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# JIPA

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# Finding the Right Model

## The Joint Force, the People's Liberation Army, and Information Warfare

B.A. FRIEDMAN

### Abstract

This article discusses the similarities and differences between the US military and the People's Liberation Army (PLA) of China in their approach to information advantage and decision advantage. The article argues that despite major differences in approach, both militaries are seeking to model and conceptualize information advantage and decision advantage. Interestingly, the PLA's use of the American concept of the Observe-Orient-Decide-Act (OODA) Loop provides a key to understanding their organizational approach to information warfare. The article suggests that modeling information warfare on the OODA Loop, as intended by its creator USAF colonel John Boyd, could provide a clear path to achieving decision advantage. The article highlights the need to unify offensive and defensive information warfare, recognizing that everything a military force does takes place inside the information environment and must be planned and coordinated as such. The article concludes that the United States has so far seemingly mastered the information age warfare that the PLA aspires to, and the joint force can retain this comparative advantage only by constant refinement and integration of information warfare throughout the force. The article suggests that while the PLA's concepts and doctrine may offer potential vulnerabilities, the United States should also be wary of blindly adopting the PLA's approach, as it may fall short of the leap from industrial to information age warfare.

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*The information dimension or aspect of warfare may become increasingly central to the outcome of battles and engagements, and therefore the strategy and tactics of establishing information superiority over one's adversary will become a major focus of operational art. Clearly one might wish to be more effective, more skillful in the acquisition and communication processing, the using of information with respect to targets or with respect to the intentions and moves of an opponent. Indeed, in the early stages of an engagement, one would take measures to widen this advantage through the protection of one's own information systems while partially destroying, disrupting, manipulating, or corrupting the information processing and gathering of the opponent. This full range of activities which may become an integrated area of military strategy and operations could be called information warfare.*

—Andrew W. Marshall

Thirty years later, Marshall's statement has proven to be accurate.<sup>1</sup> Although the platforms and munitions of the precision-strike regime often receive the most attention, advanced military capabilities are now dependent on information acquisition, analysis, and dissemination. It is not unexpected then that the militaries of the twenty-first century are investing heavily in information-related capabilities (IRC), particularly the two most technologically advanced military forces, the US military and the People's Liberation Army (PLA).

While investing in the physical components of IRCs is crucial, it is equally important to consider the concepts of operations that govern their use. These concepts illustrate how a military force intends to integrate and coordinate the use of IRCs alongside and in support of other military capabilities. They represent the narratives that military organizations create about the tactics of the future. While these concepts may or may not become reality, analyzing them can provide insights into a force's intended approach to warfare. This article conducts such an analysis by examining information warfare-related concepts for both the US military and the PLA, which have very different visions for the future of information warfare.

This article uses the term *information warfare* as an overarching term derived from Marshall's aforementioned description to denote the competition between two military organizations engaged in a conflict to acquire, analyze, disseminate, and exploit information. The term *offensive information warfare* is employed to describe the actions taken by one side in that contest to disrupt, deceive, deny, or destroy the adversary's ability to acquire, analyze, disseminate, and exploit information. On the other hand, the term *defensive information warfare* denotes the actions taken by one side in that conflict to protect, preserve, and enhance its ability to acquire, analyze, disseminate, and exploit information.

### The People's Liberation Army and Information Warfare

To understand the role of information warfare in PLA concepts, it is first important to understand the PLA's strategic concepts, including its understanding of strategy itself.

One analyst has referred to the PLA's definition of strategy as "objective-subjective strategy," which reflects a Marxist-Leninist perspective of strategy.<sup>2</sup> According to this notion, strategy represents a nonlinear dialectic between objec-

<sup>1</sup> Andrew W. Marshall, Office of Net Assessment, "Some Thoughts on Military Revolutions—Second Version." Memorandum, Washington, DC: Department of Defense, 1993. 4, <https://stacks.stanford.edu/>.

<sup>2</sup> Timothy Thomas, *The Chinese Way of War: How Has it Changed?* (McLean, VA: MITRE Corporation, 2020).

tive reality and subjective initiative.<sup>3</sup> It is the task of strategy (and the strategist) to assess objective reality—i.e., the existing strategic environment—and then employ subjective initiative to alter that reality in a manner that aligns with the strategy’s objective. The synthesis of objective reality and subjective initiative results in a new, more-advantageous objective reality. The strategist’s subjective initiative can target any information concerning objective reality, including the political inclinations and aspirations of local populations in regions where military operation are feasible or likely.

The construction of artificial islands in the South China Sea serves as an illustrative example of this mode of thinking. The People’s Republic of China (PRC) sought to expand its political control over the South China Sea, but the objective reality did not allow for such control due to the absence of suitable islands capable of accommodating military infrastructure. To address this, Beijing’s subjective initiative involved the development and militarization of artificial islands. The implementation of this subjective initiative established a new objective reality, bolstering the PRC’s capability to govern the South China Sea.

The concept of objective-subjective strategy, originally presented in a 2002 article by Academy of Military Science professor Wu Chunqui titled “Dialectics and the Study of Grand Strategy: A Chinese View,” continues to be enshrined in the PLA’s doctrine as evidenced in the 2020 *Science of Military Strategy*.<sup>4</sup>

Since the 1980s, the PRC has employed a military and defense strategy known as *active defense*, building upon its largely defensive approach since 1949 when the Chinese Communist Party (CCP) consolidated its control. The core principle of active defense is that the PRC will only use force in defense of its own territory or interests, but may employ offensive means to deter, defend against, and respond to perceived external aggression. For example, the PRC may consider an invasion of Taiwan as a “defensive” action because the CCP views Taiwan’s existence as a democratic country as a threat, thereby justifying a PLA invasion as an act of self-defense.

The policy of active defense is implemented through the use of strategic guidelines, sometimes called *military strategic guidelines*.<sup>5</sup> The Chinese consider these strategic guidelines to be the “core and collected embodiment of military strategy.”<sup>6</sup>

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<sup>3</sup> *The Science of Military Strategy* (2013), trans. China Aerospace Studies Institute, (Maxwell AFB, AL: China Aerospace Studies Institute, 2021), 7.

<sup>4</sup> *Dialectics of the Study of Grand Strategy: A Chinese View*, trans. Wu Chunqui (Maxwell AFB, AL: China Aerospace Studies Institute, 2021).

<sup>5</sup> M. Taylor Fravel, *Active Defense: China’s Military Strategy since 1949* (Princeton, NJ: Princeton University Press, 2019), 27.

<sup>6</sup> Fravel, *Active Defense*, 28.

Strategic guidelines consist of four components: (1) identification of a strategic opponent; (2) a primary strategic direction, such as a region or cardinal direction; (3) the “form of warfare” or “pattern of operations” that future warfare will consist of, such as informatization; and (4) operational principles for the use of military force against the strategic opponent, in the strategic direction, and in accordance with the form of warfare chosen.<sup>7</sup> The Central Military Commission issues the strategic guidelines, which then inform force design, doctrine (or regulations), and operational planning within the PLA.

Since the initial conception of active defense, the guidance issued to the PLA has become both more ambitious in terms of the goals that the PLA must endeavor to reach and more focused on maritime and aerospace power, at the expense of land power. Over the years, the PLA has been expected to project power further and further from China, and in more advanced ways, through maritime and aerospace environments, as evident in at least nine distinct strategic guidelines issued to the PLA since the 1950s.

The PLA has a different classification of warfare than the United States. While the US generally distinguishes between conventional and unconventional warfare, the PLA categorizes warfare based on the main form of forces and their technological sophistication in four stages: “swords and spears, firearms, mechanization, and informatization.”<sup>8</sup> The current stage of warfare is informatization, in which, unsurprisingly, information warfare is a core component. The PLA believes the stage of the future is intelligentization, where artificial intelligence will be the defining component of warfare.

The PLA began contemplating the concept of informatized war following the Persian Gulf War in 1991, although the terms *informatized* or *informatization* were not formally adopted until 1999. *Informatized warfare* is characterized by digital networks that enable modern precision-guided munitions, platforms, and IRCs such as electronic and cyber warfare. In warfare between two informatized forces, the side that can more effectively acquire, analyze, and disseminate information through networks will have the advantage. Informatized warfare places a central and critical emphasis on information superiority.<sup>9</sup>

The 2013 Science of Military Strategy (SMS), compiled by the PLA's Academy of Military Science's Military Strategy Studies Department, explicitly describes the idea that informatization has fundamentally influenced and changed the

<sup>7</sup> Fravel, *Active Defense*, 60.

<sup>8</sup> *Science of Military Strategy*, 20.

<sup>9</sup> Edmund J. Burke, et al., *People's Liberation Army Operational Concepts* (Santa Monica, CA: RAND, 2020), 4–5.



mode of generating combat power. According to the SMS, “Informatization has fundamentally influenced and changed the mode of generating combat power.” It describes *combat power* as being composed of three elements: (1) material, such as weapon systems and platforms like tanks, artillery, and aircraft; (2) energy, in the form of fuel sources for platforms and ammunition like rockets and missiles; and (3) information, the communication systems necessary to coordinate the actions of material and the provisioning of energy. However, in modern warfare, “Informationization has caused a fundamental change in the traditional relationship among material, energy, and information in war. . . . Information has transformed from being an assisting essential factor to being a dominant essential factor that commands material and energy.”<sup>10</sup>

This concept has spurred a comprehensive reform initiative across the PLA to fully leverage the centrality of information. The PLA now believes that the “mechanism of gaining victory in war” has changed. In the past, victory was achieved by neutralizing the adversary’s material means of fighting. However, in informatized warfare, victory can be achieved by disrupting the adversary’s information means to paralyze, rather than destroy, its material capabilities. This includes targeting “leadership institutions, command and control centers, and information hubs.”<sup>11</sup> The primary means of conducting informatized warfare is by “integrating information and firepower” through the use of reconnaissance and sensors linked by networks to long-range precision-strike munitions.<sup>12</sup> The 2020 edition of the PLA’s *SMS* states, “In information warfare, the effectiveness of military power is more dependent on the application capability of information technology.”<sup>13</sup>

In the 2020 edition of the *SMS*, *informatized war* is alternately referred to as *informationized war*, *information warfare*, and *information-based warfare*. Its place in PLA thinking has only become more central. Whereas Western thinkers tend to view information warfare as a discrete form of war that occurs in an information space or as an additional set of capabilities that complement traditional military capabilities, the 2020 edition portrays all modern warfare as information warfare, even referring to modern warfare as *information-led*. The document asserts that winning information warfare is “the fundamental function of our military, and it is also the basis for the ability to accomplish diversified military tasks.”<sup>14</sup>

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<sup>10</sup> *Science of Military Strategy*, 112.

<sup>11</sup> *Science of Military Strategy*, 113.

<sup>12</sup> *Science of Military Strategy*, 117.

<sup>13</sup> *Science of Military Strategy*, 345.

<sup>14</sup> *Science of Military Strategy*, 337.

The PLA believes that no matter what type of warfare or military activity, the foundation is information warfare.

The PLA's current goal is to "accelerate" the development of its informatization efforts and further mechanization by 2027. These efforts are an ongoing process, and the PLA is pursuing them while continuing to develop mechanized forces.<sup>15</sup> *Mechanized forces* are those normally associated with industrial-age warfare, such as armored vehicles, tanks, and artillery. *Informatized forces* are characterized as those involved with reconnaissance-strike complexes: long-range intelligence, surveillance, and reconnaissance (ISR) and precision-guided munitions.

The acquisition, analysis, and dissemination of information is decisive in informatized warfare as it fuels the advanced reconnaissance-strike and precision-strike complexes that define informatized forces. Additionally, the PLA has developed two concepts of operations for how to fight in a state of informatized warfare: *systems confrontation warfare* and *systems destruction warfare*.

*Systems confrontation warfare*, also known as *system-of-systems warfare*, describes how the PLA intends to organize and operate as an informatized force on an informatized battlefield against another informatized force.<sup>16</sup> It outlines how the PLA intends to organize its command relationships to accomplish "integrated joint operations" during "local war under informationized conditions."<sup>17</sup> At the core of this approach is the acquisition, analysis, and exploitation of information domination, which is equivalent to the American concept of decision advantage. The PLA's aim is to make information warfare the centerpiece and driving force behind all combat operations, rather than simply integrating it with combat operations.

Both forms of systems warfare are organized into three major components: types of systems, command levels, and component systems. The first component is types of systems, which includes *tixi*, a large, integrated system that contains multiple types of *xitong* systems. A *tixi* system is capable of performing multiple functions. A *xitong* system, on the other hand, performs a specific or discreet function, and may or may not be a subcomponent of a *tixi* system. Lastly, a *fenxitong* is a subsystem of a *xitong* system that performs a single function, which enables the *xitong* system to function.<sup>18</sup>

<sup>15</sup> Department of Defense, *Military and Security Developments Involving the People's Republic of China: 2021* (Washington, DC: Department of Defense, 2021), 11.

<sup>16</sup> Jeffrey Engstrom, *Systems Confrontation and System Destruction Warfare* (Santa Monica, CA: RAND, 2018), 2–4.

<sup>17</sup> *Science of Military Strategy*, 154.

<sup>18</sup> Engstrom, *Systems Confrontation and System Destruction Warfare*, 2–4.

These components are task-organized into command levels. The highest command level is an *element*. An element is a *tixi* system—a multifunctional system—that is tasked with multiple but related purposes. The second command level is a *structure*, which is a matrix-style networked structure of multiple *xitongs*, single-function systems that are collectively assigned a single mission or purpose. The last command level is an *entity*, which is a *fenxitong*, a single-function system that is a subcomponent of a *xitong*. This sounds complex, but it is not fundamentally different than US command relationships that are mix of different command and task forces.

Finally, there are five major component systems in systems warfare: a *command system*, a *firepower strike system*, an *information confrontation system*, a *reconnaissance intelligence system*, and a *support system*.<sup>19</sup> These are structures: a network of multiple *xitongs* united in purpose.

The *command system* focuses on the command-and-control links that network and connect the component systems.<sup>20</sup> It encompasses commanders, political officers, communications officers, and other personnel responsible for maintaining situational awareness and directing operations. The *firepower strike system* focuses on delivering kinetic fires across multiple domains—i.e., air, sea, land, and includes the various fires units themselves, as well as support and command systems required to make them effective.<sup>21</sup> The *information confrontation system* is designed to achieve information dominance and includes a wide range of information-related capabilities, such as electronic warfare and cyber operations.<sup>22</sup> The *reconnaissance intelligence system* is responsible for gathering intelligence and building situational awareness for PLA forces. This system includes a variety of sensors, detectors, and collectors across every domain.<sup>23</sup> Finally, the *support system* includes logisticians, maintainers, engineers, and other personnel responsible for sustaining the other component systems.<sup>24</sup>

To apply these terms to relatable examples, in the USAF, an aircraft, its pilots, and its maintainers are an element (*fenxitong*). Multiple aircraft and types of aircraft organized together for one purpose to form a wing would be a structure (*xitong*). That wing would be assigned to a joint task force, which would equate to a *tixi*. Intervening command levels that are present in the US system (such as

<sup>19</sup> Engstrom, *Systems Confrontation and System Destruction Warfare*, 25.

<sup>20</sup> Engstrom, *Systems Confrontation and System Destruction Warfare*, 26.

<sup>21</sup> Engstrom, *Systems Confrontation and System Destruction Warfare*, 53.

<sup>22</sup> Engstrom, *Systems Confrontation and System Destruction Warfare*, 66.

<sup>23</sup> Engstrom, *Systems Confrontation and System Destruction Warfare*, 78.

<sup>24</sup> Engstrom, *Systems Confrontation and System Destruction Warfare*, 89.

squadrons) may or may not be present. If they are not, the purpose of avoiding them is to keep chains of command as short as possible to foster speed and detailed, centralized control of subordinate units.

Systems confrontation warfare is a modular, flexible, and innovative method of organizing military forces. The specific capabilities and systems organized along these lines will vary depending on the mission, allowing for task organization. Since a structure is united by function rather than service, it can easily shift from one *tixi* to another and perform the same function. Additionally, the system features a significant amount of redundancy. For example, each component system has its own intelligence *fenxitongs*, allowing each *xitong* to collect, analyze, and act on information independently. The same is true of firepower strike systems: the *information confrontation system*, for example, may have its own firepower strike capabilities, reducing reliance on the *firepower strike system*. This method of organizing combat forces is relatively unique in history, with the closest analog being the Navy's composite warfare concept.

While systems confrontation warfare describes how the PLA is organized to fight as an informatized force, *systems destruction warfare* envisions how the PLA organized on such lines can defeat an opposing informatized system. It is predicated on attacking the critical subcomponents of an opposing system to disable its ability to function as a cohesive unit, resulting in paralysis. This can be achieved by destroying critical capabilities through kinetic means, denying critical capabilities through nonkinetic means, depleting the opponent's will and desire to fight through psychological means, or a combination of these. The PLA believes that significant attrition of enemy forces is unnecessary to achieve paralysis.<sup>25</sup>

There are four types of targets that the PLA seeks to strike, through kinetic or nonkinetic means, to achieve paralysis. First, the PLA will target "the flow of information in the adversary's operational system," which likely refers to communications and sensors. Second, the PLA will attack the "essential elements of the adversary's operational system," which likely includes "command and control, reconnaissance intelligence firepower, information confrontation, maneuver, protection, and support forces." Third, the PLA will target the "operational architecture" of the opponent, which may refer to the infrastructure required to deploy and employ combat forces.<sup>26</sup> Finally, the PLA will aim to "slow down" the enemy system in a temporal sense, whether slowing down its decision making or its movement and reaction times.<sup>27</sup>

<sup>25</sup> Engstrom, *Systems Confrontation and System Destruction Warfare*, 15.

<sup>26</sup> Engstrom, *Systems Confrontation and System Destruction Warfare*, 16–17.

<sup>27</sup> Engstrom, *Systems Confrontation and System Destruction Warfare*, 18.

The PLA recently published an article that discusses “degradation operations” in the context of systems confrontation warfare. The goal is to achieve “capability degradation” by taking actions whereby “the opponent’s system-of-systems operational advantages are constantly being degraded, preventing the connection of each element, unit, and system from the bottom up.”<sup>28</sup>

Systems destruction warfare is designed to defeat a force that has a technological advantage over the PLA and is dependent on that technology for the acquisition, analysis, exploitation, and dissemination of information. Currently, the US military is the only force that fits this description.

The PLA believes that achieving information dominance is crucial to subsequent operations aimed at attaining air and naval dominance. Once information and air dominance have been established, the PLA can exploit them and maritime dominance to gain dominance on land, depending on the operational environment. This approach is known as *comprehensive battlefield dominance*, which emphasizes that information dominance is the key to establishing and maintaining the initiative in any conflict. PLA documents explicitly describe IRCs such as psychological warfare, space-based systems, and cyberwarfare as essential means of achieving initiative through information dominance.<sup>29</sup> Comprehensive battlefield dominance can be seen as akin to multi-domain or all-domain operations, except that the domains are prioritized and exploited sequentially against each other.

The use of information warfare to achieve dominance or superiority in other domains has been a longstanding strategy in modern PLA thought. In *The Science of Campaigns* (2006), the chapter titled “Important Campaign Activities” places information warfare as the first operational activity,<sup>30</sup> referred to as “the foremost mission” and “the precursor of modern campaign activities.”<sup>31</sup> The chapter discusses both offensive and defensive information warfare, but places a stronger emphasis on offensive information warfare—referred to as *information attack*. *The Science of Campaigns* describes four forms of offensive information warfare: electronic warfare, cyberwarfare, psychological warfare, and physical destruction (kinetic strikes against enemy command posts and network infrastructure). The four defensive means include electronic and cyber warfare, physical protection of friendly command posts and network infrastructure, and what the United States

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<sup>28</sup> Cindy Hurst, “Degradation Operations’: A New Chinese Interpretation of Asymmetric Concepts,” *OE Watch* 11, no. 11 (November 2021), 5.

<sup>29</sup> *Science of Military Strategy*, 160.

<sup>30</sup> *Science of Campaigns* (2006), trans. China Aerospace Studies Institute (Maxwell AFB, AL: China Aerospace Studies Institute, 2020), 175.

<sup>31</sup> *Science of Campaigns*, 175–76.

refers to as *operational security*—counterreconnaissance, counterespionage, and so forth.<sup>32</sup> This preference for “information first” is not only present in official PLA documents like the *SMS* but also in articles published by PLA officials and academicians.<sup>33</sup>

The PLA’s integrated network and electronic warfare (INEW) concept is a departure from US-influenced thought on information warfare, as described by scholars John Costello and Peter Mattis. INEW merges electronic and cyber warfare into a singular system, with the view that cyberwarfare is more relevant to strategy and electronic warfare is more relevant to tactics. By combining the two capabilities, their weaknesses are mitigated.<sup>34</sup> PLA National Defense University lectures describe this cross-domain concept as the “core” of information warfare and state that INEW strikes should be the “main operational pattern” of a joint island-landing campaign, such as an invasion of Taiwan.<sup>35</sup>

This concept may have been the impetus behind the creation of the PLA Strategic Support Force in 2015. This force combines electronic- and cyber-warfare capabilities, among others, at the service level. The integration demonstrates that the PLA has moved away from the traditional model of separate domains dominated by singular service branches, as the older model is at odds with the PLA’s emphasis on the importance of information warfare.

### The Joint Force and Information Warfare

The PLA’s vision for information warfare, particularly its objective-subjective view of strategy, differs sharply from that of the US Joint Force. The American theory of strategy revolves around aligning military means in appropriate ways to achieve political ends, taking an inherently linear approach where tactical victories lead to operational victories, which in turn lead to strategic victory. This approach is inherently mechanical, linear, and apolitical. In contrast, objective-subjective strategy is nonlinear, dialectic, and political. The difference in approaches is important because both militaries start from very different viewpoints when considering the potential of information warfare. The US approach to strategy

<sup>32</sup> *Science of Campaigns*, 175–82.

<sup>33</sup> Joe McReynolds, “China’s Military Strategy for Network Warfare,” in *China’s Evolving Military Strategy*, ed. Joe McReynolds (Washington, DC: Jamestown Foundation, 2017), 249.

<sup>34</sup> John Costello and Peter Mattis, “Electronic Warfare and the Renaissance of Chinese Information Operations,” in *China’s Evolving Military Strategy*, ed. Joe McReynolds (Washington, DC: Jamestown Foundation, 2017), 185–86.

<sup>35</sup> Yuan Wenxian, *Lectures on Joint Campaign Information Operations*, trans. Project Everest (Maxwell AFB, AL: China Aerospace Studies Institute, 12 October 2021), 278 and 303, <https://www.airuniversity.af.edu/>.

often prioritizes technology and platforms at the expense of political and social factors and, therefore, tends to ignore information warfare's ability to affect those factors. This is also influenced by the US military's nonpartisan tradition, which is not shared by the PLA as an arm of the CCP.

From the 1970s to the 1990s, the US military held a narrow perspective on information warfare, viewing it primarily as operations intended to disrupt and degrade the adversary's information-processing system—command and control (C2)—and protect friendly information-processing systems. Information warfare entailed not only IRCs but also physical destruction as a means of affecting C2 systems. This reached its peak with the publication of JP 3-13.1 *Command and Control Warfare* in 1996. The United States' joint- and service-level doctrinal publications during this period all reflected this view and had a profound impact on the development of the PLA's doctrine.<sup>36</sup>

Beginning in the late 1990s the US military shifted its view of information warfare to include a soft-power connotation in joint and service doctrine. IRCs became a means to influence neutral parties and public narratives rather than solely a means to attack and defend C2 systems. This led to a divergence between information warfare and more traditional forms of warfare, a divergence that is not reflected in PLA texts.<sup>37</sup> This shift has resulted in modern information-related concepts across the Department of Defense (DOD) that are inherently defensive. However, conceptions across joint and service doctrine are fractured and contradictory, with each service pursuing individual ideas and the Joint Staff pursuing another. In 2017, the DOD attempted to increase focus on information warfare by adding "information" as a seventh war-fighting function in 2017. But, this risks further severing information warfare from its inherent connections with intelligence and C2.<sup>38</sup> The conceptualization of information as a combination of influence, psychological, and cognitive means offers a compelling opportunity that the US military has yet to fully address outside of the special operations community.

The *Strategy for Operations in the Information Environment*, issued in June of 2016, is the highest conceptual document for Joint Force information warfare. Its goal is, "through operations, actions, and activities in the IE [information environment], . . . to affect the decision-making and behavior of adversaries and designated

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<sup>36</sup> Christopher W. Lowe, *From 'Battle' to 'Battle of Ideas': The Meaning and Misunderstanding of Information Operations* (Leavenworth, KS: School of Advanced Military Studies, 2020), 38.

<sup>37</sup> Lowe, *From 'Battle' to 'Battle of Ideas'*.

<sup>38</sup> Chairman of the Joint Chiefs of Staff, Joint Publication 3-0 *Joint Operations* (Washington, DC: Department of Defense, 2017).

others to gain advantage across the range of military operations.”<sup>39</sup> The term *operations in the information environment* implies that information warfare is subset of operations, some of which may occur outside the information environment.

The strategy defines the *information environment* as “the aggregate of individuals, organizations, and systems that collect, processes, disseminate, or act on information.” IRCs are defined as “tools, techniques, or activities employed within a dimension of the information environment to create effects and operationally desirable conditions.” The definition of *information operations* is “the integrated employment during military operations of information-related capabilities, in concert with other lines of operation to influence, disrupt, corrupt, or usurp the decision-making of adversaries and potential adversaries while protecting our own.”<sup>40</sup>

The strategy outlines several tasks aimed at expanding the Joint Force’s IRCs and their effective utilization. The emphasis on the importance of information in modern warfare resulted in significant changes, such as the inclusion of information as the seventh joint war-fighting function in JP 3-0 *Operations*.<sup>41</sup>

Despite this addition, there is still no clear boundary between the information function and other functions. JP 3-0 defines the *information function* as encompassing “the management and application of information and its deliberate integration with other joint functions to change or maintain perceptions, attitudes, and other elements that drive desired behaviors and to support human and automated decision-making.” While the destruction and disruption of adversary communications networks is mentioned, the explicit targeting of the adversary’s decision making is not emphasized. The common operating precept is to “inform domestic audiences and shape the perception and attitudes of key foreign audiences as an explicit and continuous operational requirement.”<sup>42</sup>

The current description of the *information function* in JP 3-0 lacks clarity in distinguishing it from other functions such as C2, fires, force protection, and intelligence. For example, C2 and intelligence would fall under information as described but are instead broken out as separate functions in and of themselves. The C2 function is also described as being used to “communicate and ensure the flow of information across the staff and joint force.”<sup>43</sup> Some IRCs are discussed not in the information section but rather in the fires and force protection sections.<sup>44</sup> The

<sup>39</sup> *Department of Defense Strategy for Operations in the Information Environment* (Washington, DC: Department of Defense, 2016), 2

<sup>40</sup> *Department of Defense Strategy for Operations in the Information Environment*, 3.

<sup>41</sup> Joint Chiefs of Staff, JP 3-0: *Operations* (Washington, DC: Department of Defense, 2017), III-1.

<sup>42</sup> JP 3-0: *Operations*, II-18.

<sup>43</sup> JP 3-0: *Operations*, III-2.

<sup>44</sup> JP 3-0: *Operations*, III-42.



*intelligence function* is described as a way to both “produce information” and a way to enable “the JFC to act inside the enemy’s decision cycle,” but lacks a description of ways to affect the adversary’s decision cycle.<sup>45</sup>

Service doctrine tends to use joint definitions but presents them in different ways. For example, the *USAF Operating Concept for Information Warfare* reiterates the definitions of key terms from joint concepts. It lists eight Air Force capabilities as IRCs: cyberspace operations, electromagnetic spectrum operations, information operations, ISR operations, public affairs, weather, international affairs, and operations research.<sup>46</sup> In contrast, Air Force Doctrine Publication 3-13 *Information in Air Force Operations* goes further than joint doctrine, explicitly identifying *decision advantage* as the goal of information warfare.<sup>47</sup> The *Joint Concept for Operating in the Information Environment* provides no definition for either term.

Decision advantage, as the goal of information warfare, has the following components: “(1) data collection about the environment (sensing); (2) situational understanding (sense-making); and (3) the ability to communicate decisions and exchange information (acting).”<sup>48</sup> However, these definitions do not mention efforts to defeat or disrupt the adversary’s efforts at decision advantage.

The joint force and the US Air Force have acknowledged the significance of information warfare; however, there is no clear consensus on the model for the role of information warfare or how friendly and adversarial efforts to achieve decision advantage interact. The DOD currently employs multiple competing visions, sometimes within the same document, which makes it difficult to determine if significant progress will be made without sufficient consensus. A collaborative, cooperative, and interdependent form of joint warfare requires consensus building to achieve success.

## Comparative Analysis

The US military and the PLA differ significantly in their views on the centrality of information warfare. The PLA views information advantage as the key driver of military victory, while the US military sees it as important but not central to winning. This fundamental difference in strategic conception is reflected in

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<sup>45</sup> JP 3-0: *Operations*, III–30.

<sup>46</sup> Charles Q. Brown, *USAF Operating Concept for Information Warfare* (Washington, DC: Department of the Air Force, 2022), 3–4.

<sup>47</sup> Air Force Doctrine Publication (AFDP) 3-13: *Information in Air Force Operations* (Washington, DC: DAF, 1 February 2023).

<sup>48</sup> AFDP 3-13: *Information in Air Force Operations*, 5.

concepts, doctrine, and structure. The US approach to information warfare is far less comprehensive than that of the PLA.

While the PLA acknowledges the central role of information warfare, it has not decentralized its approach to information warfare or operational aspects. The PRC prefers centralized C2 and even reorganized its senior staff to support information-driven operations, reflecting the centralized nature of its government. This predilection for centralized control is an inherent aspect of the PRC's system of government, by no means limited to the PLA.

The US military asserts a preference for decentralized C2, but its hierarchical chains of command and legacy staff systems are designed to facilitate information flow in one direction—primarily from the bottom up. Despite the conceptual emphasis on decentralized C2, the US military remains structured for highly centralized C2.

Another significant difference is the approach to domains between the US military and the PLA. While the US military is pursuing multi-domain or all-domain capabilities, the PLA is more intentional in selecting which domains to focus on and how operations in one domain can contribute to others. The PLA believes that achieving domination or advantage in the information domain is crucial for achieving the same in the air and space domains. Subsequently, PLA forces can leverage air and space dominance to gain decisive advantages in other domains. This deliberate approach to exploiting the relationship between domains is not currently reflected in any US doctrine.

Additionally, the PLA is not limited to nonkinetic means of IRCs and is willing to employ long-range strikes to physically destroy C2 nodes; information-related platforms, such as sensors, undersea cables, satellites, or data centers; and adversary headquarters. In fact, such strikes are considered a central component of the PLA's systems destruction warfare doctrine.

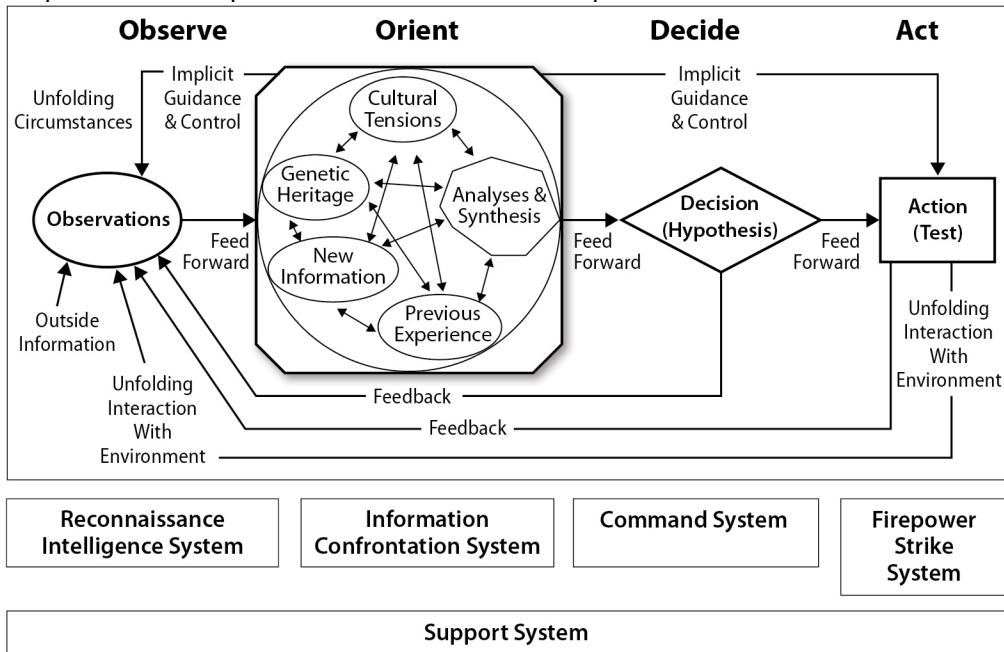
But turn-about is fair play. As the PLA's main focus is on using information warfare to gain air and space control as a prerequisite for further military operations, the US Air Force and Space Force have the opportunity to take the initiative early in a conflict by preventing the PLA from achieving this goal. This could prove to be a decisive factor in any conflict with the PRC. Denying the PLA air and space control would enable the USAF, USSF, and other joint forces to exploit the advantages of air and space control, particularly the US Navy's ability to establish sea control around the first and second island chains. Given the PLA's view that information warfare is the foundation of modern warfare, achieving information superiority may be enough to undermine Beijing's willingness to continue the fight.

## The Right Model?

Despite these major differences, it is evident that both the US military and the PLA are striving to conceptualize and model information advantage and decision advantage. Ironically, it may be the PLA's implementation of an American concept that holds the key to success.

As mentioned earlier, systems confrontation warfare is composed of five high-level components: the reconnaissance and intelligence system, the information confrontation system, the command system, the firepower strike system, and a support system.

What is striking about the component system of staff organization is that, with the exception of the support system, it mirrors USAF colonel John Boyd's Observe-Orient-Decide-Act (OODA) Loop. This is not a coincidence, as the PLA has referenced Boyd and the OODA Loop in its texts. Rather, it should be viewed as deliberate effort by the PLA to structure high-level staffs around the OODA Loop to facilitate quicker and more efficient exploitation of information.



**Figure 1. John Boyd's OODA Loop**

The OODA Loop, according to Boyd, provides a compelling, perhaps the most compelling, model for how military forces can exploit information advantage to produce decision advantage. Indeed, this is exactly as Boyd intended it. Contrary to popular belief, the OODA Loop is not solely about speed, nor is "outlooping"

the opponent simply about making decisions faster. Rather, as Boyd stated, “Orientation is the Schwerpunkt (or focal point). It shapes the way we interact with the environment—hence orientation shapes the way we observe, the way we decide, the way we act.”<sup>49</sup> The point of the OODA Loop is to “Magnify adversary’s friction and stretch-out his time (for a favorable mismatch in friction and time)” and “deny adversary the opportunity to cope with events/efforts as they unfold.”<sup>50</sup> Friction is “generated and magnified by menace, ambiguity, deception, uncertainty, mistrust, etc.”<sup>51</sup> These are all fundamentally perceptions of information. Orientation, then, is where information gained through observation is analyzed and contextualized, and where information warfare is won or lost. The goal of the OODA Loop is not just to decide faster but to decide faster *and* better so that the adversary is continually making decisions based on poor and outdated information, further corrupting their decision making with each cycle. In other words, it not just about defensive information warfare—preserving the integrity of the friendly OODA Loop—but also about offensive information warfare, corrupting the integrity of the opponent’s OODA Loop. Modeling information warfare on the OODA Loop as it was intended offers a clear path to achieving decision advantage. Outlooping an adversary is not the end but the means to achieving decision advantage. It is concerning that this model seems to be much more prominent in PLA concepts than in American concepts, which lack a clear description of decision advantage and what it actually means.

What would adopting the OODA Loop as the foundation of information warfare entail? It would first mean ending the divergence of kinetic and nonkinetic IRCs and unifying offensive and defensive information warfare. Commanders at any level must be able to employ all the tools available to attack the adversary’s OODA Loop embodied in their C2 system. Boyd emphasized that “operating inside adversary’s OODA loop means the same thing as operating inside adversary’s C&C [command and control] loop.”<sup>52</sup> This means recognizing that everything a military force does takes place within the information environment and must be planned and coordinated accordingly. It means recognizing that information warfare is less about influencing audiences and presenting narratives and more about shaping the environment to disadvantage of the opponent’s ability to assess and manipulate it. In short, it is about what Marshall said it was about:

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<sup>49</sup> John R. Boyd, *A Discourse on Winning and Losing*, ed. and comp. Grant T. Hammond (Maxwell AFB: Air University Press, March 2018), 233, <https://www.airuniversity.af.edu/>.

<sup>50</sup> Boyd, *A Discourse on Winning and Losing*, 240.

<sup>51</sup> Boyd, *A Discourse on Winning and Losing*, 225.

<sup>52</sup> Boyd, *A Discourse on Winning and Losing*, 243.

destroying, disrupting, manipulating, or corrupting the information processing and gathering of the opponent—while protecting our own.

## **Conclusion**

It remains uncertain which of these two visions is superior. The PLA's belief in informatization as the dominant form of warfare, at least until intelligentization emerges, appears to be more extensive and sophisticated than the US approach, which has simply incorporated information warfare alongside other more conventional concepts. Nevertheless, it is risky for a force with no prior experience of the preceding form of warfare, mechanization, and no inclination toward decentralization of C2 to achieve the tempo anticipated by advocates of informatization—to try to advance too quickly. The performance of the Russian Armed Forces in Moscow's ongoing invasion of Ukraine serves as a cautionary example. Russia invested heavily in IRCs and long-range precision fires while shortening its chain of command but failed to decentralize C2 and leadership and to maintain adequate manpower.<sup>53</sup> These reforms proved ineffective, leading Russian forces to resort to more rudimentary tactics. The PLA could face a similar challenge in transitioning from industrial to information age warfare, while the United States continues to gradually refine its approach.

The United States appears to have mastered information age warfare, which the PLA aspires to. The PLA has even used the US military's combat performance as a yardstick. However, the DOD must continue to refine and integrate information warfare throughout its joint force to retain this comparative advantage. While not necessarily for emulation, the United States can examine the PLA's concepts and doctrine for potential vulnerabilities. It is worth noting that the PLA was recently designated as the DOD's pacing threat, indicating the need for continued vigilance and improvement. ♣

### **B.A. Friedman**

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<sup>53</sup> Michael Kofman and Rob Lee, "Not Built For Purpose: The Russian Military's Ill-Fated Force Design," *War on the Rocks*, 2 June 2022, <https://warontherocks.com/>.

# Accelerating Change to Survive

LT COL ROSS F. GRAHAM, USAF

## Abstract

Geographic combatant commands (GCC) are the central actors in urgently driving necessary changes to the austere trauma life chain so that trauma survivability in peer combat can be maintained. Similar to how a kill chain consists of the discrete steps of find, fix, track, target, engage, and assess, the austere trauma life chain consists of the discrete steps of triage, rapid intervention, resuscitation, surgery, and evacuation. With the risk of peer war and large-scale combat operations growing swiftly, the pace of standard military change is wholly inadequate, and GCCs must transform mindsets by rapidly prioritizing and enacting life-chain improvements. They can do this by applying a paradigm of evaluating what opportunities are currently available, broadly applicable, cost conscious, and have demonstrated effectiveness (ABCD). This ABCD paradigm can assist in prioritizing potential changes, while promoting a bias toward innovation and action that can urgently improve today's peacetime life chain for tomorrow's peer combat.

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Future, peer armed conflict will introduce a new generation of US military service members, medics, and commanders to sustained mass-casualty events.<sup>1</sup> This will severely challenge the trauma survivability life chain of wounded personnel, particularly in austere prehospital environments. Given the optimization for, and habituation to, low-intensity, counterinsurgency conflicts, how can the joint medical force accelerate change to maintain and improve the trauma life chain in a contested, degraded, and operationally limited (CDO) austere environment?<sup>2</sup> A central piece to this answer is found where the US military can generate requirements and innovate, exercise, and analyze joint operational concepts: the geographic combatant commands (GCC).

<sup>1</sup> Brent Thomas, *Preparing for the Future of Combat Casualty Care*, RAND Report RR-A713-1 (Santa Monica, CA: RAND, 2021), iii; and Todd South et al., "What War With China Could Look Like," *Military Times*, 1 September 2020, <https://www.militarytimes.com/>. A mass casualty event is one in which emergency medical services are overwhelmed by the number and/or severity of casualties.

<sup>2</sup> Safi Bahcall, *Loonshots: Nurture the Crazy Ideas that Win Wars, Cure Diseases and Transform Industries* (New York: Saint Martin's Press, 2019), 3. For clarity of discussion, instead of using the term *innovation* this article frequently uses the word *change*. This is meant to communicate that while innovation includes both new products and new strategies, the focus of this article is on making positive changes to the life chain. One of the central leadership challenges is guiding and accelerating change via phase transitions between groups of people, as Bahcall aptly explains.

Just as battlefield success requires a tight and durable kill chain, survival from battlefield injury requires a tight and durable life chain. Similar to how a kill chain consists of the discrete steps of find, fix, track, target, engage, and assess, the austere trauma life chain consists of the discrete steps of triage, rapid interventions, resuscitation, surgery, and evacuation.<sup>3</sup> Peer war and large-scale combat operations (LSCO) will rapidly degrade and radically disrupt the life chain as currently practiced, increasing the risk to force and mission. The operational environment to which the military has grown accustomed is drastically different than what currently exists today. GCCs are the central actors to challenge paradigms of change and to compel a new mindset for this new environment.

Acknowledging resource constraints, this article proposes to change mindsets through a novel paradigm to prioritize potential changes while promoting a bias toward innovation and action. This paradigm asks if a potential change is available, broadly applicable, cost conscious, and has demonstrated effectiveness (ABCD). While ABCD is a simple set of considerations, military medicine has a relatively short timeline to change for peer war and can find “advantage [in doing] the simple things that work when things change.”<sup>4</sup> This article evaluates examples of potential medical changes utilizing the ABCD paradigm for prioritizing action to improve the austere trauma life chain, concluding with a brief discussion of other potential areas to apply the ABCD paradigm for life-chain improvement and combat medical support.

