Maritime Doctrine, which clearly identifies the Indian Ocean as one of the regional priorities along with the Atlantic, Arctic, Pacific, Caspian, and Antarctic. Slowly, but steadily, Russia is making its presence felt in the Indian Ocean—sometimes in conjunction with China, evident from the increasing number of joint naval exercises. Russia’s inclusion in the Indian Ocean Rim Association on 17 November 2021 is both an indicator of Russian interest in the region, and a recognition of Russia’s growing presence.

**Prospects for India–Russia Collaboration in the Indo-Pacific**

New Delhi’s deepening security ties with Washington in the face of Chinese aggression along the Line of Actual Control has caused notable unease in Russia. As highlighted above, Moscow’s primary concern is with India’s participation in the Indo-Pacific through forums such as the Quad. Lavrov’s statement describing India as an “object of the Western countries persistent, aggressive and devious policy” did not sit well with members of India’s strategic community, who called for a reevaluation of traditional ties with Russia in light of changed global balance of power equations. The cancellation of the India–Russia annual summit in 2020 for the first time in over two decades raised speculations about a downturn in relations, despite the official clarification by the Ministry of External Affairs that it was called off due to “epidemiological reasons.” The latest visit by Russian President Vladimir Putin on 6 December 2021 to New Delhi seems to have temporarily assuaged concerns about a downturn in bilateral relations, and the inception of the 2+2 Dialogue of Foreign and Defence Ministers was hailed as a notable boost to strategic relations. India’s subtle pro-Russia position on the Ukraine crisis has made it further clear that both India and Russia continue to value their partnership, despite the more complicated international geopolitical environment.

New Delhi has been vocal about its desire for “more active Russian partnership” in the Indo-Pacific, reiterated by high level officials across several multilateral forums. However, such participation may invite the ire of Washington, which considers India a crucial Indo-Pacific partner. Nevertheless, for New Delhi, Russia’s participation strengthens its inclusive Indo-Pacific narrative, ergo serving its own national interests. At the same time, India has sternly objected to Russian foreign ministers’ comments that criticized the Indo-Pacific as a “Western ploy” to draw India into “anti-China games”—further indicating India’s independent position. India’s active preference of operating through minilaterals in the Indo-
Pacific to maximize its interests is in tune with the current administration’s preference for issue-based coalition. The Indo-Pacific is undoubtedly in flux, with rapidly changing balance of power equations, which necessarily entails grouping and regrouping without compromising on core values. India’s position on the Indo-Pacific has to be seen against this backdrop, as one which ensures “congruence with many, convergence with none.” Moreover, India’s notion of the Indo-Pacific is “based on a ‘continental connect’ proposition” which, rather than being defined in strictly geographical terms, adopts a “positive’ continental” approach that effectively opens the space for cooperating with countries such as Russia.

Since 2016, when President Putin announced the idea of “Greater Eurasia”—which envisages linking Europe and Asia—it has emerged as Moscow’s dominant strategic framework. Although Russia’s geopolitical thinking has historically been focused on land, it cannot afford to ignore the maritime dimensions of Eurasia, surrounded by the Arctic, Atlantic, Pacific, and Indian Ocean. India is a crucial partner for Russia to actualize its Greater Eurasia vision. Indian foreign secretary Harsh Shringla identified Eurasia, the Indo-Pacific, and the Russian Far East as the geopolitical theaters where the two countries can cooperate. The congruence between Eurasia and the Indo-Pacific was identified by Prime Minister Modi in his virtual address at Eastern Economic Forum where he described Vladivostok as a “Sangam” (a confluence of rivers) of Eurasia and Indo-Pacific. The Chennai-Vladivostok Maritime Corridor connectivity project links the Northern Sea Route and the Pacific creating a “connectivity continuum” that binds the two countries. For New Delhi, this project is an extension of its Indo-Pacific policy with Jaishankar confirming that “there is an Indo-Pacific message in Vladivostok.”

The Russian vision of free trade areas and interregional trade in Eurasia complements India’s economic vision for the Indo-Pacific. As pointed out by Dmitri Trenin, “in-depth strategic dialogue with New Delhi” on the Indo-Pacific will not only serve to alleviate Russian concerns, but also open strategic dialogue with New Delhi on Greater Eurasia.

In many ways, Soviet naval assistance to India during the 1971 Indo-Pakistani War laid the foundation for maritime cooperation between the two countries. At the height of the war, when the United States sent a carrier task group to the Indian Ocean in support of Pakistan, the Soviet Union came to India’s support by dispatching a nuclear-armed flotilla from its Pacific Fleet to support India. Some commentators see this as the “beginning of Indo-Pacific concept between India and Russia.” Now as Russia seeks to revive its engagement in the Indian Ocean, India is well positioned to facilitate Russian access to the region. Reports suggest that the maiden 2+2 ministerial meet between India and Russia held in December 2021 resulted in both sides agreeing to expand partnership in the Indian Ocean Region through “additional port calls by Russian Navy ships to Indian
ports, increasing joint exercises in the Indian Ocean Region and even trilateral naval exercises with friendly countries . . .” in the region. Russia is also increasing its maritime engagement with Southeast Asia, having recently concluded its first ever joint naval exercise with ASEAN members in December 2021. Historically both India and Russia have experienced a degree of “weariness vis-à-vis independent engagements” in Southeast Asia. Given the importance both countries place on ASEAN centrality, Indo-Russian maritime collaboration in Southeast Asia may further serve to convince Moscow of India’s vision of Indo-Pacific while proving to be mutually beneficial.

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Notes

10. Medcalf, “Reimagining Asia: From Asia-Pacific to Indo-Pacific.”
A Case for Indo-Russia Cooperation in the Indo-Pacific


60. Muraviev, “Russian Naval Power in the Pacific.”
64. Translated by Anna Davis, “Maritime Doctrine of the Russian Federation,” Russia Maritime Studies Institute, United States Naval War College, 2015.
88. Gill, “The Benefits of Expanding the India-Russia Partnership in Southeast Asia.”
The Dragon’s Wing

The People’s Liberation Army Air Force’s Strategy

DR. XIAOBING LI

Abstract

The Chinese air force was born in the Cold War and developed into one of the world’s largest—with 480,000 personnel and 3,700 airplanes, including the People’s Liberation Army Air Force (PLAAF), Navy Air Force (PLANAF), and Army Aviation, which totaled 51 divisions by 2000. After becoming commander in chief in 2012, Xi Jinping shifted China’s national security strategy from solely defensive to a defensive offense. Xi removed the traditional defensive principle of “never open fire first” in war and now justifies any of China’s future attacks as preventive or retaliatory. Jin Yong and Bo Rui point out, “the Chinese air force will play a primary role in future warfare.” The PLAAF and PLANAF transformed from a tactical, defensive force within China to one capable of strategic, offensive missions beyond territorial borders. Ongoing reforms changed Chinese aviation research, development, and equipment priorities from modernizing high-tech hardware to combining both platform-centric upgrades and IT-software development for future network-centric warfare. This article indicates that the Chinese air force progressed considerably toward building and fielding a formidable defense/offense force, assumed responsibilities that accompany the projection of national power in the Pacific region, and can resist airborne invasion, protecting aerospace sovereignty, and safeguarding China’s maritime interests. The article explains PLAAF strategy, intentions, and capabilities, and characterizes the Chinese Air Force as it pertains to the United States. Lack of transparency in the Chinese military and national security apparatus is a major hindrance to understanding the PLAAF. In addition to lacking transparency, Chinese pilots’ aggressive behaviors toward the American, Japanese, and Taiwanese air forces certainly fomented distrustful, hostile, and even confrontational impressions. American public debates and strategic research focus on how to best deal with the PLAAF in case of crisis, such as in the Hainan US-China aircraft collision, and how to fight potential air wars over the South China Sea (SCS).

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Xi Jinping perpetuates the People’s Liberation Army’s (PLA) defensive offense by challenging the current US-led Indo-Pacific security system. During Mao Zedong’s era, the PLA adopted an active defense strategy by challenging the Cold War international system, in which two superpowers dominated global affairs: the United States and the Soviet Union. The PLA fought American armed forces in Korea from 1950 to 1953 and then fought the Soviet
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Union along its shared borders from 1969 to 1971. Xi reaffirms Jiang Zemin's post–Cold War doctrine and continues to employ nationalism as an ideology to unite the country and fight for China's superpower status, perhaps resulting in one more source of legitimacy for the Chinese Communist Party (CCP) as the country's ruling party. Xi promoted his global plan, “New Silk Road and Economic Belt,” to establish a China-centric global system that excluded America.

In 2014, Xi visited PLAAF HQ and instructed air force generals “to improve air force structure, build up new combat capacity, and make a rapid transition to a balanced airpower for both defense and offense.” He regards the PLAAF highly—not only because he served in the Air Force for six years but also because he believes in the service’s dominant role in future warfare. The face of battle shifted the PLAAF from tactical support for the army and navy to a leading strategic role in winning the next war. China's Defense White Paper 2018 indicated the PLAAF’s mission and tasks transitioned from territorial air defense to “offensive and defensive operations.” The PLAAF's war preparation is designed for offense as building an offensive air force is faster and cheaper than building a defensive one, in terms of combat effectiveness, for a large country. Moreover, an offensive force has greater deterrence power that compensates for vulnerabilities in China’s overall national defense. Ye Zhan states that PLAAF offensive doctrine includes long-range preemptive operations in the oceanic direction for air control, air strike, and air defense. It should play a key role in joint amphibious landings, coastal blockade, joint firepower strike, island defense, airborne, and nuclear counterstrike campaigns. It will also serve as a comprehensive strategic force capable of strategic early warning, air and missile defense, information countermeasures, long-range airpower projection, and comprehensive support.

Former PLAAF Commander Xu Qiliang claimed that by 2020 the Chinese air force would establish a defense/offense balance through its reorganization. General Xu became PLAAF Commander in 2007, Vice Chairman of the Central Military Commission (CMC) in 2012, and a member of the CCP Politburo in 2013. He was the first air force general in PLA history to achieve top Chinese military leadership. From the 2010s to the 2020s, Xu emphasized China's aerospace power, maritime interests, and air force digitalization. As China’s top leader next to Xi Jinping, General Xu continued his effort to build a strong air force as he administered the PLA's daily operations, managed China's defense budget, and completed military reorganization from 2016 to 2020. The PLAAF reorganized its divisions into brigades commanded by the air force bases in the PLA's five theater commands (TC). Each TC air force (TCAF) has seven to 10 fighter brigades; each brigade has three to six fighter groups, totaling 30 to 50 aircraft. Each flight group (wing or battalion) has one type of six fixed-wing aircraft, in-
cluding J (Jian)-class fighters, JH (Jianhong)-class fighter-bombers, H (Hong)-class bombers, Q (Qiang)-class ground attack aircraft, Y (Yun)-class transport, and JZ (Jianzi)-class reconnaissance aircraft. Each flight group has two to three flight squadrons; each squadron has three to five aircraft. The PLAAF has more than 2,250 combat aircraft, including 1,800 fighters, strategic bombers, tactical bombers, multimission tactical, and attack aircraft.

As a J-10 fighter pilot himself for 20 years, current PLAAF Commander Chang Dingqiu (since 2017) deployed enough strike fighters and bombers to the frontline bases to mount a credible first strike. These bases are used to serve as the takeoff point for offensive operations against enemy airplanes and air defense sites. It was a shift from traditional PLAAF deployment, as Kenneth Allen and others described it in a “front light, rear heavy” formation. As Lawrence “Sid” Trevethan points out, the Chinese also reorganized other types of units into a brigade structure, including unmanned aerial vehicles (UAV), flight testing and training, airborne forces, and transport fleets.

Xi Jinping also clarified in 2014 that the PLAAF would command the PLA Space Force. Chinese leaders remain concerned about international competition and possible conflict in space; the world’s major powers have recently mimicked one another in initiating strategic space forces and expedited special weapons research and development. Expanding the battlefield to space could greatly change the international military balance of power. The PLAAF is rapidly catching up to Western air forces and has achieved air-space integration according to Commander Chang. As the youngest four-star general of the PLA, Chang believes the best way for the PLAAF to be successful in the next air offense is to integrate air and space operations. In response to the changing ways of air war, PLAAF commanders sought strategic and tactical applications of military force via platforms operating or passing through air and space as a key instrument for Chinese security statecraft. Wang Xingwang explains the Chinese view that, without an operational space force, the PLA would not qualify as a major military power. The PLAAF’s space program is the core in an informatized war machine and key to the air force’s leap-forward aviation strategy. In 2015, the CMC created the PLA’s Strategic Support Force as a theater-level command to centralize the PLA’s strategic space, cyber, electronic, and psychological warfare missions and capabilities. In April 2021, at the CCP’s 18th Congressional Third Plenum, Xi told party leaders that building a full-fledged combat space army is part of creating a “new type” of combat forces. He made a “three-step” plan for a strong space power.

Chinese leaders see a space war as less costly in human casualties when compared to a naval or ground war. Additionally, space warfare is more cost-effective, as a Dongfeng space missile, costing $200,000, can destroy a low-earth-orbit
military satellite worth more than $200 million. Nevertheless, war planners at the PLA’s National Defense University project China’s space actions as retaliative and preventive when a Chinese satellite is attacked, an imminent attack is signaled, a PLA amphibious landing campaign is interrupted, or a large direct bombardment against China occurs. With a similar doctrine for nuclear warfare, the PLAAF must possess reliable space capabilities for retaliation (or second-strike capabilities) and destruction against a powerful enemy. Moreover, the PLA planners continue designing a “limited space war,” rather than an all-out star war, by identifying vulnerable but critical points in enemy space systems. They also argue that China’s increased space power can also serve as a means of war deterrence, since all powers’ space assets are vulnerable.

Technology and Capabilities

The PLAAF continues its new offensive strategy and promotes the “leap-over” approach for aviation technological improvement.\textsuperscript{15} In line with the strategic requirements of mobile operations and multidimensional offense and defense, the PLAAF has reoriented from theater defense to trans-theater mobility. Lu Xiaoping argues that the introduction of the new J-10 fighter jet in 2006 marked a “milestone in the development of both China’s aviation industry and the PLAAF weaponry and equipment.”\textsuperscript{16} China’s military-civil fusion (MCF) policy secured adequate financial resources and provided the PLAAF a rapidly rising budget for airpower exploration. MCF integration cultivated intellectual expertise and promoted aviation science and technology industries. The Chinese air force recently made technological developments that included new fighter jets, antimissile systems, missile defense capability, and a series of space shuttle launches.

Among the PLAAF’s 1,100 fourth-generation fighters are the J-10C, J-11B, and J-16 (comparable to the US F-16/F-18) armed with the latest air-to-air missiles. During the 2019 military parade, the PLAAF demonstrated its fifth-generation J-20 fighters. Thereafter, it has received more than 150 J-20s, which have bolstered Chinese air-to-air capabilities for the J-11A and J-11B with high maneuverability, stealth characteristics, and an internal weapons bay. Pilot Chen Liu flew the J-10C and J-16 before becoming a J-20 pilot in 2018 for the Western TCAF. His wing employs informatized simulation training to shorten air combat power generation cycles. The Chinese transitioned from their traditional combat focus on high-altitude dogfighting for territorial defense. Chen and other pilots were trained to “fight and win” through beyond-the-horizon air engagement, ground strikes, and air assaults against maritime targets. Because of their realistic combat training record, 15 J-20 fighters from Chen’s wing participated in Beijing’s military parade on 1 July 2021, celebrating the CCP’s 100th birthday.\textsuperscript{17}
Moreover, for the PLA Navy’s (PLAN) next class of aircraft carriers and as a future naval fighter for export, China developed the smaller J-31 fighter. On 26 April 2017, the PLAN launched its new aircraft carrier Shandong, Kuznetsov-Mod, Type-002, at the Dalian shipyard. As a modified version of the Liaoning (Russian Kuznetsov) design, it uses a ski-jump takeoff method for its J-15 fighters. On 17 June 2022, China launched its third aircraft carrier, the Fujian, at Shanghai. This Type-003, domestically designed, 80,000-ton aircraft carrier includes a Catapult Assisted Take-Off But Arrested Recovery (CATOBAR) system and three electromagnetic catapults. It will join the East Sea Fleet and operate an air group of new fighters, including J-35s. Naval aviation is developing new carrierborne airborne early warning (AEW) aircraft. As the second-largest navy in the world in terms of tonnage, the PLAN has a strength of 240,000 personnel, including 15,000 marines, with an overall battle force of 350 surface ships and submarines. The PLANAF has 26,000 naval aviation personnel with 690 aircraft.

Currently, the PLAAF has more than 450 bombers, including the H-6N as its first nuclear-capable, air-to-air refuelling bomber and as the airborne leg of China’s nuclear triad. As of 2020, the PLAAF has operationally fielded the H-6N bombers, providing China’s nuclear platform an air component. In recent years, the PLAAF also fielded greater numbers of the H-6K, a modernized H-6 bomber that integrates standoff weapons, features the PLAAF’s long-range precision strike capabilities, and can target ranges in the Second Island Chain from home airfields on the mainland and increase PLA antiaccess/area-denial (A2/AD) capabilities.\textsuperscript{18} The Chinese air force has more than 250 JH-7A fighter-bombers in service. Meanwhile, China is developing a new generation of H-20 bombers with a range of at least 8,500 km and a 10-ton payload for both conventional and nuclear bombs. The Chinese air force also has 400 transport planes and 150 special mission aircraft.

The Chinese air force’s missile defense is composed of domestically produced CSA-9 (HQ-9) and HQ (Hongqi)-9b battalions. The PLAAF is developing its indigenous CH-AB-X-02, or HQ-19, with ballistic missile defense capability. In 2019, China publicly debuted its new Y-9G and Y-9DZ communications jamming/electronic countermeasures aircraft (known as the GX (GaoXin)-11). The Chinese aviation industry continues to advance with deliveries of more than 40 domestic Y-20A and Y-20B large transport aircraft and completion of the world’s largest seaplane, the AG-600. In November 2018, the PLAAF displayed its largest suite ever of UAV aircraft. China has armed and capable reconnaissance UAVs such as the Yunying, CH (Caibong)-4 and CH-5, and Yilong (or Wing Loong) series of aircraft. The year 2020 was the PLA Airborne Force’s 70th anniversary. Its Airborne Corps has six airborne brigades equipped with combat vehicles for more
mobility and better ability to engage armored forces in the attack. The Chinese air force is expanding in all respects except fixed-wing transport, which are stable. Moreover, the Shenzhou 14 launch in the summer of 2022 sent three more astronauts to space. The Cheng’s moon landings and the Tiangong space station have been successful experiments. The Beidou space system is capable of military intelligence gathering and real-time communication. The recent attack on a satellite proves Chinese precision missile strike on defenseless satellites in space and indicates Chinese strategic thinking of a space offense as the next IT war. This space-combat capability becomes a key component of the PLAAF’s A2/AD to reduce and undermine US military superiority and space dominance.

However, the PLAAF’s indigenous technological capabilities are limited in the 2020s. The service will likely remain a “learner” rather than an “innovator” in many areas of aviation, missile, space, and nuclear technology up until the 2030s. Tâi Ming Cheung places China in the “lower parts of the Tier 2 category” as one of the “adapters and modifiers” in the global defense industry because China “demonstrates few capacities for designing and producing relatively advanced conventional weapons system[s].” Xi Jinping made eight trips to Moscow between 2012 and 2020 with the purpose of strengthening strategic support to China. By 2014, the two nations announced a new era of military collaboration as part of an enhanced strategic partnership. In retrospect, the PLAAF’s investment in Soviet aviation technology paid significant dividends during the PLAAF’s modernization. The partnership between the People’s Republic of China (PRC) and Russian Federation air forces continues through collaborative engagement launched in the 2010s. One of the largest Chinese purchases included Su-35 fighters and accounted for over $1 billion annually from 2012 to 2017. While more than 70 Russian-made Su-30MKK fighters serve in the PLAAF, China has received 24 Su-35 advanced fourth-generation fighters since 2016. The Chinese air force’s missile defense is also composed of Russian-made SA-20 (S-300) battalions. Beijing acquired the Russian SA-21 (S-400) system to improve China’s strategic long-range air defense.

**Operations and Combat Readiness**

The PLAAF has become a strategic air force, able to project power at long distances and defend Chinese maritime power and global interests. New aircraft continue to increase China’s military capabilities to achieve regional and global security objectives in the East China Sea (ECS). In November 2013, Beijing began using “China’s East Sea” to define that area and announced the establishment of an air defense identification zone (ADIZ) that included the disputed Diaoyu/Senkaku Islands. Thereafter, the PLAAF regularly patrolled with jet fighters
and AEW aircrafts to strengthen effective control over the zone. Shen Jinke, spokesman for the PRC Defense Ministry, said that the PLAAF’s routine patrols verify and identify foreign aircrafts, administer official warnings, and that they should not impact commercial air traffic. He stated that the PLAAF patrols “are purely defensive and consistent with international norms” and that the PLAAF would also conduct routine air drills in the zone for dealing with any emergency situations. From 2014 to 2016, the PLAAF sent multiple warplanes to monitor and identify several foreign military aircrafts entering ADIZ, tracking them for evidence and issuing voice warnings. In a 2017 response to PLAAF aircraft encroachment into Japanese airspace, the Japan Air Self-Defense Force scrambled 1,168 fighter jets and confronted 851 incidents, breaking its former Cold War annual record. Since the Cold War, China has replaced Russia as the major threat to Japanese airspace. Many American and Japanese naval strategists predict that there will be a clash, eventually, between their navies or air forces and the PLAN or PLAAF, both of which have become increasingly aggressive after acquiring new aviation technology.

In 2015, the PLAAF began patrolling the SCS, including the disputed Paracel and Spratly Islands. The PLA’s outposts in the SCS extend the air force’s possible operating areas. Deployments of Chinese warplanes from Spratly Island outposts can extend range and loiter time over the SCS and even reach the Indian Ocean. The PLAAF’s medium-range H-6K bombers carry up to six precision-guided CJ-20 air-launched cruise missiles each, giving it the ability to engage US armed forces as far away as Guam and Okinawa. The Southern TCAF was the first to receive the H-6J maritime strike bombers. All the PLAAF’s 24 Su-35s are assigned to the Southern TCAF. Therefore, confrontation between Chinese and American armed forces in the SCS has aroused serious concerns in the international community about security and stability in the Indo-Pacific region. The US Air Force (USAF) continues flying military aircraft through the ADIZ without informing China, defying Beijing’s declaration that the region falls into a Chinese airspace defense zone. In December 2019, Beijing commissioned its newly manufactured aircraft carrier, Shandong, into service at Hainan Island’s Yulin Naval Base in the Southern TC. Additionally, the PLA successfully established its military base in Djibouti, to sustain PLAAF regional and global air operations.

Recent operations differ from past annual reports and demonstrate the Chinese air force’s increasing presence in international airspaces and increased participations in various joint exercises through several regions. This reflects the public opinion that the PLAAF has significantly progressed in aviation equipment, fighter jets, defense missiles, aircraft carriers, and space technology. The Chinese
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air force conducted combat-realistic training and employed J-16 and J-20 fighters, H-6K bombers, and Y-9 reconnaissance aircraft in exercises.

In May 2015, Chinese and Russian forces conducted a joint air/naval exercise, codenamed *Joint Sea 2015*, in the Mediterranean Sea. In August, a larger-scale operation, *Joint Sea II*, was held in international waters, about 250 miles from Japan, and involved 22 warships and 20 aircraft. Vice Admiral Aleksandr Fedotenko, Deputy Commander of the Russian Navy, was satisfied with the joint training’s results, which “showed that Russian and Chinese forces can effectively fulfill tasks in such a difficult region.”

In the same year, the PLA conducted three large-scale military exercises in the ECS. The third live-fire exercise from 24 to 28 August involved more than 100 naval vessels, dozens of aircraft, and information-warfare units. Chinese warships fired nearly 100 missiles.

In November 2016, the PLAAF conducted another large-scale air exercise in the ADIZ, involving H-6K heavy bombers, Su-30 fighters, and air tankers. The drill included reconnaissance and early warning, attacks on air and sea surface targets, and in-flight refueling to test the PLAAF fighting capacity on the high seas. The PLAAF used three Y-20 large transit airplanes to transport Chinese troops and airlift heavy equipment to Russia for the *Kavkaz 2020* joint military exercise.

From 2020 to 2022, the PLAAF continued improving its combat effectiveness, despite the COVID-19 pandemic’s impact. Since 2020, the PLAAF has launched “gray-zone” warfare in the Taiwan Strait by sending its fighters over the strait’s median line in record numbers, likely in reaction to perceived “warming” of ties between Washington and Taipei. In 2020 and 2021, the PLAAF delivered COVID-19–related medical supplies to countries throughout the region including Afghanistan, Brunei, Myanmar, Indonesia, Kyrgyzstan, Malaysia, Nepal, Pakistan, the Philippines, Sri Lanka, Tajikistan, Thailand, and Uzbekistan.

### Impact on US–China Relations

The possibility of a new cold war between the United States and China is ever looming, especially if the latter continues efforts in creating “one world, two systems.” In Beijing’s bipolar world, one system is the existing American-led global community; the other is a China-centered international system. History will prove recurring if a complete break in diplomatic relations between the two countries, or a limited hot war in the 2020s, occurs. With no single enemy to unite against, and with China emerging as a major economic power, the relationship between the United States and the PRC has arrived at a historical crossroad. Certainly, the PRC is nothing like it was in 1950, but the CCP’s dominant leadership, continuing insecurity, and Xi Jinping’s call for the “fighting spirit” against
the United States continue the party’s doctrine and Mao’s legacy as one of few Communist survivors as well as a “beneficial participant” in the Cold War.

In response to the PLA’s increased aggressive behaviors in the ECS, a US congressional amendment to the National Defense Act in November 2012 included possible defense of the ECS’s disputed islands in the event of armed attacks. In 2013, Secretary of State John Kerry further warned Beijing that although Washington did not take a position on the Diaoyu/Senkaku islands’ ultimate sovereignty, the White House acknowledged they were under Japanese administration. The American government opposed any unilateral actions that sought to undermine Japanese administration. In a May report, the US Department of Defense pointed out, “China began using improperly drawn straight baseline claims around the Senkaku Islands, adding to its network of maritime claims inconsistent with international law.” On 30 July 2013, the US Senate unanimously passed a resolution condemning China’s “use of coercion, threats, or force by naval, maritime security, or fishing vessels and military or civilian aircraft in . . . the East China Sea to assert disputed maritime or territorial claims or alter the status quo.”