### **Short Time Left to Change**

To see the pressing need for change, one must understand significantly divergent trend lines of increasing global tensions versus the historically slow rate of military change. The rise of the People’s Republic of China (PRC) as a peer threat to the United States has quietly grown in the past two decades as the PRC has radically reorganized and professionalized its armed forces, dramatically built up

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<sup>3</sup> Air Force Doctrine Publication 3-60: *Targeting* (Maxwell AFB, AL: Curtis E. LeMay Center for Doctrine Development and Education, 21 November 2021), 27, <https://www.doctrine.af.mil/>. The discrete steps in the life chain make up the traditional Tactical Combat Casualty Care (TCCC) phases of Care Under Fire, Tactical Field Care, and Tactical Evacuation Care. See *Joint Trauma System, Tactical Combat Casualty Care Guidelines for Medical Personnel*, 15 December 2021, <https://learning-media.allogy.com/>. In the past two decades of counterinsurgency warfare, the life chain has traditionally been thought of as extending from point of injury to the continental United States. However, in peer war, evacuation to the United States will be significantly delayed and, in some cases, may not occur. Some less than catastrophic injuries that previously came back to the United States for management may be managed in-theater during peer war to expedite return to duty. This article assumes that evacuation to hospital-based care is the endpoint for the life chain, regardless of if the hospital is within the continental United States or not.

<sup>4</sup> Spencer Johnson, *Who Moved My Cheese* (New York: GP Putnam’s Sons, 1998), 18.

its conventional forces, and strengthened its nuclear deterrence.<sup>5</sup> This has led well-informed observers such as the former Indo-Pacific Command (INDOPACOM) intelligence chief, RADM Michael Studeman, to state that a PRC invasion of Taiwan “is only a matter of time, and not a matter of ‘if.’”<sup>6</sup> Additionally, the previous INDOPACOM commander, ADM Philip Davidson, stated the PRC threat to Taiwan “is manifest during this decade, in fact in the next six years [2027].”<sup>7</sup> Other observers have noted that “the conditions currently prevailing in real life in the Indo-Pacific are almost indistinguishable from what might be expected in the early stages of a march to war.”<sup>8</sup> Additionally, the PRC is not the only source of peer or near-peer threats. For example, just more than a year ago, Russia invaded Ukraine, fomented a refugee humanitarian crisis against Poland, and disrupted the United States’ Colonial Pipeline.<sup>9</sup> Finally, increased aggression by other autocratic states, such as Iran supporting Houthi rebels launching ballistic missiles and North Korea resuming ballistic missile tests, point toward an increasing risk of open conflict across the world.

In addition to recognizing the accelerating trend of threats, leaders must also realistically address the enormous challenges the military faces in rapidly changing to meet the swiftly evolving threat environment. As an example, the Air Force’s 2020 annual acquisition report showed that when judged by original program timelines, 44 percent of the highest-dollar baselined acquisition programs (Category I) were behind schedule, averaging nearly two years beyond initial projections.<sup>10</sup> As a more poignant example, this author flew a mock-up F-35 simulator at the Paris Airshow

<sup>5</sup> Phillip C. Saunders et al., eds., *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms* (Washington, DC: National Defense University, 2019), 262–63; Edmund J. Burke et al., *People’s Liberation Army Operational Concepts*, RAND Report RR-A394-1 (Santa Monica, CA: RAND, 2020); Office of Secretary of Defense, *Military and Security Developments Involving the People’s Republic of China, 2021*, Annual Report to Congress, <https://media.defense.gov/>; and Gerald C. Brown, “Understanding the Risks and Realities of China’s Nuclear Forces,” *Arms Control Today*, June 2021, <https://www.armscontrol.org/>.

<sup>6</sup> Kimberly Underwood, “China’s Growing Threat to Taiwan and the World,” *Signal*, 13 July 2021, <https://www.afcea.org/>.

<sup>7</sup> Adela Suliman, “China Could Invade Taiwan in the Next 6 Years, Assume Global Leadership Role, U.S. Admiral Warns,” *NBC News*, 10 March 2021, <https://www.nbcnews.com/>.

<sup>8</sup> Daniel Davis, “What If China Launched a Surprise Attack on the US Military?,” *19FortyFive* (blog), 5 April 2021, <https://www.19fortyfive.com/>.

<sup>9</sup> Editorial Board, “Putin’s Belarus Offensive,” *Wall Street Journal*, 11 November 2021, <https://www.wsj.com/>; and Maggie Miller, “Russia Arrests Hacker in Colonial Pipeline Attack, U.S. Says,” *Politico*, 14 January 2022, <https://www.politico.com/>.

<sup>10</sup> *Department of the Air Force Acquisition Biennial Report 2019 + 2020: Building the Digital Force* (Washington, DC: DAF, 2021), 10, <https://www.af.mil/>.



in 2001, but the USAF's F-35A initial operating capability was not until 2016.<sup>11</sup> Fifteen years from mock-up to actual fielded capability is most of an Airman's career. In roughly the same amount of time, the PRC built its first aircraft carrier, fielded an operational hypersonic missile system with a fractional orbital bombardment system, and claimed, via man-made island fortifications, the vast majority of the South China Sea.<sup>12</sup> Again, contrast this PRC change mentality and speed with those of the US military as demonstrated by a new pistol request from the Army that included 350 pages of details and two years of testing at a cost of USD 17 million. As then the Chief of Staff of the Army, GEN Mark Milley, dryly commented, "We're not figuring out the next lunar landing. This is a pistol."<sup>13</sup> The recent departure of the Air and Space Forces' chief software officer over the military's lack of ability to rapidly change further highlights this seemingly futile cultural struggle.<sup>14</sup> The slow pace of change even prompted the Chief of Staff of the Air Force (CSAF), Gen C. Q. Brown, to originally consider titling his vision for the Air Force not "Accelerate Change or Lose" but rather "Accelerate Change or Die."<sup>15</sup>

The combination of increasing conflict potential and historically evidenced difficulty in speedily adopting change results in a short timeframe to improve the trauma life chain. Specifically, the advent of hypersonics, widespread cyberwarfare, and other adversary systems specifically designed to counter US strengths drive the urgency to act. As former CSAF Gen Curtis LeMay stressed, US forces must be "ready at the outset of hostilities to fight decisively."<sup>16</sup>

This concept also applies to those taking care of the fighters to ensure that "good men [do not] die because of unreadiness."<sup>17</sup> Interestingly, a 2020 article by the Defense Health Agency (DHA), the joint combat support agency responsible for military medicine's readiness platforms, highlighted "7 Ways DHA Ensures a

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<sup>11</sup> Colin Clark, "Air Force Declares F-35A IOC; Major Milestone for Biggest US Program," *Breaking Defense*, 2 August 2016, <https://breakingdefense.com/>.

<sup>12</sup> James R. Holmes, "The Long, Strange Trip of China's First Aircraft Carrier," *Foreign Policy*, 3 February 2015, <https://foreignpolicy.com/>; Janet Loehrke and George Petras, "Visual Explainer: How China's Hypersonic Missile Compares to Conventional Ballistic Weapons," *USA Today*, 4 November 2021, <https://www.usatoday.com/>; "China Island Tracker," Center for Strategic and International Studies, 24 March 2022, <https://amti.csis.org/>; and Oriana Skylar Mastro, "How China is bending the rules in the South China Sea," *The Interpreter*, 17 February 2021, <https://www.lowryinstitute.org/>.

<sup>13</sup> Kyle Jahner, "Army Chief: You Want a New Pistol? Send Me to Cabela's With \$17 Million," *Army Times*, 27 March 2016, <https://www.armytimes.com/>.

<sup>14</sup> Thomas Newdick, "Ex-Air Force Tech Boss Eviscerates Pentagon for Already Losing the AI Race against China (Updated)," *The Drive*, 31 October, 2021, <https://www.thedrive.com/>.

<sup>15</sup> Senior Military Leader (lecture, Air War College, Maxwell AFB, AL, Academic Year 2021–22).

<sup>16</sup> Phillip S. Melinger, "How LeMay Transformed Strategic Air Command," *Air & Space Power Journal* 28, no. 2 (March–April 2014), 84, <https://www.airuniversity.af.edu/>.

<sup>17</sup> Melinger, "How LeMay Transformed Strategic Air Command," 84.

Ready Medical Force.”<sup>18</sup> These seven ways included medical care standardization, COVID-19 operations, new technologies, international health surveillance and engagement, Total Force fitness, recruiting and retaining quality professionals, and managing the TRICARE health benefit. However, it notably lacked any mention of the military trauma system and potential changes to support US armed forces in peer war or LSCO. As a senior officer visiting the US Air War College (AWC) remarked in 2022, we “got a hell of a fight coming our way . . . we have got to be ready.”<sup>19</sup> As shown below, the current military medical system is unready for today’s peer operational environment.

### **Medical Implications of a Radically Different Operational Environment**

Since the dynamic of growing threats is closing the window for change, today’s actions must reflect the needs of the near future operational environment. Unfortunately, current senior medics’ formative professional experiences involved perfecting the golden hour for a low-casualty demand signal in a permissive environment.<sup>20</sup> This permissive environment allowed minimally impeded transport from initial injury to damage-control surgery (DCS), along with a rapid flow across the battlefield of blood, logistics, and manpower. Additionally, relatively uncontested cyber, space, air, sea, and even land domains not only enabled rapidly responsive patient and asset movement but also permitted frequent and reliable communications and telehealth. Furthermore, a focus on “contingency operations with relative impunity from enemy attacks” fostered a reliance on fixed facilities that rarely experienced combat attrition.<sup>21</sup> Most profoundly, this environment’s astoundingly low rate of lethality from wounds has generated a perhaps unrealistic expectation of war-fighter survival that is now embedded in the psyche of war fighters, their commanders, the American public, and American leadership.<sup>22</sup>

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<sup>18</sup> Military Health System Communication Office, “7 Ways DHA Ensures a Ready Medical Force,” *DOD News*, 2 October 2020, <https://www.defense.gov/>; and “Combat Support,” Defense Health Agency, last accessed 29 March 2022, <https://www.health.mil/>.

<sup>19</sup> Senior Military Leader (lecture, Air War College, Maxwell AFB, AL, Academic Year 2021–22).

<sup>20</sup> Todd E. Rasmussen et al., “In the ‘Golden Hour’: Combat Casualty Care Research Drives Innovation to Improve Survivability and Reimagine Future Combat Care,” *Army AL&T Magazine*, January–March 2015, <https://mtec-sc.org/>. The *golden hour* refers to the concept of getting a patient to life-sustaining medical interventions and treatment within 60 minutes from initial injury. This medical treatment is often recognized to be advanced resuscitative capability, including damage control surgery.

<sup>21</sup> Brent Thomas et al., *Project AIR FORCE Modeling Capabilities for Support of Combat Operations in Denied Environments*, RAND Report RR-427-AF (Santa Monica, CA: RAND, 2015), iii.

<sup>22</sup> Atul Gawande et al., “Casualties of War—Military Care for the Wounded from Iraq and Afghanistan,” *New England Journal of Medicine* 351, no. 24 (2004), 2471–75. Lethality of war wounds in Iraq and

Contrasted with this highly favorable, resource-rich environment for military medicine, the near future operational environment will be starkly different. Among the most significant differences is the precision-strike threat from cruise and ballistic missiles. Given the speed and range of missile systems, including currently operational hypersonics, missile strikes on US forces could occur with only minutes' notice.<sup>23</sup> While these strikes will likely produce injury patterns similar to improvised explosive device (IED) blasts, the effects of both more blasts and bigger blasts will be a much greater quantity of wounded personnel, including traumatic brain injuries.<sup>24</sup> Also, the wreckage of intercepted inbounds may impact nontargeted areas; so, whether targeted or not, fixed medical facilities—both military and civilian—are at risk. Lastly, a lack of passive base defenses renders garrison forces attractive targets and increases the risk of mass casualties.<sup>25</sup> In sum, military medicine is not currently organized, trained, and equipped for the casualty demand signal that will result from peer war.

Another major difference in peer war will be the all-domain contested nature of conflict. Operating in fiercely contested domains of air, sea, and land, medics will have significantly limited transport space. Additionally, patient and asset movement will be sporadic and risky. The effects of cyber and space warfare, combined with electromagnetic warfare, will decrease communications' access, volume, and reliability. Due to this degradation, coordination of patient transport, requests for medical logistics or manpower, and reach-back telehealth will be poorly coordinated, intermittent, and unreliable. The culmination of these differences will create, per the Chairman of the Joint Chiefs of Staff, an "extremely austere" environment.<sup>26</sup> In peer war, medics will find their previously resource-rich environ-

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Afghanistan from 2001–2004 was approximately 10 percent compared to 30 percent in World War II and 24 percent in the Vietnam War. This lethality continued to go down during the course of the wars in Iraq and Afghanistan; see, Jeffrey T. Howard et al., "Use of Combat Casualty Care Data to Assess the US Military Trauma System During the Afghanistan and Iraq Conflicts, 2001–2017," *Journal of the American Medical Association Surgery* 154, no. 7 (2019), 600–08. "3 key interventions (tourniquets, blood transfusions, and pre-hospital transport within 60 minutes) were associated with 44% of mortality reduction" during the wars in Iraq and Afghanistan.

<sup>23</sup> Eric Heginbotham et al., *Chinese Attacks on Air Bases in Asia: An Assessment of Relative Capabilities, 1996–2017*, RAND Research Brief RR-9858/2-AF (Santa Monica, CA: RAND, 2015), 2, <https://www.rand.org/>. For a rapid and eye-opening understanding of how the PRC missile threat has changed during America's war on terror, view the graphic on page 2 of this report.

<sup>24</sup> Thomas, *Preparing For the Future*, 23–24.

<sup>25</sup> Stacie L. Pettyjohn, "Spiking the Problem: Developing A Resilient Posture In the Indo-Pacific With Passive Defenses," *War on the Rocks*, 10 January 2022, <https://warontherocks.com/>.

<sup>26</sup> C. Todd Lopez, "Future Warfare Requires 'Disciplined Disobedience,' Army Chief Says," *Army.mil*, 5 May 2017, <https://www.army.mil/>.

ments suddenly quite austere and their prior ability to rapidly move patients to higher levels of care delayed by hours or even days.

One final consideration for change in the operational environment, pertinent to military medicine, is how the military will employ its forces in peer war. The military, including military medicine, has “for 30 years . . . been on a relentless centralization binge” to achieve efficiency, economies of scale, and lower costs.<sup>27</sup> However, many US military services are moving toward a leaner, more agile posture that can be employed in a distributed fashion to coalesce synchronized mobile joint fires and actions across domains to generate combat effects.<sup>28</sup> This shift from optimization for efficiency to optimization for effectiveness means the medical support to these forces should also become more effective by being more agile, distributed, and mobile, focusing less on efficiency and cost effectiveness. Just as the Cold War era medical force underwent a revolution to become the current optimized medical force for the war on terrorism, so too must today’s medical force quickly undergo revolution to support peer combat.

### **Who Has the Impetus to Improve and Why They Should Care**

While today’s new operational environment demonstrates the need to transform the life chain, who can best provide the impetus to force action? A key driver of successful organizational change is customer demand. In the military, the GCCs—who employ service-provided forces at the point of peer competition and conflict—are best positioned to create change. Organizationally, who better knows where change is most needed and where it will be most effective than those currently maneuvering ground forces, navigating the ships, and flying the jets across the areas of responsibility (AOR)? It is those who are responsible for combat success, the GCCs. A GCC’s ability to set standards and requirements, drive resolutions, and follow up on priorities allows it to force new processes and solutions outside of current ways of doing business.<sup>29</sup>

Recently, the former staff director of the Senate Armed Services Committee (SASC), Christian Brose, asserted that “You only change minds by actually showing people that there is a better alternative, and the only way that we get a better

<sup>27</sup> Senior Military Leader (lecture, Air War College, Maxwell AFB, AL, Academic Year 2021–22).

<sup>28</sup> Air Force Doctrine Note 1-21: *Agile Combat Employment* (Maxwell AFB, AL: Curtis E. LeMay Center for Doctrine Development and Education, 1 December 2021), <https://www.doctrine.af.mil/>; “Expeditionary Advanced Base Operations (EABO),” *Marines.mil*, 2 August 2021, <https://www.marines.mil/>; and David H. Berger, *A Concept for Stand-in Forces* (Washington, DC: Department of the Navy, December 2021), <https://www.hqmc.marines.mil/>.

<sup>29</sup> David H. Berger and Christian Brose, interview by Andy Milburn and Shawna Sinnott, *Irregular Warfare Podcast*, 12 February 2022, 38:00–40:35 minutes, <https://mwi.usma.edu/>.

alternative is by creating alternative pathways around our system.” He continued, emphasizing that “the only way you are going to get disruption is by working outside and around the system that we have . . . that is how past military transformation, past military revolutions have largely occurred; it has been with visionary leadership, clear definition of operational problems, and rapid iteration of capability development and fielding.” Furthermore, he noted that you “don’t try to overturn the entire apple cart, you start with a handful of things and prove that those use cases work.” Leaders must then “find mechanisms to get . . . game changing ideas and capabilities, these kind of disruptive effects, out into the real world so that people can actually see there is a better solution and it is available to me now.” Lastly, he cautioned that “unless and until we do [this] our system will do what our system does, which [is to say] let’s manage risk, let’s push the timelines out; let’s hang on to the things we have.”<sup>30</sup> These sentiments are echoed by senior uniformed leaders, such as one who recently shared at AWC, “Everyone knows we need to get off the X and do it, but it is incredibly difficult to get moving.” GCCs who have the central battlefield stake and can find and demonstrate use cases are crucial to forcing the services to not only “get off the X,” but, in the words of the former Vice Chairman of the Joint Chiefs of Staff, tell the services, “here’s your joint requirement, just go build it, and go fast.”<sup>31</sup>

If GCCs do not drive a revolution in the life chain, they will increase not simply medical risk but also operational risk. As one author has noted, “Ultimately, MS-CODE [Medical Support to Combat Operations in Denied Environments] is not a medical problem. It is a line issue directly related to combat capability and the use of [service], Joint, and Coalition medical capabilities to ensure that the human element within the Military instrument of power remains quantitatively and qualitatively viable for combat operations.”<sup>32</sup> As distributed operations concepts take hold, “operators [line personnel] will spend more time thinking about logistical constraints.”<sup>33</sup> A weak life chain is a logistical constraint because human life is what ultimately generates combat power. Unfortunately, the

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<sup>30</sup> Berger and Christian Brose interview, 38:00–40:35 minutes.

<sup>31</sup> Senior Military Leader (lecture, Air War College, Maxwell AFB, AL, Academic Year 2021–22). See also, John A. Tirpak, “U.S. Poorly Integrates CCMs, Hasn’t Figured Out Hybrid, Hyten Says,” *Air Force Magazine*, 10 March 2021, <https://www.airforcemag.com/>.

<sup>32</sup> Patrick B. Parsons, “Medical Support for Combat Operations in a Denied Environment (MS-CODE): Considerations for Immediate and Future Operations and Research Across the Strategic, Operational, and Tactical Domains” (research paper, Air War College, 6 April 2017), 25.

<sup>33</sup> Miranda Priebe et al., *Distributed Operations in a Contested Environment, Implications for USAF Force Presentation*, RAND Report RR-2959-AF (Santa Monica, CA: RAND, 2019), xi.

life chain, as currently optimized, increases “the probability of failure in achieving strategic goals at politically acceptable costs.”<sup>34</sup>

There are multiple risks that accrue from a weak life chain. Fundamentally, a weak life chain obviously decreases troops’ survivability. Beyond this immediate loss of combat power is the loss of future combat power from those who can recover and return to fight. History is replete with examples of the severely injured returning to fight, from a badly burned USS *Arizona* sailor returning to serve on other World War II ships to troops returning to combat in Iraq and Afghanistan after suffering arm or leg amputations.<sup>35</sup> Services have invested greatly in developing personnel who are not quickly replaceable, especially in a peer war.

Besides loss of combat power, a weak life chain also drives up the risk that increased US losses will dissuade America from continuing to fight. Interestingly, the influence of war dead on the national will to fight is due to effects on American leaders and not necessarily the American people. Research has shown the US public does not have “an intrinsic, uncritical aversion to U.S. military casualties” but, rather, that “the relationship between public support for military operations vis-à-vis the level of casualties has been a function of national leadership.” The public weighs the “acceptability of casualties against the value of objectives,” but it is leadership that shapes the conversation of value.<sup>36</sup> If recent history is any guide, leaders making the decisions to commit forces likely have a much lower tolerance for high casualty counts. As one author has warned, “survival from battlefield injuries is not an indicator of strategic success in the mission. We must be cautious to ensure that successes in military medicine are not viewed as surrogate measures for success on the battlefield.”<sup>37</sup> Fewer casualties does not mean the war is being won, and higher casualties does not mean the war is being lost. However, a life chain ill-suited for a peer fight will increase deaths and potentially weaken US leaders’ will to successfully prosecute a war.

A weak life chain also incurs risk by decreasing esprit de corps and driving up personal risk aversion, both of which compromise lethality. It is well known that

<sup>34</sup> William E. Rapp, “Civil-Military Relations: The Role of Military Leaders in Strategy Making,” *Parameters* 45, no. 3 (Autumn 2015), 21.

<sup>35</sup> Donald Stratton and Ken Gire, *All the Gallant Men: An American Sailor’s Firsthand Account of Pearl Harbor* (New York: Harper Collins Publishers Inc, 2017); and Daniel J. Stinner et al., “Return to Duty Rate of Amputee Soldiers in the Current Conflicts in Afghanistan and Iraq,” *Journal of Trauma* 68, no. 6, (June 2010), 1476–79. Officers and senior noncommissioned officers had return to duty rates of 35 percent and 26 percent, respectively. Overall, the return to duty rate for military members post-amputation has grown from 2 percent in the 1980s to 17 percent during the time from 2001–2006.

<sup>36</sup> Richard A. Lacquement Jr., “The Casualty-Aversion Myth,” *Naval War College Review* 57, no. 1 (2004), 45.

<sup>37</sup> Matthew D’Angelo, “When the Butcher’s Bill Lies: How Modern Military Medicine Distorts the Costs of War,” *Modern War Institute*, 11 February 2022, <https://mwi.usma.edu/>.

troops perform better with increased lethality when they know they are backstopped by an effective medical system.<sup>38</sup> Those responsible for mission success and ordering troops into harm's way have a vested interest in ensuring the life chain is robust and effective to avoid weakened psychological force effectiveness and lethality.

An additional risk to consider is the excess tension created in commanders' minds and organizations by unrealistic or inflexible requests for line resources to care for wounded. The current life chain, with its emphasis on rapid evacuation to enable the golden hour, will create challenging decisions for line commanders due to competing requirements for manpower and transportation assets. These decisions are likely to either dilute the commander's operational focus or create lifelong psychological injury. Transforming the life chain for the new operational environment can diminish these tensions and shape new expectations of care delivery.<sup>39</sup>

One last potential risk is that a weak life chain may decrease deterrence. Adversaries and partners alike may perceive a lack of change and investment in the supporting structures for peer war as a failure to take threats seriously. Even more ominously, others may see this as indicative of a lower likelihood to respond to aggression. As an example of how investments shift geopolitical dynamics, a recent RAND Corporation study noted that medical "WRM [war reserve matériel] posture can help reassure regional partners of the U.S. commitment to the region."<sup>40</sup>

Having argued that GCCs must drive revolution in the life chain to suit the new operational environment, there are a few key areas this article is not addressing. While improvements today require balancing against more distant threats, the focus of this discussion is on near-term threats manifesting in this decisive decade. Also, this is not a comprehensive life-chain gap analysis but rather a proposal for a paradigm to prioritize actions to improve the life chain now.

### **How GCC's Can Prioritize Near-Term Actions to Strengthen the Life Chain**

While many changes to the life chain are possible, given a highly constrained fiscal situation, GCCs need a framework for prioritizing changes. As mentioned earlier, this proposed paradigm asks if a potential change is ABCD. When considered together these four considerations can drive a bias for action when prioritizing changes.

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<sup>38</sup> Karen S. Vogt, "Origins of Military Medical Care As An Essential Source of Morale," *Military Medicine* 180, no. 6, (June 2015), 604–06.

<sup>39</sup> Tanisha M. Fazal et al, "How Long Can the US Military's Golden Hour Last?," *War on the Rocks*, 8 October 2018, <https://warontherocks.com/>.

<sup>40</sup> Thomas, *Preparing for the Future of Combat Casualty Care*, 51.

First, given the potentially short timeframe for change in the jarringly different operational environment, current availability of a change is a first-order consideration. New processes already fielded at a unit level have more viability for rapid AOR implementation than those still in a conceptual or design stage. Next, changes that are broadly applicable by being joint and/or multinational capable should rank higher than those that are service or mission specific. Additionally, monetary and training time costs are a continual consideration. Finally, changes that have demonstrably improved links in the life chain deserve consideration for higher priority.

Although simple and brief, the fundamental considerations of what is ABCD can bring clarity and focus to prioritizing life-chain changes. The barrier to improvement is less a lack of ideas but rather prioritizing and transferring improvements to the field expeditiously and widely in a resource constrained environment.<sup>41</sup> Broadly speaking, GCCs can survey the field for innovations to address life-chain challenges posed by the future operational environment, weigh in on evolving capabilities debates via requirements, and frequently iterate these surveys and requirements to guide capabilities to address gaps. The ABCD paradigm is not meant to deterministically drive a decision but rather to aid GCCs in clearly evaluating trade-offs between multiple potential changes, make decisions, and get moving. As an example, this article will now apply the ABCD paradigm to three potential AOR-wide changes that could improve the life chain.

### ***Paradigm Applied, First Example—Shortage of Skilled Hands***

One weakness in the life chain is that there are not enough personnel with lifesaving medical training to address the likely overwhelming number of immediate life threats—such as, massive bleeding, collapsed lungs, or compromised airways. As a countermeasure, the Department of Defense (DOD) is transitioning from Self Aid and Buddy Care to Tactical Combat Casualty Care All Service Members (TCCC ASM) training (Tier 1) by approximately 2023. However, in a casualty scenario in the new operational environment, TCCC Combat Lifesaver (CLS) training (Tier 2) is more effective at preserving the life chain. This is because the three major preventable causes of battlefield trauma death are extremity hemorrhage, tension pneumothorax (collapsed lung), and airway compromise.<sup>42</sup> While Tier 1 training covers the first of these, the skills to address a tension pneumothorax or increased skills to improve an airway are taught at the Tier

<sup>41</sup> Vijay Govindarajan and Chris Trimble, *The Other Side of Innovation: Solving the Execution Challenge* (Boston: Harvard Business Press, 2010).

<sup>42</sup> Russ S. Kotwal, et al., “Eliminating Preventable Death on the Battlefield,” *Arch Surgery* 146, no. 12 (December 2011), 1351.



2 level, not the Tier 1. Additionally, in the context of the austere trauma life chain, critical skills such as administering initial antibiotics and pain medicine, preventing hypothermia, splinting fractures, as well as extricating, moving, and preparing casualties for evacuation are all skills first taught at the Tier 2 level.<sup>43</sup> Applying the ABCD paradigm, the experience and innovation of the 75th Ranger Regiment answers many of the paradigm's considerations and illustrates a way to provide a higher level of initial trauma care in the life chain.

The 75th Ranger First Responder (RFR) program is a line-led program to ensure every Ranger is competent in managing the major preventable causes of trauma death. Originating from then-Colonel Stanley McChrystal's directive to the Ranger Regiment to focus on medical training as one of four priorities, the RFR program has become a "casualty response system that relies on a mastery and immediate application of basic lifesaving skills by all Rangers."<sup>44</sup> From 2001 to 2010, despite a likely higher casualty severity than other troops in Operation Enduring Freedom and Operation Iraqi Freedom, "the regiment's rates of 10.7% killed in action and 1.7% who died of wounds were significantly lower than the rest of the DoD's rates of 16.4% and 5.8%, respectively." The RFR program increase trained personnel, which led to fewer deaths. In fact, of the regiment's 32 fatalities, only one was potentially survivable in the hospital setting.<sup>45</sup>

The RFR program is proof that the concept of expanding Tier 2 training across a unit is *available*. Next, this change is *broadly applicable* as training materials are easily accessible as joint training. Additionally, if approached in an assignment or vulnerable to deploy phased training timing method, *costs* can be low. Finally, as detailed above, this change has *demonstrated effectiveness* to improve the life chain. Since all four of the ABCD considerations are positive, this change should receive a high priority for AOR-wide action.

To strengthen the first link in the life chain in a similar fashion to the Rangers, a GCC could significantly increase the portion of Tier 2-trained personnel in an AOR. When a GCC evaluates what units may benefit from a higher portion of Tier 2 training, the evaluation could be as simple as a peer competitor's physical missile threat rings or more nuanced using a construct to define a CDO environment such as high personnel density or potential for delayed reinforcement and transport due to topography and distance. In the current peer and near-peer threat

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<sup>43</sup> Joint Trauma System, "TCCC Skill Sets by Responder Level," *Deployed Medicine*, 22 April 2019, <https://www.deployedmedicine.com/>.

<sup>44</sup> "Ranger First Responder and the Evolution of Tactical Combat Casualty Care," Fort Benning, 13 May 2020, <https://www.benning.army.mil/>.

<sup>45</sup> Kotwal, "Eliminating Preventable Death," 1350.

environment, units within minutes of overwhelming missile strikes, such as those in Japan or Germany, would benefit from having a high portion of personnel with the immediate lifesaving intervention skills of Tier 2 training. A member stationed in Japan, minutes from a potential PRC missile strike, currently needs a higher level of initial lifesaving trauma training such as Tier 2 training than, for example, a member stationed in the continental United States who is receiving Tier 1 training.

Regardless of how a GCC defines its particular threshold to increase the portion of Tier 2–trained personnel within units, it can leverage this training requirement on any unit, operational or support, deployed or garrison, that is operating within the potential CDO environment. However, a major limitation of this initial survival improvement is that long-term survival requires effective damage-control resuscitation (DCR) and DCS. This DCR and DCS care falls under subsequent links in the life chain and leads to the next change necessary to evaluate under the ABCD paradigm.

### ***Paradigm Applied, Second Example—Blood Shortage***

After initial Tier 2 rapid interventions to address major preventable causes of death, a significant risk to survivability is the inability to adequately perform DCR prior to DCS. Delay of DCS beyond the golden hour, as will often happen in peer war, makes this risk particularly acute. Furthermore, effective DCR frequently requires rapid access to large volumes of blood, and patients need to receive that blood within 36 minutes of injury.<sup>46</sup> Unfortunately, at the outset of hostilities and in the first weeks of combat, demand for blood will far outstrip available local and regional supplies. Moreover, this blood shortage will be problematic at multiple links in the life chain beyond DCR, including during DCS and evacuation.

Traditionally, blood transfusions have used separate blood product components of red blood cells, plasma, and platelets. Unfortunately, this has major supply- and cold-chain storage challenges that would make significantly boosting blood supplies from US stores infeasible in the first weeks of a peer conflict. Alternatively, whole blood (WB) exists as a viable alternative to component therapy, and current Joint Trauma System (JTS) guidelines recommend WB as the first choice for austere DCR.<sup>47</sup> Anecdotally, surgeons have called fresh WB the “nectar of the

<sup>46</sup> Stacy A. Shackelford et al., “Association of Prehospital Blood Product Transfusion During Medical Evacuation of Combat Casualties in Afghanistan With Acute and 30-Day Survival,” *Journal of the American Medical Association* 318, no. 16, (October 2017): 1581–91.

<sup>47</sup> Christopher Cameron McCoy et al., “Back to the Future: Whole Blood Resuscitation of the Severely Injured Trauma Patient,” *Shock* 56, no. 1S (December 2021): 9–15; and Joint Trauma System, “Whole Blood

gods” as they have noted that trauma patients receiving fresh WB do “much better” than those receiving component therapy.<sup>48</sup>

This WB can be either freshly drawn when needed or pre-drawn and cold-stored. Recognizing this, some units have matured WB programs, such as the Ranger O Low Titer program, the 1st Marine Division’s Valkyrie Program, and US Forces Korea’s Standardized Tactical Universal Donor–Korea program.<sup>49</sup> In general, these programs screen individuals prior to potential conflict to ensure a safe and reliable blood donor pool for rapid utilization in times of austere crisis. While a unit-based WB program will not completely solve blood shortages, it can help close the gap, especially in austere environments.

Consider the facts through the lens of the ABCD paradigm. This concept is clearly *available* for AOR expansion as there are multiple units with safe and successful indigenously grown WB programs. Next, with relatively low technical and supply barriers to entry, WB programs are *broadly applicable* across the joint and multinational force. Additionally, *cost* and training time are low compared to the future logistical requirements of moving massive amounts of blood in a CDO environment or suffering preventable deaths. Finally, this change has *demonstrated effectiveness* to improve the life chain, particularly in an austere environment. A recent article in the journal *Military Medicine* describes a 33-year-old soldier who survived a severe injury in large part due to use of “a [WB program] . . . in aiding resuscitation” which “provid[ed] smaller, forward-deployed units with blood resupply without the administrative burden of storage, particularly in [a] resource-scarce environment.”<sup>50</sup> Since all four of the ABCD considerations are positive, this change should receive a high priority for action across an AOR.

When considering implementing a WB program in units across an AOR, a GCC should consider where it would be most needed and most effective. Similar to the previously described TCCC Tier 2 expansion analysis, a GCC could mandate all units under threat of rapidly becoming a CDO environment implement a WB program as guided through their respective force-providing services. Further, with already established programs in multiple services, a GCC could fa-

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Transfusion (CPG ID:21),” 15 May 2018, <https://jts.amedd.army.mil/>.

<sup>48</sup> Stacy Shackelford, interview by Doug Soderdahl and M. Wayne Causey, *WarDocs Podcast*, 21 July 2021, 6:29–6:40 minutes, <https://podcasts.apple.com/>.

<sup>49</sup> Kaoru H. Song et al., “Ranger O Low Titer (ROLO): Whole Blood Transfusion for Forward Deployed Units,” *Military Medicine*, (10 November 2021); Gidget Fuentes, “‘Valkyrie’ Blood Transfusion System Hopes to Give Marines, Sailors Fighting Chance on the Battlefield,” *US Naval Institute News*, 18 August 2020; and Scott Kuhn, “Walking Blood Bank Can Save Lives on the Battlefield,” *Army.mil*, 5 August 2019, <https://www.army.mil/>.

<sup>50</sup> Song, “Ranger O Low Titer.”

cilitate component command linkage to these programs to enable rapid adoption to a predefined GCC standard. Additionally, the JTS provides a WB clinical practice guideline that covers the fundamentals of such a program and would be useful in establishing AOR-level guidelines.<sup>51</sup> Once established, regular exercises of unit-level WB programs could ensure currency and familiarity, and the WB drawn could be transfused back into the original donors to train on giving transfusions or potentially donated to partner nations for civilian use. A GCC can lead this endeavor most effectively and efficiently.

### ***Paradigm Applied, Third Example—“Undertrained and Underprepared Austere Surgical Teams”***

The third example to illustrate the usefulness of the ABCD paradigm for life-chain improvement are the austere resuscitative and surgical care (ARSC) teams who perform DCS. All three services have used ARSC teams to enable the golden hour in the past two decades, particularly within the special operations community. Recently, the JTS defined ARSC as “advanced medical capability delivered by small teams with limited resources, often beyond traditional timelines of care, [to bridge] gaps in roles of care in order to enable forward military operations and mitigate risk to the force.” With an emphasis on limited resources and longer timelines of care, this definition matches the CDO environment that will dominate medical care in a peer conflict. “Gaps in roles of care” and “limited resources” will not be the anomaly in peer war or exclusively a special operations community challenge; they will be the norm across the force, and as such, “it will be incumbent upon medical, evacuation, and logistics elements to position surgical assets further forward and in greater isolation than in recent theaters.”<sup>52</sup>

Unfortunately, DCS via ARSC teams is not the traditional and dominant concept of medical operations in the conventional joint medical force. This approach also faces a major tension between team size versus team capabilities.<sup>53</sup> As such, there is great heterogeneity in composition and capabilities among ARSC teams. Among the services, there are nearly a dozen different team types with sizes ranging from 3 to 10 personnel, equipment loads ranging between 200 to 7,000 pounds, and

<sup>51</sup> Joint Trauma System, “Whole Blood Transfusion (CPG ID:21).”

<sup>52</sup> Jay B. Baker et al., “Austere Resuscitative and Surgical Care in Support of Forward Military Operations—Joint Trauma System Position Paper,” *Military Medicine* 186, no. 1–2, (January–February 2021), 14. See also, Brian C. Beldowicz et al., “Death Ignores the Golden Hour, The Argument for Mobile, Farther-Forward Surgery,” *Military Review* (March–April 2020), 47.

<sup>53</sup> Joint Trauma System, “Committee on Surgical Combat Casualty Care Position Statement on Single Surgeon Teams,” 1 February 2022, <https://jts.amedd.army.mil/>.

abilities to surgically care for volumes of patients ranging between 2 and 11. Furthermore, across the joint force there have been “ad hoc solutions for manning, training, and equipping austere surgical teams” with “poor standardization and little to no doctrine to guide organization, preparation, and readiness of these teams to deploy into isolated environments with limited supply lines, challenging terrain and environmental conditions, and greater self-reliance to optimize patient survival.”<sup>54</sup> Although there has been widespread innovation, the medical services have poorly consolidated this capability for a peer fight. Despite this, ARSC teams have performed well, as exemplified by one team that cared for more than 750 patients in an eight-week period, including 19 mass-casualty events.<sup>55</sup> It is worth noting this capability was sustained in a mature theater with air supremacy and uncontested logistics. However, this level of performance, while serving in a “fast-moving river of trauma,” will likely be the expected norm for many teams in peer war.<sup>56</sup>

Applying the ABCD paradigm to ARSC teams reveals that even while currently fielded, this capability lacks standardization and interoperability and is consequently not a consistent capability. Although ARSC teams are *available* to a GCC, the lack of a joint interoperability standard means this capability cannot easily be interoperable in multinational and joint environments and is thus *not broadly applicable*. Additionally, while making ARSC teams interoperable is a significant investment, multiple ARSC models exist to draw upon for estimating and reducing the *costs* of standards and capability consolidation. Further, although “limited data suggest comparable outcomes for Role 2 surgical teams [versus] Role 3 combat support hospitals,” one study has shown that “undergoing surgical stabilization at a Role 2 [surgical] facility decreased the likelihood of a casualty dying by one-third compared to initial surgical stabilization at a Role 3 [combat support hospital], independent of transport time or injury severity.”<sup>57</sup> Finally, the chief of the JTS has noted that “we think time [to medical care] is really the biggest factor in survival” and if the choice is “between taking longer and getting the patient to a more robust surgical hospital [or] getting to them with a smaller [surgical] team

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<sup>54</sup> Baker, “Austere Resuscitative and Surgical Care,” 12–13.

<sup>55</sup> Stephen Losey, “It Sounded Like a Horror Show,” *Air Force Times*, 15 August 2017, <https://www.airforcetimes.com/>.

<sup>56</sup> Bob Shepard, “A River of Trauma’ Leads to Six Bronze Stars,” *UAB Medicine*, 14 February 2018, <https://www.uab.edu/>.

<sup>57</sup> Baker, “Austere Resuscitative and Surgical Care,” 14; Brian J. Eastridge et al., “Forward Surgical Teams provide comparable outcomes to combat support hospitals during support and stabilization operations on the battlefield,” *Journal of Trauma* 66 (April 2009), S48–50; Beldowicz, “Death Ignores the Golden Hour,” 42; and Jeffrey T. Howard et al., “Reexamination of a Battlefield Trauma Golden Hour Policy,” *Journal of Trauma Acute Care Surgery* 84, no. 1, (January 2018), 14.

quicker, [the patient is] probably going to have a better survival with the quicker [surgical team intervention].<sup>58</sup> This data, expert opinion, and previous team example, all point to the *demonstrated effectiveness* of far forward DCS.

After evaluating ARSC with the ABCD paradigm, it is clear that unlike the previous two changes, widespread TCCC Tier 2 and WB programs, ARSC is not broadly applicable across an AOR due to lack of standardization and interoperability. As the JTS has noted, “An ad hoc approach across the services for two decades has resulted in undertrained and underprepared austere surgical teams, which poorly reduces risk and may cause it to increase both for the teams themselves and the combat forces they support.”<sup>59</sup> However, the requirement for DCS exists and is even more critical in a CDO environment. Active debate exists about what this peer-war DCS capability should be as ARSC teams as currently conceptualized are likely at risk in peer combat.<sup>60</sup> Therefore, GCCs should set peer-war, operationally based, AOR-level DCS requirements to drive standards, capabilities, and interoperability through the component commands for ARSC team personnel, equipment, and surgical capacity. Additionally, GCCs should ensure these teams have appropriate “basic combat skills of shoot, move, communicate, navigate, and survive” so that they can be lean, distributed units of action in a peer fight with an ability to rapidly aggregate in the event of mass casualties.<sup>61</sup> The GCCs have a key role in forcing this kind of standardization and interoperability.

Finally, as team interoperability and standardization takes form, GCCs can ensure ARSC teams arrive in an AOR already fully trained on multiple employment models and transport mechanisms. These employment models can range from taking inbound patients at a static location for treatment, moving ARSC teams forward emergently and treating at the site of a mass casualty, or even collecting patients and treating them en route away from active hostilities. Also, GCCs could require training for ARSC teams on multiple evacuation platforms—including rail, sea, and air—as appropriate for their AOR and not necessarily their service. By establishing standards for ARSC team capabilities, confirming proper combat training for team survivability, and ensuring greater flexibility in the use of ARSCs, GCCs can spur growth toward a viable, joint, multinational enabled improvement for the surgery link in the life chain.

<sup>58</sup> Shackelford interview, 2:57–3:14 minutes.

<sup>59</sup> Baker, “Austere Resuscitative and Surgical Care,” 16.

<sup>60</sup> Joint Trauma System, “Committee on Surgical Combat Casualty Care Position Statement on Single Surgeon Teams.”

<sup>61</sup> Baker, “Austere Resuscitative and Surgical Care,” 16.

## **Future Areas to Apply ABCD Paradigm to Prioritize Action**

While the three previously discussed potential improvements provide examples of how a GCC can prioritize life-chain changes, GCCs can use the ABCD paradigm to evaluate multiple other possible changes. A few examples of product type and strategy type changes that could be evaluated further for GCC expansion include developing CDO mass-casualty triage pathways; expanding medical care for directed-energy injuries; pursuing self-injectable medications to stop bleeding; formally expanding allied interoperable blood supply; fielding rapid blood and medical resupply capability via drones; dispersing and optimally placing medical WRM for future peer combat; implementing various changes for medical support in a chemical, biological, radiological, and nuclear contested environment; and integrating a roll-on/roll-off mobile biological, chemical, and ballistic protected surgical suite into ARSC teams.<sup>62</sup> While items may not be ready for immediate expansion, such as the ARSC example discussed earlier, by evaluating current potential changes against AOR requirements, GCCs can drive improvements and requirements that suit the war-fighter's near-term needs. Additionally, the ABCD paradigm can be applied to other medical areas of innovation beyond the trauma life chain, such as how to maximize speed of return to duty in a combat environment, or how to minimize the disturbance to operations from the next major biological threat. While many changes are needed to prepare the United States for the coming peer war, the ABCD paradigm must be utilized to help prioritize near-term actions in a resource constrained environment.

## **Conclusion**

In summary, given the growing nearness of peer conflict and the slow pace of institutional change, it is incumbent upon GCCs to evaluate current potential changes to the life chain and, where appropriate, compel rapid adoption within their AOR. To inform prioritization of changes, GCCs should determine gaps that exist in the life chain's current force structure, capabilities, processes, and equipment and then seek already fielded solutions that are the ABCD paradigm to improve the life chain. Then, as GCCs prioritize changes to the austere trauma life chain, they should leverage their ability to set requirements to rapidly effect these changes across their AOR and shape future research, innovation, and near-

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<sup>62</sup> Bahcall, *Loonshots*, 66. Bahcall convincingly argues that there are two types of breakthroughs, product (a new technology) and strategy (a new way of doing business or new application of a product). See also, Matthew Hanson et al., *Medical Support In A Chemical, Biological, Radiological, and Nuclear Contested Environment*, Fairchild Paper (Maxwell AFB, AL: Air University Press, 2021), <https://www.airuniversity.af.edu/>.

term solutions. There will eventually come a time when resources will be more plentiful, and when that time comes, rapid and aggressive use of the ABCD paradigm to prioritize and drive action will be important.

As a former staff director of the SASC argues, “the issue is not a lack of authority to go faster or to take more risk but that those who must exercise those authorities, bear those risks, and be accountable for the outcomes rarely use the authorities they have.”<sup>63</sup> By owning the challenges to the life chain from peer combat, GCCs, which know the scope and nearness of the threat, can accelerate change to optimize force survivability for the “peacetime competition of today and modern conflict of tomorrow.”<sup>64</sup> With a paradigm to rapidly prioritize action that is as simple as ABCD, GCCs can better heed ADM William “Bull” Halsey’s admonishment to his staff in World War II, “There’s a lot to be done . . . look around, see what it is, and do it.”<sup>65</sup> ★

#### **Lt Col Ross Graham, USAF**

Lieutenant Colonel (Doctor) Graham is currently serving as the Deputy Chief, Medical Readiness Division, in the Office of the Commander Surgeon, Headquarters, Pacific Air Forces. He received his commission from the US Air Force Academy in 2002 with a Bachelor of Science degree in history and his Doctor of Medicine degree from the Uniformed Services University in 2011. Lieutenant Colonel Graham completed residency training in emergency medicine at the San Antonio Military Medical Center in 2014. He is a prior Air Force instructor pilot with 1,300 flight hours, a current board-certified emergency medicine physician, and has deployed as a chief of medical staff working host-nation care and aeromedical evacuation for active-duty service members and their families. Prior to his current position, Lieutenant Colonel Graham attended Air War College, Air University, Maxwell AFB, Alabama. He has also served as the commander of the 15th Operational Medical Readiness Squadron, Joint Base Pearl Harbor-Hickam, Hawaii. In this position he led 160 personnel providing full-spectrum outpatient active-duty medical and dental care for 5,500 active-duty Airmen across the state of Hawaii, including enroute patient staging services for 200 aeromedical evacuation missions annually. Additionally, he led COVID-19 operations for the 15th Medical Group and was consulted by the Hawaii Military Healthcare System as he authored COVID-19 military operational and clinical guidance utilized across the island of Oahu. He is happily married with five children and currently maintains emergency medicine currency in a community hospital.

<sup>63</sup> Christian Brose, *The Kill Chain: Defending American in the Future of High-Tech Warfare* (New York: Hachette Books, 2020), audio book Ch 11, 13:16–13:31 minutes.

<sup>64</sup> Margaux Hoar et al., “A Better Approach to Organizing Combatant Commands,” *War on the Rocks*, 27 August 2021, <https://warontherocks.com/>.

<sup>65</sup> William F. Halsey, *Admiral Halsey’s Story* (New York: McGraw-Hill, 1947), 136.



# The Ambitious Dragon

## Beijing's Calculus for Invading Taiwan by 2030

MAJ KYLE AMONSON, US ARMY  
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### Abstract

Chinese president Xi Jinping has a strategic window, in the 2030 timeframe, when favorable conditions exist to forcefully annex Taiwan if peaceful unification is not achieved before then. This hypothesis is based upon the fact that an emboldened China intends to fulfill its imperial—and geostrategic—objectives through expansionist behavior against Taiwan. The three main factors examined are (1) President Xi's "cult of personality" as a totalitarian leader to support the *why* of the invasion timeline, (2) the People's Liberation Army (PLA) defense modernization as an enabling planning factor, and (3) Chinese demographics against the backdrop of domestic election cycles and President Xi's life expectancy. These three factors offer a strategic harbinger that, if President Xi continues to pursue annexation of Taiwan, the PLA will be prepared by 2027, and he will likely take steps to realize these ambitions by 2030 as China's population ages, while pursuing unification to solidify his historic legacy in his lifetime. This article will begin with an overview of the current geopolitical tensions, provide an explanation for the fundamental factors contributing to President Xi's window of opportunity, and conclude by providing an integrated assessment of relevant global security.

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*Taiwan is China's Taiwan. Resolving the Taiwan question is a matter for the Chinese, a matter that must be resolved by the Chinese. We will continue to strive for peaceful reunification with the greatest sincerity and the utmost effort, but we will never promise to renounce the use of force, and we reserve the option of taking all measures necessary . . .* (emphasis added)

—Xi Jinping

On 23 October 2022, the People's Republic of China (PRC) announced that Chinese President Xi Jinping would serve an unprecedented third term leading the Chinese Communist Party (CCP). It is noteworthy that during his speech to the 20th National Congress of the CCP, President Xi repeatedly reinforced the narrative that "complete reunification of our country must be realized, and it can, without a doubt, be realized."<sup>1</sup> He followed this bellicose statement by asserting that the PRC "reserves the option to take all measures necessary."<sup>2</sup> The international community must not only assess *if* President

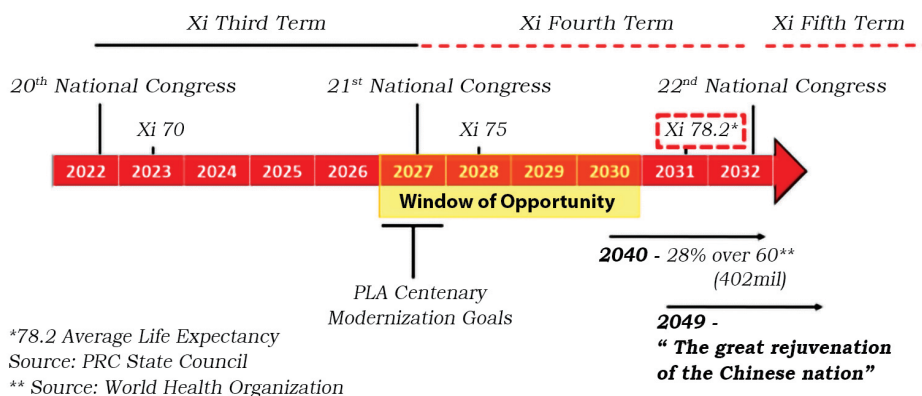
<sup>1</sup> Low De Wei, "Full Text of Xi Jinping's Speech at China's Party Congress," *Bloomberg*, 18 October 2022, <https://www.bloomberg.com/>.

<sup>2</sup> Low, "Full Text of Xi Jinping's Speech at China's Party Congress."

Xi will honor his commitment to his people of annexing Taiwan, but *when* the People's Liberation Army (PLA) will act on Beijing's hegemonic ambitions to invade Taiwan—if peaceful unification is not possible on President Xi's terms.

The thesis of this article is that President Xi has a strategic window, in the 2030 timeframe, when favorable conditions exist to forcefully annex Taiwan if peaceful unification is not achieved before then. This hypothesis is based upon the fact that an emboldened China intends to fulfill its strategic intent and imperial objectives through expansionist behavior against Taiwan. The three main factors examined are (1) President Xi's "cult of personality" as a totalitarian leader to support the *why* of an invasion timeline, (2) the PLA's defense modernization as an enabling planning factor, and (3) Chinese demographics against the backdrop of domestic election cycles and President Xi's life expectancy.

These three factors highlight geostrategically that, if President Xi continues to pursue the annexation of Taiwan, the PLA will be prepared by 2027, and he will likely take steps to realize these ambitions by 2030 as China's population ages, while pursuing annexation to solidify his historic legacy in his lifetime. These findings draw from an eclectic body of literature, including sources from English, Mandarin, and CCP government documents, to holistically assess military, diplomatic, cultural, economic, and political factors. This article will begin with an overview of the current geopolitical tensions, provide an explanation for the fundamental factors contributing to President Xi's window of opportunity, and conclude by providing an integrated assessment of relevant global security. Figure 1 depicts a theoretical timeline overview.



**Figure 1. Timeline overview**

Critics will aver that China is not willing to incur the cost that the international community will impose in response to an invasion because that action runs counter to China's strategic intent and goals for a national transformation by 2049.

However, President Xi's actions belie that argument, because he is already executing a genocidal campaign against the Uyghurs in western China with little apparent international opposition or consequences, even from leading countries within the Muslim world. Critics will also opine that President Xi's statements are merely harmless political rhetoric. However, in a society imbued with cultural pride and history, dating back thousands of years, commitments such as these, to a population of 1.4 billion citizens, cannot be taken lightly. International security and diplomatic professionals as well as military planners *must* assess the risks associated with the "most dangerous course of action." As indicators and warnings across the global commons become more challenging to identify, a predictive approach must be taken, reinforced by a realistic analysis of China's kleptocratic ambitions. Ultimately, time will tell whether restraint will be exercised to enable the flourishing democracy of Taiwan, and its 23 million citizens, to avoid the fate seen in Hong Kong and fall to oppressive communism.<sup>3</sup>

### Overview—Factors for Invasion

*As the Chinese Government has successively resumed the exercise of sovereignty over Hong Kong and Macao, the people of the whole of China are eager to resolve the Taiwan issue as early as possible and realize the total reunification of the country. **They cannot allow the resolution of the Taiwan issue to be postponed indefinitely.*** (emphasis added)

—PRC Taiwan Affairs Office and the Information Office of the State Council

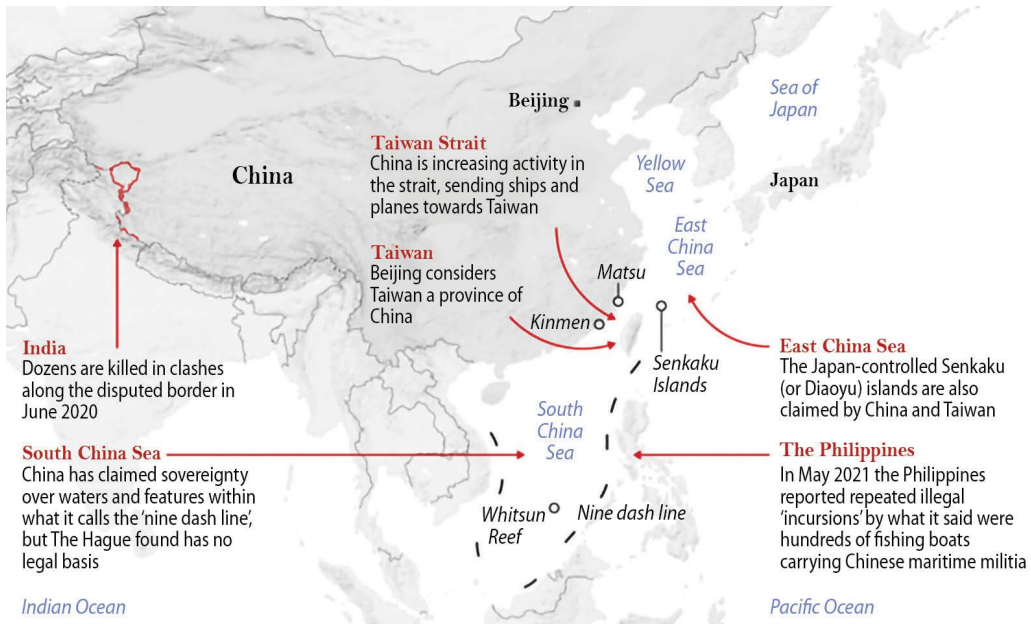
During a May 2022 briefing from the US Director of National Intelligence Avril Haines to the Senate Armed Services Committee, she stated that "China is watching how the nations of the world respond to Russia and considering a potential invasion of Taiwan. And President Xi is scrutinizing Putin's playbook in the international response."<sup>4</sup> While this could be cited as an example of "American strategic competition," President Xi has also supported this narrative, stating that he sees unification as not only desired but also as an inevitable Chinese problem to solve.<sup>5</sup> It appears that the PRC is currently asserting and escalating economic, military, and diplomatic pressure on the island as a precursor for future intervention.

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<sup>3</sup> "HRN and SOS Release Joint Statement on the Human Rights Situation in Hong Kong since the National Security Law's Enactment" (joint statement, Human Rights Now and Sounds of the Silenced, 30 November 2022), <https://hrn.or.jp/>.

<sup>4</sup> Avril Haines, *Director of National Intelligence Testimony on Global Threats and National Security*. Presented at the Senate Armed Services Committee Brief, (Washington, DC, 10 May 2022).

<sup>5</sup> Low, "Full Text of Xi Jinping's Speech at China's Party Congress."



**Figure 2. Southeast Asia geographic overview.** (Source: Helen Davidson, "Japan Urges Europe to Speak out against China's Military Expansion," *The Guardian*, 20 September 2021, <https://www.theguardian.com/>.)

The Taiwan Strait is not a novel area of contention. The First Taiwan Strait Crisis occurred from 3 September 1954 to 1 May 1955 and revolved around several small islands off the coast of mainland China in disputed control between the PRC and the Republic of China. This conflict escalated to the point that the US Joint Chiefs of Staff recommended the potential use of nuclear weapons against mainland China. The Second Taiwan Strait Crisis took place in 23 August–2 December 1958 and was also an armed conflict surrounding several islands off the east coast of mainland China. The Third Taiwan Strait Crisis (21 July 1995–23 March 1996) was precipitated by the Taiwanese president's visit to the United States in 1996 and involved a series of missile strikes from the PRC in the waters surrounding Taiwan.<sup>6</sup>

Based on the PRC's historic *One China* principle, Beijing will only accept unification on its terms, a calculated demand that will likely involve similar human rights violations already demonstrated in the PRC's annexation of the Hong Kong Special Administrative Region (SAR).<sup>7</sup> Based on the PRC's current trajectory, the 2030 timeframe aligns with strategic variables pointing to-

<sup>6</sup> Henry Kissinger, *On China* (New York: Penguin Press, 2011).

<sup>7</sup> "HRN and SOS Release Joint Statement."

ward PRC intervention. With an expected looming Chinese threat to Taiwan, this requires further analysis regarding *when* the invasion will happen, *how* that invasion will manifest itself, and *what* the international response might be, especially within the context of the ongoing Russian invasion of Ukraine. There are three main points that highlight this fraught discussion within the international security landscape.

**Nation-State Ambiguity:** Taiwan has a significantly more complex set of international relationships than Ukraine. Specifically, the international community varies—and is conflicted—in their position regarding Taiwanese independence. Taiwan is typically recognized as an *independent democratic territory*—but not a sovereign state. Even the United States remains in a position of strategic ambiguity, still recognizing the One-China policy—that the Taiwanese society is a Chinese culture, but the US does *not* recognize PRC sovereignty over Taiwan.<sup>8</sup> This should not be confused with the One China principle, the bedrock of the PRC's cross-straits policy, stating that there is only one China, that includes Taiwan, and that any discussion of independence is based upon separatist movements against China.<sup>9</sup> How would this Chinese military aggression be viewed vis-à-vis the current conflict in the Black Sea region?

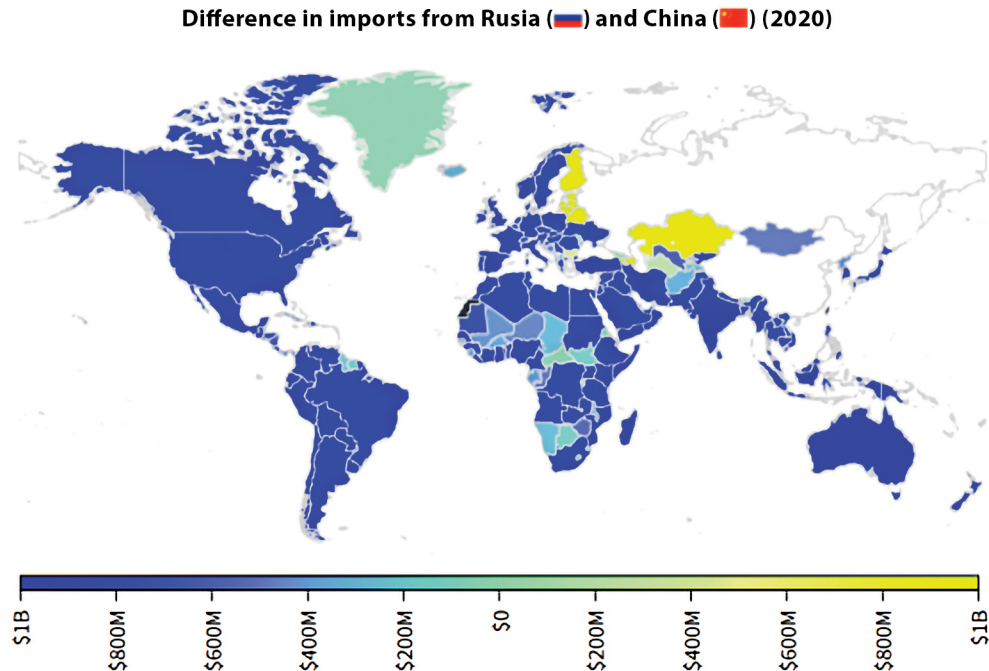
It is unlikely that there would be a similar ardent public outcry following an invasion of Taiwan as observed after the Russian invasion of Ukraine. The international community can expect to see President Xi continue to gather a coalition behind his narrative that “Taiwan is China’s Taiwan.”<sup>10</sup> As China increases pressure on Taiwan and potentially transitions to armed conflict, the PRC will leverage its growing number of economically dependent, less-developed countries (Belt and Road Initiative-related) to support Beijing’s objectives. This action will likely precipitate United Nations’ objections and resolutions to counter malign influence and coercive actions that undermine the international rules-based order. As an example of China’s international economic ties compared to Russia’s, figure 3 highlights the major differences of each country’s global economic influence.

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<sup>8</sup> Michael Green, “What Is the U.S. ‘One China’ Policy, and Why Does it Matter?,” Center for Strategic and International Studies, 13 January 2017, <https://www.csis.org/>.

<sup>9</sup> People’s Republic of China, “The One-China Principle and the Taiwan Issue” (press release, Taiwan Affairs Office and the Information Office of the State Council, n.d.) <http://www.china.org.cn/>.

<sup>10</sup> Low, “Full Text of Xi Jinping’s Speech at China’s Party Congress.”



**Figure 3. Difference in import from Russia and China 2020.** (Source: The Observatory of Economic Complexity, "China/Russia," <https://oec.world/>.)

As President Xi conducts the risk calculus for an invasion, there is already a clear harbinger for how the international community will respond to China's expansionist behavior and fail to hold Beijing accountable for its actions. Based on multiple reports from the UN High Commissioner for Human Rights, a multitude of UN human rights experts, and the Human Rights Watch nongovernmental organization, the international community displays a clear reluctance to condemn China for its corrupt human rights violations against its own population in Xinjiang, in a demonstration of genocide not seen since World War II and Rwanda.<sup>11</sup> Further, as China's ubiquitous and predatory financial tactics proliferate on the world stage, Beijing's soft power to leverage debt-trapped countries for diplomatic purposes will continue to increase in financial and geographic impact.

Geopolitical Dynamics: When Taiwan is compared to Ukraine, the latter is a sovereign state, a NATO non-member partner, and is in a geopolitical region with existing forces in place to deter Russian aggression—i.e., NATO forces in neighboring member states. There is no comparable regional alliance to provide collec-

<sup>11</sup> "HRN and SOS Release Joint Statement."

tive defense or integrated deterrence located in Southeast Asia to effectively deter Chinese aggression.<sup>12</sup>

**Regional Maritime Commons:** While the international intelligence community could identify key indicators and warnings associated with the massing of troops on the Russia–Ukraine border, Moscow’s objectives spanned an entire country. In this case, China only has to transit a 180-kilometer body of water, the Taiwan Strait, to reach the island-nation of Taiwan, a much smaller military objective, and can still conduct exercises as feints as a precursor to operational execution, similar to Russian military warfare tactics.

Additionally, while partners willing to support Ukraine were staged on multiple surrounding borders, Taiwan’s partners face the challenge of geographic distance and barriers to deliver support in the form of security cooperation and operational resources. Ultimately, Taiwan suffers the tyranny of distance with key partners as a smaller military objective and has significantly less measures to predict an invasion than existed with the Russian invasion of Ukraine. These are all key factors contributing to a shorter kinetic timeline to transition from competition to crisis and conflict.

Based on President Xi’s speech to the 20th Congress and extensive documents and speeches captured on the PRC government website, President Xi’s current stance portends that any option resulting in the status quo is unacceptable. However, the passing of President Xi, combined with a democratic election of a Taiwanese government more sympathetic to PRC ambitions could produce an alternative future compromise. The following statement from the PRC’s website accurately depicts why the peaceful unification option is unlikely in the current security environment:

The Chinese Government advocates that the final purpose of cross-Straits negotiations is to achieve peaceful reunification; and that to achieve this purpose, talks should be held based on the principle of one China. However, the proposals for “Taiwan independence,” “two Chinas” and “two states,” aiming for separation instead of reunification, violate the One-China Principle, and are naturally unacceptable to the Chinese Government.<sup>13</sup>

The following section examines three primary imperatives that support the hypothesis for a 2030 timeframe when PRC expansionist behavior will assert Beijing’s dominance over Taiwan.

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<sup>12</sup> *National Defense Strategy*, 2022.

<sup>13</sup> People’s Republic of China, “The One-China Principle and the Taiwan Issue.”

## Cult of Personality—President Xi's Leadership and Legacy

To examine China's motivation to annex Taiwan in the next decade, the most significant factor impacting the probability of this action is its leader, President Xi. At 69, and as the seventh president of the PRC, Xi recently began his unprecedented third term. In addition to serving as president, he also serves as the General Secretary of the CCP and Chairman of the Central Military Commission. At no time since the founding PRC Chairman, Mao Zedong (led from 1949–1976), has power been more politically centralized with an authoritarian leader in China. Following Chinese cultural ethos, President Xi is portrayed as a god, and he has sought nothing less than to transform the CCP into the *high church* of a revitalized, Marxist–Leninist faith.<sup>14</sup> Kevin Rudd's *Foreign Affairs* article titled "The World According to Xi Jinping" aptly stated:

Xi has pushed politics to the Leninist left, economics to the Marxist left, and foreign policy to the nationalist right. The West ignores Xi's ideological messaging at its own peril. No matter how abstract and unfamiliar his ideas might seem, they are having profound effects on the real-world content of Chinese politics and foreign policy—and thus, as China's rise continues, on the rest of the world.<sup>15</sup>

As of 2018, the National People's Congress passed a constitutional amendment allowing the president to serve an unlimited number of five-year terms.<sup>16</sup> This 1982 constitutional limitation was instituted after Mao Zedong's rulership to prevent a leader from gaining absolute power. Immediately following the 2018 CCP term-limit announcement, the party employed mass censorship to suppress public disapproval of the vote. Alongside the amendment, President Xi took the opportunity to write his CCP-based political ideology into the constitution, titled "Xi Jinping Thought." It was subsequently released as a smartphone application to fully immerse the populace in this autocratic ideology. Xi Jinping Thought is now the most downloaded item on Apple's App Store in China.<sup>17</sup>

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<sup>14</sup> Kevin Rudd, "The World According to Xi Jinping," *Foreign Affairs* November/December 2022, <https://www.foreignaffairs.com/>.

<sup>15</sup> Rudd, "The World According to Xi Jinping."

<sup>16</sup> Associated Press, "China makes historic move to allow Xi to rule indefinitely," *CBC News*, 11 March 2018, <https://www.cbc.ca/>.

<sup>17</sup> Zheping Huang, "China's most popular app is a propaganda tool teaching Xi Jinping Thought," *South China Morning Post*, 14 February 2019.



China's current average life expectancy is 78 years.<sup>18</sup> As President Xi's longevity is considered against the invasion opportunity timeline, it is important to recognize that his legacy has a strong connection to his frequent commitments to annex Taiwan. To President Xi, annexing Taiwan would be particularly meaningful because it is a feat Mao could not accomplish and would affirm Xi's reputation and iron grip on state power. Xi has several key objectives as president, including completion of the PLA modernization by 2027, the annexation of Taiwan, progress of the Belt and Road Initiative, and most importantly, the National Rejuvenation by 2049 (the centenary of the PRC). The "great rejuvenation of the Chinese Nation" has been the ultimate goal for President Xi, marking the emergence of China as the leading global power by 2049. In this era of strategic competition, no strategic goal is more ambitiously anticipated, than the annexation of Taiwan. This feat would establish President Xi's standing in Chinese history and enable him to consolidate power as a crucial element of the middle kingdom would be accomplished.

Deng Yuwen, a former editor of a CCP newspaper, who now lives in the United States, said the country's nationalists would be unable to accept inaction on the Taiwan issue: "If Taiwan is not reunited, it shows that what he is doing now lacks conviction. If Xi got a third term this year, he would have a deadline to achieve his signature 'Chinese Dream'—the rejuvenation of the Chinese nation—which includes Taiwan."<sup>19</sup> Any indecisive shortfall that leads to failure is a strategic option that President Xi cannot afford and will not tolerate.

A critical view would suggest that President Xi is unwilling to endure the potential international backlash on his reputation, in addition to the sanctions and international response triggered by a violent annexation. However, this is the same president who is currently waging a genocide in western China, imprisoning an estimated 1 to 1.8 million Uyghurs in concentration camps with mass killings, rape, and torture.<sup>20</sup> At this time, there is no significant international objection to this aggression, with several states even commending China's treatment of the "terrorist threat" in Xinjiang.<sup>21</sup>

If genocide in China's western provinces does not impose a cost through international condemnation, it is unlikely that an invasion of a territory on its eastern border will incur harsh criticism from the international community. Diplomati-

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<sup>18</sup> State Council, People's Republic of China, "China's average life expectancy rises to 78.2 years," <https://english.www.gov.cn/>.

<sup>19</sup> Bang Xiao, "Why is Taiwan so important to Chinese President Xi Jinping?," *Australian Broadcasting Corps News*, 23 August 2022, <https://www.abc.net.au/>.

<sup>20</sup> "HRN and SOS Release Joint Statement."

<sup>21</sup> United Nations Human Rights Council, Letter - Agenda item 3, Forty-first session, 24 June–12 July 2019.

cally, the short-term consequences of a Taiwanese invasion would be worth the long-term benefit of gaining national honor and expanded sovereignty. China has long since departed from any attempt to comply with the international rules-based order. Instead of forging balanced partnerships, Beijing coerces and pressures economically vulnerable nations to establish a relationship that results in their subordinate position as dependent states. For decades China has underwritten its international engagements with formal long-term investments that are linked directly to UN cooperation and economic and diplomatic alliances, in a tactic known as “dollar diplomacy.” Additionally, since 1996, China has convinced more than a dozen countries to change their diplomatic recognition from Taipei to Beijing, leaving Taiwan with only 15 remaining allies.<sup>22</sup> In a departure from the Chinese diplomacy of the past 35 years, the PRC now also encourages its diplomats to routinely attack their host governments in the event they do not align with Sino-communist values, in an ethos that has come to be known as “wolf warrior diplomacy.”<sup>23</sup>

Pragmatically, at 69, the international community can expect 10 more years of President Xi’s rule, consisting of what will be his third and likely fourth terms. During this timeframe, there will be a growing ambition for an expanded global presence and willingness to accept greater risk to secure his legacy. And Taiwan would be a crown jewel to secure a place of high honor nationally. Further, considering his family history, it is noteworthy that President Xi’s mother is 96 and his father lived to age 89, in addition to the fact that he has better healthcare than the average Chinese citizen, when compared to the 78 average life expectancy.<sup>24</sup> As President Xi takes comprehensive steps to achieve peaceful or forceful annexation, the next variable in the equation points to a timeline no-earlier-than date of 2027, based on PLA modernization.

### **Military Readiness—No Earlier Than 2027**

*By 2027, [the] Chinese military will have the ability to effectively deal with threats brought by the hegemonism and power politics in western pacific region, including issues relating to [the] Taiwan question and South China Sea, as well as border tensions between China and India.*

—Li Jie

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<sup>22</sup> Oriana Skylar Mastro, “The Taiwan Temptation: Why Beijing Might Resort to Force,” *Foreign Affairs*, July/August 2021, <https://www.foreignaffairs.com/>.

<sup>23</sup> Rudd, “The World According to Xi Jinping.”

<sup>24</sup> Rudd, “The World According to Xi Jinping.”

Beginning with the Nanchang Uprising in 1927, the year 2027 will mark the centennial of the founding of the PLA.<sup>25</sup> During President Xi's congressional speech to the CCP, he stated that the PLA's 2027 centennial modernization goals are one of the PRC's top eight priorities for the next five years and his third term:

Achieving the goals for the centenary of the People's Liberation Army in 2027 and more quickly elevating our people's armed forces to world-class standards are strategic tasks for building a modern socialist country in all respects. To this end, we must apply the thinking on strengthening the military for the new era, implement the military strategy for the new era, and maintain the Party's absolute leadership over the people's armed forces.<sup>26</sup>

In 2015, the PRC's State Information Council published a white paper titled *China's Military Strategy*, replacing its 1993 *Military Strategy Guidelines for a New Era*. In this publication, the PRC takes a realistic approach to closing capability gaps and modernizing outdated equipment and processes.<sup>27</sup> Speed, deception, and coercion will be *critical* to China's strategy for a forceful unification. China will need a swift seizure of Taiwan to decrease the potential of foreign intervention, avoid engagement with international forces, and introduce both a logistical and diplomatic dilemma for other countries poised to aid Taiwan with cooperative security in the form of military resources. If China cannot achieve a rapid seizure of Taiwan, its forces run the risk of a prolonged armed conflict playing out on the world stage, a cost that will cause a severe impact economically and certainly put China in direct conflict with the United States. To mitigate this risk, China will need to delay as long as possible until its defense modernization and strategic economic goals are achieved.

During President Xi's congressional speech, he not only highlighted that he will "intensify military training under combat conditions, laying emphasis on joint training, force-on-force training, and high-tech training" but also that the PLA will "intensify troop training and enhance combat preparedness across the board."<sup>28</sup> An emboldened posture of force projection and combat lethality is reflected in a number of ways leading up to the 2027 mark. The Taipei-based Institute for National Defense and Security Research recorded that the People's Liberation Army Air Force (PLAAF) flew within the Taiwanese air defense identification zone more than 91 days with 380 sorties during an 11-month pe-

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<sup>25</sup> Rudd, "The World According to Xi Jinping."

<sup>26</sup> Low, "Full Text of Xi Jinping's Speech at China's Party Congress."

<sup>27</sup> State Information Council, *China's Military Strategy*, 2015.

<sup>28</sup> Low, "Full Text of Xi Jinping's Speech at China's Party Congress."

riod in 2020.<sup>29</sup> Along with the development of new capabilities and force modernization, the PLA is continuing to pursue commercial upgrades that will accelerate its deployment capabilities to support an invasion of Taiwan. For example, China Central Television (CCTV) released video footage in 2021 of various commercial shipping vessels conducting drills and exercises with PLA units to validate agile and advanced amphibious maritime capabilities.<sup>30</sup>

China has also employed deception and disinformation campaigns with political military messaging, including stating that “after [US Speaker of The House Nancy] Pelosi’s reckless Taiwan visit, the PLA launched large-scale military exercises around the island, including launching conventional ballistic missiles over it.”<sup>31</sup> As the frequency and intensity of military exercises and missile launches increase in the maritime region and air space of Taiwan, there will be more opportunities for military observers and intelligence analysts to detect and monitor strategic threats and incursions that precede military action. These strategic indicators will provide Taiwanese armed forces timely warnings and enable operational readiness to actively defend the island nation’s sovereignty.

Since President Xi has been in office, the PLA has conducted large-scale, live-fire missile strikes around the Taiwanese coast, simulating a maritime and air blockade of the island—an operational strategy designed to prepare its forces for seizing Taiwan. Additionally, China has embarked on a series of island “reclamations” in the South China Sea and turned these into garrisons, ignoring earlier guarantees that it would not do so.<sup>32</sup> These actions are consistent with Xi’s statements at the National Congress of the Communist Party and is a reflection of China’s intent to take aggressive military action, in direct violation of international law, to expand Beijing’s regional sovereignty through illegal use of force in the global maritime commons.

In the RAND report titled *Factors Shaping China’s Use of Force Calculations Against Taiwan*, Mark Cozad conducts a poignant assessment of the PLA’s growing capabilities and Beijing’s risk assessments that reflect China’s accelerated force and military modernization. A premature invasion could result in failure at the tactical, operational, and strategic levels, while patience will allow time to build

<sup>29</sup> William Langley, “PLA warplanes made a record 380 incursions into Taiwan’s airspace in 2020,” *South China News*, 6 January 2021.

<sup>30</sup> Andrew Tate, “Chinese military using commercial Ro-Ro shipping to enhance its amphibious capabilities,” *Janes Defence News*, 23 August 2021. <https://www.janes.com/>.

<sup>31</sup> Liu Xuanzun, “Red line over Taiwan question reiterated in talks between Chinese, US defense chiefs,” *Global Times*, 22 November 2022, <https://www.globaltimes.cn/>.

<sup>32</sup> Rudd, “The World According to Xi Jinping.”

effective military capabilities and concurrently take diplomatic steps to soften anticipated international criticism.

### **Population Demographics—Window Closes in 2030s**

An unfolding population crisis could be a catalyst for changing of public attitudes toward the Taiwan issue. The proposed no-later-than date is based on several factors. First, President Xi reaches the average Chinese life expectancy of 78 during the summer of 2031. Second, the 22nd Nation Congress will take place October 2032, and Xi will seek to demonstrate results to solidify a fifth term at that point. Third, and arguably the most significant factor, China has an extant working-class population bubble—caused by their previous One-Child policy, introduced in 1979, which has yielded an ever-increasing average age—and relative shortage of working- and military-age citizens.

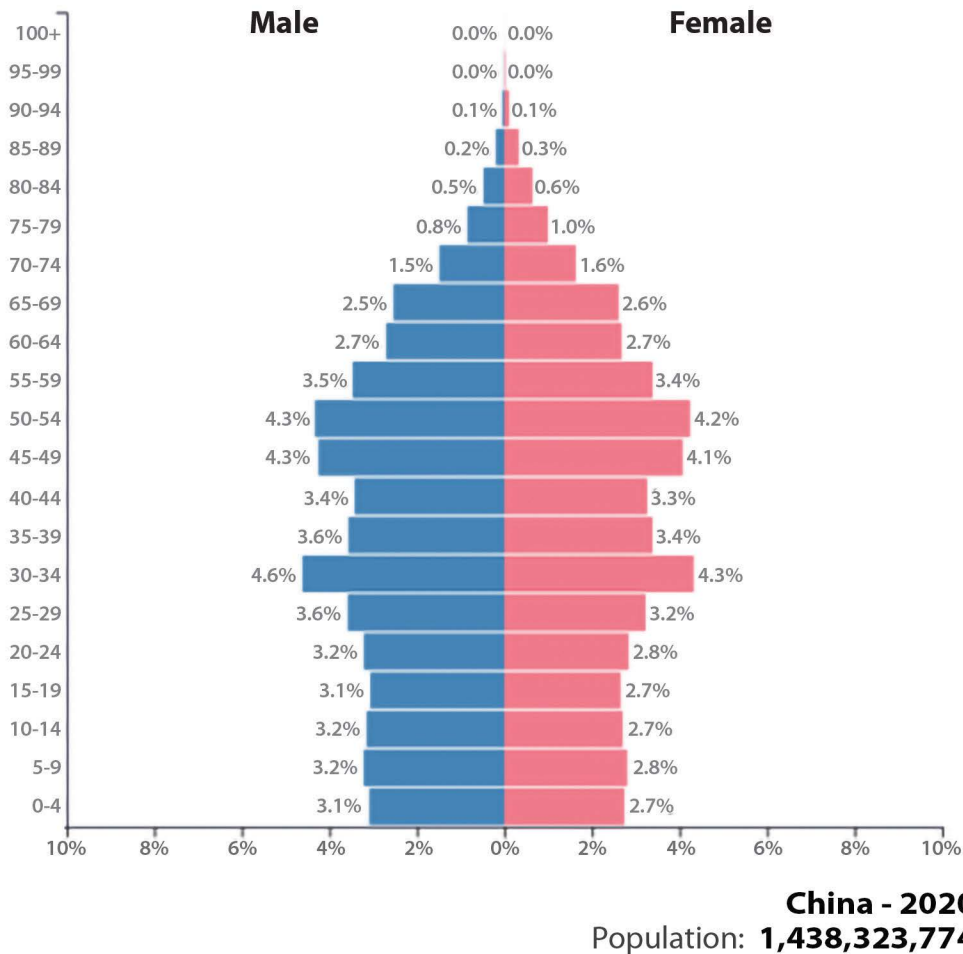
Further, China has one of the fastest aging populations in the world, with the World Health Organization predicting that 28 percent of China's population will be over the age of 60 by 2040.<sup>33</sup> This 28-percent figure equates to more than 402 million people, inducing a significant demographic burden on Chinese society. Also, as of 2019, roughly 75 percent of China's population older than 60 had noncommunicable diseases, requiring medical support from the state. As the number of elderly increases, so will the requisite healthcare requirements. Figure 4 depicts the current bubble residing in the 45–49 and 50–54 age ranges. Additionally, since 2020 the COVID-19 virus pandemic has imposed a medical crisis on the national population due to widespread resurgence, adding pressure to the existing population and healthcare challenges.

President Xi is currently enacting a variety of policies to boost China's birth rate. These incentives include tax deductions, housing subsidies, medical insurance, and longer maternity leave.<sup>34</sup> However, even with an increase in China's birth rate will not remedy the nation's current working-class transition to state-sponsored support. Politically and demographically, China's aging population will create internal dilemmas and will adversely impact economic growth. One of China's greatest strengths—economically and militarily—is its size and scale. However, this aging generation that has brought the country strength will require a holistic solution to address pressures on the national healthcare system and management of a burgeoning elderly population.

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<sup>33</sup> World Health Organization, "Aging and Health in China," n.d., <https://www.who.int/>.

<sup>34</sup> Low, "Full Text of Xi Jinping's Speech at China's Party Congress."



**Figure 4. Age pyramid of China, 2020.** (Source: "Population Pyramids of the World from 1950 to 2100: China," Population Pyramid.net, 2023, <https://www.populationpyramid.net/>.)

In his 2019 *Foreign Affairs* article, Nicholas Eberstadt stated "[China's] working-age population has already been shrinking for the past five years, and it is set to decrease by at least 100 million between 2015 and 2040. The country will see a particularly large decline in its working-age population under 30, which may plunge by nearly 30 percent over these years."<sup>35</sup> While the 28 percent over 60 metric is extrapolated to 2040, once paired with the first and second factors, 2030

<sup>35</sup> Nicholas Eberstadt, "With Great Demographics Comes Great Power," *Foreign Affairs*, July/August 2019, <https://www.foreignaffairs.com/>.

will be the most likely end of the optimum window of opportunity before Xi is at risk for leadership succession. And China will need to place a national focus on the support of domestic economic and social welfare programs, rather than on an invasion of Taiwan.

While many often cite China's vast population and geographic size as the country's strength, Xi realizes that dynasties—and public opinion—change over time, and the *will* of the people may turn away from taking military action to acquire Taiwan. For example, if Beijing is unable to resolve vexing domestic issues surrounding healthcare and garner support for a growing elderly population, public support may be lost for the annexation of Taiwan under the great rejuvenation campaign—turning a populace of 1.4 billion against the CCP.

### **Impact Considerations**

After reviewing the primary factors contributing to the anticipated window for a Chinese invasion, observers must consider the impacts surrounding a forced unification and why the Taiwan challenge is so globally significant. The most noteworthy challenge is the long-term economic impact for China. Taiwan produces 63 percent of the world's semiconductors.<sup>36</sup> As seen during COVID-19, a supply-chain disruption to semiconductors is felt worldwide because of the complex interdependencies of the computer industry and cascading impact on a production center like Taiwan. Considering maritime trade in the region, if China controlled the Taiwan Strait, shipping traffic would shift to the nearby Luzon Strait. However, if the PRC is also able to control these waterways, China would be able to significantly impede Japan's international trade and critical sea lines of communication.<sup>37</sup> Taiwan's fate would likely be similar to what happened in the Hong Kong SAR, with the PRC enacting policies "which violated China's international legal obligations and imposed severe restrictions on civil and human rights in the autonomous region," as described by the UN Human Rights Office.<sup>38</sup>

There would also be serious geopolitical impacts, as an invasion would drastically increase tension in the region and likely drive additional counter-PRC coalitions to form as regional states anticipate what the PRC's next expansionist ambi-

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<sup>36</sup> Yen Nee Lee, "2 charts show how much the world depends on Taiwan for semiconductors," *CNBC*, 15 March 2022, <https://www.cnbc.com/>.