The United States, Japan, and Taiwan criticized China’s establishing the ADIZ, citing renewed tensions over the ECS’s disputed areas. On 26 November 2013, three days after Beijing’s announcement establishing the ADIZ, two US military warplanes flew into the zone without informing China. Col Steve Warren, US Army, spokesman of the US Department of Defense, said, “We have conducted operations in the area of the Senkakus. We have continued to follow our normal procedures, which include not filing flight plans, not radioing ahead and not registering our frequencies.” On 25 April 2014, Pres. Barack Obama reaffirmed US commitments to Japan and the Senkaku Islands’ safety through a joint press conference and statement with Japanese prime minister Shinzo Abe. Obama was the first US president to mention the disputed islands under Article 5 of the US–Japanese Treaty of Mutual Cooperation and Security. Pres. Donald Trump promised to commit US forces to the defense of Japan and South Korea and free trade sea routes and international maritime rights in the SCS. After taking office, Pres. Joe Biden continued Trump’s hardline policy and described China as the United States’ “strategic competitor.”

In the mid-2020s, Xi Jinping’s “Cold War II” may include a “strategic triangulation” of China–US–Europe relations, in which Beijing might seek new bargaining chips with Washington. In the coming new cold war, Beijing will deter the United States from a full-scale hot war with the PRC’s nuclear arsenal as well as newly developed cyber and space powers. Lessons in survival aided the CCP in its strategic redefinition and changed its perceptions of the world in numerous ways. Its leaders will go to war according to their own consistent logic, political agenda,
diplomatic experience within the context of Chinese society and new international environments. The overall picture of US–China military relations is considerably bleak. According to the US Department of Defense’s *Annual Report to Congress*, “Much uncertainty surrounds China’s future course, in particular in the area of its expanding military power and how that power might be used.” The American high command remains uncertain about Chinese intentions and changing world views.

The years 2023 to 2049 will be the most important period for “the great rejuvenation of the Chinese nation” as well as when the PLA will reach three milestones for its modernization. Within 26 years, the PLA is slated to integrate its mechanization, informatization, and intelligentization by 2027; complete the modernization of national defense by 2035; and fully transform the PLA into a “world-class force” by 2049. Due to all the above challenges, the PLAAF has an arduous task to safeguard China’s national unification, territorial integrity, and development interests. The Chinese air force will continue to fulfill its mission while evolving through adaptation and improvement for informatization and intelligentization. Through its operational experience in the Taiwan Strait, Vietnam, and the SCS, PLAAF confronts four key issues: planning, learning, changing, and political control. Air war planning and aerospace strategy have been the most prominent and foremost of PLAAF operations.

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**Notes**

4. Xi served as Political Commissar of the Fujian First Air Defense Division (reserve), PLA Air Force, from 1996 to 2002, while he was the lieutenant governor and governor of Fujian province.
15. From 2002 to 2012, the PLA began a “leap-over” transition from an army with mechanical equipment to an army equipped with digital facilities for information warfare.


Winning in the South China Sea
Lessons Learned from Recent Wars Provide the Blueprint for the US Marine Corps to Successfully Challenge the People’s Liberation Army

LtCol Michal Carlson, USMC

Abstract

The US Marine Corps (USMC) plans to transform itself into a force capable of containing China by utilizing the strategy of Expeditionary Advanced Base Operations. To throttle Chinese forces, Marines will establish a network of unsinkable forward arming and refueling points on the island chains that fence the South China Sea and survive within Beijing’s weapons-engagement zone while enabling air strikes and offensive operations.

By first surveying the present situation in the South China Sea and then compiling lessons learned from detailed studies of modern-day battles, specifically focusing on the Nagorno-Karabakh War of 2020 and Second Lebanon War of 2006, this article will identify and explore the most prevalent themes present in these conflicts that should be applied as the USMC revises its strategy to fight and win against a resurgent China.

These themes function as a primer for how to win conflicts in the twenty-first century against our foremost peer competitor: First, Beijing plays a zero-sum game when it comes to protecting its sea lines of communication in the South China Sea and recapturing its rogue province of Taiwan. Beijing will only come to the table if placed at a position of disadvantage. Second, Beijing consistently will employ massed capabilities as its primary strategy to win this zero-sum game. Third, as proven in the 2020 conflict between Armenia and Azerbaijan, victory belongs to those forces that can prosecute targets fastest. Fourth, the 2006 Second Lebanon War highlighted the absolute criticality of maintaining redundant, dependable, and off-the-grid logistics chains.

The article concludes that the USMC will win these future fights if it builds regional alliances and employs widely dispersed, self-contained force laydowns to counter Chinese mass and confound its targeting systems. The USMC must continue to accelerate its efforts to shorten its targeting kill chains while speeding its employment of counterdrone jammers, missile-defense systems, and offensive weapons designed to blind enemy surveillance platforms. Finally, the USMC must establish a network of pre-positioned logistics caches throughout the operational environment, in conjunction with its regional allies, to overcome the tyranny of distance imposed by the geography of the South China Sea.
The US Marine Corps (USMC) plans to transform itself into a force capable of fighting China in its backyard, the South China Sea. To prove its commitment to this strategic evolution, the USMC divested its tanks in 2020, and Marine Littoral Regiments will stand up by 2023. The service now stakes its future on the concept of Expeditionary Advanced Base Operations (EABO). To contain Chinese forces and counter the challenges of their anti-access/area denial defenses, Marines will establish a network of unsinkable forward arming and refueling points on the island chains that fence the South China Sea and survive within Beijing’s weapons-engagement zone while enabling air strikes and offensive operations.

Beyond EABO, the USMC also exists as America’s 9-1-1 force, formed into Marine Expeditionary Units that can respond to contingencies from any number of US Navy (USN) vessels across the globe. Planning responses to these irregular fights necessitates a study of Russian next-generation warfare tactics, exhibited comprehensively during the 2020 Nagorno-Karabakh War, as well as an exploration of the unconventional strategies employed by the terrorist groups and non-state actors that continue to vie for dominance in the Middle East, Africa, and South America, displayed best in 2006’s Second Lebanon War.

By first surveying the present situation in the South China Sea and then compiling lessons learned from detailed studies of modern-day battles, specifically focusing on the Nagorno-Karabakh War of 2020 and Second Lebanon War of 2006, this article will identify and explore the most prevalent themes present in these conflicts that should be applied as the USMC revises its strategy to fight and win against a resurgent China.

The article begins by exploring the two major themes behind the conflicts clouding the waters of the South China Sea: First, Beijing plays a zero-sum game when it comes to protecting its sea lines of communication (SLOC) in the South China Sea and recapturing its rogue province of Taiwan. The Chinese Communist Party will not entertain negotiations to modify either of those stated goals, as Beijing views Taiwan and the portion of the South China Sea delineated by its nine-dash line as sovereign territory. Beijing will only come to the table if placed at a position of military and economic disadvantage.

Second, Beijing will consistently employ massed capabilities as its primary strategy to win this zero-sum game. The world has seen this strategy at work since Mao Zedong’s campaigns in World War II, and the most recent examples of Beijing’s continued reliance on sheer numbers revolve around its use of its 122-ship People’s Armed Forces Maritime Militia (PAFMM) to blockade islands in the South China Sea. The article will offer strategic solutions to counter these themes be-
Winning in the South China Sea

fore proceeding to an examination of the “new-generation warfare” on display in the Second Karabakh War.

The article’s second section studies the conflict between Armenia and Azerbaijan that occurred from 27 September to 10 November 2020 and reveals how this limited conflict introduced a new triad that will dominate the conduct of war for the foreseeable future: Victory belongs to those forces that can prosecute targets fastest by shortening the kill chain between their long-range sensors and their precision fires; hide their electronic signatures and physical locations through jamming, deception, and camouflage; and kill as many of the enemy’s drones, satellites, and radars via a robust countersensor campaign. Azerbaijani drones paired with artillery, rockets, and missiles destroyed more than 1,500 Armenian air defense and artillery systems, tanks, and other armored vehicles in 44 days. The USMC risks decimation if it attempts to survive within China’s or Russia’s weapons-engagement zones without redundant and resilient means to counter the inevitable rain of cruise missiles enabled by drone-based surveillance. Again, the article will provide options for consideration to counter this triad before moving on to analyze the criticality of maintaining redundant and reliable logistics chains during the 2006 Second Lebanon War.

The third and final element of this article will illustrate how Hezbollah’s dispersed, brick-and-mortar logistics approach gifted its forces with an unbroken stream of bullets and rockets that was never interdicted by Israeli Defense Forces—and how this need for defendable, dispersed, and pre-positioned supply nodes could be the USMC’s Achilles heel as it strives to overcome the tyranny of distance and provide beans, bullets, and band-aids to its Marines across the more than 50 potential islet battlefields in the South China Sea.

**Rekindle and Expand Existing Alliances, Then Rely on Dispersion**

Chinese military officers cut their teeth by reading Sun Tzu’s *Art of War* and the literature surrounding the Warring States period that predates Clausewitz by more than 2,000 years. These volumes detail nine irregular precepts of warfare, from “inducing complacency to avoid alerting your opponent” to “[stealing] your opponent’s ideas and technology for strategic purposes.” The Chinese blueprint for dominating strategic competition with America follows these ancient precepts precisely and rejects the conventional clashes embraced by Clausewitz in favor of a slow, asymmetric fight that results in a death by a thousand cuts.

As the twenty-first century proceeds and the United States finds itself at odds with a China establishing itself as a peer competitor, it appears that American officers have been blithely reading the wrong book. The current Commandant of the Marine Corps, Gen David H. Berger, summed up his service’s conundrum:
The present USMC “is not organized, trained, equipped, or postured to meet the demands’ of this rapidly changing operating environment,” where revisionist powers, rogue states, and technologically advanced nonstate actors make use of *increasingly mature precision strike capabilities and a sophisticated toolkit of coercive behaviors below the threshold of violence* that some describe as gray-zone strategies.\(^8\)

These italicized phrases encapsulate the *how* behind Beijing’s strategy to employ massed capabilities to win the zero-sum game of protecting its SLOCs and recapturing Taiwan. Beijing will mass its missiles and long-range precision fires to deny the USMC the ability to operate within China’s weapons-engagement zone. China will also utilize its enormous, well-established PAFMM, a flotilla of more than 122 known vessels, to blockade American and allied efforts throughout the South China Sea. The most recent example of this nonkinetic impediment tactic occurred in 2018, when a gray-zone armada of 95 fishing vessels appeared, massed, and mobbed Thitu Island, physically stopping the progress of Filipino engineers as they began a runway repair project.\(^9\)

The answer to China’s mass-based strategy in the zero-sum game of the South China Sea is twofold: First, the USMC must leverage its existing military alliances and build new partnerships with all other Southeast Asian maritime nations to gain and hold ground on as many of the 70-odd islets in the South China Sea as possible. Second, the USMC and the USN must evolve their current partnership model, which marries heavyweight concentrations of Marines to substantial motherships, into a leaner, dispersed model that counters mass by being increasingly hard to target.

Cultivating regional alliances enables the USMC to begin acquiring the literal physical space needed to execute long-term EABO. Beginning as far back as 1988, China has developed seven major reefs and built 20 smaller islets into military outposts through its “Great Wall of Sand” initiative.\(^10\) The USN and USMC must tap into every national instrument of power available to gain footholds on the remaining 43 islets. Though Vietnam already has militarized several of its outposts, arming these islets with missiles is not the answer, as this will provoke an escalatory arms race.\(^11\) Instead, naval infantry partnerships should focus on the logistics of the future fight, transforming each atoll into a weather-resistant storage point, redundant communications node, and safe harbor equipped with the food, fuel, and supplies that will enable the merchant fleets of Japan, Taiwan, Vietnam, the Philippines, Malaysia, and Indonesia to stand united against the PAFMM.

Developing these island and reef sites in conjunction with Southeast Asian partners is less of a revolution in military affairs at the tactical/operational level and more a conscious reframing of the narrative that China controls the South
China Sea at the strategic level. China receives more than half its crude oil imports via its SLOCs, which run through the South China Sea, and Beijing’s need for crude will only increase as China begins to wean itself from its dependency on pollution-generating coal.\(^{12}\) Beijing also views the South China Sea and its undersea crude deposits as a means to satisfy its rapidly growing demand for oil—China estimates that more than 300 billion barrels of crude and nearly 2,600 trillion cubic feet of natural gas rest on the seabed within its nine-dash line. These two factors form the basis for Beijing’s investments in militarizing its 27 islets and reefs, and the value of these potential oil and gas revenues provides a $25 to $60 trillion reason to continue to dominate the South China Sea.\(^{13}\)

China built up its seven major reef complexes in two years through dedicated dredging, creating five square miles of new land from December 2013 through the fall of 2015. America and its military forces, partnered with civilian engineers, could do the same, unbalancing the Chinese presence in the South China Sea by creating a network of more than 43 unsinkable aircraft carriers that would outmass Beijing. The bedrock requirement to make this network of developed, allied islets a reality is an unshakable commitment by the USMC, the USN—and, most importantly, the United States government writ large—to maintain a consistent presence in the South China Sea—and to weather and overcome the policy changes between successive but vastly disparate presidential administrations that have torpedoed such promises in the past.

These hot-and-cold approaches to Asia by American administrations exacerbate the problems faced by Southeast Asian nations when they attempt to ally to balance China. The Association of Southeast Asian Nations (ASEAN), comprised of many of the maritime nations bordering the South China Sea, represents a combined population of 636 million and boasts the sixth-largest gross domestic product (GDP) in the world. ASEAN could present a formidable check on China’s ability to project power in its eponymous region, yet the association finds itself hemmed in by its economic dependence on China as a trading partner, as exports to the China account for at least 20 percent of GDP for the bulk of ASEAN member states.\(^ {14}\) Ending the hedging practices employed by Southeast Asian maritime states requires a shift away from the previous administration’s “America First” policies and demonstrative actions by the United States that signal its intentions to balance China’s monopoly on ASEAN economies. This rebalancing should begin with American initiatives aimed at codifying military alliances among its member states. Right now, a united ASEAN maritime front could mass a growing flotilla of approximately 31 boats and ships specifically designed for littoral operations to face off against China’s gray-zone fleet, and this count does not include any USN or USMC vessels, nor any ships from the Australian or New Zealand na-
vies.\textsuperscript{15} The USMC and USN must work directly with the Department of State and other diplomatic and economic agencies to strive to make these potential partnerships a reality and establish ASEAN as a united regional force able to counter China's gray-zone blockades and the Great Wall of Sand.

Projecting military power onto this network of South China Sea islets forms the second component to the answer to China's mass-based strategy: The USMC and USN must restructure their current partnership model, which marries a Marine Expeditionary Unit of roughly 2,000 Marines to three massive and hard-to-replace ships of the line, and recast it into a disaggregated mold that weds Marines possessing the skill sets to establish advanced bases of operations with a fleet of smaller, easily replaceable patrol boats that can deploy from amphibious assault ships. Creating this new capability becomes particularly essential in the wake of the USMC's December 2021 ban on Amphibious Assault Vehicle (AAV) waterborne operations after the July 2020 incident that killed eight Marines and one Sailor.\textsuperscript{16} The AAV's slated replacement, the Amphibious Combat Vehicle (ACV), remains in an initial operation capability status, with approximately 30 vehicles being built, but the ACV program has run afoul of the same safety concerns associated with the now-sidlined AAV: cramped seating conditions within the ACV make at-sea rapid egress extremely difficult.\textsuperscript{17}

This proposed refocusing on smaller, disaggregated elements depends on launching a culture shift inside both services that dispels the notion that bigger, more technologically advanced platforms are the answer. \textit{Wasp}-class amphibious assault ships cannot survive within the range ring of China's Dong Feng 26 (DF-26), the headline-grabbing “Carrier Killer” that can strike targets as far out as Guam with conventional or nuclear warheads,\textsuperscript{18} and the Light Amphibious Warship that the USN and the USMC are pursuing as their workhorse vessel in the South China Sea is 684-feet-long and slower than a \textit{Wasp}-class ship.\textsuperscript{19} Current estimates peg China's quantity of DF-26s at 80 to 160,\textsuperscript{20} and Beijing's ability to mass salvos of DF-26 missiles makes traditional employment of Marine battalion landing teams from slow-moving amphibious assault ships a very risky proposition.\textsuperscript{21} USN cruisers armed with antimissile missiles would shepherd \textit{Wasp}-class ships, but despite more than 60 years of development, strategic offensive missiles still retain an enduring edge over defensive systems: at no point have scientists from the United States or the former Soviet Union produced a defensive system that could truly negate a rival nation's strategic offensive missile force.\textsuperscript{22}

The rise of the DF-26 illustrates that the current Marine Expeditionary Force procedure of shuttling a battalion ashore via multiple hovercraft or surface ship trips only works in uncontested waters. But what the \textit{Wasp} and its sister ships can also do is host smaller, faster patrol boats that could hide from Chinese missile sensors,
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provide flexible offensive fire support through tube-launched munitions, and transport platoons of Marines to and from the network of partnered advanced bases of operations.\textsuperscript{23} These Sailors and Marines could then fall in on vehicles and equipment pre-staged on these islands and begin allied patrols with the naval infantry forces of Southeast Asian nations. The USN currently owns 12 85-foot Mark VI patrol boats, which can fit into the well decks of Marine Expeditionary Unit shipping and transport 18 personnel for 750 nautical miles, or about half the distance from Guam to Taiwan, without refueling. Oddly enough—and signifying the confusion among senior leaders concerning how best to prosecute this new fight—the Mark VI program is in jeopardy of cancellation due to perceptions that its small size and limited missile firepower would not prove relevant in a war with a peer nation.\textsuperscript{24}

While the Mark VI’s future remains officially uncertain, the utility of a small vessel that could saturate the islets of the South China Sea with distributed platoons of Marines while keeping its mothership at the fringes of DF-26 range must be explored, as the key to winning the fight with Beijing in the South China Sea is to negate its ability to mass missile fires by presenting too many targets on too many boats and islets. Simply adding up the various known littoral assets listed above presents Beijing with an increasingly unsolvable dilemma:

- 31 existing Southeast Asian-flagged patrol vessels,
- plus at least a dozen Mark VI patrol boats,
- plus forces deployed to 43 developed islets,
- yields 86 potential targets for China’s known stockpile of 80 to 160 DF-26s.

Half of these targets will be moving constantly among the network of islets. Equip each of these littoral assets with a jammer/electronic signal deception emitter, and then each becomes capable of broadcasting additional fake radar signatures to further confound Chinese targeting efforts. Survivability increases yet again if planned December 2021 missile-defense tests of a medium-range intercept capability begin to succeed in destroying simulated ballistic missiles.\textsuperscript{25} The USN and USMC team must preserve its mass by embracing a total restructuring in how these forces are deployed: Small, replaceable, lower-cost watercraft crewed by Marines and Sailors following mission command orders who can spread out, hide, and win the counter-reconnaissance contest will become the center of gravity in the littoral fight.\textsuperscript{26}
Carlson

Lessons from Nagorno-Karabakh: Drastically Shorten Your Kill Chains, Always Hide Your Signatures, and Blind Your Enemy Soonest

Due to overwhelming victories by Azerbaijani forces in the counterreconnaissance realm, the Second Nagorno-Karabakh War concluded in 44 days. Rival Armenia lost more than 1,500 air defense, artillery systems, tanks, and other armored vehicles to Azerbaijani fires directed by unmanned aerial vehicles (UAV), or drones. On the first day of the conflict, the Armenian Defense Ministry reported more than 1,000 drones were airborne along the 200-kilometer front, and these UAVs were so unlike typical military aircraft in both size and maneuverability that Armenian antiaircraft missile systems, most notably the Russian S-300, found themselves completely overmatched by Israeli-made Harop loitering aerial munitions. The former was simply never designed to engage the latter, and so Armenia’s $160 million missile launchers and radars could not combat the Harops, whose estimated cost of $10 million per unit is exponentially less. The critical lesson learned from this short-but-bloody conflict is that victory belongs to those forces that can prosecute targets fastest by shortening the kill chain between their long-range sensors and their precision fires; hide their electronic signatures and physical locations through jamming, deception, and camouflage; and kill as many of the enemy’s drones, satellites, and radars via a robust countersensor campaign.

Azerbaijani tactics to accomplish the above triad were surprisingly low-tech and did not rely exclusively on satellite surveillance or the global positioning system. Instead, during the early days of the conflict, Soviet-era AN-2 biplanes that had been converted to drones were used as bait: When these lumbering targets were detected and fired upon by Armenian air defense missile systems, Israeli Harops or armed Turkish TB2 drones that were following in trace located and engaged the S-300s. The growing diffusion of cheap, high-quality sensors on the battlefield negates many of the benefits of terrain and camouflage, as these drones provide too many eyes to evade, even with the most rapid execution of maneuver warfare techniques.

Under its current construct, the USMC risks mission-critical levels of casualties if it attempts to survive within China’s or Russia’s weapons-engagement zones without redundant and resilient means to counter the inevitable rain of missiles enabled by drone-based surveillance. The agreed-upon solution set at the tactical level is to expand its Low Altitude Air Defense (LAAD) capabilities, adding a third battalion to support the addition of air defense units to the proposed Marine Littoral Regiments now forming in Hawaii. The USMC concurrently will attempt to
fast-track the Marine Air Defense Integrated System (MADIS), a vehicle-based suite of weapons that includes a drone jammer, Stinger missiles, a cannon, and a machine gun. While not yet fielded, the operational assessment of the weapon is slated for the end of 2022 “in anticipation of a Milestone C production decision around February 2023,” translating to a possible delivery to units sometime in 2024. The plain fact of the matter is that offensive drones are multiplying and becoming very hard to kill, and counterdrone systems—whether using lasers, missiles, or jammers—“have not panned out” due to weight and power requirements, according to 2019 testimony to Congress by the Commandant himself.

The news at the operational and strategic levels throughout the Department of Defense is equally grim: There is money in the budget for missile defense, but there appears to be no comprehensive framework to promote the understanding that such defense must be multifaceted and layered to encompass high-altitude, medium-altitude, and low-altitude threats. The Army’s Terminal High Altitude Area Defense (THAAD) interceptor funding dropped 57 percent from 2021 to 2022; however, during that same period, the services and Congress then decided to invest $1.5 billion of the Missile Defense Agency’s budget in Israeli products, such as Iron Dome, to defend against lower-altitude rockets, mortars, and cruise missiles. Yet despite this massive bump in funding, only two Iron Dome systems have been delivered to Army units for evaluation, the USN’s massive Aegis Ashore complex in Romania possesses zero air defense assets and cannot defend itself against even a helicopter attack, and the single radar that anchors the European Phased Adaptive Approach system in Turkey—the early warning node for the rest of the continent—is similarly underprotected. Likewise, in another crystal clear example of costly duplicative efforts, the USN’s DRAKE system jams UAVs using a similar, backpack-sized jammer found on the Marines’ MADIS—both were developed in the stove-piped world of counter-UAV programs that do not cross service lines.

The silver lining in the difficult, unfocused world of countering drones is that due to their rapidly evolving technology, neither of America’s peer competitors have developed workable solutions to solving the UAV problem. China appears to be focused completely on offensive capabilities, and Russia has developed jamming systems in line with what the United States has already fielded on MADIS. What appears clear when studying the lessons learned from the Second Nagorno-Karabakh War is that the triad delineated earlier in this section remains the key to victory—America, and its USMC, needs to position itself to be Azerbaijan in the coming drone fight.

The USMC is already doing so with its divestment of tanks, its emphasis on exploring EABO as its driving concept, and its focus on building redundant da-
talinks that will allow target-quality information to be shared among its aircraft, radars, and rocket artillery. But Marine planners need to understand that single, exquisite platforms are losing ground to replaceable, “attributable” masses of drones and other autonomous offensive systems that are made to die to destroy or unmask defenses. Recent illustrations of the successful employment of such “killable” platforms include the AN-2 example above and the 2019 attack by Iran on Saudi oil facilities by 17 rudimentary drones that knocked out half the Arabic kingdom’s production while evading detection by American-built radars due to their small, unconventional sizes. Mass will replace maneuver as a key tenet for military success, as the quantity of low-cost, robotic, expendable systems find and kill the high-budget, manned, irreplaceable platforms that the United States employs with impunity at the present time. While John Boyd’s oft-referenced Observe, Orient, Decide, and Act loop remains relevant, a better acronym for the future fight will be “OIDSS,” described below and synthesized after looking at how the Azerbaijanis won:

<table>
<thead>
<tr>
<th>While on OFFENSE</th>
<th>While on DEFENSE</th>
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<tbody>
<tr>
<td>Observe enemy activity</td>
<td>Obscure friendly positions through camouflage or false</td>
</tr>
<tr>
<td>Inform the kill chain</td>
<td>Interdict enemy kill chains through jamming and EW</td>
</tr>
<tr>
<td>Decide to target</td>
<td>Destroy enemy shooters</td>
</tr>
<tr>
<td>Shoot</td>
<td>Shoot</td>
</tr>
<tr>
<td>Scoot immediately after firing to avoid being targeted</td>
<td>Scoot immediately after firing to avoid being targeted</td>
</tr>
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Dispersion of critical platforms and weapon systems can be augmented by massing “decoy ducks” to present bogus targets and too many physical locations or aerial signatures for the enemy to target. While electronic warfare did not play a huge role in Nagorno-Karabakh, the Russians targeted the communications networks of Ukrainian soldiers down to the individual cell phone level during the Donbas conflict, and the USMC must double down on its efforts to stop relying on traditional communications structures and instead move toward flattened networks that allow information to move fast and freely from sensors to shooters.

Finally, with literally billions of dollars already earmarked for Israeli antiprojectile technologies—and with Israel itself remaining in the center of the fighting arena of the world—the USMC must push to get its own Iron Dome clone systems online and into operational testing as fast as practical while advancing the engineering and fielding of MADIS and the expansion of LAAD forces to kill as many of the enemy’s drones as possible. The USMC must also emphasize to the joint force that it cannot win the counterdrone and countersensor campaign on its own: MADIS and Iron Dome can provide the low- and medium-altitude mix of protection needed for
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Marines to survive inside a weapons-engagement zone, but this shield depends heavily on the Army winning its high-altitude fight with its existing THAAD platforms and the Space Force achieving victory in the orbital realm.