<sup>37</sup> Scott Cheney-Peters, "Navigating the Black Ditch: Risks in the Taiwan Strait," Center for International Maritime Security, 25 December 2014, <https://cimsec.org/>.

<sup>38</sup> United Nations Human Rights Office of the High Commissioner, "UN experts call for decisive measures to protect fundamental freedoms in China," 26 June 2020.

tions would be. The international impact would initially depend upon how quickly the PRC could establish land, air, and sea superiority to prevent the influx of international support. As discussed previously, when comparing the international response to that for Ukraine, the global condemnation would likely be smaller by comparison, as China's international relationships increase the complexity of, and probability for, a majority vote in the United Nations General Assembly following a Security Council veto. The greatest international impact would come from the demonstrated commitment to the global rules-based order and principles embraced by concerned nations around the world—and how they choose to respond, or not respond, diplomatically, militarily, and economically. A forceful and coercive PRC annexation of Taiwan would be a Chinese demonstration of “might-makes-right” nationalism, as a socialist state engulfs a thriving democracy.<sup>39</sup>

## Conclusion

*Whether compelling airlines to take Taiwan off their maps or pressuring Paramount Pictures to remove the Taiwanese flag from the Top Gun hero Maverick's jacket, China has largely succeeded in convincing many countries that Taiwan is an internal matter that they should stay out of.*

—Oriana Skylar Mastro

It is expected that President Xi will seek to solidify his historic legacy and achieve the central goal of unification and consolidation of the middle kingdom in the 2030 timeframe. According to a survey by the state-run *Global Times*, 70 percent of mainlanders strongly support using force to annex Taiwan to the mainland, and 37 percent think it would be best if the war occurred in three to five years.<sup>40</sup> As a 69-year-old president, Xi has a limited timeline to execute. At the 2027 PLA Centennial, a President Xi in the final year of his third term will be 73 years old. He will likely be voted into a fourth term at the age of 74, with a military capable of a swift overpowering invasion. The international community will likely fail to hold China accountable for its actions. This is already reflected in the global states' inability, or unwillingness, to hold China accountable for its ongoing human rights violations in Xinjiang and further supported by the shift of China's economic partners to the PRC's view on Taiwan in formal recognition and United Nations resolutions.

The “Taiwan problem” is a security challenge that has significant geostrategic and global power implications for the international order, as the PRC is viewed

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<sup>39</sup> Wang Mouzhou, “What Happens After China Invades Taiwan?,” *The Diplomat*, 24 March 2017, <https://thediplomat.com/>.

<sup>40</sup> Mastro, “The Taiwan Temptation.”



as the major “pacing threat” in the US *National Security Strategy* and US *National Defense Strategy*. Critics will often state that the engagement between China and countries like the United States is regional *hegemonic* competition and not an existential threat to the world order. However, the safety and security of Taiwan would not only be a casualty of PRC’s regional ambitions but also represent a loss of independence and freedom for a thriving democracy of 23 million people. Xi and his increasingly strident PRC have made clear that China’s goal is to establish a “fairer and more just” global political system based in Marxist–Leninist values. According to Xi, a Fourth Taiwan Strait Crisis is eminent as he seeks to consolidate power to achieve the Chinese Dream and national rejuvenation.<sup>41</sup> Finally, as Oriana Skylar Mastro’s *Foreign Affairs* article “The Taiwan Temptation” depicted, “The most effective way to deter Chinese leaders from attacking Taiwan is also the most difficult: to convince them that armed unification would cost China its rejuvenation.”<sup>42</sup> Only time will tell if China considers the strategic risk of forceful annexation too great or if President Xi will exercise his leadership as a rising global power and mobilize for an invasion of Taiwan. Either way, the actions of an *ambitious dragon* are catalyzing historic changes in the twenty-first-century security environment that must be understood and countered with active defense and deterrence. 🐉

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<sup>41</sup> Rudd, “The World According to Xi Jinping.”

<sup>42</sup> Mastro, “The Taiwan Temptation.”

# The US–Indonesian Strategic Partnership and Air Force Relations

DR. STEPHEN BURGESS

## Abstract

This article analyzes the strategic partnership between the United States and Indonesia, focusing on their air force relations in the context of China's territorial claims in the South China Sea and Indonesia's Natuna Sea. The author assesses Indonesia's security challenges, military capabilities, and the country's expectations from the US and its air force in terms of capacity-building and capability development. The article also evaluates the potential scenarios for the future of the US-Indonesian engagement with a focus on the need for balancing regional security and internal stability. Drawing on a decade of research, the author concludes that the US partnership with Indonesia is crucial for maintaining regional stability, promoting diplomacy, and advancing self-defense capabilities. The US can continue to build partnerships with other Southeast Asian countries to prevent disputes with China from escalating into a war.

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In 2015, the United States and Indonesia elevated their Comprehensive Partnership, established in 2010, to a Strategic Partnership.<sup>1</sup> This upgraded partnership has resulted in increased bilateral cooperation with a focus on promoting a “rules-based international order” in the Indo-Pacific region, particularly in Southeast Asia and the South China Sea (SCS).<sup>2</sup> Jakarta has taken the lead in promoting an Association of Southeast Asian Nations’ (ASEAN) rules-based vision that includes support for the UN Convention on the Law of the Sea (UNCLOS), freedom of navigation (FON), and respect for 200-mile exclusive economic zones (EEZ), as well as the “ASEAN way” of neutrality, consensus-building, and multilateral diplomacy.<sup>3</sup>

The military of Indonesia, known as the *Tentara Nasional Indonesia* (TNI), is ranked as the most powerful in Southeast Asia according to the Global Firepower

<sup>1</sup> “Joint Statement by the United States of America and the Republic of Indonesia” (press release, The White House, 25 October 2015), <https://id.usembassy.gov/>. A *strategic partnership* is where two entities come together to form a quasi-alliance relationship focused on a strategic gain. A *comprehensive partnership* is lower on the diplomatic scale and indicates that there several areas of cooperation.

<sup>2</sup> “U.S. Relations with Indonesia” (fact sheet, US Department of State, 19 April 2022), <https://www.state.gov/>.

<sup>3</sup> “Joint Vision Statement of the ASEAN-U.S. Special Summit, 2022” (press release, Washington, DC, 14 May 2022), <https://asean.org/>.

Index. However, it is currently less powerful and more internally focused than China's People's Liberation Army (PLA).<sup>4</sup> Nevertheless, the TNI is gradually transforming into a stronger maritime and air power, which will enable it to better secure Indonesia's interests in the region, including defending against China's encroachment in part of Jakarta's EEZ in the Natuna Sea,<sup>5</sup> which Beijing claims as its sovereign territory within its so-called "nine-dash line."<sup>6</sup> The United States is assisting TNI force development and, through security cooperation, increasing Indonesia's ability to defend its interests and counter China's expansionism. The USAF cooperation with Indonesia's air force (the TNI–AU) is a significant part of this process, helping to develop the TNI–AU into a regionally strategic force. The recent acquisition of 36 US F-15EX advanced fighter aircraft represents a major step forward in the security cooperation between the two nations.<sup>7</sup>

Indonesia, the largest country in Southeast Asia, with more than 275 million people, is a free-market democracy that has achieved middle-income status.<sup>8</sup> It controls, along with Malaysia, the vital Strait of Malacca, hosts the ASEAN headquarters, and is the only Southeast Asian member of the G20.<sup>9</sup> However, in the past decade, Indonesia has struggled to maintain a unified ASEAN vision in the face of a rising China, which claims 90 percent of the SCS and part of the Natuna Sea as its sovereign territory and has swayed Cambodia and Laos to not oppose Beijing's position. Chinese military, coast guard, and paramilitary forces have harassed fishing boats, oil and gas exploration operations, and security forces from Vietnam, the Philippines, Malaysia, and Indonesia in their respective EEZs. Despite China's challenge, Indonesia's long-term involvement in the Non-aligned Movement and commitment to ASEAN neutrality indicate that the country is not interested in an alliance with the United States but rather a strategic

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<sup>4</sup> "Global Firepower Index," *Global Firepower*, 2022, <https://www.globalfirepower.com/>. Indonesia is ranked fifteenth, and its "firepower" has been increasing. China is ranked third. Vietnam twenty-eighth. Indonesia is ranked behind Iran and ahead of Germany. "Global Air Powers Ranking (2022)," *World Directory of Modern Military Aircraft*, 2022, <https://www.wdmma.org/>, ranks the Indonesian Air Force (TNI–AU) twenty-ninth, ahead of the Singapore Air Force. Both the People's Liberation Army Air Force and Naval Air Force rank ahead of the TNI–AU.

<sup>5</sup> John McBeth, "China Spiking Indonesia's Offshore Oil and Gas Risk," *Asia Times*, 2 September 2022. The Natuna Sea is on the southern edge of the South China Sea, and China's claim to Indonesia's EEZ there is making multinational energy companies reconsider exploring in those waters.

<sup>6</sup> Marthen Napang, et al., "Contesting Views of the Philippines and China over the Nine-Dash Line in the South China Sea," in *ASEAN International Law*, ed. E.Y.J. Lee (Singapore: Springer, 2022), 405–14.

<sup>7</sup> Indonesian security experts and US officials, interviews with the author, Jakarta, July 2019.

<sup>8</sup> "Indonesia: Country Overview," *World Bank*, 5 April 2022. Indonesia has more than twice as many people as the Philippines (110 million people and Vietnam 98 million).

<sup>9</sup> The G20 is the Group of Twenty Advanced and Emerging Economies, founded in 2007 to aid with the global financial crisis and recession. Indonesia hosted the 2022 G20 Summit.

partnership. The noted scholar of China and Asia, David Shambaugh, has assessed that Indonesia is an “outlier” among ASEAN countries, aligned with neither China nor the United States.<sup>10</sup>

In 2014, Indonesia’s president, Joko Widodo, introduced the concept of Indonesia as a “global maritime fulcrum,” which includes a strategy to enhance archipelagic security, defend its maritime EEZ, and guarantee FON through sea lines of communication (SLOC), especially the Indonesian Archipelago Seaways, including the Strait of Malacca, from the Indian Ocean to the Pacific.<sup>11</sup> China’s nine-dash-line claim and assertive paramilitary and military activities in the Natuna Sea played a role in President Widodo’s announcement. Indonesia has been developing its air force, navy, and coast guard to implement the strategy and has made weapons purchases to enhance national defense, develop multi-domain awareness (MDA), and project power more effectively. Indonesia’s more assertive stance has the potential for greater US security cooperation, which aims to build military capacity and develop capabilities. This includes USAF cooperation with the TNI–AU as the force expands and takes on more responsibilities, including assisting with MDA. Despite progress, Indonesia must overcome its traditional land-centric orientation and become better geared toward maritime security and airpower to implement its new strategy and fully engage with the United States.<sup>12</sup>

### Indonesia’s Security Challenges

Indonesia’s faces several security challenges, including maintaining state sovereignty, territorial control, and national unity over its vast archipelago, which spans more than 5,000 kilometers and includes more than 300 ethnic groups. The country is also prone to disasters.<sup>13</sup> Indonesia’s security forces are responsible for enforcing law and order; countering criminal activities and piracy; conducting counterinsurgency operations against separatist groups and violent extremist organizations; and carrying out humanitarian assistance and disaster relief (HADR) operations in a most intense portion of the Pacific volcanic “ring of fire,”

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<sup>10</sup> David Shambaugh, “U.S.-China Rivalry in Southeast Asia,” *International Security* 42, no. 4 (Spring 2018), 100–02.

<sup>11</sup> Penny Rajendra, et al., “Indonesia’s Vision as Global Maritime Fulcrum: A Geopolitical Strategy to Address Geopolitical Shifts in Indo-Pacific,” *Journal of Positive School Psychology*, 6, no. 5 (2022): 8621–34.

<sup>12</sup> Indonesian security experts and US officials interviews.

<sup>13</sup> Indonesia has five main islands, 30 smaller archipelagos, and almost 18,000 islets in more than 1.9 million square kilometers (735,000 square miles).

most notably in reacting to the 2004 tsunami that killed hundreds of thousands of people.<sup>14</sup>

Until the past decade, Indonesia concentrated on developing and maintaining sufficient maritime and air power to assist the Indonesian Army (TNI–AD) in meeting the security challenges of the archipelago.<sup>15</sup> However, the nation’s defense budget, which is less than USD 10 billion per annum and less than one percent of GDP, has made it difficult for the country to develop and maintain sufficient power in these domains. This has limited its ability to project force to defend its EEZ and fulfill its interests in the wider region.<sup>16</sup>

Indonesia has made significant progress since the 1950s and 1960s, transforming from a weak state into a middle-income nation and a free-market democracy.<sup>17</sup> The archipelago was previously colonized by the Netherlands, which exploited the country’s people and practiced divide-and-rule governance among the more than three hundred ethnic groups, leaving the newly independent country with the daunting task of nation-state building. Java was the most populous island and center of power, with poor integration of outlying areas, and “agricultural involution” had resulted in the impoverishment of the peasantry and a bleak economic outlook.<sup>18</sup>

After leading the fight for independence, 1945–1950, President Sukarno spearheaded a process of nation-building, with Java at the core, and committed to nonalignment. The country hosted the 1955 Bandung Conference, which set the state for the Non-Aligned Movement. However, the economic growth was sluggish, and political instability persisted. These challenges, coupled with Sukarno’s links to the Indonesian Communist Party and his refusal to align with the United

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<sup>14</sup> Indonesia must contend with a long-running separatist insurgency in eastern Irian Jaya province on the western half of the island of Papua New Guinea. While Indonesia was able to defeat a violent extremist organization (VEO) in Aceh Sultanate in northwestern Sumatra, it faces VEOs in other parts of the archipelago, for instance, Islamic State (ISIS) in the eastern Sulu Sea.

<sup>15</sup> “Asia Power Index,” Lowry Institute, 2022, <https://power.lowryinstitute.org/>, ranks Indonesia below Singapore (with its economic power) and above Thailand, Malaysia, and Vietnam concerning power resources and influence. The Philippines ranks even lower.

<sup>16</sup> Nate Haken, ed., *Fragile States Index* (Washington, DC: Fund for Peace, 2022), <https://fragilestatesindex.org/>, ranks Indonesia as more fragile than Singapore, Vietnam, and Malaysia and less fragile than the Philippines, Thailand, and Laos.

<sup>17</sup> Cathryn Grothe, et al., *Freedom in the World, 2022* (Washington, DC: Freedom House, 2022), <https://freedomhouse.org/>. Freedom House has rated Indonesia as “partly free” due to “systemic corruption, discrimination and violence against minority groups, conflict in the Papua region, and politicized use of defamation and blasphemy laws.” However, Freedom House also gives credit to Indonesia’s democratic development since 2000.

<sup>18</sup> Clifford Geertz, *Agricultural Involution: The Processes of Ecological Change in Indonesia* (Berkeley: University of California Press, 1963).

States during the Cold War led to a military coup and a massacre that claimed the lives of hundreds of thousands of suspected communists and ethnic Chinese.

During the 32-year rule of military dictator-turned president Suharto, Indonesia strengthened its nation-level institutions to control outlying provinces, initiated a process of export-driven economic growth, and applied “Green Revolution” technology to boost rice production and food security. In 1967, Indonesia took the lead in establishing ASEAN to resolve disputes among its five original members and ward off the spread of communism. However, as the Cold War ended, internal and external pressure mounted on Suharto to democratize, and the 1997 economic crisis forced him to step down. B.J. Habibie succeeded him in 1998 and began democratic reform and rapid political and fiscal decentralization to satisfy democratic and secessionist forces, paving the way for successful democratization.<sup>19</sup> Nevertheless, the TNI’s human rights abuses in East Timor during the 1999 crisis led to sanctions against the military that delayed security cooperation by the United States and other powers. Despite this setback, Indonesia benefited from the 2000s economic boom and democratic stability, and President Widodo (2014–2024) has been instrumental in solidifying the nation’s position as a free-market democracy and regional power.

In the past decade, Beijing’s efforts to assert its sovereignty over the SCS and Natuna Sea through its nine-dash line claims have prompted Jakarta to lead ASEAN in a multilateral response. After China announced its claim, the Indonesian Minister of Foreign Affairs presented a *démarche* to Beijing. In 2016, the Indonesian Navy (TNI–AL) sank a Chinese fishing vessel in the Natuna Sea after warning China to respect Jakarta’s EEZ. However, the TNI–AL and Indonesian Sea and Coast Guard Unit (Indonesian: *Kesatuan Penjagaan Laut dan Pantai Republik Indonesia*, KPLP) have not escalated their tactics against their Chinese counterparts, merely shadowing vessels in the Natuna Sea, and they respond with force only in self-defense.<sup>20</sup> Indonesia’s cautious approach is partly due to trade with China and growing Sino-Indonesian economic interaction.<sup>21</sup> Beijing’s Belt and Road Initiative (BRI) has brought infrastructure development, including the Band-

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<sup>19</sup> Edward Aspinall, “How Indonesia Survived: Comparative Perspectives on State Disintegration and Democratic Integration,” in *Democracy and Islam in Indonesia*, ed. Mirjam Künkler and Alfred Stepan (New York: Columbia University Press, 2013), 126–48.

<sup>20</sup> Emirza Adi Syailendra, “China, Indonesia, and Malaysia: Waltzing around Oil Rigs,” *The Diplomat*, 18 August 2022, <https://thediplomat.com/>.

<sup>21</sup> Indonesian security experts, interview with the author, Habibie Center, Jakarta, July 2019. There is a disconnect between Indonesia’s developing grand strategy and its economic interests. The TNI’s vision of Indonesia as a regional power is not shared by the Ministry of Foreign Affairs and the economic ministries. This is reflected in Indonesian white papers downplaying the South China Sea dispute.

ung-to-Jakarta high-speed railway and a new capital city—Nusantara, which is slated to be built on the island of Borneo.<sup>22</sup> China's Global Development Initiative has led to cooperation on agriculture and food security. In 2021, Beijing distributed the Sinovac COVID-19 vaccine for free to Indonesia, increasing public support.

Furthermore, Indonesia's security challenge from China is not as great as that facing Vietnam, the Philippines, and Malaysia, which are much closer to Hainan Island bases for Chinese forces. The Natuna Sea is more than 1,800 kilometers away from those bases, and it takes several days for PLA Navy (PLAN) warships to reach Indonesian waters. In 2017, the PLA had only 13 air-refueling tankers, 16 airborne early-warning system (AWACS) planes, and two aircraft carriers with 24 fighters, which meant that China would struggle to sustain an attack at that distance.<sup>23</sup> However, China is building more aircraft carriers, which may increase the security challenge for Indonesia in the future.

In sum, Indonesia's security forces have a "home-field" advantage against their Chinese counterparts. Moreover, Jakarta's positive interactions with Beijing have reduced the incentive to confront China's expansionist activities in the Natuna Sea and SCS—for now.

### **Indonesia's Security Sector and the Tentara Nasional Indonesia**

Indonesia boasts the world's third-longest coastline, stretching more than 80,000 kilometers and encompassing hundreds of islands. Despite this strategic geography, an analyst would find that the country's security needs are not adequately met by its armed forces. Indonesia's moderate threat environment, democratic government prioritizing socioeconomic development, and an army that remains internally focused have all contributed to a shortfall in resources for the other services of the Indonesian military.<sup>24</sup> The army played a significant role in securing Indonesia's independence between 1945 and 1950 and still dominates the TNI, with its generals holding many of the key positions in the Ministry of Defense (MOD) and in the Joint Command (MABES). With more than 300,000 personnel and an excessive number of generals and colonels, the army is five times larger than the navy and nine times larger than the air force.<sup>25</sup> The TNI's wide-

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<sup>22</sup> Derek Grossman, "Indonesia is Quietly Warming Up to China," *The RAND Blog*, 7 June 2021, <https://www.rand.org/>; and Daniel Shields, "Borneo: ASEAN's Once and Future Island Crucible," *Journal of Indo-Pacific Affairs* 5, no. 7 (November–December 2022): 3–11, <https://www.airuniversity.af.edu/>.

<sup>23</sup> Michael Beckley, "The Emerging Military Balance in East Asia," *International Security*, 42, no. 2 (Fall 2017): 78–119.

<sup>24</sup> Indonesia Ministry of Defense officials interviews.

<sup>25</sup> Indonesian security experts and US officials interviews.

spread garrisons throughout the archipelago make reorganization and downsizing challenging. Additionally, the TNI lacks a robust noncommissioned officer corps with strong leaders. A 2020 RAND report encapsulates challenges for Indonesia's security sector, citing "a sclerotic structure for making and implementing security policy, and a historical and ongoing underfunding of basic military needs," as well as "an institutional mission for all branches of the military that is geared more toward internal stability than external defense."<sup>26</sup>

Despite the challenges, the Indonesian government continues to strive to transform the TNI into a strategically significant force, as envisioned in the global maritime fulcrum and free and open Indo-Pacific concepts. To achieve this goal, the TNI established bases in Sumatra, Sulawesi, Makassar, Berau, and Papua New Guinea in 2011–2012. The Minimum Essential Force (MEF) policy framework was initiated in 2009, which planned force development and modernization from 2009 to 2014, 2014 to 2019, and finally 2019 to 2024. As the economy was growing in the 2000s, the government was able to introduce the MEF and increase the defense budget, which facilitated the acquisition of new equipment and improved force training. However, Jakarta has had to scale back MEF projections due to budget constraints, and COVID-19 has further impeded progress, with the MEF now expected to achieve around 70 percent of planned development by 2024.<sup>27</sup> Furthermore, the MEF has been criticized by security experts as a shopping list with insufficient strategic thinking behind the acquisitions.

Despite this, Indonesia has made significant purchases of fighter aircraft and naval vessels that promise to transform the TNI into a regional force. The country is also in the process of developing a grand strategy for defense policy that should better determine how to develop the force and personnel and which weapons to procure.

Indonesia is currently working on strengthening the MOD to bring greater civilian control of the military and focus the TNI's efforts on maritime and air defense.<sup>28</sup> To this end, the MOD's Strategy Office is responsible for developing and confirming force requirements based on TNI inputs, which is critical for defense procurement.<sup>29</sup>

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<sup>26</sup> Michael Mazarr, et al., *Security Cooperation in a Strategic Competition* (Santa Monica, CA: RAND, 2022), 51–57, <https://www.rand.org/>.

<sup>27</sup> Andi Raihanah Ashar and Muhammad Fauzan Malufti, "Indonesian Military Modernization: A Race against Time," *The Diplomat*, 23 June 2022, <https://thediplomat.com/>.

<sup>28</sup> Indonesia Ministry of Defense officials interviews. Ministry officials engage with parliamentary committees and defense industry officials once a month.

<sup>29</sup> Indonesia Ministry of Defense officials interviews. The ministry has four directorates, but they have challenges communicating with each other, which leads to deficient strategy, planning, and procurement.



Additionally, Indonesia has established the MABES to foster greater cooperation among the various branches of the armed forces. Several joint task forces have been created to nurture service integration. However, security experts suggest that the MOD and TNI need to revise their procurement practices so that a well-defined strategy guides weapons purchases as a whole.

Indonesia's commitment to nonalignment has led to the acquisition of weapon systems from a variety of countries, including Russia and China. While this approach poses challenges in terms of maintenance, training, readiness, and interoperability, the Minister of Defense holds significant political power and has played an outsize role in procurement decisions. The different services within the TNI have competing interests and priorities that are difficult to reconcile. For example, the TNI–AU operates AH-1 Cobra attack helicopters while the TNI–AD has AH-64 Apache helicopters, and it has been challenging to determine which service and which helicopter should take priority.

Indonesia's defense industries have the capability to assemble aircraft and weapons and are working jointly with South Korea to develop light jet fighters and submarines. They are also seeking to acquire technology to manufacture more-advanced weapons systems. However, manufacturing advanced fighter aircraft and destroyers independently remains a significant challenge for the country's defense industry.<sup>30</sup>

In line with the maritime fulcrum concept and the country's strategic assessment, Indonesia has expanded the focus of the navy, air force, and coast guard beyond HADR and archipelagic security to developing the defense of its EEZ and SLOCs.<sup>31</sup> One challenge is that the existing radar system provides coverage over only a small portion of the archipelago. To address this, Indonesia is developing an Integrated Maritime Surveillance System that will enable the country to monitor activity in all three of its major SLOCs.<sup>32</sup>

To defend the EEZ, Indonesia has established Natuna Command, and the TNI–AL has two bases within a radius of 500 kilometers of the Natuna Sea, four bases within 800 kilometers, and has set up new bases on an island in the Natuna Sea and on Mempawah, which is less than 300 kilometers from the sea. However, the TNI–AL cannot focus solely on external defense and must support the coast

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<sup>30</sup> Indonesian security experts and US officials interviews. Indonesia has a high degree of state-owned industries, which causes problems for the development of defense industries.

<sup>31</sup> Indonesian security experts interview. Overlapping agencies create problems for maritime security governance. While the Indonesian Navy is nominally in charge, the experts recommended that the Indonesian Coast Guard be the single focal point.

<sup>32</sup> Achmad Abdul Lathif, et al., "IMSS- Based Indonesian Defense Concept Map for the Sunda Strait Region," *International Journal of Social Science*, 1, no. 5 (February 2022): 747–56.

guard in securing the archipelago. The TNI–AL currently has only 60,000 personnel, 12 frigates, 20 corvettes, and 30 patrol boats, as well as five submarines (with 35 years of operational experience) and antiship missiles.<sup>33</sup> Meanwhile, the coast guard has fewer than 10,000 personnel.

A positive sign is that the government has purchased two French submarines and is in the process of acquiring three South Korean submarines. Additionally, the government is looking to acquire more vessels to bolster its defense capabilities.<sup>34</sup>

### The Indonesian Air Force

During the 2019 Airman-to-Airman Talks with their US Air Force counterparts, the TNI–AU leadership identified 10 air-domain–related threats to Indonesia. The threats include: (1) threats through and within the airspace, such as drones, electromagnetic pulse attacks, network-centric warfare, and hypersonic missiles; (2) natural disasters; (3) separatists; (4) cyberattacks; (5) trade wars in defense contracts; (6) terrorism; (7) lack of network-centric capacity and battle-field awareness; (8) lack of flight information region management; (9) unprofessional conduct by some personnel; and (10) dependence on foreign weapons and equipment.

The TNI–AU's threat assessment demonstrates an awareness that the more-advanced PLA poses a threat to Indonesia and the country needs to upgrade its defenses.<sup>35</sup> From 2015 to 2018, the TNI–AU suffered from an aircraft shortage, and since 2021, the service has been experiencing pilot and aircraft maintainer shortfalls.<sup>36</sup>

To address these challenges, the TNI–AU's priority programs are focused on achieving zero accidents, accelerating procurement of modern weapon systems, and developing network-centric warfare.<sup>37</sup> Additionally, the service is working on developing night-fighting capabilities, deploying weapon systems throughout Indonesia, and improving the personnel recruitment system.<sup>38</sup>

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<sup>33</sup> Beckley, "The Emerging Military Balance in East Asia," 103.

<sup>34</sup> Resty Woro Yuniar, "Balancing China: Why Indonesia Is on a Multibillion-dollar Spending Spree for US and French Fighter Jets," *South China Morning Post*, 24 February 2022, <https://www.scmp.com/>.

<sup>35</sup> TNI–AU officials, interviews with the author, Jakarta, July 2019 and briefing slides, "Indonesian Air Force: Professional, Militant, Innovative," Indonesian and US Airman-to-Airman Talks, May 2019.

<sup>36</sup> Indonesian security experts interview. No pilot can leave the air force until a replacement finishes two years of required training.

<sup>37</sup> Indonesian security experts interview. There are issues with air traffic control where the TNI–AU is in charge and works with the parastatal, Aeronaut. Civilian aircraft have entered military airspace, which has led to accidents.

<sup>38</sup> TNI–AU officials, Indonesian security experts, and US officials, interviews, Jakarta, July 2019.

Despite having less than 40,000 personnel and core air domain tasks to perform, the TNI–AU has taken on a wide range of challenges and responsibilities, making it the most advanced service according to the TNI–AU threat assessment. The MOD and TNI have given the TNI–AU principal responsibilities for air defense, network-centric warfare, MDA, and cyberdefense.

Air defense is a top priority, and the TNI's Air Defense Command is 95-percent staffed and controlled by TNI–AU personnel. However, the main challenge of air defense is the lack of coverage, as the current NARJAM system only protects the capital, Jakarta. Indonesia needs to acquire longer-range surface-to-air missiles and 12 radar systems for air defense in strategic locations throughout the country.

Indonesia has recognized that cyberthreats pose a significant risk to national security, and the country needs to improve its capabilities to protect against them. However, the country has been lagging in this area and is considered to be behind the curve in terms of cyberdefense. In response, the Indonesian government has tasked the TNI–AU with leading the development of the country's cyberdefense capabilities since 2016. This initiative recognizes that the TNI–AU has the technical expertise to build a strong defense against cyberthreats.<sup>39</sup>

Likewise, TNI headquarters has tasked the TNI–AU with developing network-centric warfare capability and battlefield situational awareness, including MDA.<sup>40</sup> To this end, the TNI–AU is currently undergoing training and practicing network-centric warfare using “TNI-Link” (Honeywell Link 10) and maritime-capable Casa CN235 medium-range twin-engined transport aircraft and Boeing 737 transport aircraft, which are being used for MDA operations, including over the Natuna Sea. In collaboration with the Pakistan Air Force, the TNI–AU has established a network-centric Command and Control Interoperability Board (CCIB) that provides a links bridge. Furthermore, the TNI–AU has installed a small adaptive bank of electronics resources (SABER) on C-130Js transports to improve network-centric capabilities. Looking ahead, the TNI–AU is investing in systems to improve MDA and has developed a plan for this in its Budget and Planning Division.<sup>41</sup>

By 2019, TNI–AU had achieved 67 percent of its MEF 2024 targets, which placed it ahead of the other services, as the entire TNI planned to reach only 70 percent by 2024. The TNI–AU has also developed strategic and operational requirements that TNI headquarters has approved. The strategic planning in-

<sup>39</sup> TNI–AU officials, Indonesian security experts, and US officials, interviews, Jakarta, July 2019.

<sup>40</sup> “Indonesian MOD Network Centric Warfare Program,” Honeywell briefing slides, June 2019.

<sup>41</sup> TNI–AU officials, Indonesian security experts, and US officials, interviews, Jakarta, July 2019. Indonesia's F-16 network-centric warfare system was highly rated in an international forum in Switzerland.

cludes a focus on personnel development and aircraft acquisition. The force-modernization goal is to deploy weapons systems throughout the country, with operations expanded into three zones: Operations Command I, centered on Sumatra; Operations Command II, centered on Java and Kalimantan; and Operations Command III, centered on Irian Jaya and the eastern third of the archipelago. The TNI-AU has established two new squadrons and two air defense detachments, and it is upgrading old bases and establishing new ones.

The TNI-AU's aircraft fleet possesses a range of capabilities, though it faces interoperability and maintenance challenges. It has 49 fourth-generation fighters, including 33 F-16s (consisting of 19 F-16C and 5 F-16D Block 25s, among other versions), 11 Su-30s, and five Su-27s. The Su-30 has been the TNI-AU's primary fighter, while the older F-16s are less capable and can only be effective when integrated into an air defense strategy. In February 2022, Indonesia purchased 42 Dassault Rafale fighters and 36 F-16EX fighters, which will provide the TNI-AU with more than 100 fighter aircraft and a significant leap forward in capabilities. Additionally, Indonesia is jointly developing the KA-21 light fighter aircraft with South Korea.<sup>42</sup>

The TNI-AU has only 25 C-130s, with only 10–12 regularly available for airlift operations, as the service is forced to cannibalize the other C-130s for parts. Given the requirements for HADR, the TNI-AU needs more mobility aircraft, forklift and palletizing capabilities, and improved airfield maintenance.<sup>43</sup>

### **US Relations with Indonesia and the TNI**

The United States and Indonesia have developed a strategic partnership after a tumultuous period in relations in the late 1990s. During the Cold War, US foreign policy in Southeast Asia relied heavily on the Suharto regime, particularly after the US withdrawal from Vietnam. However, increasing popular protest in Indonesia, coupled with US pressure for democratic change, strained the relationship. Washington played a key role in rescuing Indonesia from the 1997 fiscal crisis and supporting President Habibie's efforts to stabilize the country and democratize the country. However, the TNI's clampdown and human rights abuses in East Timor in 1999 led the United States to pause security cooperation with the TNI and sanction several military units.

In 2001, Washington began its Global War on Terror and assisted Indonesia in countering al-Qaeda and other violent extremist organizations (VEO) in the

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<sup>42</sup> Yuniar, "Balancing China."

<sup>43</sup> TNI-AU officials, Indonesian security experts, and US officials, interviews, Jakarta, July 2019.

country. The United States also helped Indonesia develop its democratic system. In 2011, the two countries established a Comprehensive Partnership, and in 2015, they upgraded to a Strategic Partnership. With the Obama administration's "pivot to Asia," engagement with Indonesia increased, and the 2017 US *National Security Strategy* and the 2018 *National Defense Strategy* prioritized great-power competition with China in the Indo-Pacific. The Trump administration's Secretary of Defense, James Mattis, designated Indonesia as one of the five most important countries in the Indo-Pacific Command's area of responsibility.<sup>44</sup>

Consequently, the US further boosted diplomatic relations and security cooperation with Indonesia. Since the Biden administration took office in 2021, the United States has further strengthened diplomatic relations and security cooperation with Indonesia. However, a 2020 RAND report warned of Jakarta's "deep-seated aversion to any partnership that might be characterized as aligning with one country over another . . . and a strong desire on the part of policymakers to balance Indonesia's security engagement activities among the widest possible array of partners."<sup>45</sup>

The 2020 RAND report found "xenophobia in military circles, lack of military capability and interoperability sufficient for frictionless interaction with the US military and close partners, such as Australia or Japan."<sup>46</sup> Also, Indonesia's requirements for local sourcing and offsets ranging from 35 percent to 85 percent have posed obstacles. Despite these challenges, US security relations with the TNI have been growing closer in the past decade, and the United States is now Indonesia's top security partner in terms of joint combined exchange trainings (JCET), security cooperation, and foreign military sales.<sup>47</sup>

According to the US Security Cooperation Fact Sheet of March 2021, there were USD 1.88 billion in foreign military sales from 2015 to 2019, which included F-16C/D Block 25 fighter aircraft, Apache Block 25 attack helicopters, Longbow helicopters, and Osprey aircraft. The sales also included AMRAAM, Sidewinder and Maverick missiles. During the same period, US direct commer-

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<sup>44</sup> US officials, interviews, Jakarta, July 2019. The Indo-Pacific commander-in-chief had placed Indonesia only as one the top-20 countries.

<sup>45</sup> Mazarr, et al, *Security Cooperation*, 51–57.

<sup>46</sup> Mazarr, et al, *Security Cooperation*, 51–57. A mixed picture was derived from Indonesian security experts and officials and US officials, interviews, Jakarta, July 2019. Indonesia has been conducting multilateral discussions with the United States, Australia, and ASEAN states, among others, and has been developing multilateral concepts for a free and open Indo-Pacific. However, some TNI officials have been spreading falsehoods, such as "the US was using joint cooperation exercises and training to 'invade Indonesia'."

<sup>47</sup> US officials interviews. In Financial Year 2019, there were 19 activities including HADR, maritime security, high-level talks, professional development, maintenance, and air defense.

cial sales to Indonesia amounted to USD 546 million, which included aircraft and electronics. In 2020, US foreign military financing amounted to USD 14 million, with USD 2.3 million going to international military education and training (IMET).<sup>48</sup>

In February 2022, the United States sold USD14 billion worth of arms sales to Indonesia, which included 36 F-15EX heavy combat fighter jets. This sale came after Indonesia cancelled the purchase of SU-35 heavy combat fighter jets from Russia due to the US Countering America's Adversaries through Sanctions Act, which highlighted the importance of relations between the United States for Indonesia.<sup>49</sup>

The United States is supporting Indonesia in developing the MOD to increase civilian control over the military and facilitate centralized, strategic decision making on national security and force development. Through the Defense Institute of Security Assistance Management at Wright–Patterson Air Force Base, Ohio, and other DOD entities, Indonesian officials have been receiving training and developing communication channels between the MOD and TNI. Negotiations are underway for the General Security of Military Information Agreement (GSOMIA) and a Communications Interoperability and Security Memorandum of Agreement (CISMOA), which would allow for increased information exchange and eventual interoperability. The United States is driving most of the development of these agreements, while Indonesian officials are learning the processes and procedures.<sup>50</sup>

In addition to the GSOMIA and CISMOA, Washington is also working on an ASEAN “Our Eyes” intelligence-sharing initiative, providing technical assistance to Indonesia’s National Institute of Aeronautics and Space’s (LAPAN) Division of Security to develop geospatial imagery monitoring for enhanced MDA and building partial capacity and a common operating system for ships. However, Indonesia does not currently have the US CENTRIXS system, which is utilized by Malaysia and the Philippines.<sup>51</sup> Overall, US–Indonesian security assistance is progressing, and Washington is playing a significant role in facilitating these developments.

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<sup>48</sup> “US Security Cooperation with Indonesia” (fact sheet, Bureau of Political–Military Affairs, 23 March 2021), <https://www.state.gov/>.

<sup>49</sup> Anthony Capaccio, “US Backs \$14 billion Sale of Boeing F-15 Jets to Indonesia,” *Bloomberg*, 10 February 2022, <https://www.bloomberg.com/>.

<sup>50</sup> US officials interviews. Indonesian officials were slow to assign officials and develop manuals for the GSOMIA.

<sup>51</sup> US officials interviews.

US security cooperation with Indonesia encompasses various joint exercises involving all three services plus special forces, such as Super Garuda Shield, Pitch Black, Pacific Angel, and Cope West. For instance, in March 2020, the US 1st Special Forces and Indonesian Air Force Specialized Force Corps conducted a JCET. The objective of JCETs is to sustain and enhance skills beyond basic training. The US special forces' JCETs are now accessible to the TNI after years of sanctions, but a challenge remains as the United States must develop and present a plan to TNI leaders, as Indonesia has been slow to create its own engagement plan. To establish a more-permanent relationship with the TNI, the Hawaii National Guard State Partnership Program has been implemented. Recently, the Super Garuda Shield, a multinational exercise held in southern Sumatra, boosted the confidence of US senior officers that the United States is a preferred security partner for the TNI compared to China.<sup>52</sup>

The US Navy has been collaborating with the TNI–AL despite capacity constraints and political sensitivities. TNI–AL vessels have participated in the US-led multinational Rim of the Pacific exercises in Hawai'i and have also conducted joint exercises with the US Navy and Japanese Maritime Self-Defense Force. The US Navy is supporting the TNI–AL in maintaining a persistent presence in the Natuna Sea and SLOCs with the Sea Vision satellite and Scan Eagle unmanned aerial vehicles (UAV). Additionally, the United States is assisting Jakarta in developing Indonesia's Integrated Maritime Surveillance System (IMMS) and has included the country in the Indo-Pacific Maritime Security Initiative.<sup>53</sup>

### **USAF Relations with the TNI–AU**

The USAF's relationship with the TNI–AU is developing positively, which helping the latter become a more dynamic service.<sup>54</sup> Regular Airman-to-Airman Talks between the TNI–AU and US Pacific Air Forces (PACAF) are fostering mutual understanding and ideas for greater cooperation. The TNI–AU has a higher percentage of English speakers than Indonesia's other services, which facilitating security cooperation with the United States.

PACAF and TNI–AU have been holding Cope West exercises since 1989, with recent iterations focusing on F-16 and C-130 tactics, techniques, and procedures (TTP). In September 2021, USAF B-52s, Japanese Air Self-Defense Force

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<sup>52</sup> US Embassy Jakarta, "Super Garuda Shield 2022 Showcases Multinational Partnership and Joint Interoperability," 3 August 2022, <https://id.usembassy.gov/>.

<sup>53</sup> US officials interviews. Indonesian officials support US Navy FONOPs behind closed doors, though they will not say so in public.

<sup>54</sup> Indonesian security experts and US officials interviews.

15Js, and TNI–AU F-16s conducted joint exercises around Guam. TNI–AU personnel have flown on US Navy 27th Squadron P-8s over the Natuna Sea and South China Sea.

USAF training emphasizes air safety cooperation, including maintainers and weapon systems. The USAF provides maintainer safety training, and the USAF's chief noncommissioned officer has visited TNI–AU squadrons to emphasize maintenance. The United States also facilitated the visit of TNI–AU personnel to Australia for flight safety training.

The USAF has subject-matter experts on safety and HADR available for Indonesia, with five C-130Js stationed in Guam as part of the 36th Contingency Response Group. The USAF is also partnering with the TNI–AU to develop MDA, such as providing products from the 613th Air Operations Center, Hickam AFB, Hawai'i, to detect thunderstorms for the TNI–AU and TNI–AL. Additionally, the USAF is working with the TNI–AU to lead Indonesia's development of cyberdefense. The USAF recognizes the significant potential for air defense cooperation with the TNI–AU.

Defense sales are a crucial aspect of the USAF–TNI–AU relationship, and the recent sale of 36 Boeing F-15EXs is a testament to this fact. The USAF is working closely with the TNI–AU to enhance its internal processes for building requirements and streamlining procurement. Lockheed-Martin has been instrumental in sales of F-16Vs, C-130-Js, and upgrades to the TNI–AU's 33 F-16s to Block 72 capability. However, some challenges have arisen, such as the lack of personnel to perform upgrades and the budgeting and delivery of software and advanced missiles. To address these issues, the United States has been working to provide the TNI–AU's C-130s and other air mobility aircraft through the excess defense articles program. Differences in financial and reporting systems between the US and Indonesia have also posed challenges. While US foreign military sales offer more flexibility in finance reporting, Indonesia operates on an annual finance system—US foreign military sales are multiyear. To address this issue, the TNI–AU is a member of the US System Improvement Program and Advanced System Improvement Program, which will help provide greater evidence that Indonesia is meeting US foreign military sales targets.

## **What Would Indonesia and the United States Like Each Other to Do?**

Indonesian leaders expressed a desire for increased US assistance, particularly in two areas: archipelagic security and countering China's expansion in Southeast Asia. The security establishment seeks greater US security cooperation, access to advanced weaponry, and reassurance as the TNI (including the TNI–AU) and coast guard confront internal challenges and China's assertiveness. The TNI, in-



cluding the TNI–AU, also desires expanded US IMET support for officers to attend US professional military education (PME) institutions. Some in the security establishment advocate for a more assertive US strategy to enable Indonesia to take a stronger stand and defend its rights, as well as those of Vietnam, Malaysia, and the Philippines. However, President Widodo and other top leaders are committed to maintaining nonalignment and limiting the scope of the strategic partnership. Additionally, Indonesian leaders seek continued US FON operations in the SCS, while exercising caution to avoid escalation.

The TNI–AU desires the USAF to aid in developing the air-domain aspect of the strategic partnership to promote shared understanding, greater capacity, and improved capabilities. One way to achieve this goal is through improved coordination of Airman-To-Airman Talks. Although a channel for classified items exists, the TNI–AU needs easier and cheaper access to vital information, which could be facilitated through the US diplomatic pouch or by TNI–AU personnel regularly visiting Guam. The TNI–AU would like more maintenance technicians to receive English-language training and more technicians for the its F-16s. Additionally, they want to develop technical schools with US syllabi tailored for Indonesia, particularly for senior noncommissioned officers. To improve capabilities, the TNI–AU requires more sophisticated equipment and training for its F-16s, C-130Js, SU30s, and newly purchased aircraft. It also seeks US assistance with intelligence, surveillance, and reconnaissance (ISR), such as the Scan Eagle and accompanying network-centric capabilities and air defenses.

Budgeting for procurement is another area of concern for the TNI–AU. It requires details on how to account for US excess defense articles sustainment consumables and would like a breakdown of different system costs from the United States for the Ministry of Finance. The TNI–AU also needs standardized documentation from US vendors and the US government. Concerning the development of TNI–AU cyber capabilities, the service would like the United States to provide cyber equipment and experts to provide training in cyber basics and other aspects of information and communications technology. It also hopes to send personnel to the United States for training. Finally, the TNI–AU seeks USAF assistance in developing an air command and staff college and noncommissioned officer academies for Indonesia.<sup>55</sup>

Since 2016, the United States has identified great-power competition with China as its top national security priority. As a result, Washington is encouraging Indonesia to increase its air and maritime capabilities to counter China's presence

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<sup>55</sup> Senior TNI official, interview with the author, Jakarta, July 2019.

in Southeast Asia. To achieve this, Indonesia has acquired 76 advanced fighter aircraft. US officials would like the TNI, including the TNI–AU, to develop its capacity and capabilities, enabling it to play a greater role in countering China’s activities in the SCS and conducting counterterrorism and HADR missions. However, some US security cooperation officials in Jakarta believe that the TNI needs greater HADR capabilities, such as airlift and sealift, more than advanced platforms and capabilities. This means that US messages to Indonesia could be contradictory. Additionally, the United States would like Indonesia to focus on maintaining its C-130s and other air mobility and reconnaissance aircraft.

One of the US objectives is for the TNI–AU, TNI–AL, and coast guard to conduct routine maritime security and MDA patrols in the Natuna Sea and vicinity of the SCS, and the major SLOCs between the Indian Ocean and the Pacific Ocean. This would enable Indonesia to deter and respond to illegal and coercive activities within its EEZ, ensure FON and regional stability, and protect natural resources. The United States would like Indonesia to develop greater command-and-control and interoperability capabilities and the ability to conduct contingency operations. This would include implementing the GSOMIA and CIS-MOA.<sup>56</sup> Additionally, the United States would like to support the TNI–AU’s in countering the PLAAF and PLAN air arm. Finally, the United States strongly encourages Indonesia to avoid purchasing military hardware from China and Russia, as doing otherwise could result in US sanctions.<sup>57</sup>

## **Scenarios**

It is likely that China will continue to assert its claim over part of the Natuna Sea and most of the SCS, while using economic incentives to discourage forceful reactions from Indonesian leaders. Despite its expansion, there are no indications that China will escalate toward open conflict. Meanwhile, the United States and Indonesia will gradually enhance their partnership, including stronger security cooperation. With the growing mutual interest of Indonesia and the United States in the SCS and Natuna Sea, the prospects for the partnership and constructive USAF–TNI–AU relations are positive. However, much will depend on Jakarta’s orientation and Washington’s policy toward Indonesia in the future. The relationship may encounter occasional obstacles, depending on political conditions and security-cooperation situations. This scenario could facilitate stronger

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<sup>56</sup> US officials interviews. The GSOMIA enables the sharing of information in cyberspace and for encryption.

<sup>57</sup> US officials interviews.

USAF–TNI–AU relations, and Indonesia may acquire more US defense products, leading to greater interoperability. However, Jakarta could also decide to slow cooperation, resulting in a plateau in USAF–TNI–AU relations.

A second scenario involves China escalating and becoming aggressive in Indonesia's EEZ in the Natuna Sea, or against Vietnam, the Philippines, or Malaysia, with Jakarta seeking support from Washington. The United States would need to respond proportionately to cause China to deescalate, while reassuring Indonesia and other nations. If the United States responds appropriately, it would strengthen the partnership and increase security cooperation with the TNI, including the TNI–AU, and coast guard, and facilitate the TNI–AU developing interoperability with the USAF. However, if a conflict ensues, the United States may have to decide whether to take Indonesia's side and provide support or not. While the US, INDOPACOM, and PACAF aim to strengthen their partnership and eventually achieve interoperability with the TNI–AU, intervening on Indonesia's behalf risks escalation to war with China.

A third scenario involves the possibility of growing tension in US–Indonesian relations, particularly if the future Indonesian administration becomes authoritarian and prompts a reaction from Washington. This could potentially halt or slow down the progress of both the strategic partnership and USAF–TNI–AU relations. Moreover, if the next Indonesian administration moves closer to China, it could further exacerbate the impasse in the partnership. In a worst-case scenario, the United States and Indonesia may have to pursue their interests independently.

## **Conclusion**

The strategic partnership between the United States and Indonesia is essential in upholding the rules-based order in the SCS and Natuna Sea, as well as in enhancing Jakarta's defense capacity and military capabilities through bilateral and multilateral diplomatic initiatives. Both countries acknowledge that China will continue to expand its control over the SCS, northern Natuna Sea, and the EEZs of Indonesia and other ASEAN states. Therefore, regular dialogue and a shared approach are necessary to address EEZ issues and promote the free and open Indo-Pacific principle. The United States has indicated its willingness to incorporate Indonesia into a growing multilateral network, based on the Quad, to support a free and open Indo-Pacific. Despite a mutual desire for a stronger partnership, there are barriers hindering the relationship and the development of a more capable Indonesian military and air force. While both parties seek a stronger partnership, they have distinct reasons and varying levels and rates of speed. It is unlikely that Indonesia and other partner countries would join the United States in using military force against China in the event of a significant escalation. Although chal-

allenges exist, with the right amount of will and creative effort, the United States and Indonesia can overcome them and strengthen their relationship.

US security cooperation with Indonesia is crucial for burden sharing and deterrence in the Natuna Sea, SCS, and eventually the wider Indo-Pacific region. As Beijing's grand strategy aims to eventually dominate Eurasia and the Indo-Pacific, stronger partnerships and burden sharing are necessary for the United States to address the rising security challenge from China. Indonesia can contribute by developing greater capabilities for ISR and patrolling in the Natuna Sea and SCS. Meanwhile, the US military can focus on deterrence and denial tasks. To effectively deter China's aggressive behavior in the region, the United States and Indonesia must commit to a division of labor in the event of PLA aggression in the Natuna Sea.

Multilateral security cooperation and joint exercises, including those involving Indonesia, the Quad, and other ASEAN militaries, are optimal ways for Indo-Pacific countries to develop regionally capable militaries, including air forces, and enhance surveillance and deterrence. The systematic buildup of maritime and air forces in collaboration with the United States is essential for regional cooperation and deterrence. Military leaders of the United States and Indonesia, including their air forces, continue to discuss the strategic situation in the Indo-Pacific and their respective roles in providing deterrence. This includes discussions about the Natuna Sea and sovereignty issues, as well as FON and overflight. The USAF and TNI-AU can play crucial roles in preventing China from achieving regional dominance by developing a shared outlook and respective strategies and capabilities to deter China from further encroaching in the Natuna Sea and infringing on Indonesia's rights.

To help the TNI, including the TNI-AU, become a significant regional force, the United States can undertake various initiatives. Washington can provide assistance in training and equipment, such as supporting the development of the F-15X program and working toward expediting Indonesia's training and squadron development. Bilateral mechanisms can be developed to enhance information sharing and intelligence, including ISR capability boost. The United States and USAF can work with TNI-AU in increasing the sharing of logistics and information, enhancing joint exercises focusing on HADR scenarios, and securing relations. US INDOPACOM and PACAF can allocate more resources, planning, and engagement to the TNI and TNI-AU. The State Partnership Program with the Hawaii National Guard has been a useful engagement vehicle, and the United States should expand and develop this program further.<sup>58</sup>

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<sup>58</sup> US officials interviews.

The United States should focus on building a strong strategic partnership with Indonesia by expanding and strengthening high-level dialogues, simulations, and exercises, as well as promoting security assistance and exchanges. The USAF and PACAF can play a leading role in developing this partnership, while avoiding a transactional and paternalistic approach. Additionally, the United States and USAF should continue to promote US aircraft, weapons, and equipment, with the long-term goal of developing increasingly complex exercises with the TNI–AU. The United States should also collaborate with Indonesia to build capacity and develop capabilities to make the TNI–AU a regionally significant force.

Given the importance of the SCS and Southeast Asia in the Indo-Pacific region, Indonesia is a key component of the larger US strategy to maintain a free and open region while deterring China’s unlawful territorial expansion. The United States has expanded its basic rights with the Philippines near contested waters and strengthened partnerships with ASEAN states such as Indonesia, Vietnam, and Malaysia, as well as increasing multilateral engagement with them. By enhancing security cooperation with these states, they can defend their EEZs and other interests.

However, deterring China from controlling the area inside the first island chain, including the SCS and Natuna Sea, poses a more challenging task that falls on the shoulders of the United States and its allies, particularly the recently formed AUKUS alliance between the United States, Australia, and the United Kingdom. The Quad—composed of the United States, India, Japan, and Australia—provides AUKUS with diplomatic and military support, along with the US–Japan–South Korea partnership. The United States has been countering China’s expansion in the Indo-Pacific, particularly in the SCS and East China Sea, through increased security cooperation, partnerships, alliances, and freedom of navigation operations, and should continue to do so. 🌟

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# Russia's Invasion of Ukraine

## Cementing US Global Preeminence

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### Abstract

This article argues that contrary to some scholars' opinions, the Russian invasion of Ukraine has helped to cement the United States' preeminent position in global affairs. Through the provision of large-scale military aid and assistance to Ukraine, Washington and its allies have weakened Russian military and economic capabilities, reducing Moscow's role as a great power. A weakened Russia may also strain China's economic ties with Moscow, as China's own economic growth slows. Additionally, Beijing's closer cooperation with Russia exposes Chinese enterprises to secondary sanctions and risks antagonizing European states, reducing China-Europe trade and economic cooperation, as well as technology transfers. This could impede China's great-power potential and its ability to challenge US hegemony in the Indo-Pacific and globally.

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The 2022 Russian invasion of Ukraine has sparked discussions and debates within the strategic and academic communities regarding its potential impact on US and Chinese global power dynamics. Some commentators suggest that the United States will be bogged down in the conflict, diverting its attention from the Indo-Pacific and weakening its ability to constrain China.<sup>1</sup> They argue that the United States is already overstretched, and its defense strategy lags behind its foreign policy objectives.<sup>2</sup> Furthermore, deep involvement in the conflict could take a toll on US material power.<sup>3</sup> Conversely, others speculate that the conflict will strain the trans-Atlantic alliance, creating differences between major European states, such as Germany and Italy, and the United States, which

<sup>1</sup> Xiangwei Wang, "Ukraine-Russia crisis: China benefits if the US pivots back to Europe, but it won't want full-blown war – and would rather Taiwan doesn't get mentioned," *South China Morning Post*, 26 February 2022, <https://www.scmp.com/>; Stephen M. Walt, "How U.S. Grand Strategy Is Changed by Ukraine," *Foreign Policy*, 22 September 2022, <https://foreignpolicy.com/>; and "Ukraine: Will tensions with Russia dilute the US focus on Indo-Pacific, China?," *Hindustan Times*, 31 January 2022, <https://www.hindustantimes.com/>.

<sup>2</sup> Hal Brands, "The Overstretched Superpower: Does America Have More Rivals Than It Can Handle?," *Foreign Affairs*, 18 January 2022, <https://www.foreignaffairs.com/>.

<sup>3</sup> Reid Standish, "How has the Ukraine war changed the Chinese-Russian partnership?," *Radio Free Europe Radio Liberty*, 24 March 2022, <https://www.rferl.org/>.

could potentially benefit China.<sup>4</sup> However, the complex and evolving nature of the conflict makes it difficult to predict its full impact on global affairs.

According to some analysts Washington will now face the challenge of jointly confronting both Beijing and Moscow, as the China–Russia partnership aims to undermine the US-led liberal world order and diminish US influence worldwide.<sup>5</sup> This is expected to place a strain on US power. These experts predict that Western sanctions against Russia could push Moscow even closer to China, making it more reliant on Beijing. This, in turn, could strengthen the China–Russia alliance and give Beijing significant leverage to extract concessions from Moscow. The resulting geopolitical shifts could further complicate US foreign policy objectives, necessitating careful consideration of Washington's response to these developments.<sup>6</sup>

Conversely, other experts argue that the Russian invasion of Ukraine could actually serve to restore US/Western primacy. The invasion has brought the trans-Atlantic alliance closer together, with the West recognizing the importance of combining hard power and liberal democratic values to counter the threat posed by authoritarian challengers such as China and Russia. As a result, the economic, military, and diplomatic capabilities of the United States and its allies are expected to far outstrip those of a more united Sino-Russian alliance.<sup>7</sup> This may herald the reemergence of *Pax Americana*, by helping “to rebuild an international order that just recently looked to be headed for collapse.”<sup>8</sup>

This article argues that the Russian invasion of Ukraine presents an opportunity for the United States to cement and reaffirm its preeminent position in the international arena. The conflict is expected to significantly undermine Russian military and economic capabilities in the coming years, reducing its role as a great power. This is due, in part, to the ongoing provision of sophisticated weapon systems to Ukraine by Washington and its allies, as well as a comprehensive range of sanctions imposed against Moscow. China is likely to find it challenging to sustain Moscow economically, given China's own declining economic growth, and a weakened Russia could become a significant burden for Beijing to manage.

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<sup>4</sup> Standish, “How has the Ukraine war changed the Chinese-Russian partnership?”

<sup>5</sup> For a detailed discussion regarding Russia–China efforts to undermine the US-led liberal world order, see Elias Götz and Camille-Renaud Merlen, “Russia and the question of world order,” *European Politics and Society* 20, no. 2 (2019): 133–53.

<sup>6</sup> Hal Brands, “The Eurasian Nightmare: Chinese-Russian Convergence and the Future of American Order,” *Foreign Affairs*, 25 February 2022, <https://www.foreignaffairs.com/>; and Alexander Gabuev, “China's New Vassal: How the War in Ukraine Turned Moscow Into Beijing's Junior Partner,” *Foreign Affairs*, 9 August 2022, <https://www.foreignaffairs.com/>.

<sup>7</sup> Brands, “The Eurasian Nightmare.”

<sup>8</sup> Michael Beckley and Hal Brands, “The Return of Pax Americana? Putin's War Is Fortifying the Democratic Alliance,” *Foreign Affairs*, 14 March 2022, <https://www.foreignaffairs.com/>.

Furthermore, in the event that China extends active support to Russia and increases cooperation between the two countries, China may face significant challenges, such as the risk of further damaging its vital trade and economic relations with the US and its allies and becoming a target of secondary sanctions. Specifically, China's increased cooperation with Russia may antagonize Europe, which could result in reduced China–European Union (EU) trade and technology transfers, leading to a further decline in China's economic growth, great-power potential, and ability to challenge US hegemony in the Indo-Pacific and globally.

### **A Weakened Russia**

In response to Russia's invasion, the United States and its allies have provided Kyiv with political and diplomatic support, humanitarian aid, military intelligence, as well as billions of dollars' worth of arms and ammunition to enable Ukraine to defend itself against Russian aggression.

#### ***Military Assistance to Ukraine***

Since August 2021, the United States has been providing military assistance to Ukraine, with the thirty-third drawdown of USD 400 million of arms and equipment announced on 3 March 2023.<sup>9</sup> According to the Kiel Institute for World Economy, under the Biden administration, the United States has provided more than USD 75 billion in economic, humanitarian, and military aid and assistance to Ukraine.<sup>10</sup> This includes man-portable antitank missiles, air defense systems (including the Patriot missile defense system), unmanned aerial vehicles and helicopters, towed and self-propelled rocket and tube artillery, armored personnel carriers, as well as vast amounts of ammunition and other military equipment. According to US Secretary of Defense Lloyd Austin, the United States wants to see "Russia weakened to the degree that it can't do the kinds of things that it has done in invading Ukraine."<sup>11</sup> Fifty US allies, including most NATO members—especially the United Kingdom, Germany, and Poland—have also provided significant military aid and economic assistance to Ukraine. In February 2023, 11 countries, including the United States, decided to provide main battle tanks to Ukraine. Germany and various other European countries have agreed to provide

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<sup>9</sup> Antony Blinken, "Additional U.S. Military Assistance for Ukraine," US Department of State, 3 March 2023, <https://www.state.gov/>.

<sup>10</sup> Jonathan Masters and Will Merrow, "How Much Aid Has the U.S. Sent Ukraine? Here Are Six Charts," Council on Foreign Relations, 22 February 2023, <https://www.cfr.org/>.

<sup>11</sup> Matt Murphy, "Ukraine war: US wants to see a weakened Russia," *BBC*, 25 April 2022, <https://www.bbc.com/>.



Leopard 2 tanks, the United Kingdom will provide Challenger 2 tanks, and the United States will provide Abrams tanks.<sup>12</sup> Washington and its allies have stated that they will continue to provide military assistance and intelligence to Kyiv to defend Ukraine, including increasing supplies of heavy weaponry and spare parts to defend Ukraine's territory and sovereignty.

The US and allied military assistance to Kyiv has vitally strengthened Ukrainian resistance against the Russian invasion. Consequently, Moscow has been compelled to revise and scale back its military and political objectives from conquering and controlling all of Ukraine and deposing President Volodymyr Zelenskyy and his government to "liberating" or capturing the Donbas region in eastern Ukraine and establishing a land corridor to Russian-occupied Crimea in southern Ukraine. Reports indicate that the protracted war has caused significant losses to Russia in terms of manpower, material power, and low morale among Russian troops.<sup>13</sup> Consequently, in September 2022, Russia was forced to partially mobilize 300,000 troops to offset its losses, bolster its defenses, and prevent the loss of occupied Ukrainian territory due to Ukrainian counteroffensives, and continue its invasion of Ukraine. According to UK intelligence estimates, Russia has suffered 175,000–200,000 casualties, including 40,000–60,000 deaths. The US estimates more than 30,000 mercenaries from the Wagner Group have also been killed or wounded since the beginning of the Russian invasion.<sup>14</sup> These significant Russian losses of men and matériel have raised doubts whether Moscow can sustain an offensive in Ukraine for a long period of time.<sup>15</sup>

Military experts generally agree that Russia is facing a protracted struggle in Ukraine, particularly in the Donbas region, and that the war is likely to result in a stalemate or a "frozen" conflict. Even Russian president Vladimir Putin has acknowledged that Russia is embroiled in a long-term war. He stated, "As for the duration of the special military operation, well, of course this can be a long process."<sup>16</sup> Russia has expressed a willingness to engage in talks to end the invasion but is not willing to withdraw from the territories it has captured in Ukraine

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<sup>12</sup> David Brown, Jake Horton, and Tural Ahmedzade, "Ukraine weapons: What tanks and other equipment are the world giving?" *BBC*, 22 February 2023, <https://www.bbc.com/>. Ukraine believes that western tanks and other advanced western weapons can help Ukraine seize territory back from Russia and win the war.

<sup>13</sup> Liam Collins, "Russian troops' poor performance and low morale may worsen during a winter of more discontent," *The Conversation*, 7 December 2022, <https://theconversation.com/>.

<sup>14</sup> Phelan Chatterjee, "Ukraine War: Over 30,000 Wagner fighters injured or killed in Ukraine, says US," *BBC*, 18 February 2023, <https://www.bbc.com/>.

<sup>15</sup> James Fitzgerald, "Chances of war ending this year pretty slim," *BBC*, 15 February 2023, <https://www.bbc.com/>.

<sup>16</sup> John Psaropoulos, "Russia and Ukraine enter grim winter campaign as war losses mount," *Aljazeera*, 8 December 2022, <https://www.aljazeera.com/>.

or to formally renounce any of its maximalist war aims. Ukraine considers compromising on territory to be a red line, suggesting that the war will be protracted.<sup>17</sup> Even if Russia were to achieve military victory, Ukrainians would likely resort to guerrilla tactics, resulting in a costly insurgency for Russia. Furthermore, analysts agree that a prolonged military conflict in Ukraine would have a detrimental impact on Russia's economy and significantly diminish its future military capabilities, owing to competing domestic pressures and priorities.

### ***The Impact of Sanctions on Russia's Material Capabilities***

Since Moscow's illegal annexation of Crimea in 2014, Russia has been the subject of Western sanctions. However, after Russia's full-scale invasion of Ukraine, the United States and dozens of other countries, including the United Kingdom and the EU, swiftly and substantially increased the scope of sanctions against Moscow, demonstrating their determination to counter Putin's expansionist policies. The US and its allies have imposed more than 11,000 new restrictions on companies, individuals, technologies and products from Russia.<sup>18</sup> According to French Finance Minister Bruno Le Maire, the objective of the sanctions is to "cause the collapse of the Russian economy."<sup>19</sup>

Russia's economy has been targeted through various means, including financial sanctions, restrictions on imports of specific goods and services, bans on technology transfers, prohibitions against Russian investments in certain countries, as well as other restrictive measures. The financial sanctions imposed by the United States, the United Kingdom, the European Union, and other countries involve a partial asset freeze of Russia's central bank reserves and the exclusion of most of Russia's major banks from the global payment transfer network SWIFT, which was previously used for 70 percent of money transfers in Russia. The United States and its allies have also imposed direct sanctions on crucial Russian state-owned enterprises (SOE), prominent oligarchs, and nearly all members of Putin's inner circle, totaling approximately 2,600 individuals. In addition, these sanctions are restricting Russia's access to vital technologies, such as those utilized in the civil

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<sup>17</sup> Paul Kirby, "Ukraine war: Russia demands annexations recognised before talks," *BBC*, 2 December 2022, <https://www.bbc.com/>.

<sup>18</sup> "Russia Sanctions Dashboard," *Castellum.AI*, 24 February 2023, <https://www.castellum.ai/>.

<sup>19</sup> Elliot Smith, "The West is trying to destroy Russia's economy. And analysts think it could succeed," *CNBC*, 3 March 2022, <https://www.cnbc.com/>.

aviation sector, and preventing Russian flights from entering European and North American airspace.<sup>20</sup>

Russia's crucial oil and gas exports have also been severely impacted by the sanctions. The United States banned Russian hydrocarbon imports, resulting in Russian oil being sold at a heavily discounted price of USD 20–33 per barrel.<sup>21</sup> The EU has stopped importing coal and sea-borne oil from Russia. Germany completely banned the import of oil from Russia in late 2022. All these measures imply that supply of oil from Russia to the EU could decline by 90 percent in 2023 relative to 2022. In February 2023, the EU introduced an embargo on the import of petroleum products from Russia with Russia's share in the European market expected to fall to its lowest levels in history. The EU also significantly reduced the imports of gas from Russia with Germany becoming completely independent of Russian gas imports.<sup>22</sup> The EU hopes to completely end its reliance on Russian energy before 2030. Similarly, the United Kingdom ended import of oil and oil products from Russia by the end of 2022. It imported no oil, gas and coal from Russia in January 2023 and also initiated a ban on the import of gas from Russia in January 2023.<sup>23</sup> Germany has suspended the approval of Russia's Nord Stream 2 gas pipeline, thus depriving Moscow of a significant source of export income in the short to medium term.<sup>24</sup> Additionally, Russia has halted the delivery of pipeline gas to Europe, once again using gas as a tool of economic statecraft against Europe.<sup>25</sup> In 2021, oil and gas exports accounted for approximately 40 percent of Russia's budget revenue and half of its exports.<sup>26</sup>

On 5 December 2022, the EU implemented a ban on the import of Russian crude oil by sea, and on the same day, the G7 and EU set a worldwide price cap of USD 60 per barrel of oil exported by Russia. The oil price cap is intended to

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<sup>20</sup> "What are the sanctions on Russia and are they hurting its economy?," *BBC*, 30 September 2022, <https://www.bbc.com/>; and Maria Snegovaya, Tina Dolbaia, Nick Fenton and Max Bergmann, "Russia Sanctions at One Year: Learning from the Cases of South Africa and Iran," CSIS, 23 February 2023, <https://www.csis.org/>.

<sup>21</sup> Shruti Menon, "Ukraine crisis: Who is buying Russian oil and gas?," *BBC*, 8 December 2022, <https://www.bbc.com/>.

<sup>22</sup> Szymon Kardaś, "Conscious uncoupling: Europeans' Russian gas challenge in 2023," European Council on Foreign Relations, 13 February 2023, <https://ecfr.eu/>.

<sup>23</sup> Paul Bolton, "Imports of fossil fuels from Russia," House of Commons Library, 13 March 2023, <https://commonslibrary.parliament.uk/>.

<sup>24</sup> On 26 September 2022, unknown saboteurs severely damaged the pipeline. Investigations into the attack on ongoing.

<sup>25</sup> Nord 1 and Nord 2 pipelines were blown up in an act of sabotage. Rob Picheta, "Gas is pouring out of the Nord Stream pipelines. Here's what you need to know," *CNN*, 28 September 2022, <https://edition.cnn.com/>.

<sup>26</sup> "Putin may collect \$321 billion windfall if oil and gas keep flowing," *Bloomberg*, 1 April 2022, <https://www.bloomberg.com/>.

prevent Russia from profiting from oil exports and funding its war of aggression. In December 2022, the United States and its allies announced that they will deny insurance to tankers delivering oil to countries that do not comply with the price cap, making it extremely difficult for Russia to sell above the cap. The price cap aims to reduce Russia's revenue and pressure its strained budget.<sup>27</sup> Russia's plans to redirect oil exports from Europe to Asia is cumbersome, time-consuming, and more costly, leading to reduced revenue and profits.<sup>28</sup> Washington and its allies have announced that further escalation of sanctions is still a possibility.

Putin is reportedly furious about the large-scale provision of weapons by the United States and its allies to Ukraine, as well as the extent of the sanctions imposed on Russia. He was also apparently shocked by the degree of coordination among different countries. Although the Russian economy contracted by only 2.2 percent in 2022, according to the International Monetary Fund, inflation remains high at around 12 percent, and the ruble has only stabilized at 60 per USD (below the pre-invasion level of 75 per USD). The macroeconomic data conceals the true extent of the damage to the Russian economy, which has suffered severe damage in sectors such as manufacturing, automobiles, transport and others.<sup>29</sup> Consumer demand and incomes have fallen, the budget deficit is expected to rise, the ruble has been isolated internationally, and a banking crisis is looming.<sup>30</sup> The high interest rates imposed by Russia's central bank to stabilize the ruble are expected to further reduce economic growth by affecting money supply, and business and investment activity in Russia. Furthermore, many of Russia's most productive workers are now emigrating to escape economic hardship and escalating repression at home.

Even if a peace deal is reached with Ukraine, it is unlikely to result in the lifting of all the sanctions against Russia unless it includes the restitution of all internationally recognized Ukrainian territories to Kyiv's control, which is an unlikely prospect. As a result, Russia's economy is projected to suffer severely due to its economic, technological, and financial isolation. This in turn, could lead to long-term stagnation and the potential loss of its status as one of the world's major

<sup>27</sup> "Ukraine war: Price cap on Russian oil will hit Putin immediately – US," *BBC*, 3 December 2022, <https://www.bbc.com/>.

<sup>28</sup> Menon, "Ukraine crisis."

<sup>29</sup> Paddy Hirsh, "Why sanctions against Russia aren't working — yet," *NPR*, 6 December 2022, <https://www.npr.org/>; and Sergey Aleksashenko, "Russia after a year of sanctions," *Aljazeera*, 28 February 2023, <https://www.aljazeera.com/>.

<sup>30</sup> For a more detailed analysis, see Vladimir Milov, "Beyond the Headlines: The Real Impact of Western Sanctions on Russia," *Wilfried Martens Centre for European Studies*, 16 November 2022, <https://www.martenscentre.eu/>.

economies.<sup>31</sup> Some experts warn that Russia may face economic turmoil similar to that of the 1990s, resulting in lasting economic depression and a disintegration of its modern and outward-looking sectors.<sup>32</sup>

The sanctions will have a significant impact on Russia's military and defense industry. It will become increasingly difficult for Moscow to replenish spare parts for tanks, planes, guided missiles and other resources expended in the invasion that rely on high-technology imports from the United States and its allies.<sup>33</sup> The ban on semiconductor exports by Taiwan Semiconductor Manufacturing Company will also complicate Russia's operation of various advanced weapon systems. Additionally, most of the sophisticated computer chips used in these systems rely on US-patented technology, which is covered by the current embargos. As a result, Russia will struggle to keep pace with technological developments in the United States and China.

### **China's Economic Challenges**

Russia may require substantial economic and military assistance in the future due to its weakened state. To strengthen Moscow, Beijing may need to offer significant economic aid and support, but this will be a challenging task. China's economic growth has been slowing over the past decade, and the COVID-19 pandemic has only worsened that trend. In addition, China faces fundamental structural and institutional issues in its economy, and President Xi Jinping's adherence to Marxist–Leninist ideology could further complicate matters. Beijing's authoritarian response to the pandemic is expected to result in a significant shortfall in economic growth targets for FY2022 and FY2023.<sup>34</sup> Additionally, China's aging population and demographic challenges are expected to have negative consequences for the country's future economic growth and overall national power.<sup>35</sup>

While Xi has set the goal of doubling China's GDP per capita from USD 10,000 to USD 20,000 in 15 years as part of his "Vision 2035," China's economy is projected to experience a significant slowdown by 2030, with growth rates po-

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<sup>31</sup> Konstantin Sonin, "Russia's Road to Economic Ruin: The Long-Term Costs of the Ukraine War Will Be Staggering," *Foreign Affairs*, 15 November 2022, <https://www.foreignaffairs.com/>.

<sup>32</sup> "Ukraine's war: the economic impacts," *Institut Montaigne*, 29 March 2022, <https://www.institutmontaigne.org/>.

<sup>33</sup> "Fact Sheet: United States, G7 and EU impose severe and immediate costs on Russia," The White House, 6 April 2022, <https://www.whitehouse.gov/>.

<sup>34</sup> "China Considers GDP Target of About 5% in Pro-Growth Shift," *Bloomberg*, 7 December 2022, <https://www.bloomberg.com/>.

<sup>35</sup> Thomas Fingar and Jean C. Oi, eds. *Fateful Decisions: Choices That Will Shape China's Future* (Stanford, CA: Stanford University Press, 2020).

tentially falling below three percent per annum.<sup>36</sup> Even before the COVID-19 pandemic, China's economic growth had already decelerated from double-digit annual rates in the first decade of this century to an average of around 6.5 percent during 2015–2019. In 2019, China's economy expanded at its slowest pace in the past 30 years, with reasons extending beyond the US–China trade war, such as low industrial productivity, high levels of corporate and provincial debt, overinvestment in the real estate and infrastructure sectors (leading to a crisis in the realty sector), and high savings rates alongside low consumer spending as a proportion of GDP.<sup>37</sup> Hence, China's economic slowdown has deep, structural, and long-term roots that have been building up over time. Addressing these challenges and obstacles will require a comprehensive approach.<sup>38</sup>

However, restructuring the economy is extremely challenging due to deeply embedded political, cultural, financial, and business practices and institutions that have been created over more than three decades of double-digit growth rates and economic success. These practices and institutions favor the continuance of the existing model, which poses a significant political and institutional challenge to any reversal. Furthermore, shifting the growth engine from investment and export-led expansion to domestic consumption has not been successful and is expected to result in lower economic growth rates of 2–3 percent annually. As a result, the Chinese Communist Party (CCP) finds itself trapped by its own policies.<sup>39</sup>

Since the 2007–2008 global financial crisis, and especially under Xi's leadership, China has moved away from Deng Xiaoping's long-standing policy of economic reform and liberalization. Xi has implemented *hard authoritarianism*, characterized by increasing party–state control over society and other aspects of life in China, and greater centralization of decision making, with Xi being referred to as “the Chairman of Everything.” Xi's development strategy differs from those of his predecessors, Jiang Zemin and Hu Jintao, in part due to the structural and

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<sup>36</sup> Andrew G. Walder, “China's National Trajectory,” in *Fateful Decisions: Choices That Will Shape China's Future*, ed. Thomas Fingar and Jean C. Oi (Stanford, CA: Stanford University Press, 2020), 335–57; and Michael Pettis, “How China Trapped Itself: The CCP's Economic Model Has Left It With Only Bad Choices,” *Foreign Affairs*, 5 October 2022, <https://www.foreignaffairs.com/>.

<sup>37</sup> The share of household consumption in China's GDP is 20-percent lower than the global average, and investment as a share of the GDP is 20-percent higher than the global average.

<sup>38</sup> Raj Verma, “Increasing Centralisation in China: A Bane for Economic Growth,” *Asian Affairs* 53, no. 4 (2022): 831–51; and Nicholas Lardy, *The state strikes back: the end of economic reform in China?* (Washington, DC: Peterson Institute for International Economics 2019).

<sup>39</sup> Pettis, “How China Trapped Itself”; and Michael Pettis, “The Only Five Paths China's Economy Can Follow,” *Carnegie Endowment for International Peace*, 27 April 2022, <https://carnegieendowment.org/>.

institutional problems discussed above, which have created fears of the collapse of the CCP, and partly due to his Marxist–Leninist ideological proclivity.<sup>40</sup>

During General Secretary Jiang Zemin's tenure, China conducted a thorough analysis of the collapse of the Soviet Union, which led to the emergence of two schools of thought. The “liberal” school concluded that decades of institutional decadence and resistance to reform were the primary reason for the collapse of the Soviet Union. The proponents of the liberal school believed that the reforms introduced by Mikhail Gorbachev, including glasnost and perestroika, were not the problem, but rather that the system was unable to absorb them due to being introduced too late. As a result, the CCP must reform China's social, economic, and political systems and carefully manage the opening up of China to avoid the same fate.

In contrast, the “conservative” school placed complete blame on Gorbachev for the Soviet Union's collapse. Proponents believed that glasnost and perestroika should never have been introduced, and the Soviet Communist Party should never have separated the armed forces from the party. This school concluded that to avoid the same fate, China must tighten up the existing system and eschew reforms. While Jiang espoused the liberal school, Xi is a firm believer in the conservative school and is determined to prevent China from suffering the same fate as the Soviet Union.<sup>41</sup>

Unlike his predecessors Deng, Jiang, and Hu, who de-emphasized Marxism–Leninism and increased the role of the market in the domestic economy and China's participation in the US-led global economic order, Xi is a firm believer in Marxist–Leninist ideology. Under Xi, ideology drives policy. His new Marxist nationalism shapes the presentation and substance of China's domestic politics, economy, and foreign policy. Xi's assertive and aggressive foreign policy, including “wolf warrior” diplomacy, is driven by his belief that the United States is in terminal decline and China's rise and preeminence are inevitable. Thus, Xi's ascent in China marks the return of the “Ideological Man.”<sup>42</sup>

Under Xi, China is experiencing a shift toward a more centralized economic system characterized by skepticism toward market allocation of resources, restrictions on the private sector, and a growing role for state-owned enterprises (SOE). Additionally, the CCP's Organization Department and United Front Work Department have expanded their reach into SOEs and the private sector. These

<sup>40</sup> Jude Blanchette and Evan S. Medeiros, “Xi Jinping's Third Term,” *Survival* 64, no. 5 (2022): 61–90.

<sup>41</sup> Blanchette and Medeiros, “Xi Jinping's Third Term”; and David Shambaugh, “China's Underestimated Leader: The Legacy of Jiang Zemin,” *Foreign Affairs*, 30 November 2022, <https://www.foreignaffairs.com/>.

<sup>42</sup> Kevin Rudd, “The World According to Xi Jinping: What China's Ideologue in Chief Really Believes,” *Foreign Affairs* 101, no. 6 (2022), <https://www.foreignaffairs.com/>.

policies are likely to result in a misallocation of resources, decreased total factor productivity, and lower economic growth.<sup>43</sup>

In 2020, Xi introduced the dual-circulation strategy (DCS) with the goal of transforming China into a technological superpower and reducing China's dependence on the West. However, this strategy relies heavily on state-led technological innovation and domestic demand, potentially leading to a slowdown in innovation and economic growth. Additionally, Xi launched the "common prosperity agenda" in 2021, which aims to reduce income and wealth inequality through redistributive economic and fiscal policies. However, these policies could have negative effects on the private sector and overall economic growth.<sup>44</sup>

The Chinese leadership faces both domestic and external challenges to the country's economy. Externally, the US-China rivalry in the Indo-Pacific and beyond has led the United States to impose tariffs on imports from China, limit China's access to technology, and partially decouple its economy from China, which hampers China's economic growth. Additionally, the COVID-19 pandemic has led to low economic growth globally, which affects China's predominant export markets in Europe and the United States. Rising nationalism and protectionism worldwide may also negatively impact China's economic growth. Beijing's aggressive and assertive foreign policy in the Indo-Pacific, coupled with its failure to address the COVID-19 pandemic transparently and effectively, reduced trust in China.<sup>45</sup>

Due to the low economic growth, Beijing is likely to face numerous domestic challenges as the young and urban population increasingly demands higher living standards and better governance from the one party-state. This will render it extremely difficult to divert significant economic resources away from pressing issues such as education, poverty reduction, environment, climate change, investment in urbanization, defense, and internal security to provide economic assistance to Russia. Restructuring Sino-Russian trade relations to alleviate the structural pressures on Russia's economy is also a daunting task. Amid declining economic growth in China, a weakened Russia is more likely to undermine, rather than enhance, China's strength and hinder Beijing's global ambitions to challenge US preeminence and hegemony in the Indo-Pacific and beyond.

<sup>43</sup> Verma, "Increasing Centralisation in China."

<sup>44</sup> Rudd, "The World According to Xi"; and Blanchette and Medeiros, "Xi Jinping's Third Term."

<sup>45</sup> Raj Verma, "China's diplomacy and changing the COVID-19 narrative," *International Journal* 75, no. 2 (2020): 248–58; and Blanchette and Medeiros, "Xi Jinping's Third Term."



## **Chinese Assistance to Russia and the Growing China–Europe Divide**

If Beijing chooses to continue providing active support for Moscow, despite the difficulties mentioned earlier, it may incur significant economic and diplomatic costs that could even be debilitating for China. A major concern for Beijing in supporting Russia is the possibility of trade repercussions from the West. Given that US–China relations are already strained, strengthening ties with Moscow after the Kremlin's invasion of Ukraine also risks alienating Europe and harming trade and economic cooperation between China and Europe, as well as technology transfers.

Over the past several years, China's political and diplomatic relations with the EU and the United Kingdom have deteriorated rapidly despite Beijing's efforts to increase its influence in Europe and weaken the strong trans-Atlantic link between Europe and the United States. Disagreements with individual European states over human rights and trade policy, controversies surrounding Huawei's involvement in 5G network development, the origins of the COVID-19 pandemic, mass repression in Xinjiang province, Beijing's curbing of democratic liberties in Hong Kong, and diplomatic relations with Taiwan have all contributed to the weakening of China's standing and influence in Europe, including the United Kingdom. Furthermore, China's "17+1" program of economic and political outreach to Central and Eastern European states has largely fallen apart, and relations between Beijing and the EU reached a new low in early 2021 when both sides imposed sanctions on each other following Brussels' criticism of events in Xinjiang, which was followed by an indefinite suspension of negotiations for a China–EU Comprehensive Agreement on Investment.<sup>46</sup> These developments have led to growing efforts in Europe to restrict Chinese investment and involvement in critical infrastructure and in strategically important sectors of the economy. The European perception of China has shifted from an economic partner to a geostrategic and ideological rival.

Amid these increasingly tense relations with Europe, China's position of implicit support for Russia during its invasion of Ukraine risks exacerbating European suspicions of and misgivings toward Beijing. At the virtual EU–China summit held on 1 April 2022, Beijing declined to take a tougher stance toward Russia, prompting European Council president Charles Michel to caution Beijing that "any attempts to circumvent sanctions or provide aid to Russia would prolong the war."<sup>47</sup> Moreover, China has been warned by its primary trading partners in

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<sup>46</sup> "MEPs refuse any agreement with China whilst sanctions are in place," European Parliament, 20 May 2021, <https://www.europarl.europa.eu/>.

<sup>47</sup> Philip Blenkinsop and Yew Lun Tian, "China tells EU it will pursue Ukraine peace in its own way," *Reuters*, 2 April 2022, <https://www.reuters.com/>.

Europe that an expansion of Sino-Russian trade to help Russia evade Western sanctions could negatively impact China's trade relations with them. US and European officials have also publicly highlighted China's purported willingness to provide Moscow with substantial economic, financial, and potentially even military support to bolster Russia's faltering offensive in Ukraine, and have warned Beijing against doing so.<sup>48</sup>

On 28 April 2022, Germany's lower house of parliament overwhelmingly passed a petition in support of Ukraine that included a clause urging the German government to impose sanctions on China if Beijing seeks to circumvent Western sanctions on Russia or supply Moscow with weapons.<sup>49</sup> In February 2023, Biden administration officials, including US Secretary of State Antony Blinken, confronted China's top diplomat, Wang Yi, with claims that Beijing is considering providing weapons and ammunition to aid Russia's war effort in Ukraine, and stated that such a step would have "serious consequences" for the US–Chinese relationship.<sup>50</sup> Washington's allies and partners in Europe have echoed such warnings in their own encounters with Chinese top officials.<sup>51</sup>

Despite the considerable risks that the Kremlin's invasion of Ukraine poses to Chinese interests, there has been no indication so far that Beijing is planning to abandon its tacit support for Russia (while at the same time claiming neutrality). However, Beijing's perceived support for Russia risks worsening public and leadership perceptions of trade relations with China in Europe, burying any last hopes that the deepening divide in Sino-European trade relations can be bridged again and making a timely conclusion of the projected investment agreement between Brussels and Beijing even more improbable. Russia's invasion of Ukraine has heightened the sense of urgency in European capitals, particularly Berlin, to expedite risk divestment in critical infrastructures away from Europe's geopolitical rivals, which would likely have severe repercussions for China as well. As China's economy remains highly dependent on trade with the West and technology transfers in various sectors of high-technology manufacturing, such developments could further slow China's economic growth, impacting its great-power potential and its ability to challenge the status of the United States in the Indo-Pacific and globally.