**Lessons from the Second Lebanon War: Robust, Hidden Logistics Dumps Allow You to Ignore Your Enemy’s Decision Cycle**

Every effort by America to build the best, most technologically advanced anti-missile system will face defeat if the system runs out of projectiles, and the entire EABO concept depends on the ability to feed and equip Marines stationed on islets on the other side of the world. Logistics has been the greatest limiting factor in the history of warfare. Nowhere were these material constraints on display more than during the 2006 Second Lebanon War, where Hezbollah’s dispersed, brick-and-mortar logistics approach gifted its forces with an unbroken stream of bullets and rockets that was never interdicted by Israeli Defense Forces (IDF), despite the IDF’s overwhelming advantages in airpower and artillery. While the USMC and the overall American defense establishment usually associate net-centric warfare with cyberspace capabilities and the Internet, Hezbollah created a physical network of distributed, small, adaptive, and independent cells that funneled personnel and supplies to the fronts of the war, allowing its forces to largely ignore the IDF’s decision cycle and operate completely on their own terms. Compromised, forward fighters could be left behind or sacrificed without critically impacting the overall campaign; cache managers maintained their own logistical nodes that could cover all reasonable supply needs for Hezbollah fighters autonomously; and this strategy of attrition and measured response to IDF attacks substituted for speed and efficiency in command and control, as each cell knew the overall objective and followed a mission command–style framework.

Contrast the above with the IDF’s supply plan: The Israelis weighted their system toward computer networks and “just-in-time” technologies that crumbled due to the incredibly fast pace of the war and left units operating without a logistical tail. Modular depots, whose stocks were tracked and regulated by Internet-linked, virtual bean counters, were supposed to predict where and when supplies would be needed, but as the tracking system broke down or became disconnected from the computer network, the entire concept imploded, resulting in missing equipment and noticeable shortages in food, water, and ammunition. Logisticians resorted to vastly unconventional ways of attempting to resupply the troops on the front lines, from driving food and water in on four-wheeled, all-terrain vehicles, to packing items in on llamas, finally resorting to parachute drops that often missed and left...
critical supplies in the hands of the enemy. Hezbollah compounded all the above problems by mining all the known arteries into southern Lebanon.\textsuperscript{54}

Though the Second Lebanon War occurred on land, the woes of the IDF described above—and the advantages enjoyed by Hezbollah—can be transposed to the maritime theater of the South China Sea. China’s situation mirrors that of Hezbollah, in that its logistics chains will be robust, multifaceted, and in its own backyard. This leaves the USMC potentially playing the undesired role of the IDF, outgunned in terms of supply, and slowly dehydrating and starving as the Chinese antiaccess/area-denial campaign chokes off the usual peacetime arteries of replenishment. The USMC must use the lessons from the Second Lebanon War to reverse the roles: It must adopt Hezbollah’s low-tech version of netcentric logistics to have any chance of surviving and winning in the contested waters off China’s home coast.

Further adding to the difficulties posed by the tyranny of distance, USN inaction and inattention on monitoring the health of its surge sealift fleet will be the defining external factor that cripples the USMC’s ability to move logistics to the South China Sea. The average age of the ships in this fleet—designed to rapidly move supplies in times of crisis and essential to facilitating EABO—is nearly 40 years, and the number of sealift ships reaching the end of their programmed service lives during the next 10 years will reduce the USN’s overall sealift capacity by 25 percent. Additionally, key logistic support ship classes and auxiliary crane ships will reach the end of their programmed service lives of 50 to 55 years by 2024. Billions of unforecasted dollars will be needed to recapitalize this aging roll-on, roll-off fleet that is essential to getting the USMC’s supplies to the fringes of the South China Sea theater.\textsuperscript{55} Worse, this aging shipping shortage is not a problem that can be solved internally to the United States without prohibitively high costs: A 2018 task force sponsored by the Defense Science Board highlighted the immense disparity between the costs for shipbuilding domestically and internationally, finding that used, foreign-built roll-on, roll-off vessels cost approximately $25 million per ship, while American-built, new vessels with the same capabilities run $850 million. Twenty-six used foreign-built ships could be purchased for the price of one new American vessel.\textsuperscript{56}

In the Second Lebanon War, the IDF realized that its new, netcentric, computer-based logistics system could not bear its expected tracking burdens only when it confronted the sudden strains of an unexpected conflict initiated by Hezbollah’s kidnapping of two Israeli soldiers. The USN—and by extension, the USMC—has known for years that the ships required to support EABO will reach the end of their service lives at exactly the time they are needed most. Despite this glaring fact, precious few fixes are on the table to rectify this disparity: While the current National
Defense Authorization Act funds $1.6 billion for the purchase or construction of nine logistics-related vessels, the General Accountability Office reported that 23 supply ships will reach the end of their service lives from 2017 to 2027, with an additional 28 becoming too old for sea duty from 2028 to 2033.

Throwing money at shipbuilding is a start, but the viable, near-term solution revolves around rebuilding and strengthening the partnerships and alliances with Southeast Asian maritime nations already discussed in the article’s first section—there exist 43 unsinkable logistics nodes in the form of the islets that dot the South China Sea that are not controlled by Beijing. The USMC must begin to work with the maritime nations in the region to develop these islets as supply depots that mirror the distributed, small, adaptive, and independent cells that Hezbollah exploited to maximum effect against the IDF. These waystations could support merchant vessel needs in the near-term while also serving as prepositioned supply caches in the event of any future military conflicts or natural disaster relief efforts.

Additionally, an outside-the-box approach is needed to better mirror the unconventional techniques adopted by Hezbollah: The USMC should consider successful smuggling techniques as blueprints for its methods to resupply these islets during a South China Sea conflict. Daily, drug cartels escape law enforcement’s efforts to interdict illicit shipments by using small, semisubmersible autonomous vessels that routinely transport tons of cocaine between the American continents and Europe, successfully evading the sensors of the most technologically advanced nations in the Western Hemisphere. The ability of these drug runners to overcome the coast guards of multiple nations using unconventional, asymmetric techniques mirrors how Hezbollah mastered logistics distribution while operating in the backyard of arguably a much more technologically advanced, better-armed force, the IDF. The USMC must heed this example and actively work to pursue strategies for winning the South China Sea conflict that do not fall prey to the illusion that “small but smart” militaries can overcome any obstacle, specifically China’s overwhelming mass, through the judicious application of exquisite technologies. Instead, it must ape Hezbollah’s tactics, particularly in the South China Sea, and adopt the use of simple, expendable, disaggregated watercraft, crewed by Marines relying on a decentralized network of command, control, and logistics nodes, to compensate for the quantitative and qualitative shortages that await any force fighting in China’s backyard.

**Conclusion: Internalize the Themes and Apply the Lessons**

By first surveying the present situation in the South China Sea and then compiling lessons learned from detailed studies of modern-day battles, specifically
focusing on the Nagorno-Karabakh War of 2020 and Second Lebanon War of 2006, this article identified and explored the most prevalent themes present in these conflicts that will drive revisions to the playbook on how the USMC should fight and win the wars of tomorrow. Specifically in the South China Sea, the USMC must leverage its existing military alliances and partnerships with all other Southeast Asian maritime nations to gain and hold ground on as many of the 70-odd islets in the South China Sea as possible, containing Chinese aggression and expansion by presenting a mass of unsinkable outposts and regional maritime power unity that overbalances Beijing’s singular, zero-sum campaign to control the territory within its nine-dash line. Concurrently, the USMC and USN must restructure their current partnership model, which marries a massive formation of Marines and Sailors to two or three hard-to-replace ships of the line, and recast it into a disaggregated mold that weds the Marines possessing the skill sets to establish advanced bases of operations with a fleet of smaller, easily replaceable patrol boats crewed by adaptable Sailors that can deploy from amphibious assault ships and then scatter across the region.

The future fight, whether in Southeast Asia or the plains of Ukraine, will also be won by the forces that can mass drones in the fashion that grants their side the ability to decimate air defense forces without a considerable loss of their own manned airpower. One-off, precious platforms are losing ground rapidly to replaceable, attritable masses of drones and other autonomous offensive systems purpose-built to die to destroy or unmask defenses. The critical lesson from 2020’s short-but-bloody Second Nagorno-Karabakh War is that victory will be achieved by the side that can prosecute targets fastest by shortening its kill chains; hiding its electronic signatures and physical locations through jamming, deception, and camouflage; and downing its enemy’s drones, satellites, and radars via a robust countersensor campaign.

Finally, logistics matter, and simple, redundant, and autonomous sources of beans, bullets, and band-aids matter most. Hezbollah outperformed the mighty IDF in the Second Lebanon War by establishing a dense web of robust, multifaceted, and self-sustaining logistics nodes that overwhelmed Israel’s network of air and land targeting systems. Creating a network of low-tech, permanent, and decentralized supply nodes within the South China Sea by capitalizing on the partnerships with Southeast Asian maritime nations already discussed will only heighten the United States’ ability to contain China as Beijing seeks to establish regional hegemony and eventually subsume Taiwan.
Winning in the South China Sea

Lt Col Michal Carlson, USMC

A career low altitude air defense officer, Lieutenant Colonel Carlson graduated from Air War College in May 2022. He commanded 3d Low Altitude Air Defense Battalion from 2019–2021. He now serves as the Marine Air Command and Control System Integration Branch Head under the USMC’s Capabilities Development Directorate located in Quantico, Virginia.

Notes


7. Jones, Three Dangerous Men, 8–12. He states, correctly, that “the U.S. bias for English-language sources leads to a dangerous ignorance of its rivals’ thinking.”


26. These concepts are delineated further on pages 5–6 of *Force Design 2030*, signed and released by General Berger in March 2020.
30. Anna Ahronheim, “India to Buy 15 Harop Suicide Drones from Israel,” *Jerusalem Post*, 28 Jan 2019, https://www.jpost.com/. The total cost for 10 systems is reported at $100 million; per drone cost estimated at $10 million.
Winning in the South China Sea


44. Brose, The Kill Chain, 169.

45. The OIDSS are my own, synthesized from what I read during my studies of the Second Nagorno-Karabakh War.


56. General Paul Kern and General Duncan McNabb, Task Force Chairs; and Brenda Poole, Clare Mernagh, Daniel Rauscher, and Ari Kattan, SAIC Consultants; Executive Summary of the
Carlson


57. The Executive Summary of the FY22 NDAA from the Senate Armed Services Committee remains available at https://www.armed-services.senate.gov/. Funded costs for logistics vessels are listed on page 15.

58. Pendleton et al., NAVY READINESS, 18.


RECORD-SETTING INCURSIONS INTO TAIWAN’S AIR DEFENSE IDENTIFICATION ZONE

THE PEOPLE’S REPUBLIC OF CHINA’S PSYCHOLOGICAL OPERATIONS DESIGNED TO ERODE US SUPPORT FOR TAIWAN

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Abstract

As the United States transitioned to strategic competition with the People’s Republic of China (PRC), much has been written about Taiwan as a flashpoint for conflict. The debate surrounding Taiwan typically gravitates toward military capabilities, operational plans, and tactics, while the role of People’s Liberation Army (PLA) psychological operations is often overlooked and underappreciated. Examining PLA actions in and around Taiwan through the lens of psychological operations adds a dimension to the debate that enhances US military planners and foreign policy experts’ understanding of PRC intentions.

This article presents People’s Liberation Army Air Force (PLAAF) incursions into Taiwan’s air defense identification zone (ADIZ) from 1 to 4 October 2021 as a case study in PLA psychological operations. During this four-day period, the PLAAF flew a record-setting 149 sorties into Taiwan’s southwestern ADIZ. Moreover, a single force package on 4 October included 52 aircraft and set a record as the largest single incursion in history. PLA demonstrations of this magnitude were clearly designed to deliver a message. Therefore, US military planners and foreign policy experts should discuss and interpret the purpose and intent behind PLA actions. Analyzing record-setting incursions through the lens of psychological operations provides this opportunity.

The PLA’s use of Taiwan and airpower as historical symbols, synchronization with current events and global media attention, and targeting of a strategic opportunity with the Taiwan Relations Act indicate PLAAF incursions into Taiwan’s ADIZ from 1 to 4 October 2021 were psychological operations designed to divide and deter the United States from defending the island. In response, US military planners and foreign policy experts should maintain the strategically ambiguous nature of US–Taiwan relations and increase awareness of PLA psychological warfare.

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As the United States has transitioned into strategic competition with the People’s Republic of China (PRC), much has been written about Taiwan as a flashpoint for conflict. The debate over what to do about Taiwan...
Campbell

typically gravitates toward military capabilities, operational plans, and tactics. While capabilities, plans, and tactics are extremely important, the role of People’s Liberation Army (PLA) psychological operations is often overlooked and underappreciated. Examining PLA actions in and around Taiwan through the lens of psychological operations adds a dimension to the debate that enhances US military planners and foreign policy experts’ understanding of PRC intentions.

Before delving into military actions around Taiwan, an explanation of psychological operations is useful. The United States has traditionally defined psychological operations as “operations planned to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals.” A succinct PLA definition is more difficult to ascertain. However, the idea of psychological warfare appeared in PLA writing at least as early as 1963 and was officially described in the “Political Work Guidelines of the People’s Liberation Army” in 2003. PLA psychological warfare is guided by the doctrinal principles of “uniting with friends and disintegrating enemies” and promoting China’s rise within a new international order. Put simply, the PLA conducts psychological warfare to deter an enemy from taking actions unfavorable to PRC interests, while influencing them toward more favorable positions.

Psychological warfare is not an abstract concept but instead a tangible activity executed constantly by the PLA. Psychological operations, therefore, are the practical application of psychological warfare. They are designed to seize decisive opportunity, identify and exploit enemy internal political divisions, target adversary value concepts, force divisions in alliances and coalitions, and reduce enemy confidence. Within this context, PLA military demonstrations and exercises in and around Taiwan generate valuable meaning for US military planners and foreign policy experts.

Rather than reviewing a wide range of actions in and around Taiwan, this paper presents People’s Liberation Army Air Force (PLAAF) incursions into Taiwan’s air defense identification zone (ADIZ) from 1 to 4 October 2021 as a case study in PLA psychological operations. During this four-day period, the PLAAF flew a record-setting 149 sorties into Taiwan’s southwestern ADIZ, a 28-percent increase over the entire month of September, which held the previous monthly record. Moreover, a single force package on 4 October included 52 aircraft and set a record as the largest single PLAAF incursion in history. PLA demonstrations of this magnitude were clearly designed to deliver a message. Therefore, US military planners and foreign policy experts should discuss and interpret the purpose and intent behind PLA actions. Analyzing record-setting incursions through the lens of psychological operations provides just such an opportunity.
At least three elements associated with psychological operations were evident amid PLAAF incursions. First, the intrusions tap into key symbols and societal undercurrents related to value concepts that promote China's growing power. The island of Taiwan and airpower are historically significant symbols that induce feelings and emotions related to national strength. Second, PLAAF actions coincided with influential current events and garnered mass media attention. Linking historical symbols to present-day action shifted the global narrative toward PLA military power and countered narratives that were unfavorable to the PRC. Third, PLAAF incursions seized upon an opportunity inherent in the Taiwan Relations Act (TRA) to create greater political division within the United States. Collectively, these elements demonstrate that record-setting PLAAF intrusions were PLA psychological operations that threaten the status quo without fighting.

The PLA's use of Taiwan and airpower as historical symbols, synchronization of influential current events and global media attention, and targeting of a strategic opportunity within the TRA indicate that PLAAF record-setting incursions into Taiwan's ADIZ from 1 to 4 October 2021 were psychological operations. As such, PLAAF incursions were executed to sow seeds of division and deter the United States from defending the island. In response, US military planners and foreign policy experts should maintain the strategically ambiguous nature of US–Taiwan relations and increase awareness of PLA psychological operations.

**PLAAF Record-Setting Incursions: A PLA Psychological Operations Case Study**

The idea of PLAAF incursions as psychological operations should not be surprising. Political warfare is a vital component of the PRC’s current security strategy and foreign policy. Since at least 1963, the PLA’s Political Work Department (PWD) guidelines included giving “full play” to what has become known as the “Three Warfare”: public opinion warfare, psychological warfare, and legal warfare. Early PLA writing on the Three Warfare included psychological operations focused on disintegrating enemy activity and preventing an adversary’s efforts to incite discord. Since 1963, the PLA has advanced the concept of psychological warfare considerably, officially introducing the concept in the revised “Political Work Guidelines of the People’s Liberation Army” in 2003. By 2005, the PLA incorporated Three Warfare concepts, including psychological operations, into the PLA’s education, training, and preparation for military struggle. The advancement of psychological operations is more than conceptual. The PWD, which reports directly to the Central Military Commission, and PLA Base 311 in Fuzhou are dedicated to employing psychological warfare.
In addition to conceptually developing and organizing for psychological operations, the PLA has a history of conducting them in and around Taiwan. Base 311 is an operational political warfare command that applies psychological operations and propaganda against Taiwan. Research indicates that Base 311 leaders support the Chinese Communist Party’s (CCP) Taiwan Propaganda Leading Small Group and oversee at least six regiments responsible for psychological warfare and propaganda targeting public opinion on Taiwan. Moreover, the CCP has applied psychological warfare to intimidate Taiwan at times of tension or crisis, especially during Tsai Ing-wen’s presidency. The PLA’s conceptual development of psychological operations and history of targeting Taiwan serve a strategic purpose for the CCP.

In general, the PLA conducts psychological warfare to “influence emotions, motives, objective reasoning, and behavior of foreign governments, organizations, groups, and individuals in a manner favorable to one’s own political-military objectives.” Favorable terms include PRC doctrinal principles such as “uniting with friends and disintegrating enemies” and promoting China’s rise within a new international order. Psychological operations also seize decisive opportunity to “undermine an adversary’s combat power, resolve, and decision-making, while exacerbating internal disputes to cause the enemy to divide into factions.” PLA experts Mark Stokes and Russell Hsiao note five distinct purposes of peacetime psychological operations; “identify and exploit divisions within an enemy’s political establishment,” “deter an adversary from taking actions inimical to Chinese interests,” “ensure that PRC policies and military operations are cast in the proper light,” target “an adversary’s value concepts,” and “seek to force divisions in alliances and coalitions and reduce confidence in an enemy’s economy.” Within the contextual framework of influencing emotions, motives, and objective reasoning to achieve political-military ends, PLAAF incursions prove an instructive case study for US military planners and foreign policy experts.
From 1 to 4 October 2021, the PLAAF flew 149 sorties into Taiwan’s southwestern ADIZ. At first glance, Chinese incursions into Taiwan’s ADIZ are not particularly noteworthy; incursions happen almost daily, Taiwan’s ADIZ is not sovereign airspace, and it overlaps with mainland China. However, the sheer volume of sorties during this four-day window was staggering, clearly departing from normal operations. Moreover, the details surrounding PLAAF intrusions are valuable considerations for psychological operations. On 1 October, the PLAAF flew 13 aircraft through Taiwan’s ADIZ, crossed the extended Taiwan Strait center line, continued to the back side of the island, and then returned via the same route. On 4 October, the PLAAF flew 52 aircraft into Taiwan’s ADIZ along a broad front, crossed the extended Taiwan Strait center line, and returned to mainland China.

In total, the four-day sortie count represented a 28-percent increase over the entire month of September, which held the previous monthly record for incursions at 116. Additionally, the force package on 4 October included 52 aircraft, and set a record as the largest single PLAAF incursion in history. It included two Shaanxi Y-8X maritime patrol aircraft, 12 Xian H-6 heavy bombers, 34 Shenyang J-16 multirole strike fighters, two Sukhoi Su-30 fighters, and a Shaanxi KJ-500 airborne early warning and control aircraft. Through a lens of psychological operations, the target, sorties, and aircraft types take on important meaning for US military planners and foreign policy experts.
Figure 2. Flight paths of PLA aircraft, 1 October 2021


Figure 3. Flight paths of PLA aircraft, 4 October 2021

As psychological operations, PLAAF incursions leverage two important historical symbols that challenge societal undercurrents and advertise China’s growing military prowess. The island of Taiwan and airpower are historically significant symbols that induce feelings and emotions related to national strength. According to the CCP, Taiwan is a symbol of China’s power relative to external actors. In the 1660s, Taiwan was a Dutch colony. From 1683 to 1895, Taiwan paid homage to powerful dynasties from mainland China. Then, during the Sino-Japanese War, Japan took control of Taiwan, and it continued under Japanese rule from 1895 until 1945. The CCP uses this history to further an important strategic narrative. Namely, when China was powerful, the mainland exerted control over the island. When the mainland was weakened at the hands of imperial powers, Taiwan was lost. The inconclusive nature of China’s civil war further cements Taiwan as a symbol of national power and feeds a societal undercurrent of China’s previously weakened position.

Although the CCP dominated mainland China, they were unable to exert control over Taiwan. During the Chinese Civil War, Mao Zedong and the PLA wrested control of mainland China from Chiang Kai-shek and the Nationalists. Chiang and the defeated Nationalists took refuge on Taiwan in 1949 and continued their fight against the CCP, attempting to reassert control over mainland...
China. The Republic of China (ROC) used Taiwan as a redoubt from which to launch punitive attacks against the newly established PRC.\textsuperscript{35} Mao and the PRC understood the threat a ROC-dominated Taiwan posed. As early as July 1949, Mao wrote to Zhou Enlai about the need to unify Taiwan with the mainland and gain control by the summer of 1950.\textsuperscript{36} In an effort to finish the civil war and destroy what remained of the ROC Nationalists, the PRC massed troops across the Taiwan Strait.\textsuperscript{37} However, the Korean War and Pres. Harry Truman’s deployment of the 7th Fleet on 27 June 1950 deterred the PRC from taking further action across the Taiwan Strait.\textsuperscript{38} Because Taiwan elicits feelings and emotions related to Chinese national power and the influence of foreign powers, it has become a symbol of China’s power relative to the United States.

Taiwan’s 70 years of de facto independence encourages the undercurrent of China’s disadvantage at the hands of foreigners, specifically the US military. Since 1950, the United States has remained committed to the people of Taiwan, despite recognition of “One China” and vehement protests from the PRC.\textsuperscript{39} US support for Taiwan has played a key role in deterring PRC aggression during all three of the Taiwan Strait Crises. In 1954, with Chiang challenging CCP authority on the mainland, Mao initiated an attempt to seize control of Taiwan. The PLA shelled the Kinmen islands in preparation for invasion.\textsuperscript{40} The United States intervened on behalf of Taiwan, and the conflict ended in a cease-fire. In 1958, the PRC blockaded Taiwan and bombarded the Kinmen islands in a second attempt to subjugate Taiwan.\textsuperscript{41} Once again, the United States defended Taiwan by sending its army and navy to escort and protect ROC ships.\textsuperscript{42} Then, in 1996, the PRC conducted a series of surface-to-air missile tests and massed 150,000 troops in Fujian province across the Taiwan Strait.\textsuperscript{43} As tension escalated, Pres. Bill Clinton sent the USS \textit{Nimitz} into Taiwan waters along with the USS \textit{Independence}.\textsuperscript{44} In each instance of heightened tension, PRC attempts to gain control over Taiwan failed primarily due to US military involvement.

Rather than distancing themselves from Taiwan as a symbol of China’s limited power, the CCP has embraced it. During the 19th National Congress in 2017, Xi Jinping highlighted that Taiwan “remains part of historical China” and the CCP “will never allow the historical tragedy of national division to repeat itself.”\textsuperscript{45} Xi’s speech included resolving “the Taiwan question to realize China’s complete reunification” as “the shared aspiration of all Chinese people.”\textsuperscript{46} He echoed this sentiment at the CCP Centenary Address in 2021, “resolving the Taiwan question and realizing China’s complete reunification is a historic mission and an unshakable commitment of the Communist Party of China.”\textsuperscript{47} In addition, the PRC Constitution states “Taiwan is part of the sacred territory of the People’s Republic of
China.” Through history and rhetoric, the CCP has become inexorably tied to Taiwan as a fundamental undercurrent of national and military power.

The undercurrent of Taiwan as a symbol of China’s national and military power is recognized internally and externally. In *Why Taiwan*, Alan Wachman asserts that “failing to take back Taiwan dooms China to less than great power status.”49 As a symbol of Chinese power, the PRC cannot become a truly powerful nation without exerting control over Taiwan. Zhang Wenmu, a professor with the Institute of International Strategy at Beijing’s University of Aeronautics and Astronautics, states, “the Taiwan issue still embodies a contest for power between China and the US.”50 In the DOD’s 2020 “Annual Report to Congress on China,” the United States similarly recognizes a fundamental challenge for the PRC to achieve the “rejuvenation of the Chinese nation” by reuniting with Taiwan.51 Although Taiwan is currently a symbol of China’s limited national power and military weakness, a subjugated Taiwan would elevate perceptions of PRC power domestically and internationally.

PLAAF record-setting incursions from 1 to 4 October targeted Taiwan specifically because it elicits feelings and emotions of Chinese vulnerability. As psychological operations, PLAAF incursions challenge societal undercurrents of weakness and showcase PLA strength in the face of adversity. Psychological operations build on the foundation that is already present by attaching to an idea.52 In this case, PLAAF incursions attach to the idea of overcoming outside influences and promoting China’s rise as a powerful nation. Flying 149 sorties into Taiwan’s ADIZ in less than 96 hours overtly displays that the PLA can bring overwhelming power to bear in and around Taiwan. As the PLA demonstrates greater military power around Taiwan, there is an opportunity for the symbolism and associated undercurrent to change. Instead of symbolizing China’s relative weakness compared to the United States, Taiwan advances the narrative of China’s growing military power. As feelings and emotions of weakness transition to thoughts of growing national power and military strength, the undercurrent surrounding Taiwan can shift from one of US dominance to the inevitable rise of China. If China is to be seen as a national power peer of the United States, Taiwan is a remarkably useful symbol through which to communicate that change.

Taiwan is also a valuable symbol through which to challenge the United States’ willingness to fight. If the size of the PLA compared to Taiwan on paper is not enough, record-setting incursions showcase Taiwan’s inability to compete with PRC military capabilities. If ROC forces are unable to defend against a strong PLA, the US commitment remains Taiwan’s best hope of maintaining independence from the CCP. No doubt PLAAF actions are intended to threaten Taiwan, but they also challenge US commitments by reinforcing the PRC’s willingness to
fight. The shelling of the Kinmen islands and massing of troops in the 1950s established that the CCP was ready and willing to invade. As long as Taiwan retains de facto independence, the CCP must reaffirm that willingness. In March 2005, the PRC passed the Anti-Secession Law, which authorizes the use of force “in the event of a Taiwanese declaration of independence.” In a 2017 speech, Xi implied the PRC will use any means necessary to achieve control over Taiwan by 2049. PLAAF incursions are a tangible representation of the CCP’s commitment to fight for Taiwan and the strength Beijing now possesses relative to foreign powers. Taiwan is just one of the symbols PLAAF actions leveraged.