<sup>48</sup> Stuart Lau, "EU has 'very reliable evidence' China is considering military support for Russia," *Politico*, 18 March 2022, <https://www.politico.eu/>.

<sup>49</sup> Andreas Rinke and Ju-min Park, "Germany's Scholz visits ally Japan, not China, on first Asian trip," *Reuters*, 28 April 2022, <https://www.reuters.com/>.

<sup>50</sup> Ana Swanson, "China's economic support for Russia could elicit more sanctions," *New York Times*, 22 February 2023, <https://www.nytimes.com/>.

<sup>51</sup> Andrea Shalala and Susan Heavey, "EU official warns of sanctions if China crosses 'red line' and arms Russia," *Reuters*, 3 March 2023, <https://www.reuters.com/>.

In the meantime, Chinese companies are facing significant challenges in maintaining trade and investment relations with Russia, due to the risk of Western secondary sanctions. These sanctions limit Beijing's ability to continue engaging commercially with Moscow. Despite its opposition to Western-sponsored sanctions, China has largely complied with them. Shortly after Russia's invasion of Ukraine, major Chinese state-owned banks, including the Bank of China and Industrial & Commercial Bank of China, began to restrict financing for Russian oil and commodity purchases and downgrade their business ties with Russian banks to avoid being targeted with secondary sanctions. The Beijing-dominated Asian Infrastructure Investment Bank and the Shanghai-based New Development Bank have both announced a pause in all activities connected to Russia and Belarus. Other Chinese banks are also searching for ways to continue doing business with Russian clients while avoiding secondary sanctions, such as entrusting some of their business to smaller, domestically-focused banks to handle transactions that larger, internationally exposed institutions would avoid.<sup>52</sup> China's UnionPay card payment system, which the Kremlin had hoped to rely on after the departure of Western bank card service providers, has refused to cooperate with any sanctioned Russian banks.<sup>53</sup>

When Washington and its allies imposed severe sanctions on Moscow in early March 2022 by banning various Russian banks from using the SWIFT system of financial communications, some Chinese media suggested that China's home-grown Cross-Border Interbank Payment System (CIPS) could be used to circumvent Russia's SWIFT ban.<sup>54</sup> However, since CIPS currently only covers a small portion of international trade and uses SWIFT as a primary communication channel, Beijing's ability to support Moscow in this regard is severely limited. The restrictions on using SWIFT, as well as other imposed restrictions, such as insuring Russian commercial shipping, are also having direct adverse effects on Sino-Russian bilateral trade. Despite Beijing and Moscow's repeated declarations in recent years to "de-dollarize" their trade relations, around 70 percent of bilateral trade was still being conducted in foreign currencies, primarily Euros and US dollars, prior to the war.<sup>55</sup>

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<sup>52</sup> Egan Tham and Julie Zhu, "Chinese banks scramble for 'workarounds' as Russia sanctions impinge," *Reuters*, 3 March 2022, <https://www.reuters.com/>.

<sup>53</sup> "China's Visa alternative cuts off Russian banks over sanctions – RBC," *Moscow Times*, 2 September 2022, <https://www.themoscowtimes.com/>.

<sup>54</sup> Jeff Pao, "China media goads Russia to use CIPS over SWIFT," *Asia Times*, 1 March 2022, <https://asiatimes.com/>.

<sup>55</sup> "Russia coal and oil paid for in yuan starts heading to China," *Bloomberg*, 7 April 2022, <https://www.bloomberqqint.com/>.

In 2022, Chinese imports of Russian energy products—mainly crude oil, natural gas, and coal—rose considerably as Moscow had few alternative outlets for its exports. However, China’s ability to absorb energy and commodity imports from Russia has been limited due to a slowing Chinese economy and a lack of essential transport infrastructure. China has little spare capacity along key pipelines and shipping routes, and Chinese traders face difficulties in obtaining financing from state-controlled banks concerned about falling afoul of Western secondary sanctions.<sup>56</sup> Sinopec, China’s state-run oil giant, halted negotiations for a USD 500-million investment in a new gas-chemical plant and gas-marketing venture in Russia due to similar concerns about sanctions. In March 2022, officials from Sinopec, as well as fellow state-owned energy companies China National Petroleum Corp (CNPC) and China National Offshore Oil Corp (CNOOC), were summoned by China’s Ministry of Foreign Affairs to a meeting reviewing their commercial ties with Russian companies and urging caution when purchasing Russian assets.<sup>57</sup> In general, Chinese companies have been hesitant to increase their investments in Russia’s upstream energy sector as Western firms are rapidly divesting from their assets there.

Beijing is mindful of being viewed as a channel for importing sanctioned Western technologies into Russia, which could result in Chinese companies being excluded from Western markets or from accessing high-end technologies that China cannot yet produce domestically. These concerns have manifested in Beijing’s reported decision to avoid supplying Russian airlines with replacement parts for Western-designed civilian aircraft, as well as the decisions of Chinese electronics companies such as Huawei, Oppo, Xiaomi, Honor, or Lenovo to significantly reduce their exports to Russia or to leave the Russian market altogether. Some companies have even relocated much of their staff from Russia to Central Asia.<sup>58</sup> Chinese car manufacturers and suppliers have also cut their exports to Russia, with some—such as Chery and Weichai—suspending their cooperation with Russian manufacturers. Additionally, the economic fallout of Russia’s inva-

<sup>56</sup> Muyu Xu and Dominique Patton, “China’s March coal imports from Russia plunge 30% on year,” *NASDAQ*, 20 April 2022, <https://www.nasdaq.com/>.

<sup>57</sup> Chen Aizhu, Julie Zhu, and Muyu Xu, “China’s Sinopec pauses Russia projects, Beijing wary of sanctions – sources,” *Reuters*, 28 March 2022, <https://www.reuters.com/>.

<sup>58</sup> “Huawei suspends new orders, furloughs Russia staff amid sanctions threat – reports,” *Moscow Times*, 11 April 2022, <https://www.themoscowtimes.com/>; and Marina Tyunyaeva and Anastasia Kurasheva, “Huawei vynuzhdenno perevodit sotrudnikov iz Rossii v Kazakhstan [Huawei is forced to transfer employees from Russia to Kazakhstan],” *Vedomosti*, 4 September 2022, <https://www.vedomosti.ru/>.

sion of Ukraine has complicated a significant Sino-Russian industrial joint venture to develop a wide-body commercial passenger aircraft: the CRAIC CR929.<sup>59</sup>

Notwithstanding the concerns of China's private enterprises, the Chinese government remains committed to provide some measure of strategic support to Russia. Consequently, since late 2022, various Chinese companies and research institutes have been targeted by US sanctions for supplying Russia with dual-use components and military-related services.<sup>60</sup> It is likely that the list of sanctioned Chinese entities will increase, as Chinese officials have so far reacted coolly to US and European pleas to not supply military hardware to Russia in the future. The concerns of Western states have been further amplified by the fact that Beijing has markedly increased the frequency of joint military exercises with Russia since the start of Moscow's invasion of Ukraine, including numerous naval exercises and joint patrols in East Asia and Africa.

During repeated high-level meetings with Russia's leadership, China's top diplomats have demonstrated a commitment to continue supporting Russia, even at the expense of harming China's relations with the West. On the diplomatic front, this entails shielding Russia by voting in favor of Moscow whenever Ukraine-related votes have been cast at international forums, such as the United Nations Security Council and General Assembly, UN subsidiaries like the Human Rights Council or the International Atomic Energy Organization, but also the G20 or the International Court of Justice. Moreover, Beijing has essentially carbon-copied and amplified the Russian narrative about the war in Ukraine, both in its official diplomatic statements and throughout all of its state-controlled media channels. When Chinese diplomats belatedly announced a twelve-point peace plan proposing a framework to end the violence in Ukraine in late February 2023, one year into the war, this initiative was quickly dismissed by Western states as lacking substance and concrete proposals, merely repeating vague slogans and covertly favoring Russia.<sup>61</sup> In the final instance, as US intelligence sources have claimed since early in the war, Beijing's determination to support Russia in the

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<sup>59</sup> Anastasia Lvova, "Gruznoye izvestiye: kitayskaya Weichai prekratila postavki dvigateley KamAZu [Gruznoye Izvestiye: Chinese Weichai has stopped supplying engines to KamAZ]," *Izvestiya*, 1 September 2022, <https://iz.ru/>; Denis Ilyushenkov, "Sanktsii pomeshali Chery obosnovat'sya na UAze [Sanctions hindered Chery's establishment at UAZ]," *Vedomosti*, 26 August 2022, <https://www.vedomosti.ru/>; and Minnie Chan, "US\$50 billion Russian-Chinese joint venture to build passenger jet at risk as cracks appear in partnership," *South China Morning Post*, 23 July 2022, <https://www.scmp.com/>.

<sup>60</sup> Nick Wadhams, "US sanctions Chinese companies supplying Iranian maker of drones sold to Russia," *Bloomberg*, 9 March 2023, <https://www.bloomberg.com/>; Ana Swanson, "China's economic support for Russia could elicit more sanctions," *New York Times*, 22 February 2023, <https://www.nytimes.com/>.

<sup>61</sup> Alexander Gabuev, "Inside China's peace plan for Ukraine," *Carnegie Politika*, 1 March 2023, <https://carnegieendowment.org/>.

present crisis is being driven from the top, by Xi himself, notwithstanding skepticism among more junior members of the Chinese government apparatus.<sup>62</sup> Driven by personal and ideological convictions, Xi has instructed his government to further deepen ties with Putin's Russia, even though doing so is likely to harm China's relations with many of its main trading partners and ultimately create additional obstacles for its continued development.<sup>63</sup>

## Conclusion

When Putin ordered an invasion of Ukraine, he most likely saw it as a way to not only reclaim "historic Russian lands," but also to diminish US influence in eastern Europe and weaken its global standing. However, Putin's actions may ultimately have the opposite effect. Despite predictions that Russia's aggression would lead to a decline in US global power and benefit China, this article has shown that Putin's war is actually helping to solidify and reaffirm America's dominant position in world affairs.

The conflict in Ukraine will likely leave the foremost global rivals of the United States in a structurally weaker position. The resolute and strategically coordinated response by Washington and its allies is expected to diminish Russia's economic, military, and diplomatic capacities, as well as Moscow's ability to project power beyond Russia's "Near Abroad," particularly into the Middle East and Africa. While Moscow's relations with China are likely to intensify further, Russia's status will become increasingly subordinate to Beijing's, weakening their partnership in structural terms. China will need to consider whether it is willing to support a faltering Russia, given its own economic challenges and the negative repercussions for its trade relations with Washington and its European allies. Therefore, Beijing has little to gain from the present conflict, and it is difficult to imagine a scenario in which China could capitalize substantially.

Perhaps the greatest obstacle to Washington being able to reaffirm its global preeminence is, in fact, the political turmoil, partisanship, and polarization that has become the "new normal" of US domestic politics. These factors will likely continue to hamper Washington's ability to pursue a coherent grand strategy in close coordination with its allies. ☸

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<sup>62</sup> Julian Borger, "China has already decided to send economic aid to Russia in Ukraine conflict, US officials fear," *The Guardian*, 15 March 2022, <https://www.theguardian.com/>.

<sup>63</sup> Lingling Wei and Marcus Walker, "Xi Jinping doubles down on his Putin bet. 'I have a similar personality to yours,'" *Wall Street Journal*, 14 December 2022, <https://www.wsj.com/>.

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# Limited Hard Balancing

## Explaining India's Counter Response to Chinese Encirclement

DR. TANVEER AHMAD KHAN

### Abstract

The growing influence of China in South Asia has caused concern for India. China's alliance with Pakistan, India's arch-rival, is troubling for New Delhi. Additionally, China's flagship Belt and Road Initiative program, the China–Pakistan Economic Corridor (CPEC), is seen as a geopolitical move to limit India's influence in the subcontinent. In response, New Delhi has adopted a comprehensive strategy to counter China's challenge in India's immediate vicinity. This includes a broad set of policy measures, such as reaching out to neighboring countries, embracing like-minded allies and partners, and adopting a tit-for-tat approach to counter China's moves. The article argues that New Delhi's strategy is aimed at containing China's influence in the region while also safeguarding India's own interests.

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The changing power dynamics in South Asia have attracted the attention of extra regional powers such as China and the United States.<sup>1</sup> This region is strategically important, serving as a conduit to the landlocked and resource-rich Central Asian Republics (CAR) and becoming a new center of gravity.<sup>2</sup> Despite the consensus among scholars that China aims to be the dominant power in Asia, South Asia's geostrategic importance, particularly in the context of the Belt and Road Initiative (BRI), has serious implications for China's ambitions. India, with a GDP of USD 3.17 trillion and a military expenditure of approximately USD 303.18 billion, is the main player in this contestation.<sup>3</sup> Given its proximity to China and its aspirations for regional power status, India poses a direct threat to Beijing's national security. Despite India's power, New Delhi considers the BRI a flawed initiative, and many South Asian nations are maintaining a middle ground between the two regional powers. In this power transition, India

<sup>1</sup> Parvaiz Ahmad Thoker and Bawa Singh, "The Emerging China, Pakistan, and Russia Strategic Triangle: India's New Gordian Knot," *Jadavpur Journal of International Relations* 21, no. 1 (2017): 61–83.

<sup>2</sup> Hal Brands and Michael Beckley, "What Does China Want?," *Foreign Policy*, 13 August 2022, <https://foreignpolicy.com/>.

<sup>3</sup> Laxman Kumar Behera, "Bigger, Not Necessarily Better: India's Defence Budget 2022-23," *ORF Issue Brief No. 523*, 23 February 2022, <https://www.orfonline.org/>.



has adopted a “wait and watch strategy,” using a combination of restricted hard balancing, soft balancing, and diplomatic vexing with China.<sup>4</sup>

### **Theoretical Framework**

The China–India rivalry may be manageable, but India’s difficulties with China are becoming increasingly challenging, posing a strategic headache for India on how to defend itself and pursue its national interests. According to John Mearsheimer, the simultaneous rise of China and India, along with the nascent “unhinged multipolarity,” has created a power shift in Asia.<sup>5</sup> In the context of this article, the term *balancing* refers to concept wherein challenged states create defensive coalitions or acquire necessary military capabilities through internal or external means in response to a state striving for supremacy. Balancing can be characterized in three distinct types: (1) external balancing through alliance creation, (2) internal balancing through military buildup, and (3) limited hard balancing, which combines both.<sup>6</sup> States use limited hard balancing strategies to guide their foreign policy approach when they lack the ability to counter a competitor state’s geostrategic calculus.<sup>7</sup>

In the case of China–India power competition, New Delhi’s approach is based on limited hard balancing due to the power differential. This approach involves modest military buildup and informal alliances, such as strategic partnerships that allow for shared undertakings and resource pooling but not coordinated military operations or preemptive warfare.<sup>8</sup> New Delhi’s response to China’s expansive BRI has been limited by India’s resource constraints and China’s growing alliance with Pakistan, which has further encircled India. As a result, due to the asymmetry in power, India has adopted a strong critique of the BRI, emphasizing strong normative principles. India has smartly articulated its concerns regarding the BRI by arguing that it leans toward colonization and poses a threat to “the rest”<sup>9</sup>.

In response to the concerns surrounding the CPEC and its impact on India and the wider region, New Delhi has been engaging in alternative diplomatic exercises to counter China’s intrusion in South Asia. Against this backdrop, this

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<sup>4</sup> Thazha V. Paul, “When Balance of Power Meets Globalization: China, India and the Small States of South Asia,” *Politics* 39, no. 1 (2019), 50–63.

<sup>5</sup> John J. Mearsheimer, “China’s Unpeaceful Rise,” in *Realism Reader*, pp. 464–467. Routledge, 2014.

<sup>6</sup> Thazha Varkey Paul, James J. Wirtz, and Michel Fortmann, *Balance of Power: Theory and Practice in the 21st Century* (Stanford, CA: Stanford University Press, 2004).

<sup>7</sup> Paul, Wirtz, and Fortmann, *Balance of Power*.

<sup>8</sup> Paul, “When Balance of Power Meets Globalization.”

<sup>9</sup> Fareed Zakaria, *From Wealth to Power: The Unusual Origins of America’s World Role* (Princeton, NJ: Princeton University Press, 1998), <https://doi.org/>.

article will explore how India has responded to China's assertiveness through a strategy of limited hard balancing.<sup>10</sup> These initiatives, which will be discussed below, are viewed as counterbalancing measures taken by New Delhi to address China's aggressive approach, particularly in relation to the conditions attached to the BRI and CPEC.

### Neighborhood First: The Vicinity in Surveillance

India's unique geography, sharing borders with countries of varying sizes, powers, and resources such as Bangladesh, Afghanistan, Pakistan, Maldives, Bhutan, Sri Lanka, and Nepal, has made building lasting and trustworthy relationships with its neighbors a challenge. As former Prime Minister Atal Bihari Vajpayee once said, "You may alternate your friends, but you cannot change your neighbours."<sup>11</sup> To have a significant impact on expanding multipolar international politics, New Delhi must forge strong links between its domestic ambitions and foreign policy priorities. India's political and economic growth hinges on a secure, stable, and peaceful environment, and as C. Raja Mohan has asserted, "no country can establish itself as a credible power in the neighbourhood or the world, without rooting hegemony in its region."<sup>12</sup> Accomplishing the goal of becoming one of Asia's leading players will depend on India's ability to maintain its backyard.<sup>13</sup> As the leading proponent of offensive realism, Mearsheimer has argued that "the preeminent outcome a state can endeavor for is to be a regional hegemon and probably control another region that is adjoining and manageable over land. Once the mission of regional hegemony is accomplished, then it can seek to thwart states in other regions from replicating their feat. To put it differently, regional hegemons do not embrace rivals."<sup>14</sup>

Although India adopted an idealist approach to foreign policy soon after its independence,<sup>15</sup> the 1962 war with China exposed the harsh realities of global power politics. However, it was the Indo-Pakistan War in 1965 that pushed

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<sup>10</sup> Renato Cruz De Castro, "Caught Between Appeasement and Limited Hard Balancing: The Philippines' Changing Relations with the Eagle and the Dragon," *Journal of Current Southeast Asian Affairs* 41, no. 2 (2022): 18681034221081143.

<sup>11</sup> Angana Das, "India's Neighbourhood Policy: Challenges and Prospects," *Jindal Journal of International Affairs* 4, no. 1 (2016): 18–37.

<sup>12</sup> Sukh D. Muni and C. Raja Mohan. "Emerging Asia: India's Options," *International Studies* 41, no. 3 (2004): 313–33.

<sup>13</sup> Muni and Mohan. "Emerging Asia: India's Options."

<sup>14</sup> Mearsheimer, "China's Unpeaceful Rise," 464–67.

<sup>15</sup> Sumit Ganguly, ed., *India's foreign Policy: Retrospect and Prospect* (New Delhi: Oxford University Press, 2010).

India's foreign policy to prioritize security as the state's primary national interest. According to S. D. Muni, one of the key elements shaping India's approach to its neighbors is its diplomatic personality and approach.<sup>16</sup>

Prime Minister Narendra Modi has pursued a dynamic regional diplomacy approach, seeking to engage neighboring states and build political connectivity through dialogue. Modi recognizes that foreign policy begins at a country's borders, and his first step in implementing this was to invite all heads of the South Asian Association for Regional Cooperation (SAARC) to his inauguration ceremony.<sup>17</sup> This gesture sent a clear message that he was committed to improving ties between India and its close neighbors. India's continued pursuit of significant global power status depends on addressing the factors that have contributed to its declining regional influence over the past several decades.

Modi has made a deliberate effort during his visits to Bangladesh, Bhutan and Nepal to forge lasting relationships with these neighbors rather than using these visits merely as props for photo opportunities at SAARC gatherings or other bilateral summits.<sup>18</sup> In fact, during his first trip abroad as prime minister, Modi chose to visit Bhutan, citing the "unique and special bond" between the two nations. While there, he emphasized his government's goal of strengthening bilateral ties and referred to the relationship between the two nations as "Bharat to Bhutan" (B2B) relations.<sup>19</sup>

During his visits to Bhutan and Nepal, Modi promoted the idea of trans-Himalayan regionalism and emphasized its importance as the cornerstone for the Asian politics, environmentalism, culture, and regional security.<sup>20</sup> He successfully bridged the communication and confidence gap that had developed between India and these countries in previous years by promptly addressing the issues and clearly explaining India's strategy toward them.<sup>21</sup>

Modi's diplomatic visit to Bangladesh, accompanied by West Bengal's Chief Minister Mamata Banerjee, and the resolution and endorsement of the boundary dispute, via the Land Boundary Agreement, resulted in significant consequences,

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<sup>16</sup> Ashok K. Behuria, Smruti S. Pattanaik, and Arvind Gupta, "Does India Have a Neighbourhood Policy?," *Strategic Analysis* 36, no. 2 (2012), 229–46.

<sup>17</sup> Das, "India's Neighbourhood Policy."

<sup>18</sup> Hein Kiessling, *Faith, Unity, Discipline: The Inter-Service-Intelligence (ISI) of Pakistan* (New Delhi: Oxford University Press, 2016).

<sup>19</sup> Juhi Srivastava, "Indo-Bhutan Bilateral Relations and Narendra Modi," *Asian Journal of Research in Social Sciences and Humanities* 5, no. 10 (2015): 62–68.

<sup>20</sup> Swaran Singh and Reena Marwah, eds., *Multilateralism in the Indo-Pacific: Conceptual and Operational Challenges* (London: Taylor & Francis, 2022).

<sup>21</sup> Das, "India's Neighbourhood Policy."

including the provision of a renewed USD 2 billion line of credit for the neighboring country. His initiatives received considerable praise for neutralizing the mistrust and chasm that had characterized the relationship between India and Bangladesh over the years.<sup>22</sup>

New Delhi has also worked to provide new opportunities for the country's northeast by fostering closer economic ties with Bangladesh. In January 2016, Bangladesh and India secured a tentative agreement for Bangladesh to obtain 100 MW of energy daily from the gas-based ONGC Tripura Power Company (OTPC) for Rs.5.50 per unit, roughly equivalent to Bangladesh's weighted average generating tariff (Taka 6.50). In response, Dhaka launched the process of authorizing access to the Chittagong port and proposed to implement the recommended rail connection between Agartala, India, and Akhaura, Bangladesh. Once finished, the current nearly 1,500 km road trip will be reduced to less than half that distance.<sup>23</sup>

Prime Minister Modi made history as the first Indian prime minister since Rajiv Gandhi to visit Sri Lanka—a gap of nearly 28 years.<sup>24</sup> During his visit, Modi emphasized the significant historical and cultural ties between the two countries and expressed interest in a new beginning for their relationship.<sup>25</sup> Likewise, in December 2015, Modi assured war-torn Afghanistan of India's support, pledging that India's presence in Afghanistan aimed to contribute rather than compete, to build a better future rather than to initiate discord, and to rebuild lives rather than destroy a nation.<sup>26</sup>

Furthermore, in April 2016 India and Maldives signed an action plan for defense collaboration, which Modi described as being inextricably linked to India's national interests and the stability and security of Maldives.<sup>27</sup> Modi also promised the island nation the support needed to establish democratic institutions, and the two countries signed supplementary agreements to increase their defense coop-

<sup>22</sup> Das, "India's Neighbourhood Policy."

<sup>23</sup> Das, "India's Neighbourhood Policy," 27–29.

<sup>24</sup> Harsh V. Pant and Julie M. Super, "Non-alignment and Beyond," in *New Directions in India's Foreign Policy: Theory and Praxis*, ed. Harsh V. Pant (New York: Cambridge University Press, 2019), 127.

<sup>25</sup> Prasanta Sahoo, "A History of India's Neighbourhood Policy," *World Affairs: The Journal of International Issues* 20, no. 3 (2016): 66–81.

<sup>26</sup> See, "Text of Modi's Speech to Afghan Parliament," *The Hindu*, 25 December 2015, <https://www.thehindu.com/>.

<sup>27</sup> Bruce Vaughn, *China-India Great Power Competition in the Indian Ocean Region: Issues for Congress* (Washington, DC: Congressional Research Service, 20 April 2018).

eration in the areas of developing the SAARC satellite, conservation, tourism, and taxes.<sup>28</sup>

Modi's outreach to India's immediate neighborhood is part of his neighborhood-first diplomacy, which aims to counter Beijing's "string of pearls" (SOP) policy, designed to thwart India's rise in China's proximity. By focusing on strengthening relationships with neighboring countries, Modi seeks to counter China's designs in the region.

### Act East Policy: Containing the Dragon

The shifting world order prompted India's foreign policy to undergo several adaptations, including the Look East Policy (LEP), which the current administration has rebranded as the Act East Policy (AEP).<sup>29</sup> This policy has been in place for about two decades. Countries that seek to reassess their foreign policy must do so under a specific set of domestic and international circumstances,<sup>30</sup> such as an external cataclysmic event like the collapse of the Soviet Union or the gradual imbalance brought on by a rising power like China, which alters the balance of power in the international arena. States must adjust their policies to protect their national interests during such episodes of imbalance in the international power structure.<sup>31</sup> Domestic events also affect international policy. India's response to its economic problems and the emerging "unipolar moment"<sup>32</sup>—defined by the demise of the USSR and end of the Cold War—was to deepen ties with countries in its larger eastern neighborhood. Therefore, the economic liberalization of the Indian economy in 1991 gave India's foreign policy a new strategic identity.<sup>33</sup>

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<sup>28</sup> Rahul Roy-Chaudhury, "India's Perspective towards China in Their Shared South Asian Neighbourhood: Cooperation Versus Competition," *Contemporary Politics* 24, no. 1 (2018): 98–112. The SAARC Satellite, now the South Asia Satellite, is a geostationary communications and meteorology satellite operated by the Indian Space Research Organisation for the South Asian Association for Regional Cooperation (SAARC) region. The satellite was launched on 5 May 2017. During the 18th SAARC summit held in Nepal in 2014, Prime Minister Modi promoted the idea of a satellite serving the needs of SAARC member nations as a part of his neighbourhood first policy. Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, and Sri Lanka are the users of the multidimensional facilities provided by the satellite.

<sup>29</sup> Taz Barua, "The Look East Policy/Act East Policy-driven Development Model in Northeast India," *Jadavpur Journal of International Relations* 24, no. 1 (2020): 101–20.

<sup>30</sup> Chietigj Bajpae, "Reinvigorating India's 'Act East' Policy in an Age of Renewed Power Politics," *Pacific Review*, 2022, 1–31, <https://doi.org/>.

<sup>31</sup> Christophe Jaffrelot, "India's Look East Policy: An Asianist Strategy in Perspective," *India Review* 2, no. 2 (2003): 35–68.

<sup>32</sup> See, Charles Krauthammer, "The Unipolar Moment," *Foreign Affairs* 70 (1990): 23.

<sup>33</sup> Vishal Ranjan, "Australia and India in Asia: When 'Look West' Meets Act East," *Strategic Analysis* 40, no. 5 (2016): 425–39.

Since the LEP's launch, there has been a major shift in the geopolitical landscape of the Indo-Pacific region, and the AEP is designed to help India adapt to this new reality.

The AEP, publicly unveiled in 2014, represents India's latest effort to engage with its eastern neighbors and East Asia. It builds upon the LEP, with the aim of injecting greater dynamism and determination into India's interactions in those regions. This new approach to India's eastward involvement has significant security and strategic implications.<sup>34</sup> Since the LEP's launch, there has been a major shift in the geopolitical landscape of the Indo-Pacific region, and the AEP is designed to help India adapt to this new reality.

Compared to the LEP, the AEP stands out for its emphasis on a wider geographic reach and its strategic depth.<sup>35</sup> This may reflect India's recognition that a strategic vision for Southeast Asia is not complete without a similar vision for East Asia and the Asia-Pacific.<sup>36</sup> The AEP seeks to establish trade corridors between, which are Association of Southeast Asian Nations (ASEAN) members. India has also launched various connectivity project, including the Trilateral Highway Project, involving Myanmar and Thailand; the Kaladan Project in Myanmar; and the construction of a port at Sittwe in Myanmar.<sup>37</sup>

India's security and strategic partnerships with Southeast Asian countries are motivated by New Delhi's concerns about China's strategic intrusions into the region. While the AEP initially focused on economic and trade links between Southeast Asian countries and India, China's increasing expansion and belligerence in the region—particularly in the South China Sea dispute—has caused New Delhi to reassess its strategic approach. India is wary of China's encroachment into what New Delhi considers India's "extended neighbourhood."<sup>38</sup> Therefore, the LEP and AEP have emphasized India's bilateral and multilateral security and strategic cooperation with Southeast Asian nations. Through this policy, India is attempting to counter China's expansionist moves in the region.<sup>39</sup>

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<sup>34</sup> Subas Chandra Sethy and Choudhury Pradosh Ranjan, "Act East Policy and Its Strategy and Significance of the 21st Century Towards South East Asia," *International Journal of Research and Analytical Reviews* 9, no. 2 (May 2022): 563–71.

<sup>35</sup> Mungreishang Horam, "Contextualizing India's 'Act East' Policy Within the Geopolitical Dynamics of the Asia-Pacific Region," *Indian Journal of Asian Affairs* 35, no. 1 (2022): 58–72.

<sup>36</sup> Amitendu Palit, "India's Act East Policy and Implications for Southeast Asia," *Southeast Asian Affairs*, 2016, 81–92, <https://www.jstor.org/>.

<sup>37</sup> M. Ganapathi, "'Look East-Act East' Dimension of India's Foreign Policy," *Indian Foreign Affairs Journal* 10, no. 1 (2015): 63–73.

<sup>38</sup> Horam, "Contextualizing India's 'Act East' Policy."

<sup>39</sup> S. Jaishankar, *The India Way: Strategies for an Uncertain World* (New Delhi: HarperCollins, 2020).

## **International North–South Transport Corridor: Leveraging the Flow of Trade**

Although the International North–South Transport Corridor (INSTC) was established in 2000, it was further expanded by its three founding members—Russia, India, and Iran—in 2002. This 7,200-km multifunctional corridor was envisioned to connect Mumbai, India, with Astrakhan and St. Petersburg, Russia, through Bandar Abbas and Bandar-e-Anzali, Iran, before traversing the Caspian Sea. The project has experienced many challenges since its inception, but New Delhi is highly interested in the venture as it would enable India to increase its energy and economic relations with Central Asia and Russia.

The project received a significant boost with the signing of the Tripartite Agreement on Transit and Trade between India, Afghanistan, and Iran in May 2016, which mandated the progression of Chabahar port in southern Iran as the precursor to the project. Since 2002, ten additional nations have joined INSTC—Azerbaijan, Ukraine, Armenia, Turkey, Belarus, Tajikistan, Kazakhstan, Syria, Kyrgyzstan, and Oman—with Bulgaria joining as an observer. The strategic dimension of INSTC is that it will reduce transportation costs by 30 percent and transit time from about 40 days to 20 days between Moscow and New Delhi.

The two countries at the ends of this trade corridor—Russia and India—have agreed to expand their yearly bilateral commerce by USD 5 billion over the following four years, resulting in economic growth for all the countries positioned along the corridor, not just those at the terminal ends. It is imperative to mention that the economic investments by India along the corridor are creating geopolitical opportunities for New Delhi, which might present obstacles for China's designs in Central Asia. Considering India's abiding geopolitical goals in the region, energy security tactics, and competition with China, the INSTC offers a way for New Delhi to expand its regional influence.

## **Necklace of Diamonds: Offense Is the Best Defense**

Instead of adopting a passive approach toward Beijing's SOP policy, New Delhi has embraced the strategic offensive principle of war—(offense is the best defense)—and has begun developing its own “necklace of diamonds” strategy. This approach, also known as the *counter-encirclement policy*, aims to encircle China by expanding Indian naval bases and forging alliances and partnerships with strategically located nations in the Indian Ocean region (IOR).

In August 2011, while speaking to a think tank about “India's Regional Strategic Priorities,” India's former foreign secretary, Lalit Mansingh, coined the phrase *necklace of diamonds* to describe India's strategy of “doing everything it is supposed

to do in terms of protecting its interests. . . . Just as the Chinese are building port facilities, we are tying up naval cooperation with almost all the major powers of the Indian Ocean region”<sup>40</sup> Although analysts often use the phrase to describe India’s strategic approach of countering China’s growing influence in the IOR, it has not yet been used in official government discourse.

Concerned by China’s aggressive maneuvers, including what Tom Miller, managing editor of the *China Economic Quarterly*, describes as Beijing’s design to tighten a maritime noose around the neck of India: the SOP policy.<sup>41</sup> India has increased its presence in the IOR and established strong security relations with regional countries. New Delhi sees India as the net security provider in the region and views any outside influence as a threat to national security. To counter China’s moves in the IOR, New Delhi has established naval bases and forged partnerships with strategically located countries in the IOR. India’s first focus was on establishing a presence near the Strait of Malacca, a critical strategic intersection.<sup>42</sup> Additionally, India’s involvement in building the Sabang port in Indonesia is regarded as a counterbalance to China’s ambitions in the region.<sup>43</sup> India also signed a bilateral agreement with Singapore allowing for the deployment of the Indian Navy at Changi Naval Base. In addition to Singapore, India is forming strategic and maritime alliances with China’s neighbors, such as Japan and Mongolia, which are also involved in border disputes with China.

### Indo–US Alignment: Marriage of Convergence

One of the most significant developments in post–Cold War South Asia is the growing convergence of Indian and US interests, which were previously hindered by their differing perspectives on security and geoeconomics during the Cold War.<sup>44</sup> The earlier inability to coordinate political and economic agreements led to terms like *estrangement*, *antagonism*, and *enmity* being used to describe their

<sup>40</sup> Abhay Kumar Singh, “Dattatreya Nimbalkar asked: Why has India’s ‘necklace of diamonds’ strategy in the Indian Ocean Region not been as successful compared to China’s ‘string of pearls’ strategy?,” *Ask an Expert*, 16 March 2021, <https://idsa.in/>.

<sup>41</sup> Tom Miller, *China’s Asian Dream: Empire Building along the New Silk Road* (London: Zed Books, 2017).

<sup>42</sup> Madhuri Sukhija, “India and China at the Crossroads: The Imperatives of Reworking India’s Strategy,” *Ensemble* 3, no. 1, (2021): 1–9, <http://www.ensembledrms.in/>.

<sup>43</sup> See, “Eyeing Southeast Asia, India Builds Port in Indonesia,” *Economic Times*, 20 March 2019, <https://economictimes.indiatimes.com/>.

<sup>44</sup> Ashok Sharma, *Indo-US Strategic Convergence: An Overview of Defence and Military Cooperation* (New Delhi: KW Publishers, 2008).



relationship..<sup>45</sup> However, as the Cold War ended, the reasons for the schism diminished, and ties between the two countries developed to the level of strategic collaboration in nearly every area, including economic, trade, nuclear, missile technology, and defense cooperation.<sup>46</sup> Despite both countries being well-established democracies, they endorsed opposing blocs during the Cold War, and thus, liberal justifications for their alignment are insufficient. Instead, the perception of threat strongly supports their closer ties.<sup>47</sup> According to Harsh V. Pant, the Indo-US civil nuclear deal of 2008 was a “pinnacle of ties” between the two and illustrated “India’s capabilities as a credible nuclear power that deserves to be part of the global nuclear system.”<sup>48</sup>

While distant from the US mainland, China still poses a threat to the United States due to Beijing’s strategic aspirations, while for India, China’s geographic proximity, border issues, and expansionist policies make it an imminent threat. Officials from Washington and New Delhi publicly claim that China is not a significant factor in this new alignment; however, it is clear that both are worried about China’s trajectory due to its expanding regional and global position. However, India had already provided the China threat as the rationale for nuclear testing in 1998. India’s foreign policy is bracing for this challenge with its new rapport with the United States, which shares the same concerns about China’s rise.<sup>49</sup>

During Barack Obama’s presidency, the strategic partnership between India and the United States continued to function almost intact as a linchpin of the US “Pivot to Asia” strategy. Under the Trump administration, Washington’s approach to the region gained greater traction, explicitly rebranded as an Indo-Pacific strategy, with New Delhi being accorded even greater significance and a flurry of initiatives aimed at enhancing Indo-US defense capacity in the region.<sup>50</sup> Washington has increasingly considered New Delhi as a potential strategic partner, with the relationship being strengthened through initiatives such as the Quadri-lateral Security Dialogue (Quad), the 2+2 Ministerial Dialogue, the India-US Nuclear Deal, the Indo-Pacific region’s combined US-Indian strategy, and Trump’s

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<sup>45</sup> Amulya Kumar Tripathy and Rabi Narayan Tripathy, *US Policy towards India: A Post Cold War Study* (New Delhi: Reference Press, 2008).

<sup>46</sup> Syed Shahid Hussain Bukhari, “India-United States Strategic Partnership: Implications for Pakistan,” *Berkeley Journal of Social Sciences* 1, no. 1 (2011): 1–28.

<sup>47</sup> Arshid Dar, “Re-alignment and Changing Power Structure in South Asia: A Study of India’s Assertion for Regional Dominance” (PhD thesis, University of Kashmir, Srinagar, n.d.), 71.

<sup>48</sup> Harsh V. Pant and Yogesh Joshi, “Indian Foreign Policy Responds to the US Pivot,” *Asia Policy* 19, 2015, 89–114.

<sup>49</sup> Dar, “Re-alignment and Changing Power Structure,” 72.

<sup>50</sup> Muhsin Puthan Purayil, “The Rise of China and the Question of an Indo-US Alliance: A Perspective from India,” *Asian Affairs* 52, no. 1 (2021): 62–78.

proposal for the Group of Seven (G7) to be extended to include India and other economies. This collaboration includes military, technology, and logistics acquisition agreements, such as the Logistics Exchange Memorandum of Agreement, General Security of Military Information Agreement (GSOMIA), and Communications Compatibility and Security (COMCASA), as well as the Basic Exchange and Cooperation Agreement for Geospatial Cooperation (BECA), which facilitates the exchange of geospatial intelligence and the shared provision of logistical assistance and services.

The two countries have also signed the Industrial Security Annex to the GSOMIA and the Helicopter Cross Decking Agreement (HOSTAC), enabling the United States to exchange sensitive data with Indian defense industries. In 2018, the United States approved India's application for Strategic Trade Authorization Tier 1 (STA-1), removing obstacles to the export of advanced US military and aerospace components. This improved collaboration has also led to increased organizational coordination between the two countries. For instance, the Trump administration sent two smart surveillance drones and cold-weather gear for Indian soldiers during a crisis at the India–China perimeter in 2020.<sup>51</sup>

Moreover, a novel quadrilateral dialogue described as the “West Asian Quad”<sup>52</sup> insert space between quote marks and was established in October 2021 and was also referred to by the acronym (I2U2) by Israel, India, the United States and the United Arab Emirates, where India is the linchpin for cross-regional cooperation framework endeavor.<sup>53</sup> Recently on 23 March 2022, India sign up for the Indo-Pacific Economic Framework for Prosperity (IPEF) setup together by India, the USA, and Japan.<sup>53</sup>

Additionally, the Biden administration spearheaded the establishment of the West Asian Quad<sup>54</sup> insert space between Quad and in October 2021—referred to by the acronym I2U2, representing its member states Israel, India, the United States, and the United Arab Emirates. India serves as the linchpin for this cross-regional cooperation framework endeavor. On 23 May 2022, India signed up for the Indo-Pacific Economic Framework for Prosperity (IPEF), established by India, the United States, Australia, Brunei Darussalam, Fiji Indonesia, Japan, South

<sup>51</sup> Dustin Carmack, et al., *India-US Relations: Priorities in the Next Decade* (New Delhi: ORF and The Heritage Foundation, 2022), <https://www.orfonline.org/>.

<sup>52</sup> Carmack, et al., *India-US Relations*.

<sup>53</sup> See comment of Union Minister for Commerce and Industry Piyush Goyal, regarding US-India strategic relationship, in Saurav Anand, “India, US Keen to Strengthen Economic Relations, Strategic Partnership: Goyal,” *Live Mint*, 10 September 2022, <https://www.livemint.com/>.

Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, and Vietnam.<sup>54</sup>

## **Reaching Out to Friends in the Ocean: Malabar Exercise, Japan, and Australia**

Malabar is a multilateral war-gaming naval exercise that was started in 1992. In its original format, it was a bilateral exercise conducted in the Bay of Bengal to evaluate various naval tactics. Since then, other nations have been invited to participate, with Japan being a permanent member. The exercise includes fundamental training, submarine tracking, and maritime interoperability and showcases India's influence and capability in terms of maritime security to its partners.<sup>55</sup> Japan's entry into the Malabar Exercise in 2017 not only provided the exercise more momentum but also raised security concerns for Beijing due to the geographical aura of the three nations vis-à-vis China in the IOR.<sup>56</sup> India exchanges maritime information bilaterally with friendly foreign nations to establish maritime domain awareness in the Indian Ocean. In an endeavor to contain Chinese influence in the Indo-Pacific region, Australia participated in the Malabar Exercise in 2020 at the request of India, and has participated every year since—meaning all four members of the Quad now participate in the exercise.<sup>57</sup> Given the increasing tension between China and the Quad countries, particularly from New Delhi's standpoint due to China's aggression toward India, the Quad's participation in Malabar will play a key role in thwarting Beijing into the warm waters of the IOR as well as the South China Sea.

India has faced numerous challenges in the face of China's rise, including regional security, economic and trade ties, and her relationships in the context of global governance. To counterbalance China, India has formed partnerships such as the Indo-US alignment and the Quad bloc with other countries to increase security and cooperation in the procurement of advanced weaponry. Rather than challenging China directly, Australia and India are collaborating within the Quad framework to maintain regional stability and development. Both nations are in-

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<sup>54</sup> "In Asia, President Biden and a Dozen Indo-Pacific Partners Launch the Indo-Pacific Economic Framework for Prosperity" (fact sheet, The White House, 23 May 2022), <https://www.whitehouse.gov/>.