PLA record-setting incursions also employed airpower as a symbol of China’s growing military capability, undermining US historical combat advantages. Over the years, airpower played a meaningful if not decisive role in Taiwan’s defense and elicits similar feelings and emotions. As China’s civil war concluded on the mainland in July 1949, “PLA intelligence analysts estimated the Nationalists had 200-250 combat aircraft to defend against invasion.” To gain air superiority, “PLA armaments plan called for a flying force of 300-350 combat airplanes.” In 1949, the CCP did not have an independent airpower component and relied almost entirely on Russia for aircraft and training. It was not until May 1950 that the PLA “graduated its first class of flying professionals.” The class included 89 pilots, 20 navigators, and 107 ground personnel to fly and support 30 fighters, 30 fighter-bombers, and 20 bombers. The CCP was unable to generate the airpower necessary to launch an invasion; therefore, US airpower provided an effective deterrent.

In August and September of 1958, airpower again played a prominent role deterring the CCP from invasion. Along with US Army and Navy support at sea, ROC forces achieved dominance in the air. On 12 September 1958, ROC pilots flying American-made F-86 Sabres shot down a flight of PLA MiG-17 jets, “splashing four of them into the ocean with the new Sidewinder missile.” Nationalist pilots proved adept at destroying CCP airpower, amassing “33 enemy kills in return for the loss of four of their own” in just a few days. The CCP’s inability to achieve air superiority ensured that even the Kinmen islands remained under ROC control. By 6 October, US support and ROC airpower had forced Mao to back down, and he announced a cease-fire.

As tensions increased in 1995 and 1996, airpower again came to the fore. This time conflict came on the heels of the Gulf War, where the United States displayed unparalleled command of the air. The 1991 Gulf War illustrated to the PRC how advanced US military capabilities and operational concepts could make an entire country vulnerable.” The PLA was keenly aware of US airpower and its role in achieving military objectives. In 1996, the United States came to Taiwan’s defense by deploying the USS Nimitz, an aircraft carrier, through the Taiwan Strait. Each
time the PRC threatened invasion, airpower was prominent. Today, airpower continues to represent the gap between PLA and US military capabilities, eliciting feelings and emotions that harken back to foreign powers taking advantage of a weak China. To shift the symbolic meaning of airpower and change the associated societal undercurrent, the PLA chose to communicate through airpower.

PLAAF incursions showcase growing PLA military capability while simultaneously undermining US advantages. Considering China had 17 total aircraft in 1949, the sheer number of aircraft in the PLAAF by 2021 is remarkable. In 2019, incursions from 1 to 4 October included 149 sorties over 72 hours, and a single force package of 52 aircraft. The Y-8X maritime patrol aircraft, H-6 heavy bomber variant, J-16 strike fighters, Su-30 fighters, and a KJ-500 airborne early warning and control aircraft have all been fielded and modernized in the past 30 years. H-6 bombers can carry and launch cruise missiles. One variant, the H–6K, can carry up to six land-attack cruise missiles. J-16 multirole strike fighters incorporate modern avionics, upgraded electronically-scanned airborne radars, electronic warfare and electronic countermeasures capabilities with the ability to carry modern air-to-air and air-to-ground weapons. Su-30 fighters show off enhanced avionics, advanced radar, and a retractable refueling probe with drastically improved air-to-ground capabilities. The Su–30 can deliver both “smart” and “dumb” weapons and munitions. Finally, the KJ-500 integrates airborne early warning and control aircraft, enhancing the PLAAF’s ability to detect, track, and target threats under varying weather conditions. Modern weapon systems and capabilities were on full display during the fighter, bomber, patrol, and command-and-control aircraft incursions.

Through airpower, PRC psychological operations communicate the ability to bring dominant military power to bear in and around Taiwan, countering the undercurrent of US strength. The message PLAAF incursions communicate is clear. Gone are the days of asymmetric airpower advantages that allowed US political leaders to defend Taiwan at a relatively low cost. Instead, the PLAAF poses a credible threat to US air superiority and will impose great costs on defenders of the island.

This is particularly important because both the United States and China believe that an invasion, or credible threat of invasion, requires China to compete with US airpower. PLA war planners break down the Taiwan invasion into three phases, the first of which is a blockade coupled with bombing operations. PLAAF air strikes are necessary to weaken Taiwan’s defenses and political resistance to occupation. Given these requirements, it is appropriate to conclude that China is unlikely to invade Taiwan without a reasonable prospect that the United States could be deterred or delayed. Not only does the PLAAF’s display of air-
power make the threat of invasion more credible, it challenges the undercurrent of US military superiority and sows seeds of doubt in the minds of US military planners and foreign policy experts about the relative costs and value of Taiwan.

The PLA's manipulation of symbols and use of societal undercurrents are informative. By attaching PLAAF actions to societal undercurrents, the PRC confronts feelings of Chinese national weakness and creates uncertainty regarding US military capabilities and resolve. Their actions then shed positive light on China's increasing military and national power requiring would-be defenders of Taiwan to pause and take notice. From a psychological operations perspective, symbols are not the only element PLAAF actions leverage.

The PLAAF’s record-setting incursions were also expertly timed to garner mass media attention. PLA actions coincided with influential current events, linking historical symbols to present-day action. Psychological operations must be attached to current events because the message “would not reach anybody if it tried to base itself on historical facts.” Several very important strategic events took place related to Taiwan in September and October 2021. On 22 September, Taiwan bid for Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) membership, attempting to reduce reliance on China while increasing international standing and opportunity. This was a clear move away from reunification with the PRC and toward greater independence. That same month, the USS Carl Vinson Carrier Strike Group passed through the Bashi Channel and later operated with Japanese defense forces in the South China Sea.78 These two events coincided with major national holidays in both China and Taiwan. Each year on 1 October, the PRC recognizes National Day, which celebrates establishment of the PRC. And, on 10 October each year, Taiwan celebrates its own National Day. With Taiwan’s CPTPP bid, ongoing US military operations, and National Day celebrations surrounding the intrusions, the timing was ideal for capturing global attention.

PLAAF incursions leveraged current events to increase the level of media attention and reach a much broader audience beyond Taiwan. The PLAAF’s daily incursions into Taiwan’s ADIZ do not receive international news coverage, and they are not viewed by millions of people worldwide. However, record-setting incursions into Taiwan’s ADIZ from 1 to 4 October were something entirely different. PLA-orchestrated psychological operations translated into time and attention on almost every major news source, including Cable News Network, Fox News, British Broadcasting Corporation, China Central Television, China’s Global Television Network, and Al Jazeera.79 A basic Google search reveals dozens of stories across major and minor news sources. The amount of television coverage, internet content, social media reactions, and news articles written about
the incursions is staggering. Regional experts and critics are still deciphering the meaning and purpose of the PLAAF’s record-setting incursions.80

As psychological operations, the timeliness and media attention associated with PLAAF incursions served two purposes. First, it shifted the global narrative favorably for the PRC by usurping media cycle broadcasts of Taiwan and US geostrategic actions. Mass media no longer focused on Taiwan’s CPTPP bid or US–Japan freedom of navigation operations in the South China Sea. Instead, experts and pundits began talking about the PLA’s increased military capabilities and disagreements about whether the PRC would invade Taiwan. Second, PLAAF military demonstrations directly challenged Taiwan’s move toward greater independence by threatening the use of overwhelming force. PLA actions and their intended results exemplify psychological operations. PLAAF incursions employed symbols, timing, and mass media to shift the global narrative toward a more favorable position for the PRC while deterring adversaries from taking actions inimical to Chinese interests.

Finally, as psychological operations, PLAAF incursions seize on opportunity inherent in the TRA to generate political division and change behaviors without fighting. Neither the PRC nor the United States want war to determine the fate of Taiwan. Both parties have avoided war over Taiwan since 1949. In 2017, Xi noted, “We must uphold the principles of ‘peaceful reunification’ and ‘one country, two systems,’ work for the peaceful development of cross-Strait relations and advance the process toward the peaceful reunification of China.”81 In 2021, Xi again stated, “We will uphold the one-China principle and the 1992 Consensus and advance peaceful national reunification.”82 The United States shares this desire for a peaceful resolution. The TRA explicitly states the future of Taiwan is to be “determined by peaceful means.”83 Instead of kinetic action, the PRC deliberately employs psychological operations, such as the PLAAF incursions, to provoke political division over the TRA and change the status quo.

From 1913 through 1978, the United States formally recognized the ROC in Taiwan as the governing authority of China.84 By the 1960s, this position was untenable. It became clear that “America’s China policy of the 1950s and 1960s could not be sustained.”85 Taiwan was most certainly not the government of mainland China, and China was most certainly not the ruling authority over Taiwan.86 In response to this untenable position, the United States sought a middle ground that recognized the PRC on the mainland, while maintaining support for the ROC on Taiwan. This tension bore the Three Communiques and the TRA, which recognizes the PRC’s position and leaves the Taiwan question to be resolved through “peaceful means.”87
Since 1979, the United States has recognized only “One China,” the PRC. Despite this recognition, the United States has maintained a strategic relationship with Taiwan through the TRA and subsequent “Six Assurances.” The TRA states that “peace and stability in the area are in the political, security, and economic interests of the US” and maintains “the capacity of the US to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people on Taiwan.” In 1982, the United States further committed to the somewhat nebulous relationship by reaffirming the TRA and informing Taiwan that the United States “would not pressure Taiwan to enter into negotiations with China” and “would not formally recognize Chinese sovereignty over Taiwan.” While the TRA and the “Six Assurances” cement US interests and position regarding the people of Taiwan, at no point does it emphatically state the United States will defend Taiwan. The United States’ simultaneous recognition of “One China” and support for the people of Taiwan appear to be at cross purposes.

PLA incursions target the seemingly ambiguous nature of the US–PRC–Taiwan relationship to foment disagreement among US military planners and foreign policy experts on whether the United States should defend the people of Taiwan. In 2014, Congressional testimony evaluating the US policy on Taiwan noted calls from the academic community for changes to the TRA. The hearings specified two opposing groups; those who believe the TRA “needs to be weakened” and those who say it “needs to be strengthened.” More recently, arguments between TRA critics and traditionalists have become “increasingly heated,” with prominent members of Congress taking sides. Less than a month after the incursions, Admiral James Stavridis furthered the divide with a piece in Time, stating “the US urgently needs to clarify its strategic approach to the region.” By their own account, PLA psychological operations target enemy “value concepts,” and “force divisions in alliances and coalitions.” Clearly, PLA incursions sowed political discord within the United States: PLA psychological operations seek to create divisions, undermine US resolve, and enable the PRC to challenge US policy.

Ultimately, PLA incursions provide useful evidence of PLA efforts to threaten the status quo without fighting. The incursions illustrate that psychological warfare is not just conceptual; they include tangible operations executed by the PLA to achieve strategic objectives. Utilizing symbols to elicit feelings related to China’s growing national power, shifting societal undercurrents and global narratives, sowing doubt about US military capabilities and political commitment to Taiwan, and fomenting political division are evident during the PLA’s record-setting incursions from 1 to 4 October 2021. In response, US military planners
and foreign policy experts should pause and take notice, not just of military capabilities and China’s growing power, but also of PLA psychological operations and their underlying intent.

**Recommendations**

US military planners and foreign policy experts must support the strategic ambiguity and flexibility inherent in the TRA rather than succumbing to PRC attempts to redefine the US–Taiwan relationship. PLA psychological operations that target the United States and Taiwan are evidence that the current relationship benefits the United States, not the PRC. The PRC would not conduct psychological operations to change the status quo if it benefited them. Strategic ambiguity within the TRA is in the best interest of the United States and Taiwan because it has worked well for 40-plus years. The TRA discourages Taiwan from declaring independence by providing support only “in the event of an unprovoked attack from the mainland,” while deterring the PRC from asserting control by threatening US military intervention.96 In addition, the TRA allows US policy makers flexibility to adjust in real time as events unfold.97 Under these conditions, Taiwan retains de facto independence, the PRC is deterred from invasion, the United States maintains political flexibility, and the undercurrent of US military strength is reinforced.

Redefining the US–Taiwan relationship would play directly into the CCP’s hands by changing the status quo. On the one hand, a move away from supporting Taiwan would give the PRC freedom to employ whatever means necessary to achieve reunification, undermining US strength and destroying a key regional partner along the way. On the other hand, a strong commitment to Taiwan would irreconcilably ruin what remains of the US–PRC relationship and may “entangle the US in Taiwan independence.”98 Moreover, unambiguously committing to defend Taiwan may have unintended consequences. Instead of attempting to change US behavior through psychological operations, the PRC may perceive war as inevitable and accelerate conflict. Finally, even if the United States clarifies a strategic position, there is no guarantee how the PRC will receive that message. As several regional experts suggest, “ambiguity is inevitable.”99

While ambiguity is inevitable, US messaging need not be. US actions and messages have been relatively consistent over time, balancing Taiwan’s de facto independence and PRC engagement since the 1940s. Instead of redefining the relationship, the United States should continue to support Taiwan in accordance with the TRA. US military shows of force, presence missions, arms sales, and political engagement through the American Institutes must all be sustained. Continued support and investment reinforce the US commitment to Taiwan internally and externally. There
is cause for optimism as Pres. Joe Biden has confirmed US support for Taiwan on multiple occasions. On 22 October 2021 during a CNN Town Hall, Biden stated the United States would defend Taiwan and has a commitment to do so. Despite recent calls for strategic clarity, it does not appear PLA psychological operations have weakened the US commitment to Taiwan. However, there is always a risk of greater division among policy makers and US military planners.

To mitigate that risk, planners and policy experts have a responsibility to increase awareness of PLA psychological operations and their application. Knowledge of the PLA’s use of history, symbolism, timing, and media attention to influence US politics is essential for effective military and foreign policy decision making. A valuable body of research exists, but it requires time and attention to understand through the PLA’s lens. Planners and policy makers that understand PLA psychological operations can prevent strategic policy blunders that challenge the PRC and endanger countless lives. Moreover, awareness of PLA psychological operations enhances strategic planning by highlighting key objectives for the CCP and unveiling the means through which they choose to accomplish them.

Finally, an opportunity exists for the United States to counter PLA psychological operations. Harnessing symbolism, current events, and mass media to support the people of Taiwan can align US policy makers, military planners, and the domestic population. If the CCP intends to create division, the United States must respond with unity by fostering an undercurrent of domestic and international support for Taiwan. Effective US counter psychological operations would highlight solidarity with Taiwan, the long-term relationship benefits, and the current risks posed by the PRC, all while retaining the ambiguity that has effectively deterred the PRC. For the US domestic audience, President Lee Teng-hui’s speech at Cornell in 1995 provides a useful illustration. He noted that Taiwan was “a small, free, liberal democracy facing a much larger, more powerful, tyrannical adversary.” By framing Taiwan in this way, the United States can shift from a position of division to one of unity and commitment in the face of PRC threats and aggression.

PLAAF incursions were undoubtedly designed to target the United States. However, this is just one example, and psychological operations are seldom limited to a single operation or a single audience. Compelling arguments can be made that PLA psychological operations are designed to influence the Taiwanese population and political leaders, spur nationalism within the mainland’s domestic populace, and to fuel international doubts about support. Many of these audiences have already been written about and others provide an excellent opportunity for future study. As an example, Robert Wang suggests PLAAF incursions were designed to “fuel doubts about US commitments to Taiwan,” “isolate and undermine
the morale of the people of Taiwan,” and “coerce the people of Taiwan into accepting Beijing’s formula for political reunification.” Wang’s argument is illustrative of many arguments today, and while not entirely incorrect, is too limited in scope. PLA psychological operations are much more than intimidation. They attempt to alter symbols, change societal undercurrents and challenge previously held assumptions. Future studies of PLA psychological operations must build and shape the understanding of psychological operations by applying PLA conceptual approaches across a variety of audiences and situations.

Conclusion

The PLAAF’s record-setting 149 incursions into Taiwan’s ADIZ from 1 to 4 October 2021 are an example of PLA psychological operations designed to challenge the status quo without fighting. PLAAF incursions utilized symbols to elicit emotions related to Chinese national power, shift societal undercurrents and global narratives, sow doubt about US military capabilities, and intensify US political division regarding Taiwan. Rather than succumbing to PRC attempts to redefine the US–Taiwan relationship, US military planners and foreign policy experts should support the current strategic ambiguity and flexibility inherent in the TRA.

Moreover, US military planners and foreign policy experts must take notice, not just of military capabilities and China’s growing power, but of PLA psychological operations and their underlying intent. By increasing awareness of PLA psychological operations, planners and experts can begin to recognize PRC strategic intentions, increase political solidarity, and avoid strategic policy blunders. In addition, the United States should counter PLA psychological operations by harnessing symbolism, current events, and mass media to extol the value of the TRA as an effective way to preserve the freedom of the people of Taiwan. Aligning US policy makers, military planners, and the domestic population thwarts PRC attempts to create division by fostering doubts about domestic and international support for Taiwan.

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Notes

2. U-Jin and Suorsa, “Explaining the PLA’s Record-Setting Air Incursions.”
7. Stokes and Hsiao, “The People’s Liberation Army,” 28; and Kania, “PLA’s Latest Strategic Thinking.”
8. U-Jin and Suorsa, “Explaining the PLA’s Record-Setting Air Incursions.”
12. Mattis, “China’s ‘Three Warfares.’”
15. Kania, The PLA’s Latest Strategic Thinking.”
16. Kania, The PLA’s Latest Strategic Thinking.”
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Record-Setting Incursions into Taiwan’s Air Defense Identification Zone

42. Carpenter, *America’s Coming War*, 42.
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66. U-Jin and Suorsa, “Explaining the PLAs Record-Setting Air Incursions.”


82. Xi Jinping, “100th Anniversary.”


86. Oksenberg, “Taiwan, Tibet, and Hong Kong.”

87. Oksenberg, “Taiwan, Tibet, and Hong Kong.”

89. US Congress, Taiwan Relations Act of 1979, 3301–16.


92. “Evaluating U.S. Policy on Taiwan,” statement of Abraham M. Denmark


97. Joshua Rovner, “Ambiguity is a Fact.”

98. Goldstein, “In Defense of Strategic Ambiguity.”

99. Joshua Rovner, “Ambiguity is a Fact.”


102. Carpenter, America’s Coming War, 67.

103. Wang, “Why a Firm Stand.”
America’s Strategy Is Outrunning Its Force
Why the Military’s Diplomatic Corps Is in Dire Need of Reform

MAJ TIM BETTIS, USAF

In May 2021, I competed in a Department of Defense–sponsored disruptive ideas competition on the campus of the Naval Postgraduate School in Monterey, California. Standing in front of a wide range of great minds including Socos Labs’ Vivienne Ming; the Center for New American Security’s Ainikki Riikonen; William J. Perry Fellow Dr. Joe Felter from the Center for International Security and Cooperation at Stanford University; and the Deputy Commander of US Strategic Command, Lt Gen Thomas Bussiere, USAF, I sought to convince the panel that the strategy with which the Department of Defense (DOD) uses to guide employment of its military diplomatic corps—referred to officially as its foreign area officer (FAO) corps—has become increasingly disjointed with the nature of global security today and is at risk of hampering America’s national security strategy writ large.

More than a year later, the gap between our nation’s strategic ambitions and the organization and design of the forces and capabilities employed to realize them remains stark. In short, while Washington takes its first steps in a strategic competition against Moscow and Beijing, our force design is continuing to fall out of orbit with the nation’s strategy. These force-design problems are especially salient within the DOD’s FAO corps, which serves as the DOD’s maneuver element in the global strategic competition for allies, access, and influence in strategic regions of the world. From the Persian Gulf to the South China Sea and beyond, often working in lockstep with the Department of State and US embassies in foreign capitals, the military’s FAO corps serves in key posts undertaking sensitive security cooperation activities to help build the capacity and advance the capabilities of partner nations, such as ongoing efforts in Ukraine. FAOs serve as senior defense officials and defense attachés in embassies, acting as the eyes and ears of the Secretary of Defense and combatant commanders while also serving as the diplomatic touchpoint with foreign militaries and ministries of defense.

The personnel who serve as FAOs are military experts, competitively selected from a broad range of functional communities, such as pilots, infantry officers, intelligence experts, logisticians, and the like. Trained over a multiyear pipeline,
they are certified diplomats and versed in more than one language, tasked to advance the defense interests of America and our allied nations abroad. The sensitive nature of their mission highlights why a disconnect between America’s grand strategy and the way FAOs are trained and employed risks the exact institutions these officers are tasked to protect: America’s unmatched global network of alliances and partnerships.

I am not the first person to highlight problems afflicting the FAO corps. Last April, for instance, Col Andy Hamann, the US Air Attaché to France, who previously served as the Senior Defense Official and Defense Attaché (SDO/DATT) to Morocco, published an article calling for sweeping changes to how SDO/DATT billets are managed by the Pentagon. Among several serious problems, Colonel Hamann accused the DOD of misusing key FAO billets, assigning officers to serve as SDO/DATTs in strategically important locations who “lack FAO training, lack FAO experience, and are new to a diplomatic role”—in direct violation of Secretary of Defense Policy. Congress has also taken recent action to address shortfalls and failings within the military’s FAO corps. Included within the text of the 2022 National Defense Authorization Act are identical accusations that the Pentagon continues to assign unqualified personnel to critical posts that FAOs are deliberately trained to fill. Exercising its oversight authority, Section 1322 of the National Defense Authorization Act tasks the Secretary of Defense to undertake, in partnership with a federally funded research center, a comprehensive assessment of the ways in which FAOs “are recruited, selected, trained, assigned, organized, promoted, retained, and used in security cooperation offices, senior defense roles in US embassies, and in other critical roles of engagement with allies and partners.”

How exactly does the design of the FAO corps today diverge from national strategy and the patterns and structures of the global security environment? What are the major shortfalls of the FAO corps as an institution today? What reforms must be made to better organize, train, and equip this force to build and sustain America’s partnerships and alliances over the coming decades? In this article, I argue that no clear strategy exists today that employs the military’s diplomatic force in a way that is coherent, unified, and relevant with today’s strategic reality. Up until March 2022 when it was finally updated, the most current DOD guidance for the FAO corps was published in 2007, still referred to the “Global War on Terror,” and was written amid America’s unipolar moment. While a new version has come out with some welcomed changes, including the formation of a “FAO Council,” clearer roles and responsibilities for the oversight of Office of the Secretary of Defense (OSD) staff, the Defense Security Cooperation Agency, and military departments, among other key stakeholders, as well as a more succinct
definition of what joint effects a FAO brings to the field for better utilization by other DOD elements, the document cannot serve as a standalone solution capable of modernizing the FAO program for the era of strategic competition. In addition to undertaking a comprehensive review of the strategy and implementation guidance that links the function of the FAO corps to its wider institution, I recommend that the Pentagon consider three additional actions for modernizing the employment of FAOs for today’s challenges.

First, rather than being employed rigidly within the boundaries of combatant commands, FAOs should operate within the boundaries generated by changing regional patterns of security interdependence, referred to as regional security complexes (RSC) by academics Barry Buzan and Ole Wæver, a concept to be discussed in more detail later. With this, both the focus of individual FAOs and the professionalization of the corps writ large will better attuned to the threats and security interests of our partners and, therefore, better postured to identify opportunities to build and grow alliances more broadly. Such an approach will also better align with Washington’s cultivation of strategic minilateral partnerships, such as the emergent I2U2 quad, comprised of India, Israel, the United Arab Emirates, and the United States. Up until the recent inclusion of Israel within US Central Command (CENTCOM), this quad would have transcended three different combatant commands. They are all linked, however, by the changing realities of their security interests, from the Suez Canal to the Strait of Malacca. Failing to employ FAOs in a way that follows contemporary patterns of security interdependence misses the looming fight entirely.

Second, the OSD must review the institutional differences and similarities between the Army, Navy, and Air Force FAO programs, and identify best practices worth expanding across other departments while standardizing needlessly divergent elements. The updated DOD Instruction 1315.20: Management of the DOD Foreign Area Officer Program does this to a degree in terms of its standardization of a singular definition of a FAO and the unification of program oversight into a single overarching council. Yet left unaddressed, for instance, is the operational definition each military branch uses to define what constitutes regional expertise, with the Army cultivating and employing FAOs along regional boundaries that align with how the Department of State operates, and the Air Force strictly adhering to combatant command boundaries. This seemingly mundane concept creates wider issues with the way we as an institution design and employ FAOs, in synch or out of step with strategy. Both the Army’s and Air Force’s definitions of what constitutes a “region” of the world diverge from the academic programs offered at the Naval Postgraduate School, one of the few
DOD-sponsored institutions tasked with educating future FAOs. A standard definition aligned with national strategy is urgently needed.

Lastly, on the subject of training and education, the OSD should also undertake a review to better align training with strategy. Such a review should look at both the pipeline training and professional military education (PME) programs FAOs undertake to determine how effective these programs are at cultivating the necessary skill sets for FAOs to succeed in a multipolar global environment and identify opportunities to better align FAO education, training, and professional development with American strategy and their intended function. Other critics have argued for similar changes to the career field. For instance, in a 2021 article in Military Review, LT COL Agustin Dominguez and MAJ Ryan Kertis, USA, argued that while the importance of language as a technical skill has proliferated widely across other DOD careers, the core function of FAOs is not to serve merely as interpreters or as Foreign Service Officers wearing a uniform but instead as military leaders and strategists who are well-versed in joint, interagency, intergovernmental, and multinational (JIIM) skills necessary to support a variety of customers within the DOD and embassy. This article will briefly walk through this problem in three sections, first discussing the disconnect between the global security environment, America’s strategic response, and the philosophy underpinning the FAO corps today. It will then propose a vision as to what an effective, modern FAO corps would look like, concluding with a short list of recommendations and action items. Given the timing of the rollout of the Biden administration’s National Security Strategy, and Secretary of Defense Lloyd Austin’s National Defense Strategy, the timing for major change across the FAO corps is now, with political will growing to support any effort toward defense innovation.

The Strategy-Reality Disconnect

Since the landmark publication of the 2018 National Defense Strategy began to highlight the role that America’s global network of alliances and partnerships would play in upholding a rules-based international order, the United States has made significant forward progress, both theoretically and practically, in rolling out a global strategy to check Russian and Chinese expansionism. While plenty of criticism remains focused on concepts such as “integrated deterrence” or “integrated campaigning,” the tangible development by Washington of minilateral cooperative institutions in key regions of the world, such as the Australia–United Kingdom–United States trilateral security pact known as AUKUS; the Indo-Pacific Quadrilateral Security Dialogue, comprised of the United States, India, Japan, and Australia; as well as the I2U2 Quad, highlight an emerging effort by the United States to cultivate multilateral mechanisms intended to act either as
starters for antihegemonic coalitions, as traps designed to entangle revisionist powers such as China and Iran in wider regional networks in an effort to dilute their unilateral influence, or both. Additionally, US success in rallying material and political support for Ukraine in the face of Russian aggression highlights the continued importance of America’s role in uniting allies and deterring the expansionist ambitions of rising powers who see vulnerability and opportunity in multipolarity. Given the significantly different global security environment that exists today compared to 2007, how does the FAO corps diverge from national strategy and the patterns and structures of the current global security environment?

The primary difference rests with the polarity of the global system. In 2007, the world was strictly unipolar, meaning that no other global power existed that was capable of challenging America’s superpower status. According to Elbridge Colby, former Deputy Assistant Secretary of Defense for Strategy and Force Development to Pres. Donald Trump and architect of the 2018 National Defense Strategy, this gave America a degree of leeway in terms of how it chose to allocate resources and forces abroad in reaction to deteriorating security problems. Without a serious challenger, Colby contends, the United States could “afford to cover down everywhere and have resources to spare.”

Today’s reality is more ambiguous, and FAOs are a high-demand asset that the DOD can no longer afford to spare. Whether or not the world truly is multipolar, meaning that two or more powerful great powers are emerging who could challenge US hegemony, matters less than the perception that such a situation exists. Indeed, such a perception may have driven Russian president Vladimir Putin to invade Ukraine while he thought the opportunity existed. Russia’s state-owned news agency, RIA Novosti, included a direct reference to this reality in an editorial by Petr Akopov published immediately after Russian troops rolled onto Ukrainian soil, but it was quickly taken down after their invasion was blunted. Now described as a premature victory lap, Akopov wrote that Putin’s invasion of Ukraine meant that “a multipolar world has finally become a reality . . . this is a conflict between Russia and the West, this is a response to the geopolitical expansion of the Atlanticists, this is Russia’s return of its historical space and its place in the world.”

Colby contends that in a multipolar world, America can no longer squander its energy, blood, and resources in “forever wars” of limited strategic importance to our core national interests, and that America’s “wealth, suffering, and willpower must be jealously safeguarded.” As such, America’s strongest currency will be the credibility of US security commitments, yet Washington will also face a world where states hesitant about cooperating with the United States on any range of issues will have more options to hedge against it or align with an adversarial
power.\textsuperscript{14} FAOs will be exquisitely important here, operating squarely at the “contact layer” between the United States and foreign militaries forces. In reaction to the changing nature of the global security environment, both the Trump and Biden administrations began rolling out significant internal reforms and regional initiatives designed to tilt the regional balances of power in its favor. The Abraham Accords, negotiated in secret by the Trump administration, and the AUKUS security pact, and the I2U2 Quad are key examples here.\textsuperscript{15} Yet as mentioned previously, a disconnect within the DOD remains regarding emerging US security initiatives and the Pentagon’s posture to support these undertakings. For instance, I2U2, a mechanism for furthering digital infrastructure, logistics, and transregional security cooperation across the Indian Ocean region—up until the recent absorption of Israel into CENTCOM—would have transcended European Command (EUCOM), Central Command, and Indo-Pacific Command (INDOPACOM).\textsuperscript{16} However rather than developing career paths for FAOs that would bring a military officer to US missions in Abu Dhabi, Jerusalem, or New Delhi, or among staff assignments between CENTCOM or INDOPACOM Headquarters, the current philosophy underpinning the regional specialization of FAOs is likely to continue sending Arabic-speaking FAOs to repeat tours in CENTCOM while spreading FAOs who speak Chinese, Hindi, Japanese, and Korean across the wider Indo-Pacific, losing an opportunity, as an example, to align the wider Indian Ocean region’s shifting security patterns with America’s wider strategic approach.

A more effective approach to employing such a low-density, high-demand asset like a FAO would be to guide their regionalization and deployment on Buzan and Wæver’s Regional Security Complex Theory (RSCT) rather than by other bureaucratic methods. RSCs, accordingly, are defined by the patterns of security interactions between a given group of states that are so interlinked and interdependent on one another that “their national securities cannot reasonably be considered apart from one another.”\textsuperscript{17} Indeed, RSCT effectively does what the Unified Command Plan (UCP) tried to do: break up the global commons into strategically relevant, bureaucratically surmountable pieces. Unlike the UCP, however, RSCs can flex or evolve based on structural security-related variables such as the number of superpowers or great powers in the world or on the securitization of certain issues that help or harm interstate relations. Boundaries of RSCs, however, do not change so wildly in a short period of time that a slow-moving bureaucratic organization such as the DOD would be unable to keep up. RSCT also pays serious attention to the evolving security interactions between regions, getting after a DOD priority to better understand and adapt to transregional problem sets.
For instance, one could argue that the security linkages between the Persian Gulf, a subcomplex of the wider Middle East RSC, and East Asia were relatively miniscule prior to 2004. However, waning US and Western consumption of fossil fuels since then, combined with the growing energy appetite of rising economies such as those of India and China, means increasingly stronger linkages between the Persian Gulf and the Indo-Pacific are a transregional issue that will generate security issues that the United States and other world powers cannot ignore. Similarly, China’s reliance on Middle East oil as well as the US Navy to protect maritime shipping lanes undoubtedly generates anxiety in Beijing on how long Beijing will choose to remain vulnerable to the US military for such a critical driver of China’s economy. Both the Persian Gulf and East Asia remain their own independent RSCs, yet their transregional interactions are strategically relevant and measurable. Aside from the disconnect between the strategic security environment and the philosophy guiding the employment of FAOs, other internal bureaucratic obstacles within the FAO corps remain that could be effectively addressed if an RSC-like employment strategy were adopted. Indeed, such a policy would better link FAO employment to emerging US strategy.

**Organizing, Training, and Equipping a FAO Corps for Strategic Competition**

A FAO corps that is effectively postured to compete within and across RSCs against regional and great powers requires an updated approach for how we as an institution recruit, select, train, employ, and retain the best possible talent for an increasingly critical mission. Today, military departments retain significant flexibility in the ways they manage, develop, and often employ their FAOs, sometimes in ways that are effective and meeting the needs of DOD but also in ways that conflict with other departments or at odds with OSD policy. Yet, as it stands, published guidance continues to generate follow-on problems within the management of the force as well as in their training and education. Prior to the forthcoming results of the Congressionally mandated review of the FAO program, the two immediate priorities of internal DOD reform of the program should focus on first, a review of the strategy and relevant implementation guidance underpinning the DOD Directive 1315.17, DOD Instruction 1315.20, and any other related guidance as it relates to the current *National Security Strategy* and *National Defense Strategy*, and to publish any relevant updates as determined by the OSD; and second, to conduct a review of the training and certification standards, training pipeline, and PME programs for FAOs to ensure that the military diplomats we
are cultivating over decades-long careers continue to be strategically relevant, professionally credible, and retained.

**Unity of Effort and the Need for a Guiding Strategic Approach**

Without hampering the flexibility and core principle of “decentralized execution” afforded by doctrine to military departments and chiefs of staff, the adoption of an RSC-centric approach to organizing, training, and equipping the FAO corps will have an immediate impact on one of the most divergent interpretations of standing guidance, namely the conflicting definitions of what constitutes a strategically relevant “region.” The recently published DOD Instruction 1315.20, for instance, uses the term *region* repeatedly without linking its definition to any wider strategic vision or priority. In a positive step, the word *transregional* finally makes an appearance. Yet the confusion and lack of standardization continues to reverberate into department-level policy. For instance, the Army has nine regional designators for its FAOs, one being a generalist, while the Air Force has only six, with one generalist too. The Naval Postgraduate School’s Regional Security Studies degree lumps several regions into four main curricula: Middle East, South Asia, and Sub-Saharan Africa; East Asia and the Indo-Pacific; Western Hemisphere; and Europe and Eurasia. Yet even these definitions make it difficult to ascertain exactly which nations are included in which region. Israel for instance, again serving as a key regional power and security factor for many Persian Gulf states in the Middle East, is left out of the school’s Middle East curriculum. One can argue that a broad definition allows for the flexibility of a Sailor, Airman, Soldier, Guardian, or Marine to specialize themselves in a way they deem relevant to US interests, yet there are still significant implications at the operational level regarding the mechanisms the DOD uses to guide and employ these military diplomats in line with published strategic guidance. Additionally, several institutional philosophies of what constitutes a region are actively at play across the DOD, each with counterexamples that contradict each another. For instance, if we determine that regions critical to the specialization and focus of FAOs are formed by geographic territories with a shared language and common history, such as is the case with South America, then this would suggest that both US Africa Command (AFRICOM) and INDOPACOM should each be broken up into two or three regions each. If regions are generated by logistical concerns or geographic contiguity, as is the case with AFRICOM, then it would have made sense to include Israel in CENTCOM years ago, while also chopping Egypt off to AFRICOM.

While this line of reasoning may seem pedantic and an obvious oversimplification of the complex bureaucratic reality faced by any organization attempting to
match its fiscally constrained and resource-limited reality with the mission of bounding global security, its primary purpose is to remind the reader that our definitions of regions are subjective and socially constructed and ought to be linked more to strategic necessity than based merely on budgetary constraints. Indeed the boundaries of CENTCOM today have changed drastically since the region’s formation was ordered by Pres. Ronald Reagan in 1982, with the Horn of Africa being absorbed by AFRICOM, and the Levant now fully relinquished by EU-COM. Nor do the regional specializations or employment of FAOs have to wait for an updated UCP; the Secretary of Defense has the authority now to realign the regional focus of FAOs to match the reality of American strategy. Indeed, such a realignment may generate some benefits to the challenges facing the DOD today, such as the helping balance strategic relevance of the employment of forces with limited budgets, or by helping prioritize critical billets for FAOs to fill while leaving open less important ones for other officers to fill.

**Strategically Relevant Training and Professional Education**

Another implication from updating and enforcing OSD guidance for the FAO corps to be better aligned with US strategy will be the cascading impact on training and PME. Fundamentally, a US strategy to compete against Russia, China, or other would-be hegemons in defense of a rules-based international order must be supported by FAOs who are professionally capable of supporting said strategy, whether it manifests in transregional, minilateral coalitions, or in other forms. As such, the realignment of the FAO corps must be sequentially followed with an update to the institutions and programs charged with training and retaining FAOs.

Yet the effective selection, training, and retention of FAOs is limited aggressively by several structural factors not common to other military specialties. For instance, to ensure that FAOs, who at the pinnacle of their career may serve as the Secretary of Defense’s personal representative in a foreign embassy, have the requisite leadership and defense experience to serve as credible advisors ambassadors and foreign military officers, officers are not eligible to apply to serve as a FAO until at least 7–10 years into their general military career, according to USAF standards. This limit also cuts in half the total length of time that an officer may be potentially available to the DOD for professional training and career growth as a newly certified FAO, creating a tense balance between being in training and being of operational use to the DOD (add to this the additional time it takes to cultivate true regional and language expertise for officers who do not have prior experience in a second language).

While a natural response to these time limits would be to better recruit officer candidates early on who are already versed in the politics, culture, and language of
strategic regions of the world either through family ties or previous educational experience, the DOD is limited in the promises it can make to would-be military recruits on whether or not they would be able to serve as FAOs if they sign a 7–10-year contract for general service first. Another proposed option has been to expand FAO opportunities to the enlisted ranks, and while this avenue is worth serious consideration, many foreign partners and allies are extremely rank conscious, and the lack of a commissioned officer representing US interests in bilateral discussions, for instance, risks sending the wrong message. Thus, instead of attempting to pull the timeline of accession for FAOs forward, current ideas being discussed in the Pentagon include options for career retirement waivers for FAOs serving past the 20-year retirement mark.

The immediate challenge to an RSC-driven employment strategy, or a strategy that prioritized cross–combatant command FAO assignments, would be how to balance the training requirements to spin an officer up on the politics, history, or language of another area outside of the one in which they already specialize. For instance, given the changing security interdependence of the Persian Gulf and South Asia, and the growing importance of the Indian Ocean region as a crucial battleground for US and Chinese influence, strategically relevant CENTCOM FAOs over the next decade ought to also be familiar with the politics and history of South Asia (and technically, Afghanistan and Pakistan remain firmly entrenched in CENTCOM) to include India, and may benefit from understanding some degree of Hindi or Mandarin. Yet becoming fluent in a second language is already hard—let alone becoming proficient in a third language—for officers who do not hail from a multilingual household. The best policy in this case would be for the DOD to better take advantage of America’s wide diversity and to better recruit, retain, and vector officers with critical cultural and language skills into the FAO corps. For instance, officers coming into the DOD who already speak Russian or Ukrainian could be sent to learn Mandarin instead, to cultivate a critical corps of transregional strategists within the DOD who are capable of maneuvering in between, and providing key insight on, one of the world’s most pivotal bilateral alliances.

Additionally, while the priority of effort for the education of junior FAOs should be to cultivate some degree of regional depth (either in language, on-the-ground experience, or both), a more effective PME program that spans the length of a FAOs career should empower FAOs, through various incentives, to widen their regional focus in ways that are strategically relevant to US interests. The Air Force’s Language Enabled Airman Program, as an example, has offered up space-available classes to its members who are already proficient in one strategic language to gain familiarization in a second relevant language. Opportunities to
expand education must also go beyond language and culture and can also include JIIM skill sets highlighted by Lieutenant Colonel Dominguez and Major Kertis’s previously referenced article, participation in foreign PME, national security seminars at civilian universities, or other professional certifications. Whatever reforms of the FAO career field as a force, or to its training and PME pipeline, must remain grounded in Colby’s earlier warning about multipolarity, namely that the United States cannot afford to cover down on every problem or waste its critical treasure and energy on issues that are not core national interests. Therefore, the US FAO program should develop a prioritized list of high-demand, transregional skill sets, similar to the already established Strategic Language List, to inform active FAOs of how they can guide their own career development in ways that are relevant to the DOD. Incentives to broaden one’s language, education, or other professional focus could include pay bonuses, assignment opportunities, or related benefits so long as it contributes to the cultivation of a force more strategically attuned to the regional patterns of security as they relate to US interests. The efficient and effective cultivation of talent, underpinned by America’s strategic advantage of cultural and linguistic diversity, is strategically linked to our future success in the coming era of strategic competition. Such an effort is especially urgent in the shadow of Russia’s invasion of Ukraine.

**Action Steps**

The silver lining here is that, outside of Congressional action or authorities required for major institutional reform, the Secretary of Defense already has wide latitude to undertake many of the necessary reforms needed to realign the force posture of its FAO corps with national strategy and changing regional patterns of security interdependence. The political timing is ideal too, with a forthcoming publication of a *National Security Strategy*, and the already approved *National Defense Strategy* making its way around Congress, and an already Congressionally mandated review of the FAO program, the Pentagon has a salient window of opportunity to make overdue structural change relatively quickly. In line with the issues laid out previously, this article recommends several immediate action steps for the Secretary of Defense, Undersecretary of Defense for Policy, and Undersecretary of Defense for Personnel and Readiness to undertake:

1. Immediately undertake a comprehensive review of all strategic and implementation guidance of the FAO program to determine if the intended function of the program and its underlying employment strategy aligns with current US strategy. If not, publish updated guidance.
2. In coordination with Joint Staff and military department heads, review all applicable FAO program guidance and identify best practices worth stan-
standardizing across every branch and eliminate redundancies of conflicting policies where appropriate to ensure a unity and quality of effort in how FAOs are organized, trained, and equipped.

3. Conduct a comprehensive review of the entire FAO selection, training, employment, development, and retention program to ensure that the personnel and readiness programs underpinning the FAO corps matches the performance and capability requirements as determined by national strategy, while also taking full advantage of America's unique diversity.

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Notes


2. Andy Hamann, “Understanding and Maximizing the Role of SDO/DATT.”


10. Rajeswari Pillai Rajagopalan, “A Quad for the Middle East?”


15. Rajeswari Pillai Rajagopalan, “A Quad for the Middle East?”
17. Buzan and Wæver, Regions and Powers, 44.
Indo-Pacific Military Basing
Accounting for Climate-Change Effects

ROBERT J. EVANS, JR., DAF

Abstract

The 2021 Executive Order (EO) 14008 states that the United States and world face not only climate change but also an intense climate crisis that must be acted on now. This EO puts climate change and its effects at the center of US foreign policy and national security, especially in the Indo-Pacific region that is the focus of this article. Therefore, the Department of Defense (DOD) and Indo-Pacific Command (INDOPACOM) must incorporate climate-change effects with associated risks into their strategic, operational, and tactical planning to sustain, maintain, and further develop basing options within the current Agile Combat Employment operational scheme to support integrated deterrence and strategic competition. The DOD already had guidance and resources addressing climate-change effects to improve its preparedness and resiliency of the environment, infrastructure, equipment, materials, operations, services, and programs throughout the Indo-Pacific. However, with the new EO, the DOD developed a climate risk analysis (DCRA) as part of a US government-wide approach. This article not only examines the importance of planning for climate-change effects per the DCRA but includes an assessment of other environmental challenges that have been faced by US leadership in this region of the world, such as sea-level rise and existing severe climate conditions in and around the vast Indian and Pacific Oceans. The area's regional historical dilemmas will also be reviewed because they may impact the stability of regional power relations, especially in this era of strategic competition. As the United States incorporates climate-change effects in pursuit of Indo-Pacific basing options, I also propose collaboration with worldwide allies, partners, and potential partners in our global strategic efforts to keep a free and open Indo-Pacific region. The global and regional nature of the climate change issue could be leveraged to find opportunities for cooperation with China.

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As the United States, especially the Department of Defense (DOD) and Indo-Pacific Command (INDOPACOM), looks at military basing in a peer competition or strategic competition with People’s Republic of China (PRC), the DOD must identify and analyze many facets in sustaining existing bases and selecting new basing opportunities to support US national defense, our Indo-Pacific partners, and the international waters of the Indian and Pacific Oceans. The DOD especially needs to analyze the details of climate change in the Indo-Pacific region that are transforming the geostrategic, operational, and tactical circumstances with significant implications to US national security and
defense. The climate changes with associated environmental effects and risks include variations in average weather conditions that persist over multiple decades or longer that encompass increases and decreases in temperatures. They also include changing precipitation patterns and changing risk of certain types of extreme weather such as frequent, intense, and unpredictable conditions including typhoons and tsunamis, along with sea-level rise and atmospheric corrosivity, to mention a few. These climate-change effects and associated risks create security challenges and impact defense strategies, plans, capabilities, missions, material, equipment, vehicles, weapon systems, and even personnel. In concert and conjunction with climate-change effects, the US strategic, national, and regional security issues across the Indo-Pacific region are also compounded by growing health, water and food scarcity, population, and urbanization issues. This region is the most dynamic in the world and its future affects people globally, so it is critical for the United States with allies and partners to observe, analyze, and provide solutions for climate-change effects throughout the Indo-Pacific area.

Within these circumstances, the Indo-Pacific people, geography, and nations with the massive Indian and Pacific Oceans surrounding them already experience a very harsh and harmful climate. Besides the climate change and associated risk issues, the environment is characterized by high temperatures, humidity, extreme levels of ultraviolet rays, wet saline atmosphere, and lots of rain causing a tremendous deterioration to the natural environment, equipment, ships, vehicles, facilities, infrastructure, and even the people. The average annual rainfall amounts change over the vast Indo Pacific region, but the Pacific Ocean area has more than 80 inches and the Indian Ocean area has more than 100 inches. I recommend the DOD adapt its current and future basing in this region to incorporate associated operations that address the impact and effects of climate change in a balanced way that ensures the execution of effective and efficient military objectives and plans. I also recommend that the DOD’s mission-planning process include: identification and assessment of climate-change effects on missions, incorporation of climate-change effects into plans and procedures, and anticipation and management of these climate change risks to build in resiliency, especially for built-up base infrastructure and support systems. We must look at all these environmental issues/threats (climate change, sea-level rise, and atmospheric corrosion) in our base development and their impact to global and national security, while ensuring the United States and DOD take better care of the Indo-Pacific environment. Besides the military instrument of power, the United States also needs to utilize additional diplomatic and economic instruments of power more appropriately to help heal and secure strong relations with all our Indo-Pacific partner nations as the DOD establishes new Agile Combat Employment (ACE)-equipped bases.
throughout the region. Today as the United States pivots toward the China threat in the Indo-Pacific region, the United States and its allies and regional partners must account for how climate change risks relate to military basing choices.

**Recent DOD Policies and Programs Addressing Climate Change**

Even as recently as spring 2021, Secretary of Defense Lloyd J. Austin III specifically called climate change an existential threat. In other words, his evidence-based explanation of the imminent threat posed to the DOD by climate change effectively turned the issue into a fact of actionable importance for the DOD.\(^1\) Some people still do not accept the fact that climate change occurs. However, I contend that the DOD must keep a balanced perspective on addressing climate-change challenges, by which I mean incorporating the issue into basic foreign military mission prerogatives, such as acting as ambassadors for democracy, providing humanitarian relief from natural disasters, and enforcing international laws. Also, important to keep in mind are other particular challenges in the Indo-Pacific identified by Austin, including those associated with the threats from “rising sea levels and more frequent and intense storms that put individuals, families and whole communities at risk—while pushing the limits of our collective capacity to respond.”\(^2\)

During a congressional hearing in July 2021, the DOD, Department of State, US Agency of International Development, and allies specifically addressed the effects of climate change that exacerbate existing challenges and even create new ones in the Indo-Pacific region. Additional climate information discussed during the hearing included increased frequency and intensity of extreme weather events and rising sea levels that endanger critical national security sites such as the Ronald Reagan Ballistic Missile Defense Test Site and Space Fence facilities on Kwajalein Atoll in the Republic of the Marshall Islands.\(^3\) Also, climate-change effects of extreme weather may contribute to migration, insecurity, and instability of Indo-Pacific communities and areas. It also makes this region’s communities and areas susceptible to recruitment and radicalization by insurgent-type groups.

As the United States and its allies and partners continue to collaborate in preparation for a combined response capability, hopefully, all parties will agree that climate change exists and we must address its challenges accordingly, but not at the expense of our prime objective to keep the Indo-Pacific a free and open environment in which all countries prosper side by side as independent states and in which the international rules-based order is respected. This includes free, fair, and reciprocal trade, open investment environments, good governance, and freedom of the seas. We also need to ensure completion of appropriate cost-risk
analyses to assist with making right decisions and resource utilization to address climate change without any negative impact to our overall Indo-Pacific mission.

As the US government continues to make multiple steps to address climate change in the Indo-Pacific region, I recommend that leaders do not view climate change as catastrophic or as a profound, impossible crisis. The DOD must take a level-headed, balanced, and sensible perspective by incorporating climate-change challenges into all planning, management, and execution of Indo-Pacific engagement, especially where our allied countries are involved. I recommend that the DOD accomplish additional research and testing of new technologies, materials, and equipment at forward Indo-Pacific basing to assist with selection of additional basing options and the support equipment needed for greater strategic stability in the region.

Per requirements specified in Executive Order (EO) 14008, Tackling the Climate Crisis at Home and Abroad, the October 2021 DOD Climate Risk Analysis (DCRA) takes an important step toward integrating climate considerations and risks into DOD planning, resourcing, operations, and missions. EO 14008 puts the climate crisis at the center of US foreign policy and national security with a government-wide approach to address it. Again, it is a valid and important aspect to include climate-change effects into the DOD’s national security strategy, but it is critical that we take a solid view with justification on the part of the United States. These climate change risks can cause key security implications and strained international efforts with allies and partners as well as policies and responsibilities. The DCRA looks at key documents, hazards, risks, relevant strategies, planning, processes, interagency scientific and intelligence products, wargames, analyses, and studies for exercises with their related funding implications to US national security and defense issues, especially in the Indo-Pacific theater.

The DOD also recently developed a climate assessment tool that is web-based collection of scientific data accessible by all DOD personnel. It supports research, analysis, and decision making by evaluating historically extreme weather events and foreseeable climate effects. These effects include future changes in sea levels, flooding, drought, heat, land degradation, energy demand, and wildfires. This tool should help the United States and its allies and partners to better understand existing and future installations’ vulnerabilities to climate-change effects and risks. This tool is new and currently helps identify locations that could benefit from additional climate-change effects research on assets and personnel exposure, sensitivity, and adaptive capability. I recommend the DOD further develop this tool and share it with Indo-Pacific allies and partners to apply resources to improve climate adaptation and resiliency throughout the region.
The United States and its allies and partners have a joint, global vision for peace and prosperity in a free and open Indo-Pacific that includes free and fair trade, shared access to global markets, good governance, a rules-based international order, human rights, and civil liberties. The United States needs to support this global vision through the best means possible, especially amid climate-change effects and their associated risks for both current and future Indo-Pacific basing options.

**Current and Future Basing Perspective**

Since World War II, the United States has relied heavily on a network of global military bases and forces that include both large and small overseas installations. Dave Vine refers to such installations as *Little Americas or lily pads,*\(^5\) which provide forward, collective defense against belligerent nations, especially in the Indo-Pacific region. Following the end of WWII and the Korean War, the US Air Force (USAF) significantly reduced its global footprint from a peak of about 93 air bases during WWII to about 40 permanent bases today. From a strategic perspective, these overall base reductions have concentrated high-value US forces and weapon systems. Concentrating resources in one discrete location in this way will unfortunately make them easier targets during any future PRC actions. High-investment areas that would be especially impacted include the USAF main operating bases (MOB) in the Indo-Pacific such as Kadena, Yokota, and Misawa air bases (AB) in Japan; Osan and Kunsan ABs in South Korea; and Anderson Air Force Base (AFB) in Guam.