<sup>55</sup> Adarsha Verma, "The Malabar Exercises: An Appraisal," *Institute for Defence Studies and Analyses*, 18 July 2017.

<sup>56</sup> See, "India May Skip Xi's Showpiece Belt and Road Summit over Sovereignty Concerns," *Hindustan Times*, 14 May 2017, <https://www.hindustantimes.com/>.

<sup>57</sup> Rajeswari Pillai Rajagopalan, "Will India Now Finally Invite Australia to the Malabar Exercise?," *ORF*, 1 February 2020, <https://www.orfonline.org/>; and Vinay Kaura and Meena Rani, "Assessing the China Factor in the India-Australia Strategic Partnership after COVID-19," *Strategic Analysis* 46, no. 3 (2022): 317–35.

terested in strengthening international institutions to promote their joint efforts without threatening China. India engages with Australia and Japan through the India-Australia-Japan-Tripartite Mechanism and addresses China's aggressive posture in the IOR and the South China Sea through the Australia-India-France trilateral, which also addresses security concerns and commits to responding to challenges, including those posed by China. However, Beijing views the Quad and similar such relationships as a way to contain China.

### Chabahar Port

The construction of Chabahar port in Iran has garnered renewed interest as a potential hub of international trade and a major arena for geopolitical competition. India has a significant stake in the port as New Delhi sees it as a means of accessing Central Asian and Afghan markets without having to traverse through the land routes of India's adversary, Pakistan. The port is also viewed as a way to strengthen the relationship between India and Iran and as a new proposal to counter Chinese influence in the Indian Ocean via Pakistan's Gwadar port. In addition, the project could balance out the growing Sino-Pakistani alignment.<sup>58</sup>

Chabahar port is located in Iran's southeastern Baluchistan and Sistan province, with unique qualities that attract regional and foreign powers. It is the only deep-sea port in Iran with unmediated access to the ocean, and is strategically located on the burgeoning INSTC, making it a potentially significant commercial hub in the IOR—particularly given its geographical adjacency to countries like Pakistan, Afghanistan, and India. Furthermore, the fact that Chabahar is exempt from US sanctions makes it easier to conduct international transactions.<sup>59</sup>

India and Iran began working on the Chabahar port in 2003, but their interaction did not take off until 2016 when Prime Minister Modi and Iranian president Hassan Rouhani announced that India would invest USD 500 million in upgrading the port.<sup>60</sup> Their renewed engagement was largely influenced by Chinese president Xi Jinping's proclamation that China would begin its colossal BRI infrastructure game plan in 2013. New Delhi's involvement with the Chabahar port is thus an essential facet of maintaining Indian influence by enhancing its regional

<sup>58</sup> Soroush Aliasgari and Marin Ekstrom, "Chabahar Port and Iran's Strategic Balancing with China and India," *The Diplomat*, 21 October 2021, <https://thediplomat.com/>.

<sup>59</sup> See, "US Gives India 'Narrow Exemption' from Chabahar Sanctions for Afghan Aid," *NDTV*, 19 December 2019, <https://www.ndtv.com/>.

<sup>60</sup> See, "India and Iran Sign 'Historic' Chabahar Port Deal," *BBC News*, 13 May 2014, <https://www.bbc.com/>.

posture and leveraging an Indo–Iranian collaboration to counter China’s encirclement and primarily Sino-Pak alignment.

### **Sagarmala Project: Waves of Influence**

The Sagarmala was announced by Prime Minister Vajpayee on 15 August 2003, but was put on hold during the United Progressive Alliance (UPA) administration until being resurrected under Modi’s leadership. The project aims to provide a comprehensive policy addressing of industry, trade, tourism, and transportation by establishing a standard policy layout for port facilities, controlled by the federal government and nonmajor ports, possessed by the states. It requires the establishment of ten coastal economic regions (CER) along India’s vast 7,000-km coastline to establish production bases supported by inward links through various freight alternatives, including rail, road, and inland waterways for efficient cargo transfer from ports.

This framework proposes the construction of captive industries, port-based industrial parks, and ancillary facilities such as logistics parks, ship recycling, warehousing, shipbuilding, and ship repair. Enhancing connectivity between India and the rest of the world has been one of the top priorities of the Modi administration, reflected in its foreign policy efforts. The majority of domestic and international projects aim to build infrastructure that will improve regional and global connectivity. The Sagarmala project prioritizes sea routes and infrastructure development over road and rail. The government has pledged to complete 150 projects under this program, with a budget of approximately USD 54 billion. The Sagarmala Development Company was established at the initiative’s outset to assist various stakeholders in developing their projects.

The Sagarmala Initiative has the potential to provide India with several benefits, but its successful implementation is crucial. India’s vast coastline has historically served as a major transportation route for goods, services, and people. However, while the coastline has changed over time, its infrastructure has not kept up. Improving infrastructure and associated services can streamline trade processes and reduce costs, allowing India to fully utilize its coastline and improve its trade rankings. Additionally, the Sagarmala project aims to develop a connectivity and infrastructure network that could link India with other coastal regions, strengthening India’s presence in the IOR and thwarting China’s BRI in the region.

## **Transforming Jammu & Kashmir into a Union Territory: A Geostrategic Move**

The CPEC is considered the flagship program of the BRI, passing through Pakistan-occupied Kashmir (POK), a region over which India claims sovereignty. This is a major contributing factor to New Delhi's boycott of the BRI. India expressed dismay about China's reservations pertaining terrorist activities emanating from Pakistan and its partnership with Islamabad to establish the Diamer-Bhasha Dam in POK, which New Delhi asserts infringes upon India's territorial integrity and sovereignty.

To balance the China–Pakistan partnership and combat the rising insurgency and terrorist activities within, the Modi government abrogated Article 370, the special provision conferred to erstwhile Jammu & Kashmir, creating two separate union territories in August 2019: Ladakh and Jammu & Kashmir. The Ladakh map now includes the Shaksgam Valley, which Pakistan illegally handed to Beijing in a 1963 boundary agreement to balance India, and the Aksai Chin region, which has been under Chinese control since the 1962 Sino-Indian War. The newly created union territories and associated maps were ratified by the Indian Parliament.<sup>61</sup>

In addition, to counter a two-front war scenario, the Indian Air Force has built a three-kilometer-long airstrip on the National Highway Jammu–Srinagar (NH-44) in the Bijbehara area of Anantnag district in Jammu & Kashmir, providing swift air access. The expansion of infrastructure to increase connectivity has been a top priority for the Modi government.<sup>62</sup> The plans are to construct 20 tunnels, totaling 32 km in length in Jammu and Kashmir, and 11 tunnels, comprising 20 km in Ladakh, providing all-weather connectivity to the border areas and playing a vital role in logistic support in case of any external threat.<sup>63</sup>

## **Conclusion**

China's rise, accompanied by its aggressive posture in both the Himalayas and maritime regions, not only raises questions about encircling India but also regarding containing India's influence in its own neighborhood. Beijing's growing power and asymmetry with India in matters of defense and economics are the main

<sup>61</sup> See, K. Warikoo, "Ladakh: India's Gateway to Central Asia," *Strategic Analysis* 44, no. 3 (2020): 177–92.

<sup>62</sup> See, Zulfikar Majid, "Amidst Tension on Borders, IAF Building Emergency Airstrip in Kashmir," *Deccan Herald*, 4 June 2020, <https://www.deccanherald.com/>.

<sup>63</sup> Dar Yasin and Umer Meraj, "India Builds Strategic Tunnel Project in Kashmir," *The Diplomat*, 30 September 2021, <https://thediplomat.com/>.

strategic concerns for New Delhi, which must safeguard itself while pursuing its interests in an unbalanced strategic landscape. In response to Beijing's assertiveness and New Delhi's realization that India cannot confront the whole challenge on its own, India has preferred to intensify its links with partners that can support and enhance Indian prowess, provide an alternative within the Indo-Pacific, and maintain the advantageous power posture in the region.

As change is the law of nature, it applies to geopolitics as well. Beijing aspires to carve out what it believes is China's "rightful place" for itself as a middle kingdom and has forged closer economic and strategic ties with like-minded states like Pakistan. These "iron brothers," China and Pakistan, have achieved interoperability in the military sphere, which is a concern for New Delhi. Moreover, India is wary of the CPEC, which links the Pakistani port of Gwadar to China's Kashgar, as New Delhi claims the route runs through Indian territory, and the fear of a greater Beijing's encirclement strategy regarding India's status in the Indo-Pacific construct.

In response to China's growing hegemony in Asia, including South and Southeast Asia, New Delhi is busy devising a counterbalancing approach with countries that can check China's power. Given the power of the BRI, India considers it a challenge but has yet to calibrate its response, leaving many South Asian countries hedging between these two powerful regional players. Therefore, India has resorted to a policy that combines varying levels of balancing in this power transition.

To this end, in September 2018, India and the United States signed the Communications Compatibility and Security Agreement (COMCASA) to share high-end encrypted communication and satellite data, provide a legal framework for defense technology transfer, and allow the Indian military to gain a better understanding of its own backyard, which is experiencing an upsurge in Chinese activities. However, in the aftermath of the incidents in Doklam, Galwan, and other points along the borders with China, there is an apparent change in the posture of India's foreign *Vis a Vis* China especially after the Galwan issue. The conflicts in Galwan, New Delhi's posture toward Beijing has changed, and India's foreign policy vis-a-vis China has become more assertive. India has placed a greater emphasis on military modernization and engagement with the Quad reflects its growing recognition of the need to adapt to a rapidly changing geopolitical landscape and maintain its strategic interests in the region. As China continues to assert its power and influence, India will likely continue to prioritize its military modernization efforts and strategic partnerships with like-minded countries in order to counterbalance China's rising influence and maintain its own position of strength.

India and China's contestation has intensified, and the quest for supremacy has gained fresh vigor. Additionally, regarding the Chinese activities in the IOR New Delhi is on its toes to act. To counter Chinese activities, New Delhi's strategy is two-dimensional in nature: first, concurring regional states like Bangladesh, Bhutan, Nepal, and so forth should be engaged within New Delhi's orbit and build strong ties with them and second, build its own way of economic, naval, and diplomatic equations in summation to steer the ship of the region because after all, it is the matter of who rules Asia? Furthermore, as the new Cold War front lines become increasingly apparent and the Indo-Pacific area becomes the center of geopolitical unrest, South Asia's role has become more crucial. ♣

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# Indo-Pacific Strategies

## What Do They Entail for India?

DR. PANKAJ VASHISHT

### Abstract

The Indo-Pacific construct has gained considerable traction over the past couple years. Adopting this new geographical concept for regionalism, most influential countries have spelled out comprehensive strategies for their engagement with the region. These strategies are expected to reshape the global security and economic architecture. Given the geographical positioning, global tilt toward the Indo-Pacific has direct implications for India. This article examines the Indo-Pacific strategies of different countries to identify the areas where India's interests converge with other participating countries. It argues that despite varying in contour, the Indo-Pacific strategies of leading global powers converge on several important issues including supply-chain diversification, cyber and maritime security, and improving connectivity, which opens interesting economic opportunities for India.

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Global economic geography has been undergoing a phenomenal change. The economic center of gravity that shifted after the Industrial Revolution, first to Europe and then to America, has swiftly been moving toward Asia. Though the rise of the East Asian Tigers in the 1960s instigated this great economic reversal, it became pronounced only after the 1980s, when two Asian giants—India and China—embarked on the path of rapid industrialization. Since the early 1990s, Asia has consistently outperformed Europe and America in terms of economic growth, emerging as the nerve center of global economic activities. The continent's share in global gross domestic product (GDP) and trade has risen remarkably, and Asia has become highly integrated with advanced economies through complex global value chains.

The economic rise of Asia has benefited the entire globe through trade-induced welfare gains. However, given the unsettled territorial disputes, Asia's ascendance has also coincided with serious concerns regarding “good maritime order rooted in adherence to the established international law and norms.”<sup>1</sup> Specifically, developments in the South China Sea have raised global concerns regarding the freedom of navigation that is crucial for keeping the sea lanes open. Additionally,

<sup>1</sup> Gurpreet S. Khurana, “The ‘Indo-Pacific’ Idea: Origins, Conceptualisations and the Way Ahead,” *Journal of Indian Ocean Rim Studies*, October–December (2019).

China's vaunted Belt and Road Initiative (BRI) has created additional concerns. In the light of these geoeconomic and geostrategic changes, a new geopolitical construct—the *Indo-Pacific*—has gained prominence in policy circles.

The Indo-Pacific region accounts for more than 65 percent of global GDP, and half of all global trade passes through the waters of these two oceans.<sup>2</sup> For some time now, the Indian Ocean region and Pacific Ocean region were treated as separate entities for the purposes of strategic policy making. However, since 2007, policy makers have come to recognize that the economic and strategic interests of countries in both regions are interconnected and that they cannot be effectively secured without envisioning the Indian and Pacific as a single, continuous area.<sup>3</sup> This idea was first floated by then Japanese prime minister Shinzō Abe in 2007 when addressing the Indian Parliament. Abe advocated for “strengthening the political and economic link among democracies situated in Indian and Pacific Oceans for securing sea lanes and promoting economic prosperity.”<sup>4</sup> However, the construct gained traction only in 2017 when Pres. Donald Trump put his weight behind it. Since then, several countries have adopted the Indo-Pacific construct.

Given the geographical positioning and dependence on maritime trade, New Delhi has always recognized the significance of the maritime domain in Indian strategic thinking. However, the prevailing global geopolitical landscape, coupled with domestic political instability and conflicts in neighboring countries, as well as resource constraints and more pressing concerns on its northern and northeastern borders, compelled India to prioritize its focus on its continental borders until the end of the twentieth century.<sup>5</sup> Nonetheless, situations changed in the twenty-first century, and New Delhi started focusing more on the maritime domain. India rebooted its maritime outreach in the Indian Ocean with the launch of Indian Ocean Rim Association (IORA) for regional cooperation in 1997. This shift was further strengthened with the launch of the Security and Growth for All in the Region (SAGAR) initiative in 2015. Recognizing the fact that unconventional security threats cannot be effectively addressed without securing the eastern Indian Ocean and western Pacific Ocean, India officially joined the Indo-Pacific construct in 2018. Addressing the Shangri La Dialogue in Singapore, Prime

<sup>2</sup> Prabir De, “Indo-Pacific Ocean Initiative (IPOI): Trade, Connectivity and Maritime Transport Suggested Action Plan” *AIC Working Paper* No 08, December 2021, <https://aseanindiacentre.org.in/>.

<sup>3</sup> Felix Heidux and Gudrum Wacker, “From Asia Pacific to Indo-Pacific”, *SWP Research Paper* 9, July 2020, <https://www.swp-berlin.org/>.

<sup>4</sup> Shinzo Abe, “Confluence of the Two Seas” (speech, Parliament of the Republic of India, 22 August 2007), <https://www.mofa.go.jp/>.

<sup>5</sup> Manoj Joshi, “India (Re)discovers the Indian Ocean,” *ORF Commentary*, 23 August 2019, <https://www.orfonline.org/>.

Minister Narendra Modi outlined India's vision and policy elements for the Indo-Pacific. In his address, Modi called for "an open and inclusive order in Indo-Pacific based on respect for sovereignty and territorial integrity of all nations."<sup>6</sup> Modi's address was followed by the launch of the Indo-Pacific Ocean Initiative (IPOI) in November 2019, which added more clarity to India's vision. The IPOI listed "(1) Maritime Security; (2) Maritime Ecology; (3) Maritime Resources; (4) Capacity Building and Resource Sharing; (5) Disaster Risk Reduction and Management; (6) Science, Technology and Academic Cooperation; and (7) Trade, Connectivity and Maritime Transport as seven pillars for the cooperation with Indo-Pacific countries."<sup>7</sup> The initiative envisages drawing on existing regional cooperation architecture and mechanisms to achieve the objective of open and inclusive Indo-Pacific.

Like India, several countries/regional groupings—including the United States, Japan, Australia, the Association of Southeast Asian Nations (ASEAN), France, Germany, and the European Union—have also devised detailed visions/strategies for the Indo-Pacific. Some of these actors have also launched specific initiatives to supplement their Indo-Pacific strategies. The Indo-Pacific Economic Framework for Prosperity (IPEF) is one such major initiative, which the Biden administration launched recently. Since India is an important Indo-Pacific nation, these strategies and initiatives have direct implications for New Delhi. Against this backdrop, this article examines the emerging Indo-Pacific strategies of different countries to identify the areas where India's interests converge with other participating countries. It argues that despite having differences, Indo-Pacific strategies of different global powers converge on several issues, including supply-chain diversification, cyber and maritime security, and improving connectivity, which opens interesting opportunities for India.

## **Salient Features of Indo-Pacific Visions/Strategies**

### ***United States***

The term *Indo-Pacific* started appearing in US policy circles during the presidency of Barack Obama. However, it gained prominence only during the Trump administration, and since then, the term has become integral to all official documents. Few US departments have come out with their own Indo-Pacific strategy

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<sup>6</sup> Ministry of External Affairs, Government of India, "Indo-Pacific Division Briefs," 2020, <https://mea.gov.in/>.

<sup>7</sup> "Indo-Pacific Division Briefs."

documents. One such document was published by the Department of State in 2019. Titled *A Free and Open Indo-Pacific: Advancing a Shared Vision* (FOIP), this strategy paper provided a comprehensive overview of US involvement in the Indo-Pacific and listed “(i) respect for severity and independence for all, (ii) peaceful resolution of disputes, (iii) free, fair and reciprocal trade and (iv) adherence to international laws”<sup>8</sup> as guiding principles for the US approach to the Indo-Pacific. It was followed by the comprehensive *Indo-Pacific Strategy Report* by Department of Defense and declassification of the *US Strategic Framework for the Indo-Pacific*. The Biden administration also published its *Indo-Pacific Strategy of United States* in May 2022. These four documents clearly underlined the growing economic and strategic importance of Indo-Pacific for the United States and advocate for deeper cooperation with like-minded countries in the region to ensure prosperity with peace.

A careful reading of publicly available US documents clearly highlights strategic/security concerns being at the forefront of Washington’s Indo-Pacific strategy. The United States sees shifting power dynamics and an assertive China as potential threats to the rules-based world order. Thus, US documents emphasize strengthening military alliances with existing partners and expending military cooperation with other like-minded countries in the region, both in bilateral and multilateral frameworks, to ensure maritime security and freedom of navigation for all. US planners envision strengthening the defense capabilities of existing/emerging strategic partners in the Indo-Pacific region through defense export as the most important instrument for deepening military cooperation. Apart from this, joint naval exercises, sharing military technology, military aid, and training programs for military officials are listed as other instruments to deepen defense partnership in Indo-Pacific.

Enriching development cooperation with Indo-Pacific countries also features prominently in US strategy. The *Free and Open Indo-Pacific* vision document extensively describes existing US financial and technical support for various Indo-Pacific countries and seeks to enhance it further. Though the development cooperation under this strategy attempts to cover the entire gamut of socioeconomic development—including skill development, trade facilitation, export promotion, energy policy, entrepreneurship development, civil society development, and so forth—it is the infrastructure financing that has received the most attention. In an apparent bid to provide an alternative to China’s BRI, *A Free and Open Indo-Pacific* promises to support infrastructure development in Indo-Pacific “that is

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<sup>8</sup> *A Free and Open Indo-Pacific: Advancing a Shared Vision* (Washington, DC: Department of State, 3 November 2019), <https://www.state.gov/>.

physically secure, financially viable, economically sustainable, and socially responsible.”<sup>9</sup> The United States has adopted three strategies for this. First, it has consolidated its development finance and technical assistance in the Indo-Pacific with initiatives found in the Better Utilization of Investments Leading to Development Act (BUILD Act) and the Asia Reassurance Initiative Act (ARIA Act). Second, in collaboration with Japan and Australia, Washington established the Blue Dot Network for the certification of high-quality infrastructure projects to promote transparency.<sup>10</sup> Third, Washington has accentuated coordination with other G7 countries to synthesize individual country’s infrastructure finance in the Indo-Pacific region to ensure efficient utilization of resources. The last initiative has culminated in the launch of an ambitious Build Back Better World (B3W), a USD 40-trillion initiative to counter the BRI.

Deepening trade and investment relations with Indo-Pacific countries also features in the US vision. However, the economic agenda has been least developed. The document merely lists several existing US initiatives such as Access Asia, Discover Global Markets and Trade Winds, which have been facilitating US investment abroad, including the Indo-Pacific economies, since the early years of the Trump administration.<sup>11</sup> On the trade front, the US vision pitched for better trade integration with the region based on the principle of free, fair, and reciprocal trade. However, the document does not propose any strategy and merely mentions signing new and renegotiating existing free-trade agreements with Indo-Pacific countries as an instrument for boosting trade relations. In fact, given the ongoing trade friction between China and the United States, emphasis on free, fair, and reciprocal trade may be a US strategy to get better trade and investment deals with China to ensure improved market access and intellectual property rights (IPR) protection for US firms.

Critical technology, digital economy and cybersecurity are other areas that feature prominently in the US vision. Highlighting “maintaining open and interoperable internet with cross-border data flow while protecting the digital economy from cyber security threats”<sup>12</sup> as the biggest challenges in years to come, the US vision urges Indo-Pacific countries to adopt a risk-based approach for evaluating technology vendors. The United States is actively pursuing technology cooperation with like-minded countries in the Indo-Pacific, with a particular focus on

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<sup>9</sup> *A Free and Open Indo-Pacific*, 15.

<sup>10</sup> Jagannath P. Panda, “India, the Blue Dot Network, and the ‘Quad Plus’ Calculus,” *Journal of Indo-Pacific Affairs* 3, no. 3 (Fall 2020): 3–21, <https://www.airuniversity.af.edu/>.

<sup>11</sup> *A Free and Open Indo-Pacific*, 14.

<sup>12</sup> *A Free and Open Indo-Pacific*, 18.

joint investments in emerging technologies. The Quadrilateral Security Dialogue, or Quad, has emerged as a key vehicle for such cooperation, and the launch of the Quad Investor Network (QIN) has given momentum to this initiative.

With the launch of Indo-Pacific Economic Framework for Prosperity (IPEF), Washington sharpened the economic dimension of its Indo-Pacific strategy. The IPEF has identified four pillars for economic cooperation with Indo-Pacific countries: trade, resilient economy, clean energy and fair economy. The IPEF offers a menu of cooperation to Indo-Pacific countries with freedom to choose any pillar to strengthen economic cooperation. However, barring one pillar—*resilient economy*, which focuses on supply-chain resilience—the other three mostly deal with standard setting without offering anything on market access, technology transfer, or finance. For example, the agenda under the *connected economy* pillar revolves around labor standards, environment standards, and cross-border data flow, while important issues such as tariff concession, market access, and trade facilitation are missing. Similarly, the *clean economy* pillar talks about a high target for renewable energy, carbon removal, and high energy-efficiency standards without mentioning anything on technology transfer or financing. Given the prevailing protectionist sentiments that forced the United States to withdraw from the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the IPEF seems to be an attempt to push US standards without offering market access.

## Japan

Despite Prime Minister Abe's coining of the FOIP concept, Japan's Indo-Pacific strategy gained momentum only after 2010 Senkaku boat collision incident. In 2012, Abe proposed the formation of a democratic alliance consisting of Japan, the United States, India, and Australia to protect the global public goods and freedom of navigation.<sup>13</sup> Since then, Tokyo has continuously promoted the idea of a free and open Indo-Pacific—albeit under varying terminology. Initially, Japan's officials and leaders used the term *Indo-Pacific strategy*, later replacing it with *Indo-Pacific vision*.

Given Japan's economic interest in maintaining free sea lines of communication (SLOC) and its unresolved conflict with China over the Senkaku Islands, it not surprising that maritime security figures prominently in Tokyo's Indo-Pacific

<sup>13</sup> Lavina Lee and John Lee, "Japan-India Cooperation and Abe's Democratic Security Diamond: Possibilities, Limitations and the View from Southeast Asia," *Contemporary Southeast Asia* 38, no. 2 (2016): 284–308.

vision. Maintaining a rules-based order and freedom of navigation are stated objectives, and Japan envisions securing major SLOCs by deepening defense cooperation in terms of joint naval exercises, military exchange activities, and defense equipment and technology cooperation with like-minded countries in Southeast Asia, South Asia, the Pacific Islands, Middle East, Africa, and Latin America, which are important for ensuring energy security. Japan has effectively been implementing its Indo-Pacific security strategy. Its military cooperation with Indo-Pacific countries has deepened substantially. In 2012, Japan had military operations with just five countries in the Indo-Pacific; this number increased to 15 in 2021.<sup>14</sup>

Though Japan's Indo-Pacific vision arose from security concerns, economic matters have emerged at the core of it. Japan perceives regional economic prosperity as a building block for security and emphasizes enhancing economic connectivity to achieve the objective of shared prosperity. With a total budget of USD 200 billion, Tokyo introduced the Partnership for Quality Infrastructure initiative to support and finance connectivity infrastructure projects in the Indo-Pacific. Japan has been financing various infrastructure projects in Africa and Asia, including eight port development projects, two airport development projects, and two mega rail corridors—along with several other road and power-generation projects. Though Tokyo has not directly voiced concern against the BRI, emphasis on promoting transparency, efficiency, and sustainability—coupled with its growing cooperation with the United States, European Union, and Australia for infrastructure financing—underlines that the Partnership for Quality Infrastructure aims to offer Indo-Pacific countries an alternative to Chinese infrastructure projects.

Apart from improving physical connectivity, Japan's Indo-Pacific vision also envisions trade agreements, both in bilateral and multilateral frameworks, as tools to ensure higher economic integration with Indo-Pacific countries. Tokyo has been the primary promoter of two recently concluded mega free-trade agreements: the Regional Comprehensive Economic Partnership (RCEP) and the CPTPP. Since these free-trade associations (FTA) are open to China, Japan's focus on FTAs suggests on surface that Tokyo is perhaps not interested in economic rebalancing. However, Japan's recent initiatives/actions indicate another story. Since the outbreak of the covid-19 pandemic, Tokyo has taken two measures to economically wean itself away from China. First, it introduced a USD 2-billion financial support package for Japanese firms operating from China to relocate either back to Japan or any other country. Second, jointly with India and Australia, it has launched the Supply Chain Resilience Initiative (SCRI), which

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<sup>14</sup> Ministry of Foreign Affairs, Government of Japan, "Japan's Effort for a 'Free and Open Indo Pacific'" (PowerPoint presentation, n.d.), <https://www.mofa.go.jp/>.

envisages investment promotion events and buyer-seller matching events along with joint trade and investment diversification measures to achieve the objective of supply-chain resilience. These initiatives, along with focus on improving infrastructure in Indo-Pacific countries, suggest that perhaps Japan conceives of mega FTAs as a tool of economic rebalancing in the region.

## *Australia*

Australia has not published any special document to outline its Indo-Pacific vision or strategy; rather, its Indo-Pacific vision has evolved through several key policy documents such as *2016 Defence White Paper* and *2017 Foreign Policy White Paper*. These documents call for a secure, open, and prosperous Indo-Pacific region.<sup>15</sup> Canberra perceives respect for international laws, norms, and open markets as essential for Australia's security and prosperity and commits itself to uphold these values.

Like the Indo-Pacific visions of Japan and the United States, maritime security features prominently in the Australian vision of the Indo-Pacific too. The *2017 Foreign Policy White Paper* acknowledges that the region's seas are becoming more congested and contested and urge all countries to ensure that "international law especially UNCLOS [United Nations Convention on the Law of the Sea] is respected and implemented to protect the freedom navigation and uphold the sovereign rights of coastal states."<sup>16</sup> Canberra perceives that contestation over these ideas will increase in years to come and, therefore, plans to strengthen Australia's defense preparedness by investing more in defense capabilities and expending defense cooperation, encompassing information sharing, joint naval exercises, joint research and development, border defense cooperation, and so forth with other like-minded countries— especially the Indo-Pacific democracies of the United States, Japan, Indonesia, India, and the Republic of Korea as well as ASEAN.<sup>17</sup>

Connectivity/infrastructure finance also features prominently in Canberra's vision of the Indo-Pacific. In line with the United States and Japan, Australian documents also express concerns for infrastructure finance being used to gain strategic influence and commercial advantage and pledges Canberra's support for transparency, sustainability, and private-sector participation in connectivity/infrastructure projects. The *2017 Foreign Policy White Paper* asserts that Australia is open to engage in regional infrastructure initiatives, including the BRI, if the

<sup>15</sup> *2017 Foreign Policy White Paper* (Canberra: Department of Foreign Affairs and Trade, 2017), <https://www.dfat.gov.au/>.

<sup>16</sup> *2017 Foreign Policy White Paper*, 47.

<sup>17</sup> *2016 Defence White Paper* (Canberra: Department of Defense, 2016), <https://www.defence.gov.au/>.



abovementioned principles are adhered to. However, in subsequent years, Australia has clearly aligned to regional infrastructure initiatives floated by Tokyo and Washington. It has partnered with Japan and United States to launch the Blue Dot Network to promote transparent, sustainable, and socially responsible infrastructure financing.

Having an open economy with high dependence on international trade, it is not surprising that the Australian Indo-Pacific strategy vouches for free and fair trade under a multilateral framework. However, Canberra acknowledges that progress at multilateral forums is going to be very slow and, therefore, sees plurilateral/bilateral trade agreements as a practical way forward. Australia believes that higher economic integration among countries in the Indo-Pacific can dilute strategic rivalry and, therefore, Canberra's Indo-Pacific vision strives for "region-wide trade and investment arrangement defined by comprehensive rules to promote liberalisation, reform and a more seamless trading environment."<sup>18</sup> Apart from being part of three plurilateral trade agreements, Australia already has FTAs with nine individual countries. Under its Indo-Pacific strategy, Canberra is looking forward to signing seven more trade agreements, with the Australia–India FTA and Australia–Indonesia Comprehensive Economic Partnership Agreement (CEPA) being high on the priority list. At the same time, Australia is promoting the idea of a region-wide FTA that would include the United States, India, and Japan. Emphasis on FTAs, along with region-wide trade and investment agreements, suggests that Australia perhaps wants to achieve the following two objectives as a part of its Indo-Pacific strategy. First, Canberra wants to diversify Australia's trade by signing more FTAs, especially with Indo-Pacific democracies, India and Indonesia. The recently launched SCRI—which India, Japan, and Australia have jointly launched—corroborates this. Second, with mega trade and investment agreements, Australia is perhaps trying to define trade and investment rules in a plurilateral framework to safeguard its economic interests in China where its firms have invested around USD 200 billion.

## **ASEAN**

The ASEAN lies at the center of Indo-Pacific geopolitics and geoeconomics, literally and metaphorically. The ASEAN deliberated for more than a year to publish the short, five-page *ASEAN Outlook on the Indo-Pacific* in mid-2019. In carefully crafted words, this document provided a very inclusive vision for an Indo-Pacific that is open to everyone. It avoids naming any country in the document as

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<sup>18</sup> 2017 *Foreign Policy White Paper*, 45.

a partner or rival. The *ASEAN Outlook* acknowledges ongoing geopolitical and geostrategic shifts and calls for avoiding deepening mistrust, miscalculation, and a pattern of behavior based on a zero-sum game. It envisages “ASEAN centrality as the underlying principle for promoting cooperation in the Indo-Pacific region.”<sup>19</sup>

The ASEAN identifies maritime cooperation as its highest priority. The *ASEAN Outlook* mentions unresolved maritime disputes that have the potential to spark open conflict and calls for their peaceful resolution as per existing international laws and conventions. However, unlike the Indo-Pacific visions of the United States, Japan, and Australia, the *ASEAN Outlook* did not envisage any military cooperation to ensure maritime security. Moreover, the maritime agenda of the ASEAN goes far beyond maritime security and maritime disputes. It encompasses preservation and protection of the marine environment and biodiversity, promoting green shipping, developing the blue economy, sustaining management of marine resources, and encouraging technical cooperation in marine science.

Connectivity is the second important theme of the *ASEAN Outlook*. It emphasizes improved physical, institutional, and people-to-people connectivity among Indo-Pacific countries. For physical connectivity, focus is on ensuring a seamless and integrated ASEAN. The document avoids any words that could potentially link the ASEAN with competing connectivity initiatives in the Indo-Pacific. It does mention that environment and ecological sustainability should be considered in connectivity initiatives, but financial viability, economic sustainability, private-sector participation, which occupy important place in the US connectivity initiatives, have been completely avoided. In a nutshell, the *ASEAN Outlook* gives the impression that the ASEAN is open to all regional connectivity initiatives if they complement and support the already existing Master Plan for ASEAN Connectivity (MPAC) 2025.

The *ASEAN Outlook* also lists several other areas for cooperation. It vouches the ASEAN’s support for FTAs and comprehensive economic partnerships to enhance global integration, without giving any details. Apart from FTAs, it envisions cooperation for improving logistics infrastructure and services as well as trade facilitation. Economic areas of cooperation under the *ASEAN Outlook* go beyond trade and cover all aspects of the economy, including the following, among others:

- digital economy and the facilitation of cross-border data flow;
- promotion of micro, small, and medium enterprises;

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<sup>19</sup> *ASEAN Outlook on the Indo-Pacific* (Bangkok: ASEAN, 23 June 2019), <https://asean.org/>.

- active aging<sup>20</sup> and innovation;
- cooperation on preparing for the Fourth Industrial Revolution, with emphasis on sharing expertise and experience to realize the benefits and mitigate the challenges of digital resolution; and
- development of private sector.

Science, technology, research and development, smart infrastructure, climate change, disaster risk reduction/management, and South-South cooperation are also listed as areas for cooperation in the *ASEAN Outlook*, without providing any further details.<sup>21</sup>

### ***European Union***

France has led the European Union's foray in formulating an Indo-Pacific strategy. Given its overseas territories in the region that represent a population of 1.65 million, France considers itself an Indo-Pacific nation. It first published an Indo-Pacific defense strategy in 2016, which was followed by a comprehensive Indo-Pacific strategy in 2018. Acknowledging changing strategic and military balances and increasing unconventional security threats as formidable challenges, the four-pillared French Indo-Pacific strategy advocates for maintaining "an Indo-Pacific that is open and inclusive, free of all forms of coercion and founded on multilateralism and the respect of international law."<sup>22</sup>

Given its overseas territories and economic interest in maintaining open SLOCs, in line with the US Indo-Pacific strategy, the French Indo-Pacific strategy also attaches its highest priority to maritime security and safety. Paris sees the changing regional balance of power, unresolved maritime disputes, and unconventional security threats—such as piracy, terrorism, trafficking, and unregu-

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<sup>20</sup> *Active aging* refers to the process of optimizing opportunities for health, participation, and security to enhance quality of life as people age. This concept has become increasingly important in countries facing the challenge of a growing aging population. As life expectancy increases and birth rates decline, many countries are grappling with the social and economic implications of an aging population. In this context, active aging offers a way to promote healthy, productive, and engaged aging, while also mitigating the potential economic and social costs associated with population aging. Active aging emphasizes the importance of maintaining physical and mental health, staying socially connected and engaged, and participating in meaningful activities, such as work, volunteering, and community involvement. It also emphasizes the need for policies and programs that support older adults in achieving these goals, such as access to healthcare, age-friendly environments, and lifelong learning opportunities.

<sup>21</sup> *ASEAN Outlook on the Indo-Pacific*, 3.

<sup>22</sup> *France's Indo-Pacific Strategy* (Paris: Ministry of Europe and Foreign Affairs, 2021), <https://www.diplomatie.gouv.fr/>.

lated and unprotected fishing—as the most significant challenges and seeks to deepen France’s extant defense cooperation with Indo-Pacific partners particularly, India, Australia, Japan, and the ASEAN to mitigate these challenges.<sup>23</sup> Notably, French strategy mentions its support for freedom of navigation; however, unlike Washington’s FOIP vision, the tone is less confrontational.

Since France is a part of the European Union, its economic agenda under Indo-Pacific strategy did not include FTAs. Rather the trade-related portion of the French Indo-Pacific strategy revolves around two aspects: (1) reducing import dependence for food products and (2) diversifying the supply of strategic goods. For reducing import dependence for agrifood products, Paris pledges financial support for French producers, while for supply-chain diversification, it envisages building partnerships with like-minded countries in Indo-Pacific.

Connectivity and infrastructure finance also figure prominently in the French Indo-Pacific strategy. Paris acknowledges the growing need in the Indo-Pacific region for infrastructure finance and stresses the need for implementation of Europe-Asia connectivity strategies and strengthening bilateral partnerships with Indo-Pacific nations—especially in the field of renewable energy. French strategy emphasizes on competition, sustainability and transparency in infrastructure financing. However, France defers to G20 principles for quality infrastructure financing, which makes its strategy less confrontational with China. The French strategy also emphasizes deepening university and scientific cooperation with Indo-Pacific countries, especially India, Australia, Japan, Singapore, Indonesia, and Vietnam. It identifies healthcare research, management of marine resource, ocean, climate change, and biodiversity as areas of priority for research and innovation cooperation.

Climate change and challenges associated with it—such as promoting energy transition, protecting biodiversity, advocating ocean governance, promoting blue economy, and preventing natural disasters—also constitute an important part of the French Indo-Pacific strategy. Paris envisions mobilizing countries in the region through multilateral and bilateral dialogues to mitigate these challenges.

The French Indo-Pacific strategy also encouraged the idea of a collective European Union strategy for Indo-Pacific. This French push for an EU strategy for the Indo-Pacific prompted Germany and the Netherlands to announce their own separate Indo-Pacific policy guidelines in 2019. The German policy guidelines identified maintaining peace and security, diversifying and deepening relations, promoting a multipolar world, ensuring open shipping routes, promoting open

<sup>23</sup> *France’s Defence Strategy in Indo-Pacific* (Paris: Ministry of Defence, 2016), <https://dkiapcss.edu/>.

markets and free trade, fostering digital transformation and connectivity, protecting plant and countering disinformation as eight interests in the Indo-Pacific.<sup>24</sup> It further asserted that German involvement in the Indo-Pacific will be guided by eight principles including collective European action, multilateralism, rules-based order, United Nations' development goals, human rights, inclusivity, and partnership among equals. The Netherlands' policy document, titled *Indo-Pacific: Guidelines for Strengthening Dutch and EU Cooperation with Partners in Asia*, listed promoting "international legal order, democracy and human rights, sustainable trade, security and stability, safe passage and maritime security, climate change, global healthcare and poverty reduction" as focus areas for partnership with Indo-Pacific countries.<sup>25</sup> Notably, the French Indo-Pacific strategy and German and Dutch policy guidelines on Indo-Pacific converge not only in terms of assessment of the Indo-Pacific but also in terms of their core objectives. These three countries also shared the vision of developing an EU strategy for the Indo-Pacific.

Building on the member countries' strategies/policy guidelines, the European parliament announced a comprehensive strategy for cooperation in the Indo-Pacific in late 2021. This EU strategy underlines that "EU intends to increase its engagement with the region to build partnerships that reinforce the rules-based international order, address global challenges, and lay the foundation for rapid, just and sustainable economic recovery that creates long-term prosperity."<sup>26</sup> The document emphasizes that EU engagement with the Indo-Pacific will be guided by the principles of inclusive multilateral cooperation, respect of democracy, human rights, and rule of law. Aligning with the sentiments proposed by the German and Dutch policy guidelines, the EU strategy adopted a middle path to avoid being trapped in ongoing US-China strategic competition. The document voices European concerns regarding freedom of navigation, human-rights violations, unfair trade practices, and economic coercion—for which China has been repeatedly blamed. However, in a balancing act, it also clearly underlines the EU's willingness to work with Beijing to promote solutions to the challenges facing the Indo-Pacific region.

The EU strategy has identified seven areas for cooperation that fairly covers everything under the sun. However, a careful reading of the document suggests

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<sup>24</sup> *Policy Guidelines for the Indo-Pacific* (Berlin: Federal Foreign Office, 2020), <https://www.auswaertiges-amt.de/>.

<sup>25</sup> *Indo-Pacific: Guidelines for Strengthening Dutch and EU Cooperation with Partners in Asia* (Amsterdam: Government of the Netherlands, 13 November 2020), <https://www.government.nl/>.

<sup>26</sup> *The EU Strategy for Cooperation in the Indo-Pacific* (Brussels: European Commission, 16 September 2021), <https://ec.europa.eu/>.

that EU interests in Indo-Pacific actually revolve round securing SLOCs, promoting/establishing global governance, and mitigating the global challenges posed by climate change and the COVID pandemic. Since 40 percent of EU trade passes through the South China Sea, it is unsurprising that maritime security and ocean governance figure prominently in the EU strategy. It reiterates EU commitment for strengthening ocean governance in compliance with international laws, especially the UNCLOS. The strategy calls for developing partnerships and strengthening synergies with like-minded partners and relevant organizations in the Indo-Pacific to counter threats like terrorism, violent extremism, illicit trafficking, unreported and unregulated fishing, and so forth in full compliance with international law to ensure maritime security and sustainability. For maritime security, the strategy envisions increasing member countries' naval presence in the Indo-Pacific.

The EU strategy also highlights connectivity as an important area for cooperation and envisages promoting connectivity with Indo-Pacific partners in all dimensions.<sup>27</sup> However, the document focuses more on digital connectivity. The EU strategy envisions promoting investment in digitization and helping partners in the Indo-Pacific to foster the regulatory environment required to attract investment. Though the EU strategy avoids using phrases like *financial viability*, *debt trap*, and so forth, its emphasis on sustainability and willingness for undertaking joint connectivity projects with Japan, India, Australia, the United States, South Korea, and Canada can be interpreted as the EU's intention to join the US-led initiative to provide an alternative to the BRI for Indo-Pacific countries.

The EU is primarily an economic power with high dependence on trade. It is also deeply integrated with the Indo-Pacific through global value chains. However, the blocs economic integration with the region is skewed in favor of China. The COVID pandemic exposed the negative side of excess dependence on one source of supply. Consequently, building resilient supply chains through trade diversification has been highlighted as an important flank of the EU Indo-Pacific strategy. In line with member countries' approaches, the EU's strategy favors FTAs with Indo-Pacific countries, including India, Indonesia, Australia, New Zealand, Malaysia, the Philippines, and Thailand, to diversify trade relations. Apart from FTAs, the EU plans to foster cooperation in strategic sectors with like-minded countries to reduce strategic dependency in supply chains.