Per Air Force Doctrine Note 1-21, the USAF is reexamining future force structure and posture to develop Indo-Pacific basing that complicates the PRC’s targeting process, creates political and operational dilemmas for the PRC, and creates flexibility for US and partner forces. The doctrine states, “The USAF has introduced Agile Combat Employment (ACE): a proactive and reactive operational scheme of maneuver executed within threat timelines to increase survivability while generating combat power across the competition continuum.”\(^6\) This new operational scheme basically returns to the USAF’s historic, truly expeditionary roots and leads to streamlining ways of organization and force presentation. ACE conducts military operations on short notice in response to crises, with forces tailored to achieve finite and clearly stated purposes. However, it also involves organizational changes, decentralization of authorities, mission command control, logistical approach redesigns, applications of emerging technologies, and even changes to the meaning of an Airman. Collectively, this resurrected method of warfighting differs vastly from the previous 30 years where the United States was fighting counterinsurgency operations in the Middle East. Under this new operational war-fighting method, ACE, especially in the Indo-Pacific region, cli-
mate change—with all its associated effects and risks—will have a profound impact on this lily pad–type or island basing with associated infrastructure.

Under the ACE doctrine, both the proactive and reactive maneuvers require a force that is lean, agile, and multi-capable. As doctrine states, “(Multi-Capable Airmen) are enabled by cross-utilization training (CUT) and can operate independently in an expeditionary environment to accomplish mission objectives within acceptable levels of risk.” In both proactive and reactive movements, personnel and assets need the ability, flexibility, and adaptability to move quickly among MOBs, forwarding operating sites (FOS), cooperative security locations (CSL), and contingency locations (CL) even in a contested conflict with the PRC. Even if CSLs and CLs are the main choice of basing with only prepositioned assets, climate change and severe environmental effects could seriously impact mission readiness and national security.

During the selection of all these varied bases throughout the Indo-Pacific, the DOD needs to respond to defense and security risks associated with all climate-change and environmental severity issues. This can be tough, especially with risks associated to climate change that are so difficult to predict, particularly in geographical areas or land near the Indian and Pacific waters. I recommend the DOD further develop and utilize the new climate assessment tool, along with the installation of as many sensors as possible at existing bases and potential future ACE basing locations to provide readiness status of prepositioned materials, equipment, and vehicles. This climate tool and such sensor installations at existing and future ACE basing locations will provide the ability to monitor climate change with some predictability in hopes to mitigate its devastating effects. I also recommend locating inland basing options that are further away from severe coastal environments and their related climate-change effects, such as India’s geographical interior. While India has its own climate-change challenges, they are arguably less severe than those faced in small tropical island environments. The continental situated-ness of many inland sites in India is common to most land in the United States. This will not only help limit or mitigate coastal severe environments and climate-change effects but also give the United States an additional geostrategic asset to help contain any future Chinese aggression. This would also be a sound and valuable choice for the Indian economy and stability in the region, while simultaneously strengthening the counter to Chinese regional influence.

Existing Severe Environment

As the DOD looks at the overall support functions from a standpoint of prepositioned assets and infrastructure requirements for these new ACE bases, it must also address environmental severity classification/atmospheric corrosivity. This is
especially critical in the INDOPACOM theater, where the severe environmental conditions of high temperatures, high humidity, large amounts of rainfall, and saltwater spray increase the atmospheric corrosion causing deterioration to the built environment. Adverse environmental conditions deteriorate weapons systems, equipment, facilities, and infrastructure thus impacting sustainment, potential safety, mission readiness, and environmental issues. I identify four primary factors important for mitigating atmospheric corrosivity to military assets in the Indo-Pacific region. These corrosion control methods include:

• Extensive and thorough wash and clean cycles for all structures to protect surfaces from deterioration;
• Appropriate material selection that provides more corrosion-resistant materials;
• Protective coatings that protect the structures’ boundary between the material and corrosive environment; and
• Humidity control systems, which reduce the humidity and overall corrosivity to assets.

These methods help mitigate and limit corrosion activity to the structure and provide life extension at the best overall life-cycle cost for all prepositioned material, equipment, infrastructure, and all associated support systems in the Indo-Pacific region. It is highly recommended to include these corrosion-control methods for existing and future assets throughout the region even with a higher initial cost because they will extend the structures’ overall life and therefore, provide a lower life-cycle cost. It would be wise for expeditionary forces to refer to this checklist on how to extend the life of built environments in tropical, corrosive island climates. The list above may help conserve resources by enabling more efficient decisions in the planning phase of any new installation or cooperative use agreement with a foreign power.

**Sea-Level Rise Impacts**

Another climate-change risk that directly relates to basing decisions is sea-level rise. Per a scientific report, *Many Atolls May be Uninhabitable within Decades Due to Climate Change*, sea-level rise is due to climate change. The highest rates of sea-level rise occur in the tropical Pacific Ocean, where there are many of the world’s low-lying atolls, existing USAF bases, and potential future ACE base locations. The DOD needs to look carefully at this climate risk with sea-level rise, because any new ACE infrastructure needs to be located out of areas most impacted by sea-level rise. The sea level–affected zone includes places where water invades coastal areas and causes erosion. This threatens areas where people live.
and has negative effects on farmland. Higher sea levels also cause heavier rains and stronger winds, which can unleash severe storms and other significant atmospheric phenomena. Sea-level rise also submerges low-lying islands and atolls, leading to the abandonment of coastal communities.

To further support my conclusion, the US Geological and Marine Science Center performed testing and observations of the overall impact of sea-level rise at several Pacific Ocean Island locations. These locations included Laysan Island and the Midway Atoll's of Sand, Spit, and Eastern Islands under five sea-level rise scenarios. Their scientific testing, modeling, and observations included the following array of data, tests, and models: oceanographic and meteorologic effects, based on wind and wave data from 1981 to 2004; numerical modeling, which involved modeling the propagation and breaking of waves; bathymetric and topographic data, made up of landform data from above and below sea level; and inundation and flooding modeling that examined wave heights and wavelengths for wave run-up. Per the article, “Sea level rise is particularly critical for low-lying carbonate reef-lined atoll islands; these islands have limited land and water available for human habitation, water and food sources and ecosystems are vulnerable to inundation from sea level rise.” Therefore, this study not only shows sea-level rise occurring but also points to its potential future occurrence and impact on the Indo-Pacific region’s atolls and islands. In so doing, I hope to have provided the DOD with a brief primer on some climate change risks to help in the future deliberations of basing options that support ACE and other operational schemes.

As one alternative, the United States and partners can raise atolls’ heights to create land for industrial development and aggressive expansion for ACE basing support; however, this may cause severe destruction of coral reefs. The PRC already created more than 3,000 acres of these artificial islands in the South China Sea for industrial and military purposes. The creation of these islands also caused a dramatic environmental change that damaged about 2,000 acres of living coral reefs. Therefore, if the United States and/or Indo-Pacific partners elect to create additional islands from existing atolls as FOSs, CSLs, and/or CLs, we need to ensure the safety of the natural environment.

Climate change will have other drastic effects on atolls and islands where future bases may be located. The domino effect of global warming starts with ice melting, then sea-level rise, increased wave depth, wave-breaking reduction at reef crest, wave-energy dissipation reduction, and larger waves especially during storms. This results in the deterioration of the shoreline and poses a threat to islands where current or future bases may be located. Flooding of low-elevation islands causes problems with freshwater sources, local vegetation, and animal life and may even cause population displacement. In the context of these and other ongoing effects
of climate change, the creation of artificial islands would only further compound the overall negative effects on the living coral reefs and Indo-Pacific. It is therefore not an option I recommend.

Most Indo-Pacific Island people live along the coastline and largely subsist on foods they harvest from the natural environment. It is therefore critical for the US government to not only take sea-level rise into account when selecting basing options but also to aid the region’s populace to help alleviate as much of climate change’s impact as possible. The *Singapore Journal of Tropical Geography* article, “The End of the Pacific?: Effects of Sea Level Rise on Pacific Island Livelihoods,” discusses sea-level rise and its impact on coastal lifestyle, land productivity, and people’s livelihoods. The article states, “Over the past 200 years, sea level has been rising along most Pacific Island coasts causing loss of productive land through direct inundations (flooding), shoreline erosion and groundwater salinization.”

Sea-level rise affects the local indigenous peoples and their livelihoods due to radical changes in geography spawning fundamental changes in settlement patterns, communications, infrastructure, subsistence systems, societies, and economic development. How will this sea-level change impact US relations with indigenous peoples? How will it impact existing and future US military basing, infrastructure, and location in the Indo-Pacific? Again, the United States, specifically INDOPACOM, needs to take climate-change risks and the environmental threat into account in all future plans, processes, decisions, and operations.

**Multi-Government Agencies Approach**

The Biden administration combats climate change by reducing pollution, increasing resiliency, protecting the public, conserving natural resources, delivering justice to offenders, and encouraging jobs with economic growth through innovation, preparation, and distribution of clean-energy technologies and infrastructure. The administration established a new National Climate Task Force (NCTF) under EO 14008, chaired by the National Climate Advisor with members from 21 executive branch agencies such as the Treasury, Defense, Interior, Transportation, Energy, Environmental Protection Agency, and others. The NCTF will combat climate crisis within the extent permitted by law by prioritizing actions in their policy making and budget processes. These include contracting, procurement, and engagement with other countries such as those in the Indo-Pacific region. The approach needs to be coordinated from planning to implementation, especially in working with our Indo-Pacific partners toward ACE basing opportunities and options.

The presidential EO 14008 says, “The scientific community has made clear that the scale and speed of necessary action is greater than previously believed.
There is little time left to avoid setting the world on a dangerous, potentially catastrophic, climate trajectory. Responding to the climate crisis will require both significant short-term global reductions in greenhouse gas emissions and net-zero global emissions by mid-century or before. Although the phrase, “there is little time left to avoid setting the world on a dangerous, potentially catastrophic, climate trajectory,” may seem a little extreme, it is important for the DOD to account for and mitigate against risks associated with climate change and severe environmental conditions as we develop US relations with partners to identify additional basing options. I hope that the suggestions I have made herein, which are based on my 40 years of experience with resource management in this area of responsibility, will help spur into action preventive measures that draw on existing strengths and resources as opposed to calling for greater investment. For example, the corrosion control checklist outline in this article may be helpful in regional project design and management documents that are the purview of INDOPACOM and Pacific Air Forces (PACAF), among others. In addition to the field-specific suggestions I have made in this article, I would suggest policy development and refinement on the issue of Indo-Pacific basing possibilities. These should include correct assessments of military capabilities, threats, and the existing relationships our allies and partners maintain with other nations.

Climate-change effects combined with other stressors likely will contribute to political, economic, and social instability in Indo-Pacific region. The Indo-Pacific region is an enormous area and refers mainly to the maritime space stretching from the Indian Ocean across the littorals or coastal regions of East Asia to the western Pacific Ocean. Per INDOPACOM, this massive area encompasses about half the earth's surface with about 36 nations spanning from the west coast of the United States to the west coast of India. This region is home to more than 50 percent of the world's population, 3,000 different languages, two of the three largest economies, and 10 of the 14 smallest ones. These cultural, social, economic, and geopolitical diversities make it exceedingly hard for the United States to initiate development of ACE basing and address climate change and the effect of severe climates on national infrastructure with the various populations of the Indo-Pacific. The United States and like-minded nations and territories ought to work toward providing stability in this unstable region, which will require both figurative and literal interpretations of what it means to produce stability. In a more literal sense, as this article has shown, providing stability will mean shoring up existing (and planned) improvements to land and the built environment to fend off intensifying environmental headwinds. As the United States continues to develop and improve relationships
with Indo-Pacific partners to secure additional ACE basing options (FOS, CSL, and CL), the DOD must incorporate all climate-change and severe environment survivability calculations into future planning.

**Regional History Dilemmas**

Besides dealing with ACE basing options, atmospheric corrosivity, and climate-change risks, the DOD also has a storied history of improperly handling and storing military munitions, materials, supplies, and equipment, as well as the use of vehicles, ships, aircraft, and all associated materials along with past ammunition testing, use, and disbandment. One example of the history of US mismanagement of environmental issues in the Pacific region comes from David Vine’s book, *Base Nation: How U.S. Military Bases Abroad Harm America and the World*. Vine writes, “Leaks in storage tanks and pipelines are also a regular danger. At Diego Garcia, to mention just one example, four separate incidents between 1984 and 1998 spilled more than 1.3 million gallons of jet fuel, polluting soil and groundwater.” A broader history of environmental damage such as this extends across this region and has had a negative effect on our current and future basing options in the Indo-Pacific. I would be remiss if I did not include a more thorough accounting of the environmental mistakes the US DOD has made abroad. To name a few, they include: huge amounts of energy usage, noise pollution, nuclear testing, the introduction of outside wildlife, and the storage of large quantities of toxic chemicals and other hazardous waste in the region.

Among the above examples, one is worth briefly considering in more depth. The US military tested nuclear weapons in the Marshall Islands in the 1950s, which left lasting damage to the islands and the people who have protested the contamination ever since. What may be less widely known is that inspectors detected radioactive materials in the area of Guam where naval vessel post-test cleaning took place. Further still, nuclear waste from post-test cleaning was found as far away as Hunters Point Naval Shipyard in San Francisco, California. This expansive range of radiation exposure impacted various populations and regions well outside of the Marshall Islands. It points to the much broader and more complex net effects of this problem.

In various ways, the US government has taken steps to address this case of nuclear fallout. Moreover, the current policy direction incorporates thoughtful responses to dilemmas posed by environmental problems inherited from earlier generations. Hopefully, the lighter and shared footprint that underscores the ACE basing concept should help eliminate some questionable past practices, such as high energy usage and unchecked noise pollution. The extent to which the US government
maintains complete control over how we respond is limited, and past practices have caused many international relations problems through to the present day.

Moreover, as an outgrowth of this history, there are credibility issues with our presence in the area still today. A recent news article from Okinawa illustrates one widely discussed example: “A fire suppression system in an aircraft hangar discharged a massive volume of toxic firefighting foam from Marine Corps Air Station Futenma in Okinawa on April 10, 2020.”

This carcinogenic foam was accidentally released into a local river and seen floating in the air until it settled in a residential neighborhood. Protests about the damage caused by this foam are ongoing. Although, within the last year the Marine Corps has further tested the water in and around Okinawa and replaced the old fire suppression foam with a more environmentally friendly material, the local and federal Japanese officials issued a protest letter demanding three items from the United States: (1) an apology from US military for its environmental crimes, (2) prompt on-site investigations, and (3) that all treatment and costs should be borne by the US military.

Controversial environmental management challenges such as this one could only be further complicated by climate-change effects and associated risks that might impact ACE basing concepts, procedures, and processes. Ultimately, it seems likely that the more unresolved environmental challenges leaders are facing, the less attention they will be able devote to planning for and managing of climate change and corrosion.

To improve our environmental standards domestically and abroad, the United States enacted the National Environmental Policy Act on 1 January 1970. Thus began the “environmental decade,” marked with enforcement laws. However, as already mentioned, the United States needs to work on its record of taking care of the Indo-Pacific environment and people. According to Vine, “It was 2011, and the Navy was holding a public meeting on Saipan, the largest of the Northern Mariana Islands, some 130 miles north of Guam. The meeting was part of an environmental impact statement process for proposed military training and testing. . . . Many locals were especially concerned about the bombing of Farallon de Medinilla, . . . home to numerous species of migratory birds.”

Thus, these examples show that even with the 1970 environmental laws, the DOD still needs to become a better steward and representative in this region. This is all the truer today as the United States is working with Indo-Pacific countries to maintain existing bases and develop additional ones.

Importance of Partnerships

Climate-change effects and other posturing issues must be incorporated into the regional overall plans and objectives through planning processes that involve
our Indo-Pacific partners. As the DOD seeks to maintain existing installations and initiate new basing opportunities under ACE, we must collaborate with allies and partners to find a better balance between realistic military activities, preserving the natural environment, and addressing the climate change requirements. What does the United States need to do as we collaborate with our partners to find this balance? Where are the best locations and how does ACE basing manifest in this theater where climate change and environmental severity have immense impact on everything? Can the United States establish ACE basing with specific Indo-Pacific partners to help them with some of the climate-change or environmental issues they encounter? Should the DOD and INDOPACOM develop and/or utilize more naval forces and weapon systems instead of the USAF to fulfill any future Indo-Pacific mission? Whether in peace or war, the United States must do what is right to preserve the natural environment while maintaining its superior power as a global hegemon to help keep international order in the Indo-Pacific region and deter any conflict with the PRC.

Conclusion

In conclusion, the Indo-Pacific people, geography, and nations with the massive Indian and Pacific Oceans surrounding them already experience a very harsh and harmful climate. Besides the climate-change effects and associated risk issues, the environment already experiences high temperatures, high humidity, extreme levels of ultraviolet rays, wet saline atmosphere, and significant rainfall. These cause a tremendous deterioration to the natural environment, equipment, ships, vehicles, facilities, infrastructure, and people. The DOD must be able to adapt current and future basing and operations to adequately address the impact of climate-change effects to maintain an effective and efficient military in the Indo-Pacific. Mission planning must include identification and assessment of climate-change effects on missions, incorporation of climate-change effects into plans and procedures, and anticipation and management of these climate change risks to build resiliency, especially for base infrastructure and support systems. We can better utilize scientific testing, tools, and data with historical weather to better predict climate change, and thus help build better flexibility, adaptability, and resiliency into our current and future basing options. How can the United States and Indo-Pacific partners best address these issues with respect to their impact on existing and future basing? We must look at all these environmental issues/threats (climate change, sea-level rise, atmospheric corrosion, etc.) in base development, their impact to global and national security, and ensure that the United States and DOD take better care of the Indo-Pacific environment. Besides the military instrument of power, the United States also needs to continue utilizing additional diplomatic and economic instru-
ments of power more appropriately to help heal and secure strong relations with all our Indo-Pacific partner nations as the DOD establishes new ACE bases throughout the region. Today as the United States pivots toward China and the threat in the Indo-Pacific, the United States and its allies and partners must evaluate the climate-change effects and risks as related to military basing choices. We also must take full advantage of this global issue, climate change, for possible cooperative opportunities with the PRC.

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Mr. Evans is assigned to Air War College, Air University, Maxwell AFB, AL. He recently served as Corrosion Control Subject Matter Expert, Air Force Civil Engineer Center, Tyndall AFB, Florida. He was responsible for all issues pertaining to corrosion control to include cathodic protection, protective coatings, industrial water treatment, and design/material selection focusing on preventing and mitigating material degradation of facilities and infrastructure for the entire USAF at more than 80 installations with multiple engineers and technicians to include the Pacific theater of operations. He influenced USAF Civil Engineer culture by incorporating corrosion control considerations in their processes as long-term, first-cost investments, accurately identifying corrosion control requirements for appropriate implementation of planning, programming, budgeting and execution of projects, and provided solid resource advocacy of corrosion control projects to increase mission readiness, systems availability, systems safety, and decreased corrosion operating costs. He entered the USAF as an Air Force Institute of Technology Civilian Institute student at Auburn University, Auburn, Alabama. Besides graduating from Auburn with a bachelor’s in electrical engineering, he holds another bachelor’s degree in mathematics, a master’s degree in electrical engineering, and an MBA in management. Mr. Evans also received his professional engineering license in 2017 from Florida.

Notes

2. “Climate Change in East Asia and the Pacific Impacts DoD.”
3. “Climate Change in East Asia and the Pacific Impacts DoD.”
13. Vine, Base Nation, 139.
Preventing War in the South China Sea

Lcdr Todd Moulton, USN

Aggressive Chinese endeavors in the South China Sea (SCS) will develop into hostiles between the United States, China, and the Association of Southeast Asian Nations (ASEAN) countries if Washington, Beijing, and ASEAN do not take steps to quell rising tensions. Sea routes through the SCS carried more than five trillion dollars’ worth of trade last year, including Middle East energy, which is vital for the growing Chinese economy. The United States and various countries throughout South and Southeast Asia are alarmed at China’s assertive naval actions throughout the SCS and China’s extensive SCS land reclaiming efforts. A brief understanding of SCS maritime disputes is key for comprehending current regional anxieties and will help explain why the area is important to all relevant players, including the United States. Washington will need to employ its diplomatic and military instruments of power to blunt China’s offensive posture and reassure its Indo-Pacific allies of the US commitment to the region. Washington can pursue numerous policy efforts to deescalate the increasingly unstable situation and maintain US preeminence in the region. These courses of action will demonstrate that the United States can achieve its regional goals by employing a mixture of multilateral and unilateral measures.

Maritime disputes in the SCS have been ongoing for the past 60 years. Six countries claim different parts of three island chains and their associated maritime zones. The Spratly Islands, which consist of more than 200 small islands, coral reefs, and shoals, lie at the center of heated diplomatic exchanges among the Philippines, Vietnam, Malaysia, China, and Taiwan. Each of these countries hold some level of control over the island chain. China, Vietnam, and Taiwan claim the Paracel Islands. Beijing has controlled a portion of the islands since the 1950s and briefly clashed with Vietnamese forces in 1974, enabling China to consolidate its rule over the entire archipelago. Additionally, China, the Philippines, and Taiwan contest sovereignty over the Scarborough Shoal. Manila occupied these outcroppings, located 100 miles from the Philippines, until 2012, when China forcibly removed the Philippines from the main shoal. In retaliation, the Philippines sued China at the International Court of Justice, which sided with Manila and stated that China must predicate its claims on international law and not on a historic basis. China protested the court’s ruling and still occupies the shoal. Concurrent with Beijing’s indifference to its neighbors’ grievances, China continues the world’s largest island-building campaign, in complete disregard of international law.
Beijing built several islands in the SCS, amplifying its military’s capacity to intimidate its neighbors. China has dredged and reclaimed thousands of square feet in the SCS over the past eight years. These artificial islands house sophisticated infrastructure including runways, support buildings, loading piers, and satellite communication antennas. Beijing’s ability to deploy aircraft, missiles, and missile defense systems to any of these islands expands its power projection by 620 miles, enabling China to strike any of the other claimants. The regional countries’ reliance on SCS resources to feed and provide income to their people is the primary reason why Chinese military expansion is causing angst among the United States and its Indo-Pacific allies.

Beijing’s SCS actions improved China’s ability to influence the world economy. Washington and US allies are concerned with China’s growing capability to affect the strategically important SCS shipping lanes, which carries $5.3 trillion worth of goods to countries throughout the world each year. This total equated to nearly one-quarter of global merchandise export trade and $1.2 trillion worth of goods traveled to or from the United States. Additionally, roughly one-third of global seaborne oil and more than one-half of global trade in liquefied natural gas traveled on the SCS sea lines of communication. In 2012, the International Energy Agency published the *World Energy Outlook*, which assessed that 90 percent of Middle Eastern fuel exports would be destined for Asia by 2035 and travel through the SCS.

Further compounding the Washington’s and US allies’ anxieties over Chinese SCS expansion is the increased ability these islands enable Beijing to control the region’s fossil fuels and fisheries. The US Energy Information Administration estimates that the SCS encompasses proven reserves of more than 11 billion barrels of oil and 190 trillion cubic feet of natural gas. A different report conducted by the US Geographical Survey concluded that another 12 billion barrels of oil and 160 trillion cubic feet of natural gas might exist in the SCS. In the water above these oil and natural gas deposits lies one of the five largest fishing zones in the world. The SCS fishing industry employs more than three million people and contributes to 12 percent of the world’s harvested fish. The fisheries are the main source of protein for millions of people in the region and contribute nearly $300 billion annually to the Chinese population. Beijing’s zero-sum game to strengthen China’s control over SCS resources falls squarely into the realist paradigm.

Realism is key to understanding why China is asserting its claims throughout the SCS. A centralized authority does not rule the SCS; therefore, the region lies in an anarchical system. The United Nations Convention on the Laws of the Sea (UNCLOS) prescribes a rule of law on the sea, but it does not have any mechanisms to enforce its various decrees. With no legal repercussions, China is em-
ploying the state’s military, economic, and diplomatic power to coerce Beijing’s neighbors and the international community into accepting its SCS status quo. China sees its SCS claims as vital to growing its economy, which is the linchpin for the Chinese Communist Party’s (CCP) survival. In turn, China’s neighbors are increasing their military spending and reaching out to the United States to balance Beijing’s growing regional military capabilities. Southeast Asian countries are more dependent on the SCS’s resources for their peoples’ well-being than China, which makes their access to the waterways critical to maintain internal stability and ensure the survival of their political structures.

SCS countries acting in a rational way further illustrate realism, even as tensions continue to escalate. The Philippines exemplified the realism when Manila took Beijing to court over its shoals. Regardless of some states’ efforts to work within the international legal framework, endemic distrust and burgeoning military budgets among the regional countries make for a dangerous environment that could blossom into open conflict and trigger a global economic calamity. The possibility of hostilities is why the United States should work with its SCS regional allies and China to build multilateral agreements and cooperation mechanisms to stave off war.

Washington could slowly interject itself into resolving SCS disputes by reinforcing its current SCS policy and then introducing nonthreatening diplomatic overtures. US policy toward the SCS is comprehensive, sensible, diplomatic, and legalistic in tone. Washington has centered US policies on the premise that all SCS parties must abide by international law and UNCLOS. However, the lack of political will to enforce international law and UNCLOS has enabled the various Indo-Pacific countries to exploit the legal void in the SCS. To begin remedying this situation, the US Department of State should publish a series of white papers, signed by the Secretary of State, which address a range of legal aspects pertaining to the SCS. The United States should write objective papers, through the solicitation of academic and industry inputs, and identify specific examples where a country’s behavior or claims violate international law. The Department of State could highlight China’s claims over the Paracel Islands, which are illegal under UNCLOS. The law states that only archipelagic countries can claim island chains, and China is not an archipelagic country. These papers would be a subtle first step to indicate that the United States will take a greater role in the SCS disputes.

After the Department of State publishes and advertises these white papers, Washington could diplomatically engage with the various SCS states to develop shared mechanisms to collaboratively share regional resources. Since the fishing industry employs and feeds a vast majority of the Indo-Pacific population, Washington should assist the region in building a framework to apportion SCS fisheries.
The United States may start by encouraging the claimant states to negotiate agreements, which establish fishing grounds that enable fishermen to continue to fish in their traditional waters without harassment. Furthermore, Washington could create a forum to regionally dictate fishing harvesting quotas to maintain current fish stocks and prevent the extinction of endangered species. These agreements would mitigate some of the issues related to the multiple sovereignty claims over the contested maritime zones and enable marine management officials to enter the region, measure the health of fisheries, and manage licensed fishermen's catches. In taking these measures, the United States has the opportunity to present a softer side of its foreign policy and assist SCS countries in creating provisional measures to prevent the region's fishing stocks from being decimated.

In tandem with diplomatic overtures, Washington should maintain US responsiveness to any SCS littoral states that request assistance to enhance their maritime policing and security capabilities. The smaller Southeast Asian countries already engage with the United States to elicit support in building their defensive capabilities to offset growing fears of Chinese hegemony in the SCS. In 2015, Washington agreed to help Indonesia, Malaysia, the Philippines, and Vietnam by providing them with equipment and training for maritime security totaling $425 million. During the same year, the United States Navy conducted freedom of navigation operations by sending guided missile destroyers within 12 nautical miles of Chinese-occupied Subi Reef and Mischief Reef.

Washington should complement its assistance by expanding the duration of the US Navy exercise program with ASEAN states. The series of exercises should take place over a longer period, increase the number of US ships involved, and include the newest and most capable vessels in the fleet. Washington should include other Indo-Pacific states with a vested interest in the SCS—such as Japan, Australia, South Korea, and India—into these exercises to increase the interoperability among these countries and signal to China that its neighbors desire a peaceful outcome to SCS disputes. US Navy port calls to the countries involved in maritime disagreements could be a peaceful signal to China of Washington's desire to amicably settle the region's maritime differences. A combination of the aforementioned US policy prescriptions would create a successful environment to ensure regional US preeminence and halt Chinese expansion.

The abovementioned US SCS policies could result in cooperation among all SCS participants who have competing claims. A first step would be to convene a regional summit, where ASEAN, the United States, China, Australia, and India establish measures needed to ease SCS tensions and build trust. An essential summit outcome would be the group's agreement that the UNCLOS treaty and its associated dispute resolution mechanism govern country interaction in the SCS.
China’s decision to halt its manmade island campaign would be vital to allay the angst of the United States and its Indo-Pacific allies. Beijing could gain goodwill by converting the bases on its SCS islands into joint bases, where the consortium of nations could establish multinational coordination centers to deconflict SCS military movements. After China’s initial steps, the United States could encourage its allies to return the gesture and allow small Chinese military contingents to use their bases for logistical reasons. In parallel with increased military cooperation, the countries could jointly monitor the area’s fisheries, from the previously mentioned coordination centers, and enter co-development of hydrocarbon resources. These early steps would ensure the free flow of commerce through the SCS, which is a main tenet of US foreign policy, but also create an atmosphere of regional cooperation to allow Washington to focus on the multitude of other issues throughout the world.

**LCDR Todd Moulton, USN**

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**Notes**

The Russian invasion of Ukraine continues to illustrate an immutable fact. Without control of the air, ground forces are frustrated and less mobile. Thus, an army cannot gain desired control to achieve political objectives. In the Pacific, the Chinese are observing the conflict in Ukraine closely, as many believe it is a matter of *when*, not *if*, a play for Taiwan commences. If the United States is serious about thwarting any overt Chinese Communist Party (CCP) action against Taiwan, localized control of the air and sea is a must. The United States can reach the far side of the Pacific quickly and powerfully to exercise military power only by achieving localized command of the air and sea.\(^1\) To do so, the United States must accomplish two things. First, it must ensure access to air bases within the geographical region for military operations. Second, it needs to leverage land-based air and carrier-based aviation to achieve localized air and sea control.

The United States’ geography requires reliance on air and maritime lines of communications to project forces across the globe.\(^2\) As a result, the United States confronts a paradox within space and time strategies of war. The United States has been able to arrive quickly and powerfully to theaters of war, but rarely both, in equal measure, at the same time. Identifying and achieving the optimal balance between presence and power constitutes one of the essential tasks for US strategists.

For centuries, theorists posited two power structures on the international stage: maritime and continental, each with its own formulae to balance speed and power. Airpower brought another calculus in the transcendent pursuit of control. *Control* is the ability of a military force to dictate actions in a desired region or domain in pursuit of national objectives. Optimization of speed and power requires positioning forces at the right place and time, making control more likely.

Russia has yet to maximize the concept of speed and power in its assault against Ukraine, thus preventing conditions to achieve control. Russia began positioning forces around the Ukrainian border in early 2021.\(^3\) Under the guise of “exercises,” the Russians pursued power prevalence through overwhelming numbers. Perhaps not believing Russia would invade, Ukrainian leaders did not respond in kind with a concentration of forces near its borders with Russia and Belarus. Despite this, Russia has been unable to establish air superiority and gain freedom of move-
ment. The primary Ukrainian capability preventing air superiority is the ingenious implementation of its surface-to-air capabilities. Through unpredictable mobility and disciplined radiation of target-engagement radars, Ukraine has been able to deny Russian air forces freedom of movement over the skies of Ukraine. As of 12 July 2022, Ukraine claims to have destroyed 217 Russian aircraft, 188 helicopters, and 676 drones.4

Additionally, due to Russia’s atrophied navy, Moscow cannot rely on carrier-based aviation to supplement land-based air forces. Russia’s lone aircraft carrier, the Admiral Kuznetsov, is not projected to rejoin the fleet until late 2023.5 Russia’s lack of carrier-based aviation translates to Ukraine’s ability to focus its surface-to-air missile systems targeting aircraft originating from air bases in Crimea and along Ukraine’s eastern border with Russia. Russia’s failure to establish air superiority is a prime cause of its current struggles.

The United States must focus like a laser on the need for air superiority in the Pacific region. The United States must recapitalize islands gained during World War II to form a Second Island Chain of strategic expeditionary points. The current First Island Chain, with basing locations on Okinawa, Taiwan, and the Philippines, is neither a survivable nor viable operating location due to Chinese military capabilities in long-range bombers, cruise missiles, and theater ballistic missiles. Thus, the United States should prioritize Midway Island, the Marianas, Palau, and the Marshall Islands to complement an already fortified Guam. Doing so will create a strategically valuable Second Island Chain to support air and maritime operations in the Indo-Pacific. Three efforts are critical at these islands. First, the expansion and development of multiple runways at each location are needed. Second is the maintenance of deep-water channels and harbors capable of receiving US Navy (USN) surface ships and submarines. Third, the United States must deploy adequate air defenses to make these islands twenty-first-century expeditionary strategic points.

Like World War II, multiple airstrips will be required at each Second Island Chain installation to achieve force dispersion and complicate China’s targeting conundrum. By constructing numerous airstrips at each location, the United States can launch significantly more combat and surveillance aircraft, increasing the capacity of forces capable of being brought to bear. As Lt Gen Joseph Guastella, USAF, the Deputy Chief of Staff for Operations, believes that “multiple airfields on Pacific islands provide greater capacity and increase launch speed for valuable combat aircraft needed to achieve air superiority.”6

Multiple airstrips on Second Chain islands also provide flexibility for carrier operations. Presently, if a US aircraft carrier needs repairs while operating in the Pacific, it must sail with its complement of aircraft back to the nearest major port,
possibly as far away as the American West Coast. In the throngs of potential conflict with China, multiple airstrips on Second Chain islands could allow carriers to send their air wings to operate as land-based detachments.

Perhaps the model airfield to implement this strategy is Tinian Island’s North Field, from which B-29 bombers delivered the nuclear airstrikes that ended World War II. North Field consists of four massive parallel runways separated by no less than eight parking aprons. In 2019, the United States secured a 40-year lease, providing access to the other World War II-era airstrip on Tinian, West Field, now serving as the international airport. This deal will allow the United States to expand upon the already existing 8,500-foot runway and parking aprons to support more combat aircraft.

Another critical piece to the Second Island Chain concept, the tiny island nation of Palau, has already signaled its desire to assist the Washington in strengthening its Pacific posture, inviting the United States to build “land bases, port facilities, and airfields.” Securing additional harbors and port facilities like that on Guam at other Second Island Chain locations such as Palau allows greater access for maritime combat forces, especially valuable nuclear attack submarines. Additionally, Palau is one of Taiwan’s four Pacific allies. The United States should recall the problem faced by the British, having to stage 4,000 miles from the Falklands at Ascension Island and secure Palau as a strategic expeditionary point that lies less than 1,500 miles from Taiwan.

North Field should be the model for airfields that need to be established at all Second Island Chain locations to serve as strategic expeditionary points in competition with China. Like Tinian, most of these islands also have functioning civilian airfields the United States can expand to increase available airstrips for military use. Greater capacity of aircraft at each island equates to greater power. And multiple runways swell the speed at which these aircraft can launch and conduct air superiority operations. Simply put, the power and speed variables created by establishing multiple airfields among the Second Island Chain will generate control for the United States. Unlike some aspects of airpower that fail to transcend time and technology, airfields capable of quickly delivering massed air effects are timeless and unsinkable.

The USN needs to rethink the construct of its surface forces by harkening back to the World War II concept of dispersed fast carriers supported by light carriers. Pioneered by legendary USN admiral Marc Mitscher, the Navy should develop light carriers to pair with its current fast nuclear supercarriers.

The Navy should invest in a minimum of six light carriers capable of complementing the existing supercarrier force. It is on the way, with “Lightning carriers” via Wasp- and American-class amphibious assault ships capable of carrying 13 or
more F-35Bs.\textsuperscript{10} For the cost of a single \textit{Ford}-class supercarrier, the Navy could acquire three light flattops and their air wings.

Supercarriers supported by light carriers complement the multiple airfield discussion regarding Second Island Chain airfields. Multiple carriers spread out on the open ocean present a similar targeting problem and provide the same dispersal capability as multiple airstrips on Pacific islands like North Field on Tinian Island.

To compete with China in the Pacific and maximize the power and speed variables needed to achieve control, the USN should purchase at least six light carriers, allocating no less than three specifically for the Pacific. Paired with the two supercarriers in the Pacific, the United States would have a formidably dispersible carrier force.

Second Island Chain airfields and super/light carrier mixes are only part of the equation to success in the far Pacific. Modern-day Chinese capabilities pose significant risks to the airfields and harbors therein. Therefore, to succeed in competition with China, the United States needs air defense assets, in addition to the aircraft operating from the island, to protect airfield infrastructure and surface force sustainment.

US Indo-Pacific Command leaders favor a mixture of Aegis Ashore, offshore Aegis destroyers, and an aging Terminal High Altitude Area Defense (THAAD) system to defend places like Guam. However, given China's rapidly rising attack capabilities, the United States will need to significantly increase Aegis Ashore’s role in the coming years.

Successful competition against China in the Pacific will resolve itself in an entangled diarchy of air and sea power. The symbiotic relationship between land- and carrier-based air presents a variable of power technologically superior and unique among great-power nations. Suppose this combination can be made dispersible, defensible, and survivable. In that case, it will significantly complicate Chinese targeting challenges and ensure the United States can arrive, stay, compete, and win on the far side of the Pacific. \\

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Notes

1. Localized control, or command, of the air and sea is the principal theme of this commentary. I am borrowing the description from Sir Julian Corbett who theorized command of the sea was either general or local and temporary or permanent.


Russian forces invaded Ukraine on 24 February 2022, staging what Moscow called a special military operation. Russia’s military had been building up along the border for months, and Western intelligence agencies warned of an imminent attack for several weeks. Russia was expected to go into eastern Ukraine, but few believed that an initial invasion would include an attempt to take Kiev. Instead, Russian forces attempted to take the Ukrainian capital while simultaneously entering the Donbas and Luhansk regions. The goal was to remove Volodymyr Zelenskyy from power and replace him with someone who would support Moscow’s security needs and agree to territorial concessions that could end the conflict.

Moscow’s initial invasion plan failed, and instead of a quick victory, Russia found itself mired in a long-enduring conflict. This destroyed Russia’s relationship with the West, ended all efforts at rapprochement, and created the conditions for a new Iron Curtain between NATO member states and Russia. US–Russian relations ground to a halt even in areas in which the two states cooperated previously, such as joint efforts to support the International Space Station (ISS). Moscow and Washington had expended much effort to create joint projects but the Ukrainian invasion ended this collaboration. Europe is again divided between great powers who are on opposing sides of a continental ground war.

The situation between Moscow and Washington is extremely reminiscent of the Cold War era. Following World War II, the two allies who defeated the Germans became strategic rivals and were dominated by two different ideologies. The first was liberal democracy, adhered to by the United States and its allies. The second was communism, adhered to by the Soviet Union and its allies. The former war allies’ relationship had transformed into a geopolitical rivalry, where each sought to convince as many states as possible to accept their ideology. As states chose between East or West, they became military partners in the great struggle between democracy and communism. Washington saw Moscow as the great enemy and sought to contain communist ideology from spreading and defeating the ideology of liberal democracy.

With the end of the Cold War and the collapse of the Soviet Union, a euphoria spread to both sides, and there was hope of a renewed relationship. Both Moscow
and Washington vowed to cooperate with each other and enter into a new era of peace and prosperity. In fact, Pres. George H. W. Bush stated that we would see a new Europe whole and free in this new era. However, good relations did not last. Events such as the expansion of NATO, the war in the former Yugoslavia, and the expansion of the European Union served to isolate Moscow from Washington. While there were many efforts initially at bringing Russia into the Western fold, Moscow resented the fact that Russia no longer had a seat at the table and was treated more as a junior partner than a great power.

It should be noted that while many policy makers in the West had stated that the era of geopolitics and great-power competition was over after the collapse of the Soviet Union, the war in Ukraine showed that great-power competition had not disappeared, it had merely receded from US policy makers’ minds following the end of the Cold War. We now examine the great-power competition between Russia and the United States over Eastern Europe following the end of the Cold War.

**Great-Power Competition in Eastern Europe**

Following the collapse of the Soviet Union Boris Yeltsin, Russia’s first president, attempted to integrate Russia into the West. However, Yeltsin believed that rather than capitulate and fully integrate into the world order established by the United States, Russia was a great power that deserved a seat at the table and the ability to negotiate with the United States to create a new global order. The United States was not willing to negotiate a new world order. Instead, policy makers were convinced that the Soviet Union had lost the Cold War and that Russia must accept the global order as it is and integrate into the world order as a vanquished foe.

According to Jack Matlock, the last US ambassador to the Soviet Union, the United States and the Soviet Union had negotiated an end to the Cold War, and that the collapse of the Soviet Union was a different event. He contends that policy makers should have made that distinction clear because if they were to conflate those two events, then it looks as though the Soviet Union was defeated by the United States in the Cold War, which he contends is not accurate. If Moscow freely relinquished its hold on Eastern Europe through negotiations and a partnership with Washington, then it did not lose the Cold War and should have more international status. Russia wanted the same international status as the Soviet Union, but when the latter split into multiple states, the overall power capability changed, which lowered Russia’s international status. There was disunity between Russian ambitions and its recognized status that would create complications in future relations.
Moscow became increasingly resentful of American policy in Eastern Europe and Russia began to become more belligerent with its neighbors and across the region. In Eastern Europe, Moscow’s actions antagonized those states, creating a view that Russia was a resurgent power that sought to maintain influence and some control in Eastern and Central Europe and the Baltics. This led many states and leaders to see Russia as a major threat and the best option available to small, weak states was NATO membership. Such policies led to a feedback loop in which relations increasingly worsened and became tense. The invasion of Ukraine was a culmination of frustration between Moscow and Washington over their visions of the world and world order. However, contrary to the period of the Cold War, this devolution of relations occurred not because of ideology, but rather because of geopolitics and power politics.

During the period leading up to the invasion of Ukraine, Moscow used asymmetric tactics against Washington and the West. Most of these asymmetric tactics involved psychological warfare. The Russian psychological approach to conflict, where nonmilitary actors are strategically incorporated into its war effort, has received much attention. The so-called Gerasimov doctrine combines information warfare, cyberattacks, and psychological warfare with military actions to prevail in war. Called hybrid warfare in the West and nonlinear war within Russia, Moscow has come to realize that a broad range of actors are an essential and critical part of modern warfare. Journalists, diplomats, academics, economists, computer hackers, transnational criminal organizations, social media outlets, and other groups outside the military participate and play important roles in advancing the national strategic agenda. Working in concert, each of these actors can interact with different Western populations to delegitimize governments and weaken their military. Russia seeks to accomplish its strategic objectives without needing to use hard military force.

A free and open society that relies on freedom of speech and the press is vulnerable to outside actors who can deploy resources that give them the ability to directly market their positions on official and social media. The liberties taken for granted within the West can be targeted to sow confusion, proliferate misinformation, exacerbate existing societal divisions, and blur the lines between truth and fiction. Moscow has often used trolls to flood social media with misinformation and sow confusion and dissent in Western democracies. These operatives intervene in social discourse to create or aggravate preexisting divisions and wreak havoc with the political systems they have targeted.

Moscow prepared for the Ukraine War by supporting extremist candidates, using polarizing social issues, and sowing doubt in Western democratic institutions. These efforts sought to break the Western consensus and create conditions.
where there would be discord among allied states in NATO, which would create divisions among Western allies to Russia’s benefit when conflict did break out. Moscow thought this tactic would foster divisions and lead to arguments among the allies that would delay or weaken sanctions, and would lead to a lessening the response of the Western democracies to Russia’s actions in Ukraine.

Moscow has worked for years to create confusion and discord across Europe and the West to give Russia a public diplomacy advantage in the event of conflict. In the current war in Ukraine, Moscow spent years preparing the battlefield and creating conditions that would let it be successful in conducting its long-term strategy. However, Moscow’s strategy did not take into account that the Western democracies were prepared to combat the Gerasimov doctrine with their own version of hybrid warfare. Instead, Moscow faced a united front of democracies willing to levy heavy sanctions against Russian president Vladimir Putin and the oligarchs supporting him. Even small states, which in normal times would lack the domestic support to make tough stands against Russia, are pressing forward with the sanctions and helping to isolate Putin. Moscow’s nonmilitary actors have failed to produce the discord and have been outmaneuvered by the West, and certainly by Ukraine itself—forcing Moscow to figure out how to combat its own strategy. In other words, the West has out-Gerasimoved the Gerasimov Doctrine.

Ironically, the return of great-power competition in Europe masks true great-power competition. In terms of demography, Russia and much of Western Europe are declining powers. While the United States and Russia are preoccupied fighting a proxy war in Ukraine, China and India are carefully watching the situation with their own views of challenging the global order. We now turn to an examination of some of those challenges.

**Changing Periphery**

The areas where great powers compete for control and influence in the developing world are changing because of the Ukraine conflict. As Russian forces invaded, they were able to occupy and control less ground than what they had planned. Forces were withdrawn from Kyiv and redeployed to the east. In addition, Russia strengthened its invasion forces by adding personnel, both professional, private, and mercenary forces, from regions in the Middle East and North Africa, where they had been deployed. As a result, states that have maintained a close relationship with Moscow for domestic security—such as Syria, Libya, and Armenia—have fewer Russian forces protecting them. In some cases, the Russians were able to adjust their protection to rely more on airpower, but the depletion of forces has jeopardized some dependent populations. This personnel change has created a geopolitical struggle to gain influence within the territory Russia has left.
The Ukraine War creates openings for other actors to move into these regions where Russians are reducing their presence. In the Levant, both Israel and Turkey have become more aggressive in Syria and have undertaken operations that would have been riskier had Russia maintained its full ground military presence. Similarly, the Armenian population in Nagorno-Karabakh is increasingly vulnerable to Turkish influences. The largest question concerns the international impact on Libya. The United States and Europe have stepped back from Libya, while Russia, Turkey, and Arab states are engaged in a power competition over influence in this country. Moscow’s intervention in Libya has been ad hoc as Russia moved into areas abandoned by the West; Russian presence, therefore, serves as a means to give it additional influence within the broader Middle East. The geostrategic vulnerabilities created by Russia redeploying its troops from these regions to Ukraine has so far generated additional military activity from Turkey and Israel, yet the United States, China, and other great powers have not sought to directly exploit this opening.

The United States, China, the EU, and India are relying on their existing networks present within the region rather than introducing new forces. Turkey’s NATO membership allows it to take additional risks in exploiting the Russian movement of forces to Ukraine. Likewise, Israel’s relationship with Washington allows it to be more aggressive in attacking Iranian and Hezbollah fighters and weapons than it would as an isolated state. The present incentives to avoid a direct military conflict have limited the competition, and Turkey’s and Israel’s new movements have been careful to avoid targeting Russians. Whether through error or miscalculation, the danger is that a militarized conflict between Russia and Turkey would mean a war between NATO and Moscow. Likewise, any combat involving Israel would bring Washington into the struggle. The risk is that an American ally could find itself in a shooting war with Russia that would deteriorate into a great-power war.

It is easy to recognize that a great-power conflict could emerge directly from the events in Ukraine, but there is additional threat. The Russian movement of forces from the Middle East to Ukraine creates the possibility for a war with an American ally that could lead to a great-power war. China maintains a smaller Middle Eastern military presence and is very unlikely to be drawn into a great-power conflict in the region. However, the Ukrainian war increases the possibility of a new great-power conflict as American allies move to take advantage of the removal of Russian troops in the Middle East. At this time, China’s regional military presence is limited to naval operations and general training, and Beijing is not likely to be drawn into conflict in the region.
China’s Game

The Chinese are well placed to benefit from the Russian invasion of Ukraine by becoming more aggressive in East Asia. While the West is focused on Eastern Europe, China is gathering its strength to make strategic geopolitical gains. Beijing has provided a market for Russian exports currently sanctioned by the West, and as a result, China has a stronger supply of oil and natural gas. Western sanctions have not hurt Russia’s economy as originally conceived, and the ruble, which collapsed as the war began, has recovered. As China has consumed Russian energy, this has allowed Moscow to stabilize its economy and permit the war to be fought indefinitely.

While the world focuses on the Ukraine War, China has greater room to maneuver within its own region. The United States and its NATO allies have offered Ukraine help by donating vast weapon supplies to such an extent that the domestic stock is endangered. The longer the war between Kyiv and Moscow endures, the fewer weapons the United States and its close allies will have to provide to its East Asian allies and partners. China desires to control Taiwan, and the conflict in Ukraine makes it less likely that Washington will be able to provide military aid to Taipei. The cost-benefit calculations for Beijing make conflict less costly and increase the probability of war. We do not propose that this makes war inevitable, but Russian aggression against Ukraine makes Chinese aggression against Taiwan more probable.

While invading Taiwan is the primary fear within the West, China has other opportunities to change the status quo. Beijing can extend its territorial claims and continue to build islands to foster China’s military power. One outcome that would be problematic for Washington is if China were able to expand the geographic range of its antinaval ballistic missile. This change, which is not a direct act of war, threatens the American military’s Pacific presence and would weaken Washington’s ability to project power in East Asia.

Washington is focused on limiting Russia’s success within Ukraine, and China can take advantage of this conflict by making strategic changes that would undermine the US ability to protect its Asian allies. Beijing has a clear strategic interest in moving American troops from its borders and region. If China succeeds and Washington pulls back, the Chinese military will have the ability to move outside its region and establish a long-term global presence. In the short term, the largest strategic victor of the Ukraine War is not Russia, nor the West, but Beijing. Even if China does not invade Taiwan, Beijing is well positioned to further challenge the United States in Asia and become a stronger, more powerful great power.
Economic Elements Burdening Europe, the Middle East, and Africa

The Russian approach to war has been called fourth-generation warfare, hybrid warfare, and nonlinear war. Moscow sees Western democracy as a direct threat to its ruling elite and, therefore, as against Russia’s national interest. Putin’s fear is that a revolution forcing him from office will be instigated within Russia as had happened in the color revolutions of Georgia, Ukraine, and Kazakhstan; thus, Moscow seeks to insulate itself from international influence while using psychological operations to undermine foreign adversaries. Russia recognizes that it does not have the military power to accomplish its security goals by employing them in the classical sense. Thus, Moscow has broadened its concept of war to include psychological, diplomatic, economic, informational, and sociopolitical elements. If Russia is successful in deploying these elements, Moscow can accomplish its goals against the West without resorting to direct conflict. Russia also uses different methods against each adversary, because it targets the local vulnerabilities—and these vary across the West—and does not have a consistent course against all states. The tactics employed in one theater are not used in others, and this makes Russian maneuvers appear unpredictable. Russia’s military invasion and occupation of eastern Ukraine are not likely to be repeated in its struggle with NATO and the West.

The Russian military strategy suggests that its division from the West will be long-term and fought on many levels—such as economic, cultural, informational, and political. One important element of the Gerasimov doctrine is that a state of war exists well before any shots are fired. Moscow already sees conflict with the West as an active cultural war. It sees this contest no longer as temporary, but permanent—meaning that Russia fully understands that its division from Europe and the United States is going to endure for the foreseeable future. The key to Russia’s strategy is to use the resources at its disposal in a way that provides benefits to its allies and imposes severe costs on its opponents while understanding its limited capabilities. In other words, Russia must utilize an asymmetric strategy.

Russia has two resources that it can leverage in its conflict with Ukraine and the West: oil and agricultural products. We have already discussed how China benefits through its access to Russian energy, but there is an additional resource advantage Beijing gains that few recognize. One effective way to create long-term economic chaos is to use the Black Sea blockade of Ukraine to prevent its agricultural products and fertilizer from reaching world markets. Kyiv is responsible for 10 percent of global wheat trade, 15 percent of corn, 15 percent of barley, and two-thirds of all sunflower meal. Together, Russia and Ukraine produce 80 percent of the world’s sunflower oil. In addition, the four largest fertilizer exporters
are Russia, Canada, China, and Belarus—only Canada falls within the Western alliance. The agricultural market was already experiencing problems due to COVID-19 restrictions, and 11 states have agricultural export restrictions—the global shortages caused by the Ukraine War are likely to increase these trade limitations. Moscow and Beijing have also implemented export bans on fertilizer or components used to manufacture them. The inability to fertilize will lower crop yields. The trade bans work to increase panic and generate additional price spikes. The countries that have the greatest import-dependent populations will see their populations’ food supply contract and suffer hunger and possible famine. This may create a path-dependent crisis leading to additional export constraints and expanding the potential crisis further. In fact, China itself faces food insecurity, which will only serve to exacerbate that situation.6

China is positioned to benefit as Russia separates itself economically from the West, as Beijing is the world’s largest agriculture importer.7 Since Ukraine’s agricultural shipments to its partners are prevented by the Black Sea blockade, they now must take a more expensive route to reach the Baltic Sea. This network, however, is currently being used to ship weapons to Ukraine, and that has taken priority over trying to find alternate ways of exporting food. The Russian goods that were previously destined for Europe or the West are now redirected to China who stands to gain more food security through the Ukraine War. While food shortages are likely to emerge globally, one state has improved its access to global agriculture. The costs are going to be disproportionally borne by the West and its allies in the Middle East and Africa. While it is impossible to assess the specific consequences food shortages will have on international relations, there are a couple of simple predictions that are likely to come.

The negative costs are likely to be experienced by Arab and African states, which will become increasingly unable to feed their populations.8 Since the European population is aging and its nations have strong social-welfare states, it is probable that more refugees will attempt to move from poor states into the EU. The impact could be greater than the 2015 refugee crisis. This will further aggravate the budget deficits and place increasing pressures on European governments to stop the immigrants. This is amid European states already struggling to provide for the existing Ukrainian refugees. The surreal combination where female Ukrainian refugees compete with male-majority African and Arab immigrants for European social spending will generate a crisis for Europe. While no one is talking about this, one foreseeable outcome of the Ukraine War will be increased immigration from Africa and the Middle East into Europe, which will continue to increase nationalist fervor in Europe.
A second consequence is that wars may occur between small states with vulnerable food supplies. While it is difficult to make specific individual state forecasts in a general overview, it is likely that shortages may increase incentives for governments to use their military to try to gain access to food supply. It is likely that small wars will emerge as a direct consequence of the food shortage generated by the Ukraine War. These conflicts will further incentive migrants to try to settle in Europe to escape conflict and gain reliable access to food.

A long-term consequence will be that Europe will face increasing pressures on its budget as it struggles to maintain its generous social-welfare state. Not only will it have to add Ukrainian refugees, but it will also face additional migration from Africa and the Middle East. Europe will have to focus more on internal problems and will be increasingly difficult to act as a protagonist and to manage the international system. It will also possibly be forced to intervene in local conflicts that result from shortages. Europe is likely to decline in its global importance through the indirect effects of the Ukraine War.

**India’s Power: Sideline Observer**

While the world intensely focuses on China and Russia and their challenge to the global order, especially following the invasion of Ukraine, there is another major power that should be watched. India has been steadily gaining power and is poised to become a major power player in all of Asia. While China is beginning a slight decline in terms of demographic power and ultimately economic power, India is still rising demographically and economically.

Typically, India is viewed as an ally of the United States, mostly due to the fact that it is a democracy, and its support is taken for granted. However, during the Cold War, India was mostly aligned with the Soviet Union and was famous for its Non-aligned Movement. In other words, India stressed the fact that it was not beholden to any other power and shows its own foreign policy.

However, when it came time to vote at the UN to condemn Russia’s invasion of Ukraine, India chose to abstain. This worried Washington tremendously. It had taken New Delhi’s support for granted and had painted narrative of the Ukraine conflict as a conflict between authoritarianism and democracy. India’s vote challenged that notion. India’s democratic institutions are less important to its foreign policy than Westerners had realized, and this led to some strategic miscalculations.

India has a massive population—by some accounts it will overtake China as the world’s most populous country in the next four years. It has multiple resource needs and would not take a moral stand against a conflict if it endangered access to critical resources. India is trying to avoid divisions that would complicate its international relations. Instead, it is maintaining its relationship with Russia.
Scholars examining Indian foreign policy have often discussed the closeness between India and Russia, especially in defense.\textsuperscript{10} Michael Slobodchikoff and Aakriti Tandon closely examine India’s treaties with China, Russia, and the United States, and find that India should be classified as a revisionist power. In fact, India has closer relations with China than the United States. It should be noted, however, that New Delhi and Beijing still have a significant border dispute, and despite having closer relations with Beijing than Washington, New Delhi remains wary of China’s growth and actions within East Asia.

Washington needs to properly ascertain India’s growth and great-power status and must work with New Delhi to balance Beijing’s growing influence. However, by focusing on events in Ukraine, Washington does not seem able to adequately multitask and build an effective relationship with New Delhi to preserve India’s own hegemony while balancing against Chinese hegemony. India is unlikely to be shamed into joining the Western alliance but is likely to be motivated primarily by its own strategic interests.

In the longer term, India’s power will grow to rival that of China and possibly the United States. However, India has shown little inclination of wanting to take up the mantle of being a great power in the world and seems content with letting other powers challenge the current global order. This may change in several years, but at this point, New Delhi is content with having a weaker United States and more of a multipolar world order instead of the current unipolar order.

**Conclusion**

We do not predict a war between great powers emerging because of the Russian invasion of Ukraine, but the conflict will complicate American and NATO’s foreign relations by weakening Western access to critical resources. The war’s primary beneficiary is China, which has been able to maintain its trade relationships and access to resources while gaining additional resources from Russia that have been removed from Western markets. We will see agricultural shortages as Ukrainian and Russian grain ceases to be available in the West. The primary states to suffer food shortages are those with poor populations dependent on imports—such as Algeria and Egypt. We foresee a possible refugee crisis affecting Europe. While shortages are affecting Europe, the Middle East, and Africa, China’s agricultural sources will actually grow and will become more secure. The outcome will create economic conditions that will further weaken the West and its allies.

These conditions make it more likely that states not directly affected by the conflict will maintain their neutrality as much as possible to avoid becoming subject to an export restraint from Russia or its allies. India is unlikely to become a protagonist to advance Ukraine’s interests nor is it likely to challenge Moscow’s
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military aggression. The security and resource conditions in its own region require India to balance its foreign policy carefully to maintain as much strength as possible—this requires India to maintain its supply of critical resources and not undertake any action that would jeopardize them.

The Russian invasion of Ukraine will further complicate American foreign relations and make it more difficult to gain international support for its positions. Washington will need to revise its strategic approach to deal with additional factors and allow it to advance in more difficult circumstances. We cannot expect our past policies to be effective in the future unless we modify them to reflect risks and cost-benefits to our partner countries. The world is more complicated today, and our task has become more difficult. Nevertheless, we have the resources to successfully navigate these difficulties if we can face the challenges honestly.

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Dr. Slobodchikoff has published many peer-reviewed articles. His first book, titled Strategic Cooperation: Overcoming the Barriers of Global Anarchy, was published in 2013; his second book, titled Building Hegemonic Order Russia's Way: Rules, Stability and predictability in the Post-Soviet Space, was published in 2014. His most recent book is titled Cultural Imperialism and the Decline of the Liberal Order: Russian and Western Soft Power in Eastern Europe and is coauthored with G. Douglas Davis. Slobodchikoff is a professor of political science as well as chair of the Political Science Department at Troy University. He specializes in relations between Russia and the former Soviet states, international conflict and peace, security, and comparative politics. He is a regular contributor to Russia Direct and has often served as an analyst on Russian relations with Ukraine for BBC World News as well as Voice of Russia Radio.

Notes


3. Janis Karlsbergs, “The Defense of the Baltic States: It is Better to be Prepared for a War that Never Comes than to Rely on a Peace that Did Not Last,” in The Challenge to NATO: Global Secu-


The US–China Trade War
Vietnam Emerges as the Greatest Winner
EUIHYUN KWON

During the Trump administration, the United States employed a series of unilateral tariffs on various Chinese imports, inducing some unprecedented changes in US trade policy vis-à-vis China. As an anti-establishment outsider to America’s traditional politics, Donald Trump, throughout his presidency, frequently obscured the boundary between foreign and trade policy, equating sanctions with tariffs, and effectively weaponizing trade. Trump administration’s tariffs had one major goal, which he promised countless times to the American public: Lowering the US trade deficit with China. His tariffs, however, were hardly successful. According to the US Census data in nominal US dollars, the US trade deficit in goods with China during his term kept increasing from 2016 ($346 billion) to 2018 ($418 billion, an all-time high); it was not until 2019 that it decreased to a level ($342 billion) comparable to 2016’s $346 billion.1 The meager $4 billion decrease in the US trade deficit with China from 2016 to 2019 is extremely underwhelming, since the US trade deficit with the world—including China—in 2019 was a towering $845 billion, which expanded substantially from 2016’s $735 billion.2

Moreover, the tariffs’ impact on the US economy was devastating, as “the trade war had cost the economy nearly 300,000 jobs and an estimated 0.3% of real GDP; the US companies lost at least $1.7 trillion in the price of their stocks as a result of US tariffs imposed on imports from China.”3 Not only in stocks, but many US businesses also sustained real profit losses since many of them depended on imported intermediate inputs from China; with higher input costs than before, many US businesses raised their own prices to keep the profit margin intact, which eventually led them to “[lose] market share to competitors from other countries who did not have to pay” the additional tariffs.4 In essence, “the US companies primarily paid for the US tariffs, [and while] the US goods trade deficit with China had shrunk [a little] by 2019, its overall trade deficit did not,” suggesting that the Trump administration’s tariffs neither successfully lowered the US trade deficit with China nor benefited the US consumers and firms as President Trump would have wished.5 Taken together, the Trump administration’s tariffs did little besides significantly increasing the US trade deficit with the world at the expense of the US economy. In this sense, the United States was unmistakably a loser from its own tariffs; the question becomes, then, who won from the Trump administration’s tariffs? With more than half its exports subjected to these
tariffs in 2019, China was obviously not a winner. This article, by using US import data from UN Comtrade and some of the conclusions made in United Nations Conference on Trade and Development (UNCTAD, 2019), aims to intuitively illustrate that Vietnam was the greatest beneficiary from the US–China tariff war in select product groups (HS 50-63, 84 & 90, and 85), with some assumptions.

**Literature Review**

The research on the effects of Trump administration’s tariffs is still relatively new. UNCTAD used cross-section regressions with world trade data from the second half of 2018 to the first half of 2019 to estimate the trade diversion effects of the Trump administration’s tariffs. The authors found that there was a decline in US imports of tariffed Chinese products of US$ 35 billion (or about 25 percent), and of the US$ 35 billion, about US$ 21 billion (or about 63 percent) was replaced by imports from countries other than China. The remainder of US$ 14 billion, the authors noted, was either lost due to lower demand in the United States and/or not enough export capacity from the rest of the world. They concluded that large countries with “spare capacity and available trade infrastructure were the ones better positioned to replace China” in the US market, but nonetheless emphasized the competitiveness of Chinese exports to the United States, as 75 percent of them survived the administration’s tariffs and were purchased in the United States. However, since their data is until the first half of 2019, the effects of additional Section 301 tariffs from the Trump administration in June and September 2019 were not considered, thus presenting an incomplete assessment of the effects of the administration’s tariffs from 2018 to 2019.

Another work that contributes to this topic is Chad P. Bown’s working paper, “The US–China Trade War and Phase One Agreement,” which closely examines China’s attempt to fulfill its US import purchase commitments set by the 2020 US–China Phase One Trade Agreement. Bown observes that even when the US–China Phase One Agreement was negotiated in January 2020, the tariffs imposed by the United States and China on each other were not eliminated entirely; when “implementing the agreement, on February 14, 2020, both the United States and China cut in half the last round of tariff escalation imposed in September 2019, . . . [but] all the other tariffs remained in effect.” The immediate outcome of the Phase One Agreement, then, was that the US Section 301 tariffs still covered about 66 percent of Chinese imports, and China’s retaliatory tariffs were still on about 58 percent of its US imports. Although the Trump administration demanded that China purchase more US goods so that the US trade deficit with China could fall to 2017 levels, the majority of the administration's tariffs remained, thus rendering China’s import commitment quotas all the more unrealistic. Bown analyzes that the
vacuum created by the Trump administration’s tariffs was substantial, and since the purchase commitments set by the Phase One Agreement went into effect only after many third-party economies (i.e., countries other than the United States and China) had already replaced China in several product groups in the US market, China’s prospect of fulfilling the purchase commitments is very slim.

The contributions of this article to the topic are the following. First, this article uses full 2018 and 2019 annual US import data, rather than quarterly trade data as in UNCTAD (2019), to demonstrate how some third-party economies benefited from the Trump administration’s tariffs and China’s decreased exports to the US market, with some assumptions. As the Trump administration imposed more Section 301 tariffs in the second half of 2019, the effects of these additional tariffs will be taken into account in this article, unlike in UNCTAD (2019). Second, this article provides a simplified framework to study how a reduction of import demand from a particular country due to tariffs leads to increased imports from third-party countries without using computable general equilibrium (CGE) econometric models to estimate the effects of tariffs.

However, this article also has limitations. First, this research depends on some assumptions, much like how intermediate microeconomics theories depend on assumptions that may not always hold. Second, only select product groups (HS 50-63, 84 & 90, and 85) are inspected in this article for simplicity, yet there can be more product groups that could be included to improve the robustness of the conclusions made in this article. Third, since the data for this work is acquired from UN Comtrade, separate trade data from Taiwan is not used in this article; the UN recognizes Taiwan as a province of China. This could create a bias in interpreting the results of the analysis presented in this article, as Taiwan was one of the most significant beneficiaries of the US–China tariff escalation from 2018 to 2019.9

Methodology

To begin, the US import data of selected product groups from 2016 to 2020 from UN Comtrade database was acquired. These product groups are those in which China traditionally has had export competitiveness. Using two-digit HS codes, these product groups are categorized in the following manner: HS 50–63 as one group represents textiles and apparel products; HS 84 and 90 broadly represent machineries; HS 85 represents electrical equipment. First, the reduction in the US consumption of Chinese imports in these three product groups from 2018 to 2019 was obtained, and it was assumed that 63 percent of the reduced demand in the US market for these product groups was diverted to a group of third-party countries in 2019, as indicated by UNCTAD.10 Furthermore, it is also assumed that the entirety of the change in one country’s exports to the US market from
2018 to 2019 is due to the Trump administration’s tariffs. This implies that factors other than the tariffs creating a vacuum in the US market for imports is ignored. While this is not realistic, this condition is assumed to enable simple and effective interpretations. Then the amount of total trade diverted from China to the third-party countries and each third-party country’s percentage share of the trade diverted from China were calculated. It is also noted which third-party country benefited more than others in each of the three product groups selected.

Results

Figures 1–6 indicate the US imports of the selected product groups from China and selected third-party countries from 2016 to 2020, in billions of US$. It should be noted that the US–China tariff escalation began in late 2017 and peaked in 2019. In January 2020, the US–China Phase One Trade Agreement was negotiated, and tariff escalation was finally suspended, although the tariffs were still not eliminated completely. Figure 1 presents that from 2018 to 2019, Chinese (CHN) exports to the United States in machineries (HS 84 & 90) and electrical equipment (HS 85) saw a sharp decline, although textiles and apparel (HS 50–63) products were largely unaffected by the tariff shocks. This signifies that the Chinese textiles and apparel industry is immensely competitive, impervious to tariffs and the potential disruption of supply chains that tariffs generated. Unlike the textiles and apparel products, however, the Trump administration’s tariffs severely damaged China’s other two product groups, which are struggling to rebound to pre-tariff levels from 2019 and onward. From figure 2, it can be observed that Vietnam’s (VNM) electrical equipment exports to the United States increased exponentially from 2018 onward, while the other product groups experienced relatively moderate growth. Out of the six exporting economies listed, Vietnam is the only country that experienced a remarkable boost in its electrical equipment exports to the United States; all the others exhibit negligible variations except China, which again sustained a considerable decline. Moreover, the other exporters to the United States were generally unaffected by the Trump administration’s tariffs filed in 2018 and 2019; if anything, they experienced a mild improvement in exports from 2018 to 2019. As for the exporters that experienced a decline in their machinery exports from 2019 to 2020 such as the European Union (EU), Japan (JPN), and Mexico (MEX), the following could be a potential explanation: Their machinery exports to the United States declined in 2020 due to the increased market share obtained by Vietnam and South Korea (ROK) and China recovering a portion of its lost market share. This would imply that China has not been able to fully recover its pre-tariff export levels to the United States, which is in accordance with the findings presented in UNCTAD.}\textsuperscript{11}
The US–China Trade War

Figures 1–6: US imports from China and selected third-party economies, 2016–2020, of selected product groups (CHN, VNM, JPN, ROK, MEX denote China, Vietnam, Japan, Republic of Korea, and Mexico, respectively).
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[Graphs showing ROK and MEX exports to the US, 5 years (Billions US$)]

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From the data used for figures 1–6, a table that represents the yearly export differentials from 2016 to 2020 is constructed, which is table 1. Since the majority of the Trump administration’s tariffs were imposed in the 2018–2019 period, the corresponding column in the table is boldfaced, denoted as 2018–2019. While constructing table 1, it is assumed that all the positive differentials in the 2018–2019 period from the third-party economies went into diverting the loss of Chinese exports to the US market in the same period. The table is as follows:

**Table 1: Selected economies’ export differentials to the United States from 2016 to 2020, in selected product groups. The column 2018–2019 is boldfaced to note that tariff escalation between the United States and China peaked from 2018 to 2019.**

<table>
<thead>
<tr>
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<td>544</td>
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From table 1, the amount of trade diverted from China to the third-party economies is calculated, with the assumption that 63 percent of the total loss of Chinese exports to the US market from 2018 to 2019 was diverted to the third-party countries. Furthermore, the percentage share of trade diverted by each third-party country is also calculated to see which country benefited more than others as the result of the US–China trade escalation in the three product groups. From table 1, it can be observed that Vietnam experienced significant export growth in all three product groups in the 2018–2019 period, capturing most of the vacuum created by the loss in China’s exports to the US market. Table 2, which summarizes the results of the trade diversion caused by the Trump administration’s tariffs, is provided as follows:
Table 2. Trade diversion results, calculated from the data used for Table 1 (CHN, VNM, JPN, ROK, MEX denote China, Vietnam, Japan, Republic of Korea, and Mexico respectively).

<table>
<thead>
<tr>
<th>HS Code</th>
<th>2018–2019 Loss Abs Value (Millions US$)</th>
<th>Amount Diverted (Using 63%; Millions US$)</th>
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<tr>
<td>50-63</td>
<td>3410</td>
<td>2148</td>
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<tr>
<td>84, 90</td>
<td>26351</td>
<td>16601</td>
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<td>85</td>
<td>27236</td>
<td>17159</td>
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<tr>
<td>Sum of Positive Change (Millions US$)</td>
<td>% Diverted</td>
<td></td>
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<tr>
<td>50-63</td>
<td>1752</td>
<td>51.37%</td>
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<tr>
<td>84, 90</td>
<td>13496</td>
<td>51.22%</td>
</tr>
<tr>
<td>85</td>
<td>11447</td>
<td>42.03%</td>
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<tr>
<td>VNM’s Share (%)</td>
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<td>JPN’s Share (%)</td>
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<tr>
<td>50-63</td>
<td>66.17%</td>
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<tr>
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<td>7.20%</td>
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<tr>
<td>85</td>
<td>61.84%</td>
<td>-6.50%</td>
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<tr>
<td>EU’s Share (%)</td>
<td></td>
<td>ROK’s Share (%)</td>
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<tr>
<td>50-63</td>
<td>11.15%</td>
<td>2.85%</td>
</tr>
<tr>
<td>84, 90</td>
<td>40.40%</td>
<td>-1.30%</td>
</tr>
<tr>
<td>85</td>
<td>2.99%</td>
<td>1.46%</td>
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<td>MEX’s Share (%)</td>
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<td>Note: Taiwan’s trade performance is calculated as part of China’s</td>
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<tr>
<td>50-63</td>
<td>-10.57%</td>
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<tr>
<td>84, 90</td>
<td>22.22%</td>
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<tr>
<td>85</td>
<td>0.42%</td>
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</table>

The column “2018–2019 Loss Abs Value (Millions US$)” simply denotes the loss in China’s exports to the United States from 2018 to 2019 in absolute value terms. These numbers were then multiplied by 0.63, a ratio that was suggested by UNCTAD to be the ratio of diverted trade from China to third-party countries as the result of the Trump administration’s tariffs. The result yields the total amount of trade diverted to third-party countries, which is presented in the top-right corner in the “Amount Diverted (Using 63%; Millions US$)” column. Since China’s textiles and apparel products maintained their strong presence in the US market, the trade amount diverted for textiles and apparel is significantly lower than the other two product groups. “Sum of Positive Change (Millions US$)” represents the sum of positive trade differentials in the 2018–2019 period from all the third-party countries selected. Note these numbers are smaller than those from “Amount Diverted (Using 63%; Millions US$),” since there are many more countries other than the five economies presented here that diverted trade from China. These five countries were identified by UNCTAD as the top five diverters of China’s trade (excluding Taiwan) and indeed represent most of the trade diverted from China, yet there are other countries such as Canada, India, and so forth, which also diverted trade from
China. Finally, each third-party country’s percentage share of trade diversion is calculated by dividing a country’s export growth numbers by the numbers from “Amount Diverted (Using 63%; Millions US$).” The results demonstrate that Vietnam’s percentage share of trade diversion in textiles and apparel and electrical equipment products dominates that of all the other competing exporters to the United States, while the EU benefited the most in its exports of machineries to the United States from the US–China tariff war. However, it must be noted that the EU’s export performance to the United States in machineries in the following 2019–2020 period plummeted, while countries like China, Vietnam, and South Korea had an increase in their machinery exports. Moreover, since China’s loss in textiles and apparel products is much smaller than its losses in the other product groups, the high diversion share of Vietnam in textiles and apparel products may be misleading. Nonetheless, that Vietnam captured more than 60 percent of China’s loss in textiles and apparel and electric equipment exports to the United States is an astonishing feat; also, that Vietnam maintains comfortable export growth in the following 2019–2020 period in all three product groups—the only country among the selected countries to do so—indicates Vietnam’s growing export competitiveness in the US market, with which Vietnam could potentially replace China in many sectors in the future as suggested in UNCTAD.

The US–China Trade War and Vietnam: Long-term Considerations

Answering the question if Vietnam truly has sufficient “spare capacity and available trade infrastructure to replace China” in the long term in the US market is a challenging task. While it is undeniable that Vietnam was one of the biggest beneficiaries of the US–China trade war until tariff escalation was finally eased with the signing of the Phase One Trade Agreement in 2020, whether Vietnam can sustain such unforeseen growth in its export performance in the long term is uncertain. In fact, experts on Vietnam’s trade strategy voice their concerns that the current success of Vietnam in diverting China’s trade may be short-term, for reasons that are structural and difficult to be adjusted. To explain these concerns, it is important to examine how Vietnam was so successful in diverting China’s trade in the first place, according to these experts.

According to Lam Thanh Ha and Nguyen Duc Phuc, faculty members at the Diplomatic Academy of Vietnam under Vietnam’s Ministry of Foreign Affairs, the relationship between China and Vietnam in trade has always been complementary, despite their rather rough diplomatic relationship. While the United States and China together account for about a third of Vietnam’s export and import share, “Vietnam has a substantial trade surplus with the US, [but] a correspondingly large deficit with China.” Vietnam’s top exports to China “comprise mainly of electronics, semiconductors, garments, footwear, sporting goods, and furniture”—which are
largely synonymous with the three chosen product groups of this article—and “Vietnam often plays the role of China’s OEM [original equipment manufacturer] in these industries, and only exports raw materials or intermediate inputs for production in China,” hence its large deficit with China. Ha and Phuc theorize that Vietnam could stand to gain the most from the US–China trade war because a portion of the very “Chinese goods affected by [the Trump administration’s] tariffs were consumed and produced in Vietnam” rather than in China; by exporting these products directly to the United States, Vietnam could effectively capture market share from Chinese products that were subject to US tariffs.

As a reaction to this, however, China soon began to use Vietnam as a convenient trans-shipment platform for Chinese exports to sidestep the tariffs imposed by the United States on Chinese goods; an example of this is “Chinese steel being brought into Vietnam and repackaged as Vietnam’s steel exports to the United States.” This is particularly problematic for Vietnam because of its deep economic ties with China. If China can easily turn Vietnam into its own “backyard,” repackaging Chinese exports to the United States as Vietnamese, then China may soon be able to fully internalize a critical portion of Vietnam’s supply chain in key exporting industries, thus rendering Vietnam’s successful trade diversion obsolete. That China was the largest investor of newly registered foreign direct investment (FDI) in Vietnam in 2019 supports the claim that more Chinese enterprises are finding ways to invest in Vietnam to produce their own goods as exports to the United States. Given that “Vietnam’s supply chain and infrastructure network is reportedly only equivalent to that of China’s several years ago,” Vietnam will need to narrow its infrastructure gap relative to China expeditiously to extend its current success in the long term, which will be a great challenge for Vietnam.

**Conclusion**

This article has examined the magnitude of the trade diversion effects caused by the US–China tariff escalation from 2018 to 2019. Using some assumptions and a simplified framework to study trade diversion effects, this article produced comparable results that could mirror the actual trade outcomes from 2018 to 2019. Since the data used in this article is from UN Comtrade, separate data on Taiwan’s trade performance is not considered. However, it should be noted that all Taiwan’s export growth from 2016 to 2020 is included as part of China’s export performance, which would have reduced the magnitude of China’s losses in its exports of the three product groups to the United States in the same period. Therefore, while a separate analysis on Taiwan as one of the winners of the US–China trade war is not presented, the magnitude of the trade diverted to the selected third-party countries and the permanent trade loss in the 2018–2019 period caused by the reasons delineated
from UNCTAD is unaffected by Taiwan’s absence. This article concludes by highlighting Vietnam’s growing export competitiveness in sectors traditionally dominated by China in the US market for decades, sectors for which the three product groups selected in this study—textiles and apparel, machineries, and electrical equipment—were used as a proxy. Contrary to President Trump’s claim that “trade wars are good, and easy to win,” this article demonstrates that tariff wars divert trade, create permanent losses, and mainly benefit third-party economies such as Vietnam and the EU. The future remains unclear, however, as how the Biden administration will react to China’s failure to fulfill its purchase commitments of US goods can also substantially change the United States’ trade relationship with China, just like the Trump administration’s tariffs did. Recently, the Biden administration is contemplating initiating a new tariff investigation to impose a new round of tariffs targeting strategic sectors of the Chinese economy that are heavily state-subsidized. While the administration is proposing to pair this investigation with a removal of some existing tariffs on consumer goods imported from China, the US–China tariff war may enter a new devastating stage with a new round of tariffs targeting each other’s strategic sectors, such as semiconductors. If tariff escalation continues, then third-party economies such as Vietnam will continue to benefit the most, diverting China’s export losses in the US market in the future.

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Notes
5. Hass and Denmark, “More Pain Than Gain.”
10. UNCTAD, “Trade and Trade Diversion Effects.”
11. UNCTAD, “Trade and Trade Diversion Effects.”
12. UNCTAD, “Trade and Trade Diversion Effects.”