The EU strategy acknowledges climate change as the most significant global challenge that is threatening biodiversity and humanity. It envisages deepening

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<sup>27</sup> *The EU Strategy for Cooperation in the Indo-Pacific*, 12.

cooperation with Indo-Pacific countries to protect biodiversity, check plastic and air pollution, and promote clean energy transition. Concluding green alliances,<sup>28</sup> mobilizing financial instruments for affordable and sustainable energy, and engaging in joint research-and-development projects on clean energy are listed as instruments for deepening the cooperation with Indo-Pacific countries to promote green transition.

The world is witnessing a digital revolution and the EU has been at the forefront of promoting digitization. The bloc has promoted the agenda for setting standards/regulations to facilitate smooth digital transition of businesses and stimulate digital trade. The EU strategy also focuses on digitization and proposes building digital partnerships with Indo-Pacific countries to enhance technical, policy, and research cooperation on digital infrastructure, digital transformation of business, skill development, and data regulations. Since innovation and skills are key for a smooth digital transition, these two aspects get special mention in the EU strategy. The document proposes deepening research and innovation cooperation with Indo-Pacific countries under the Horizon Europe program and academic exchanges under the Erasmus+ program.

In the wake of the COVID pandemic, health has also received attention in the EU strategy. Summarizing the EU's medical aid to Indo-Pacific countries, the document proposes working with Indo-Pacific countries to "ensure an effective multilateral response to the COVID-19 and future global health crisis."<sup>29</sup> However, the document provides no definite plan and barely mentions collaborative research to combat communicable diseases under Horizon Europe initiatives.

### **Overall Strategy, Emerging Institutions, and Regional Architecture**

The evolving strategic scenario seems to be complex and multilayered in the Indo-Pacific. The normative framework emerging from strategic and economic initiatives of the major countries and regional organizations is idealistically driven

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<sup>28</sup> The European Union (EU) is actively working to establish green alliances with partner countries to promote green growth and carbon neutrality. These alliances involve strong environmental cooperation, aimed at enhancing scientific, business, and regulatory cooperation to promote the use of renewable energy. One example of such a green alliance is the EU–Japan Green Alliance, which was signed in 2018. This agreement focuses on collaboration in areas such as low-carbon technology development, green finance, and sustainable urban planning. It aims to leverage the strengths and resources of both the EU and Japan to drive progress towards a more sustainable future. The EU's efforts to establish green alliances reflect its commitment to promoting sustainable development and addressing the pressing environmental challenges facing the world today. By working together with like-minded partners, the EU hopes to drive innovation and progress in the transition toward a low-carbon economy.

<sup>29</sup> *The EU Strategy for Cooperation in the Indo-Pacific*, 15.

by the desire for an Indo-Pacific as open, rules-based, inclusive, “free of all forms of coercion,” and so forth. Democratic values and norms are amply visible in defining the political space in the Indo-Pacific region, which can facilitate free flow of trade as well as respect for international law and national sovereignty. Concerns over the assertive approach and challenge to the rules-based order have been contributed to the formation of various initiatives for promoting bilateral, regional, and global cooperation in multiple formats with diversified agenda. US initiatives such as the Blue Dot Network and B3W and Japan’s Quality Infrastructure initiative are launched to promote value- and norm-based cooperation to provide an alternative to China’s BRI. Furthermore, Japan and Australia promoted initiatives, such as the RCEP and CPTPP, and the SCRI with India broadly underline the “China Plus One” strategy to achieve economic rebalancing in Indo-Pacific.<sup>30</sup>

With the launch of the IPEF, the United States strives to reengage economically with Indo-Pacific countries to counter China’s regional economic influence. The four policy pillars of the IPEF include digital trade and standards, building of resilient supply chains, implementation of clean energy commitments, and promoting fair economic practices by enforcing effective taxation and tackling corruption. Given the absence of the United States from the CPTPP, the IPEF seeks to shape the Indo-Pacific economic architecture without offering market access. European countries have also been resetting their strategies and (re)entering the Indo-Pacific strategic theater. German and French policies aim to promote free and inclusive political space. France has already engaged; Germany has issued its guidelines for Indo-Pacific. Such measures indicate an intent to undertake greater political and security roles in the Indo-Pacific region. Additionally, the Netherlands too is keen to expand its cooperation with the Indo-Pacific region.

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<sup>30</sup> The ongoing trade war between China and the United States, as well as the repercussions of the COVID-19 pandemic, have led many multinational corporations to pursue a China Plus One strategy, which involves diversifying their supply chains outside of China in order to reduce dependence on the country. This strategy reflects concerns about the risks associated with over-reliance on a single country for supply chain operations, as well as the potential economic and political disruptions that can result from trade tensions or other geopolitical factors. In response, many companies have sought to establish new manufacturing facilities or source materials from other countries in the region, such as Vietnam, Thailand, and India, which offer competitive costs and favorable business environments. Some companies have also considered reshoring production to their home countries, as a way to reduce supply chain risks and ensure greater control over operations. The China Plus One strategy is likely to have significant implications for global trade patterns and regional economic development, as companies shift their operations to new locations and seek to take advantage of new opportunities. However, it also raises questions about the potential environmental and social impacts of increased manufacturing activity in other countries, and the need for greater coordination and collaboration among stakeholders to ensure that these impacts are managed effectively.



The Indo-Pacific is seen as an area of potential political and military contestation. It is also at the center of economic growth. The economic initiatives and political dynamics have opened new avenues for global and regional cooperation. However, institutional arrangement has remained less explored. All countries engaging in the Indo-Pacific assert that they are not aiming to create a new regional institution; rather, they want to draw on existing regional cooperation architecture and mechanisms to strengthen cooperation with Indo-Pacific countries. Specifically, these countries accept the ASEAN centrality and emphasize the need for deeper engagement with the ASEAN-led regional architecture such as the Asia-Europe Meeting (ASEM), East Asia Summit, and so forth. However, with the ASEAN taking a very cautionary approach along with the shaping up of the Quadrilateral Security Dialogue (Quad), it will be interesting to see if the centrality of ASEAN will remain only on paper or will also manifest itself in action on the ground. In the absence of any pan-Indo-Pacific institution, a network of bilateral and multilateral institutions has been shaping the emerging economic and security architectures in the Indo-Pacific.

### **Imperatives for India and Way Forward**

The contour of the Indo-Pacific strategies of different countries/regional groups varies substantially. On the one extreme, the US vision of the Indo-Pacific revolves around containing China. On the other extreme, the ASEAN and European strategies, despite airing concerns regarding freedom of navigation, have adopted an inclusive approach that co-opts China. However, despite several differences, these strategies converge at many points. Moreover, India's IPOI and the Indo-Pacific strategies of other countries and blocs share synergy at several actionable points, which opens several opportunities for India.

The United States, Japan, EU, ASEAN, and India share a common vision for the Indo-Pacific region, which emphasizes the importance of freedom of navigation and respect for international laws. All these countries have called for a peaceful settlement of maritime disputes in accordance with international laws, particularly the UNCLOS. Moreover, with the notable exception of the ASEAN, all participating countries also advocate for enhancing naval and military cooperation with like-minded countries to ensure maritime security and freedom of navigation. This consensus on maritime security has paved the way for India to enhance naval and military cooperation with like-minded countries to secure its waters and SLOCs. Apart from maritime security, maritime cooperation to ensure sustainable use of maritime resources (especially tackling illegal, unreported, and unregulated fishing), promoting the blue economy, and mitigating maritime pollution and climate-induced rise in sea levels figure prominently in the Indo-Pacific visions of

these countries. Since India is also facing these challenges, the Indo-Pacific realignment of various interested countries provides New Delhi with an opportunity to enhance financial and technological cooperation with advanced countries to jointly mitigate the climate change-related and other maritime challenges.

All these vision documents call for close cooperation with Indo-Pacific countries for improving connectivity in all its dimensions—transport, digital, and human. With the notable exception of the *ASEAN Outlook*, Indo-Pacific strategies also advocate for promoting quality connectivity infrastructure projects to ensure sustainability and transparency. The focus on sustainability, coupled with willingness to forge partnerships and collaborations with like-minded countries for improving the availability of infrastructure financing for Indo-Pacific countries, suggests that, despite differing in tone and texture, the countries (ASEAN aside) are aiming to provide a joint alternative to China's BRI. The establishment of the Blue Dot Network and announcement of USD 40-trillion B3W initiatives by G7 countries last year corroborate this. Since connectivity is one of the selected pillars of the IPOI, it naturally opens an opportunity for India to develop partnerships with participating countries to jointly work on connectivity projects not only in India but also in neighboring countries where India already has been financing several connectivity/infrastructure projects.

With considerable variation in focus and underlining intentions, the digital agenda also occupies an important place in the strategies of the discussed countries. For the United States, cybersecurity is the top priority. US documents openly highlight the security risk associated with the use of Chinese hardware and promotes working with Indo-Pacific countries to minimize this risk. Cybersecurity and digital misinformation also figure prominently in the Indo-Pacific visions of the European Union, Australia, and Japan. India shares these concerns regarding cybersecurity and digital misinformation. Since Chinese domination in 5G has created such a massive anxiety, India and other interested countries can explore the possibility of jointly working on 6G and other futuristic technologies to address such security concerns. Apart from cybersecurity, the discussed countries emphasize the promotion of digital trade and cross-border data flow. In other words, their Indo-Pacific visions seek to promote a global digital governance model that is against data localization. This runs contrary to New Delhi's stated position, as India has not only stayed away from ongoing discussion at the World Trade Organization (WTO) regarding digital trade but has also announced regulations to ensure data localization. India may have taken a contrarian stand, but given the anticipated direction of change, staying out of ongoing negotiations for setting the global norms pertaining to digital global governance is not a conducive option. Therefore, New Delhi should engage with other actors in the Indo-Pacific

through a platform such as IPEF to highlight India's concerns and avoid being left behind.

The economic underpinning of these Indo-Pacific strategies is still developing. Each of these countries is deeply integrated with China economically. Their firms have invested heavily in China and still consider China as main source of their competitiveness. However, foreign firms are also facing market access and IPR-related challenges in China. Therefore, it is not surprising that—except the *ASEAN Outlook*—the Indo-Pacific strategies all promote themes of free and fair reciprocal trade and a liberal economic regime. Likewise, they express the desire to increase trade integration with Indo-Pacific nations and see FTAs as the way forward. Notably the trade agendas of these countries do not exclude China, which perhaps suggests that these countries want trade realignment but hope to achieve that without compromising their economic competitiveness and efficiency. However, since the outbreak of the covid pandemic, the desire to diversify the supply chain has gained prominence. Japan and Australia, which had not mentioned supply-chain diversification in their Indo-Pacific strategies earlier, have started working on it. Similarly, the United States, in its recently launched IPEF, has identified the need for a resilient economy as one pillar for cooperation with Indo-Pacific countries. It envisages achieving supply-chain resilience through establishing early warning systems, mapping the critical mineral supply, and coordinated diversification measures. The EU Indo-Pacific strategy also mentions supply-chain diversification as one of its priority areas.

This growing clamor for supply-chain diversification augurs well for New Delhi as it opens a small but interesting window of opportunity. Given India's strong manufacturing base, availability of skilled manpower, and a recent push to enhance competitiveness of the manufacturing sector through infrastructure upgrades, regulatory reforms, and fiscal incentives under the Production Linked Incentive (PLI) scheme, India has the potential to emerge as a preferred destination for multinationals that may be thinking to shift part of their production out of China to comply with their respective government's vision of supply-chain diversification. Though a separate study is required to identify the mutually beneficial and economically viable products, there are certain goods that fit the bill to be covered under supply-chain diversification. Rare-earth elements (REE) is one such group of items. The REE supply chain is highly concentrated and countries like Japan, the United States, and EU members are trying to diversify their REE supply chains. India has the fifth-largest reserve of REEs and therefore has the potential to emerge as an alternative source of REE supply. Apart from REEs, several products covered under the PLI scheme—such as active pharmaceutical ingredients, semiconductors, medical instruments, electronics, and so forth—are

other promising product segments. India should identify products at disaggregate level in these sectors and increase engagement with Indo-Pacific countries to devise a joint strategy for supply-chain diversification of selected products. 🌐

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# Challenges in Transforming Airpower in the Twenty-first Century

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## Abstract

This article argues that airpower's effectiveness is not solely defined by technological advantage, control of air, or capability to undertake strategic or tactical air strikes but rather by the synergy between the services and members of alliances and the adaptability of industry and people. The article examines lessons from World War II and shows that the coordinated action of all three services of the United States showcased how a technologically and numerically superior enemy can be defeated. The article highlights that what matters ultimately is achieving political and strategic objectives that protect and advance national interests and are preferably attained cost-effectively. The author also emphasizes the importance of alliances and collaboration with like-minded countries to tackle China's hegemonic intentions collectively and the need for a continued effort toward integration during peacetime to synergize the efforts of all services. Finally, the article argues that airpower's effectiveness is not limited to defense forces but spans the industrial domain.

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Airpower has, since its inception, played a dominant role in generating and successfully enforcing favorable asymmetry for nearly a century. Its ability to achieve desired outcomes in the shortest period with minimal casualties has made it the preferred choice in many nations' security apparatus. By rendering battlefields three-dimensional and breaking the bounds of Mercator projection, airpower has enhanced the advantage of high ground. While many zealots focus on maintaining technical supremacy over adversaries to meet India's security goals in the twenty-first century, budgetary constraints often challenge the pursuit of technological advantage. Understanding the less tangible lessons of airpower from World War II, which are often neglected, is the solution to this problem for the Indian Air Force. Thus, this paper argues that no single application of airpower forms its chief strength. Rather, it is the synergy between the services and members of alliances, along with the adaptability of industry and people, that defines the effectiveness of airpower, be it through technological advantage, control of the air, or the capability to undertake strategic or tactical air strikes.

A coherent and effective strategy is essential to achieving a specific objectives. However, interservice rivalry and competition for prominence often overshadow synchronization and cooperation between armies, navies, and air forces. For in-

stance, in 1941, doctrinal views mainly governed by the Soviet Army resulted in the decentralized utilization of the Soviet Air Force, leading to low efficiency during the initial war period. Similarly, the rift between the German Navy and Luftwaffe over budgetary allocation was visible during July 1940, costing thousands of aircraft and aircrew to the Luftwaffe. Ultimately, unsynchronized efforts caused the Germans to lose the Battle of Britain when the German Navy's original plans for Operation Sea Lion were put on hold due to Admiral Erich Raeder's decision that the new battleships *Bismarck* and *Tirpitz* were not ready.<sup>1</sup>

In contrast, coordinated action by all three US services in the Pacific theater during World War II showcased how a technologically advanced and numerically superior enemy like Japan could be defeated. The situation facing India, with adversaries on two fronts, is no different than what the Allies encountered during World War II. It may be impossible for India to match the economic might of China and Pakistan and retain its technological advantages in all domains. Additionally, with India facing land, sea, and air threats, no one service can be neglected or preferred. Continued efforts toward integration during peacetime would not only allow New Delhi to synergize the efforts of all three services but also illuminate the fault lines that need to be tackled by other possible means.

In 1944, as US forces pushed westward in the Indo-Pacific toward Hollandia, Dutch New Guinea (now Jayapura, Papua, Indonesia), US Lieutenant General George Kenney argued passionately for using land-based bomber aircraft instead of carrier-based aircraft.<sup>2</sup> However, General Douglas MacArthur rejected Kenney's proposal as a self-serving bias and instead focused on effectively utilizing available resources to gain greater flexibility. MacArthur's decision highlighted that achieving political and strategic objectives that protect and advance national interests, and are preferably attained cost-effectively, is paramount.

This article argues that synchronization and cooperation between services and the adaptability of industry and people are critical to the effectiveness of airpower. Achieving political and strategic objectives that protect and advance national interests and are attained cost-effectively is what ultimately matters. Lessons from World War II highlight the importance of coordinated action and flexibility in utilizing available resources. In the case of the Pacific theater, General Douglas MacArthur's decision to reject Lieutenant General George Kenney's recommendation to use land-based bomber aircraft demonstrated the importance of prioritizing objectives and utilizing available resources effectively.

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<sup>1</sup> Stephen Bungay, *The Most Dangerous Enemy: A History of the Battle of Britain* (London: Aurum Press, 2015), 113.

<sup>2</sup> Bungay, *The Most Dangerous Enemy*, 113.

In today's geopolitical milieu, it is difficult to claim that any nation possesses self-sufficiency in dealing with its enemy. Even during World War II, no country was self-sufficient in its resources or fighting potential. Germany had world-class airpower but lacked naval supremacy like Britain. To address this shortfall, Adolf Hitler relied on Japanese naval strength to tie down the United States in the Pacific. Hitler declared war on the United States on 11 December 1942, less than a week after Japan's attack on Pearl Harbor, Hawaii.<sup>3</sup> This was a great strategic move that divided US forces into vastly geographically separated theaters. However, this strategy failed to sustain its charm, as the Axis Powers prioritized their own interests and failed to pursue a unified course of action throughout the war.

The Allies struggled as well. Britain had a formidable naval force but lacked the capital to sustain it. The United Kingdom depended heavily on the US Lend-Lease Program to overcome this deficiency.<sup>4</sup> The Soviets could produce thousands of aircraft but lacked four-engined, long-range bombers. Timely reinforcement from Siberia saved the Soviets from complete defeat by the Germans.<sup>5</sup> The Soviet Air Force reversed the game in the air by defeating the formidable Luftwaffe after securing Douglas A-20 Havoc medium bombers from the United States.<sup>6</sup> The United States had numbers but lacked powerful engine technology that could support its P-51 Mustang long-range fighter aircraft, which proved its worth when the British Rolls Royce engine replaced the aircraft's original underpowered engine. The Allies could now successfully undertake long-range strikes and revisit strategically important targets like the Schweinfurt ball-bearing factory and oil installations.

In a critical situation, what mattered was the alignment—or misalignment—of interests of alliances that defined victory or loss. Therefore, it is imperative for nations to cultivate and maintain strong alliances with shared goals and strategies to effectively deal with potential threats. The lessons of World War II should guide India to assert more emphasis on aligning with like-minded countries—such as the United States, Australia, Japan, and France—to tackle China's hegemonic intentions collectively. In this regard, India's participation in collaborations like the Quadrilateral Security Dialogue (Quad) seems to be a sensible step. Although the Quad is not a security alliance like the North Atlantic Treaty

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<sup>3</sup> Craig Lee Symonds, *The Battle of Midway*, Pivotal Moments in American History (New York: Oxford University Press, 2011), 19.

<sup>4</sup> Phillips Payson O'Brien, *How the War Was Won: Air-Sea Power and Allied Victory in World War II*, first paperback edition, Cambridge Military Histories (Cambridge: Cambridge University Press, 2018), 184.

<sup>5</sup> Von Hardesty and Ilya Grinberg, *Red Phoenix Rising: The Soviet Air Force in World War II* (Lawrence: University Press of Kansas, 2021), 87.

<sup>6</sup> Hardesty and Grinberg, *Red Phoenix Rising*, 105.

Organization (NATO), it has undoubtedly assisted in the formulation of strategic partnerships between and among Japan, Australia, India, and the United States. It is also essential to understand that alliances' effectiveness is not limited to defense forces but spans the industrial domain.

*Airpower* is defined as a nation's "capacity to impose its will through the medium of air and includes the employment of all its aviation resources, civil and military, public and private, potential and existing."<sup>7</sup> In the aftermath of World War I, working under severe sanctions, Germany could only build its air force during the interwar period by solely relying on the civilian aviation industry. During the Weimar Republic, the civilian aviation industry allowed the German military to build infrastructure and technology supporting aviation. In turn, it allowed German pilots and airpower strategists to stay relevant by maintaining flying currency and updating doctrine and plans.<sup>8</sup>

During the interwar period, the United States expanded its reach globally through the efforts of Pan American World Airways (better known as Pan Am), which created infrastructure, navigation routes, and aids, and, more importantly, US airmindedness.<sup>9</sup> Likewise, so-called *hump operations* across the mighty Himalayas saw civil industry initially stepping up for military operations with crew and machines in South Asia.<sup>10</sup>

Various auto industries played a crucial role in upscaling defense production during World War II. Bayerische Motoren Werke (BMW) was placed under the supervision of William Werner, an efficient expert recruited from the car maker Auto Union AG (the immediate predecessor of today's Audi) to produce engines for Junker aircraft.<sup>11</sup> It was not only machines but the expertise of civil industry in sustaining air maintenance operations across the globe that helped educate the military and sustain operations by lateral cooperation.<sup>12</sup>

In the twenty-first century, if New Delhi aims to match every technology for the military independently and indigenously to meet India's security goals, then it will undoubtedly starve its population like Hitler did when he dedicated almost

<sup>7</sup> *Basic Doctrine of the Indian Air Force* (New Delhi: Ministry of Defence, 2012), 5.

<sup>8</sup> James S. Corum, *The Luftwaffe: Creating the Operational Air War, 1918–1940* (Lawrence: University Press of Kansas, 1997), 124.

<sup>9</sup> Jennifer Van Vleck, *Empire of the Air: Aviation and the American Ascendancy* (Cambridge, MA: Harvard University Press, 2013), 303.

<sup>10</sup> John D. Planting, *Hump: America's Strategy for Keeping China in World War II* (College Station: Texas A&M University Press, 2017), 61.

<sup>11</sup> J. Adam Tooze, *The Wages of Destruction: The Making and Breaking of The Nazi Economy* (New York: Penguin USA, 2008), 579.

<sup>12</sup> Planting, *Hump*, 138.



two-thirds of Germany's budget to defense. Even during war, raising defense allocations drastically is not likely to be possible in the age of total war because of the interdependence of the economy and military. The best way around this would be to remain flexible and adapt to situations based on the capability of an available industry that can bolster military performance. Hence the best way to define airpower is to count the nation's aviation and related capabilities, including civil aviation, along with their associated organizations, infrastructure, logistics, and, most importantly, personnel.

In *War and Peace*, Leo Tolstoy famously insisted that chance determines events, but people make history. Situations in the war are not preordained; if they were, then nobody would have suffered shortfalls in their plans. In a difficult situation, people with experience and knowledge always have a greater probability of success. Hermann Göring, though a World War I ace, had little understanding of the current situation of aviation during World War II and, thus, struggled with major decisions. On the contrary, Alexander Novikov, commander of the Soviet Air Force, with his experience, was able to rebuild his air force from the ashes. Similarly, during the Pacific Campaign, General Kenney overcame all odds by innovating under extremely resource-constrained situations. Kenney could imagine and implement his idea in various fields, which included logistics, air transport support, and fighters and bombers.<sup>13</sup> Colonel Philip S. Meilinger aptly posits, "Doctrine does not fight the war; people do. And although airmen may prefer to be 'doers,' only those who can think rigorously but creatively about future war are likely to be successful when a crisis presents itself."<sup>14</sup> For leaders and military personnel to be creative and imaginative in dealing with crisis situations requires training and investment.

During the interwar period, the Luftwaffe could strengthen itself primarily by adequately investing in examining other air forces' campaigns, according to the importance of staff courses and overseas interactions.<sup>15</sup> However, it would be incorrect to point out the efforts of people in the military and not civilians. Rescue operations from Dunkirk, local support in building airports during hump operations, and efforts of women in the workforce that filled magazines and dug trenches for the Soviets, describe the importance of civilians. India is fortunate in this regard and must utilize the potential of its billion-plus population. However,

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<sup>13</sup> Thomas E. Griffith Jr., *MacArthur's Airman: General George C. Kenney and the War in the Southwest Pacific* (Lawrence: University Press of Kansas, 2017), 127.

<sup>14</sup> Phillip S. Meilinger, "Development of Air Power Theory," in *Air Power Leadership Theory and Practice*, ed. Peter W. Gray and Sebastian Cox (London: The Stationery Office, 2002),

<sup>15</sup> Corum, *The Luftwaffe*, 70.

to garner the support of civilians in a crisis, the Indian Air Force needs to continue its nation-building efforts to help civilians via employment, humanitarian assistance, and education to make Indian citizens airminded.

World War II highlights that it was not only technological advantage, strategic bombing, battlefield air strikes, or gaining control of the air that turned the tide for any nation. This nearly six-year period also silently underlines the contribution of invisible factors like the synergy between the services and players of the alliances, along with the ability to adapt to the industrial base and people. The circumstances and challenges of conflict in the twenty-first century are evolving rapidly, which places strain on time, space, and force structure more frequently. This means that current doctrine, strategy, tactics, and organizational structures may have to be modified at shorter intervals if we are to remain combat-ready and counter or defeat our current and future adversaries. As defined by Freedman, “the threat from terrorism, nuclear, and suicide bombers as a part of unconventional warfare is on the rise.” In this regard, technological might or numerical superiority is likely to be less relevant in the face of strength than a combination of various services (including space now), international alliance, industrial support, and people. ★

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# Denying Command of the Air

## The Future of Taiwan's Air Defense Strategy

CPT MATTHEW REVELS, USA

### Abstract

Russia's invasion of Ukraine in late February 2022 sparked growing concern among many that Taiwan may be the next nation to suffer from the revanchist policies of a totalitarian regime. As the war continues to drag on, it is becoming increasingly apparent that Taiwan can learn valuable lessons from Ukraine's ability to thwart Russia's military dominance, particularly in the air domain. How can Taiwan use the air domain to deter or defeat a potential Chinese amphibious landing asymmetrically? To address the question, this article examines contemporary Chinese military writings and doctrine and draws on Julian Corbett's theory of sea denial, applying the tenets of this theory to Taiwanese airpower strategy. Taiwan's overwhelming airpower disadvantage dictates that Taipei must abandon plans to contest the People's Liberation Army for air superiority and adopt a strategy of gradual air denial that will attrit People's Liberation Army Air Force aircraft and deny China the ability to seize control of the island quickly.

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Russia's invasion of Ukraine in late February 2022 sparked growing concern among many that Taiwan may be the next nation to suffer from the revanchist policies of a totalitarian regime.<sup>1</sup> As the war continues to drag on, it is becoming increasingly apparent that Taiwan can learn valuable lessons from Ukraine's ability to thwart Russia's military dominance, particularly in the air domain. Russia continues to fail at achieving air superiority in Ukraine, despite its air force's size and technological edge over the Ukrainians.<sup>2</sup> Taiwan faces a similar challenge as it maintains a much older and smaller air force, the Republic of China Air Force (ROCAF), than the People's Liberation Army Air Force (PLAAF). Current estimates place PLAAF fighter aircraft at approximately 1,600, with 700 dedicated to the Eastern and Southern Theaters directly adjacent to Taiwan. Meanwhile, the ROCAF retains a modest fighter inventory of only 400 aircraft.<sup>3</sup> Simply focusing on air force capabilities fails to consider the robust

<sup>1</sup> Michael Schuman, "Is Taiwan Next?," *The Atlantic*, 24 February 2022, <https://www.theatlantic.com/>.

<sup>2</sup> Maximilian Bremer and Kelly A. Greico, "In Denial About Denial: Why Ukraine's Air Success Should Worry the West," *War on the Rocks*, 15 June 2022, <https://warontherocks.com/>.

<sup>3</sup> Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China: 2021* (Washington, DC: Department of Defense, 2021), 162, <https://media.defense.gov/>.

ballistic and cruise missile inventories available for the People's Liberation Army's (PLA) preliminary strikes. The disparity in resources between the ROCAF and PLAAF begs the question: how can Taiwan use the air domain to deter or defeat a potential Chinese amphibious landing asymmetrically?

Taiwan's overwhelming airpower disadvantage dictates that it must abandon plans to contest the PLA for air superiority and adopt a strategy of gradual air denial that will attrit PLAAF aircraft and deny China the ability to seize control of the island quickly. Accomplishing the task of gradual air denial will require Taiwan to reorient its defense procurement to focus on the robotization of its air force and the deployment of a robust air defense network that relies on the stockpiling of short-range air defense (SHORAD) systems. Demonstrating the necessity for air denial and the changes in Taiwan's defense investment will first require a brief overview of China's airpower strategy and its theory of victory in the air domain. Second, this article will discuss the meaning of *air denial* and how it can help Taiwan deter or potentially defeat a Chinese amphibious landing. Last, the article will highlight several necessary changes Taiwan must undertake in its defense investments to employ an air-denial strategy successfully.

### Chinese Airpower Strategy and Doctrine

In contrast to the US military, the PLA maintains a narrow definition of *air dominance*, enabling PLA forces to mass assets to achieve tactical air superiority over Taiwan instead of fighting to maintain strategic air dominance. The PLA frequently uses the phrase *command of the air* to refer to “control of a given airspace over a given period of time.”<sup>4</sup> Though this term does not align perfectly with US doctrine, it most closely resembles what the US military would call *air superiority*.<sup>5</sup> A 2011 RAND study describes the critical difference between the PLA's definition of *air superiority* and that of the US military. The PLA's goal is to achieve a level of tactical air superiority that will enable it to achieve its campaign or tactical objectives. PLA writings indicate that it does not believe strategic air superiority is possible but prefers to achieve “local air superiority” within a defined time and geographic space.<sup>6</sup> The PLAAF's reluctance to expand its definition of *air superiority* likely correlates to its perceived weaknesses regarding joint air-ground integra-

<sup>4</sup> Kenneth W. Allen and Cristina L. Garafola, *70 Years of the PLA Air Force* (Maxwell AFB, AL: China Aerospace Studies Institute, 2021), 73, <https://www.airuniversity.af.edu/>.

<sup>5</sup> Kenneth W. Allen and Derek Solen, “Command of the Air” (research document, China Aerospace Studies Institute, October 2020), 3, <https://www.airuniversity.af.edu/>.

<sup>6</sup> Roger Cliff et al., *Shaking the Heavens and Splitting the Earth* (Santa Monica, CA: RAND, 2011), 57–59, <https://www.rand.org/>.

tion and aerial refueling capabilities compared to Western powers like the United States.<sup>7</sup> Applying the PLA's definition of *command of the air* to a potential invasion of Taiwan indicates that the PLA will initially concentrate its time and resources on the suppression and destruction of Taiwanese air defense assets and not prioritize targeting foreign powers that can compete for dominance.

China's doctrine and professional writings indicate that the PLA will pursue a decapitation strategy in the initial stages of an amphibious invasion to obtain local air superiority. The *decapitation strategy* originates in John Warden's Basic Five Ring Model, which focuses on attacking the "centers of gravity" within each ring of the enemy's system.<sup>8</sup> Warden emphasizes attacking leadership because it can make concessions and decisions that affect the war's course.<sup>9</sup> In the 2006 publication *Science of Campaigns*, PRC strategists describe how the PLA will achieve air dominance during the advanced operations phase of a landing campaign. China will rely on the PLAAF and the PLA Rocket Force to execute long-range stand-off strikes to attack "critical targets, such as the enemy's command institutions, air and naval bases, missile positions, and air defense positions."<sup>10</sup> The PLA aims to diminish the enemy's command system by attacking critical targets, including political and military leaders, that will hinder operational capabilities.<sup>11</sup> An initial joint firepower strike campaign will use kinetic strikes to target command-and-control (C2) nodes before targeting air defense systems and then focus on destroying Taiwan's war-making capability.<sup>12</sup> China will rely on its immense stocks of ballistic and cruise missiles to overwhelm Taiwan's air defenses and destroy its aircraft on the ground.<sup>13</sup> China's targeting of Taiwan's fighter aircraft and runways indicates that it views these assets as Taiwan's air defense center of gravity. Properly defending or deterring China will require Taiwan to shift its strategy from a heavy reliance on crewed air platforms to a system that retains mobility and survivability.

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<sup>7</sup> Jonathan G. McPhilamy, "Air Supremacy: Are the Chinese Ready?" *Military Review* 100, no. 1 (January–February 2020), <https://www.armyupress.army.mil/>.

<sup>8</sup> Warden's rings are (1) leadership, (2) organic/system essentials/key production, (3) infrastructure, (4) population, and (5) fielded military forces.

<sup>9</sup> John A. Warden, III, "The Enemy as a System," *Airpower Journal* 9, no. 1 (Spring 1995): 7–9, <https://www.airuniversity.af.edu/>.

<sup>10</sup> Zhang Yuliang, Yu Shusheng, and Zhou Xiaopeng, eds., *Science of Campaigns* (2006), trans. Project Everest (Maxwell AFB, AL: China Aerospace Studies Institute, 2006), 359, <https://www.airuniversity.af.edu/>.

<sup>11</sup> Zhang, Yu, and Zhou, *Science of Campaigns*, 360.

<sup>12</sup> Joel Wuthnow et al., eds. *Crossing the Strait: China's Military Prepares for War with Taiwan* (Washington, DC: National Defense University Press, 2022), 122, <https://ndupress.ndu.edu/>.

<sup>13</sup> Michael Lostumbo et al., *Air Defense Options for Taiwan: An Assessment of Relative Costs and Operational Benefits* (Santa Monica, CA: RAND, 2016), 13–18, <https://www.rand.org/>.

## Taiwan's Air Defense Strategy

Taipei's current defense spending indicates that Taiwan's strategy for airpower in the event of an invasion is to potentially pursue what Robert Pape would call a *denial strategy* through operational and even strategic interdiction. Pape defines a *denial strategy* as one that "seeks to thwart the enemy's military strategy for taking or holding its territorial objectives."<sup>14</sup> A denial strategy through strategic interdiction involves attacking military production facilities to reduce what is available to the enemy. In contrast, operational interdiction focuses on impeding operational C2 and the tactical flow of supplies within a given theater.<sup>15</sup> Operational interdiction would rely heavily on Taiwan's ability to employ its air and missile resources to interdict PLA vessels as they move to resupply ground forces. One of the fundamental problems with Taiwan's ability to implement Pape's version of denial is that it requires air superiority, which Taiwan is unlikely to achieve by relying on exquisite air platforms.<sup>16</sup>

Recent spending indicates that Taiwan seeks to accomplish a denial strategy by using missiles to threaten the Chinese mainland and confronting landing forces with modern conventional equipment.<sup>17</sup> Regarding the air domain, Taiwan's purchases suggest that it will continue to invest in advanced air platforms to compete with the PLAAF for air superiority and enhance its ability to conduct operational interdiction. In 2019, Taiwan announced the purchase of an additional 66 F-16 fighters from the United States.<sup>18</sup> In addition to F-16 fighters, Taiwan's defense minister continues to express interest in acquiring the fifth-generation F-35.<sup>19</sup> For air defense, Taiwan appears to rely heavily on the Patriot surface-to-air system to help defend its air bases and enable the ROCAF to contest China for air superiority.<sup>20</sup> Taiwan's investment in capabilities to challenge control of the skies ignores the reality that most aircraft and stationary air defenses are vulnerable to a Chinese saturation attack. Deterring or defeating a Chinese amphibious invasion will require a shift in Taiwan's current airpower strategy from contesting the

<sup>14</sup> Robert A. Pape, *Bombing to Win: Air Power and Coercion in War* (Ithaca, NY: Cornell University Press, 1996), 69, <https://www.jstor.org/>.

<sup>15</sup> Pape, *Bombing to Win*, 71–73.

<sup>16</sup> Pape, *Bombing to Win*, 58.

<sup>17</sup> Michael A. Hunzeker, "Taiwan's Defense Plans Are Going Off the Rails," *War on the Rocks*, 18 November 2021, <https://warontherocks.com/>.

<sup>18</sup> Hunzeker, "Taiwan's Defense Plans Are Going Off the Rails."

<sup>19</sup> Franz-Stefan Gady, "Defense Minister: Taiwan Is Seeking F-35 Stealth Fighter," *The Diplomat*, 15 May 2018, <https://thediplomat.com/>.

<sup>20</sup> "U.S. Approves \$95 mln boost to Taiwan's air defense system," *Reuters*, 5 April 2022, <https://www.reuters.com/>.

PLAAF for air superiority to one that cedes initial control of the skies but gradually denies access with asymmetric capabilities.

A denial strategy is appropriate for Taiwan, but not as Pape defines it. This is due to the difficulty associated with achieving air superiority in a conflict with China. Instead, Taiwan needs to reorient its air strategy to gradual air denial, focused on degrading the PLA's combat power and denying it superiority during its amphibious landing. As explained by Maximilian Bremer and Kelly Grieco, Taiwan needs to realign its air strategy to fit the concept of sea denial described by Julian Corbett.<sup>21</sup> Applying Corbett's idea to the ROCAF, Taiwan will need to survive initial strikes to ensure that it maintains a level of air defense that can harass and dispute control of the air.<sup>22</sup>

Ukraine's air defense operations provide an apt example of how to accomplish Corbett's strategy of air denial. After a year of conflict in Ukraine, Russia remains unable to exert air superiority despite its numerical and qualitatively superior air force.<sup>23</sup> Stijn Mitzer confirms that Russia has lost approximately 283 aircraft in the conflict, with 192 destroyed.<sup>24</sup> Ukraine accomplished this by relying on its mobile air defense systems to constantly threaten Russian aircraft.<sup>25</sup> The ability to deny Russia air superiority is now assisting Ukraine in its counteroffensives by denying Russia the ability to conduct aerial reconnaissance over Ukrainian positions.<sup>26</sup>

Unlike current operations in Ukraine, it is difficult to execute "shoot and scoot" tactics with large air defense systems and retain airfield redundancy in Taiwan.<sup>27</sup> Terrain and urbanization challenges force Taiwan to use unmanned aerial vehicles (UAV) and SHORAD systems to conform to Corbett's principles of denial because of their mobility and potential to operate in Taiwan's restricted and urban terrain.

Due to the PLA's overwhelming superiority, Taiwan should initially cede control of the air domain to retain SHORAD capabilities and the ability to contest the PLA's air superiority during an amphibious landing when the PLAAF and PLA Army are most vulnerable. Air superiority is essential for the success of any amphibious operation. The success rate of modern amphibious landings without

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<sup>21</sup> Bremer and Grieco, "In Denial About Denial."

<sup>22</sup> Bremer and Grieco, "In Denial About Denial."

<sup>23</sup> Bremer and Grieco, "In Denial About Denial."

<sup>24</sup> Stijn Mitzer, "List of Aircraft Losses during the 2022 Russian Invasion of Ukraine," *Oryx*, 20 March 2022, <https://www.oryxspioenkop.com/>.

<sup>25</sup> Bremer and Grieco, "In Denial About Denial."

<sup>26</sup> Maximilian Bremer and Kelly Grieco, "Success Denied: Finding Ground Truth in the Air War over Ukraine," *Defense News*, 21 September 2022, <https://www.defensenews.com/>.

<sup>27</sup> Bremer and Grieco, "In Denial About Denial."

air superiority plummets to only 14 percent.<sup>28</sup> Taiwan should look to lessons from the North Atlantic Treaty Organization's (NATO) operations in Kosovo to preserve its air defense force. Instead of using their radars simultaneously, Yugoslavian integrated air defense systems (IADS) relied on ballistically fired surface-to-air missiles to force NATO aircraft to lower altitudes for man-portable air defense system (MANPADS) engagement. By keeping their radars off, the Yugoslavs preserved their force by relying on a challenging asset to locate because of its mobility. Additionally, Taiwan can leverage its restricted terrain to complicate the suppression of enemy air defense (SEAD) campaign and harden its communications systems as the Yugoslavs did against NATO.<sup>29</sup> If Taiwan can survive the initial brutality of China's long-range strike campaign, it can use its SHORAD and remaining long-range assets to deny the PLAAF air superiority and exploit the PLA's vital weakness, joint air-ground integration.<sup>30</sup> Therefore, Taiwan's strength lies not in its ability to compete for air superiority but rather in its ability to gradually deny air superiority and impose severe costs during one of the most complicated military operations, an amphibious landing.

### Future Air Defense Investments

Achieving a strategy of gradual denial will require the ROCAF to cut its procurement of crewed aircraft and instead seek the robotization of its forces using UAVs. Recent conflicts, such as those in Nagorno-Karabakh and Ukraine, illustrate the utility of UAVs on the future battlefield. In Nagorno-Karabakh, the Azerbaijanis used cheap drones to force Armenian air defense systems to reveal themselves then employed armed or kamikaze drones to destroy the exposed air defense systems. With Armenian air defenses neutralized, the Azerbaijanis used UAVs to devastate Armenian ground forces and facilitate an advance into the disputed territory.<sup>31</sup> Essentially, Azerbaijan employed a low-cost option to substitute for a crewed air force, which enabled ground maneuver.

The Ukrainians operate military and civilian drones to increase the tactical leader's situational awareness and facilitate strikes against targets. Current assessments state that the Ukrainians used UAVs to strike artillery batteries, armor

<sup>28</sup> Steven A. Yeadon, "The Problems Facing United States Marine Corps Amphibious Assaults," *Journal of Advanced Military Studies* 11, no. 2 (Fall 2020), 150, <https://www.usmcu.edu/>.

<sup>29</sup> Thomas Withington, *Wild Weasel Fighter Attack: The Story of the Suppression of Enemy Air Defenses* (Barnsley, UK: Pen & Sword Aviation, 2008), 182–83.

<sup>30</sup> McPhilamy, "Air Supremacy."

<sup>31</sup> Robyn Dixon, "Azerbaijan's Drones Owned the Battlefield in Nagorno-Karabakh—and Showed Future of Warfare," *Washington Post*, 11 November 2020, <https://www.washingtonpost.com/>.



formations, and naval vessels, including the *Moskva*.<sup>32</sup> Taiwan must study these conflicts to identify which cheap military UAVs and commercial drones can perform the same functions as crewed aircraft for a fraction of the cost and without the risk of destruction at the onset of hostilities. Previous uses of UAVs in Nagorno-Karabakh and Ukraine demonstrate that the ROCAF can identify and strike enemy ground and amphibious forces without crewed aircraft.

China's insistence on destroying air base infrastructure during the initial phases of its campaign means that Taiwan should procure UAVs that can be mass produced and are capable of vertical takeoff and landing. There are several systems that Taiwan can look to procure, but most will likely come from the United States because of Taipei's unique international status. As such, Taiwan should look to acquire systems that the US Air Force is beginning to test, such as the XQ-58A Valkyrie, which is significantly cheaper than crewed platforms at USD 2 million per copy.<sup>33</sup> The US Air Force plans to potentially use these aircraft as part of its UAV wingman program because it is mass producible and expendable.<sup>34</sup> Given Taiwan's situation relative to China, the ROCAF can look to substitute crewed platforms with the Valkyrie. Relatively low costs mean that Taiwan can use its small defense budget of USD 19.41 billion to procure more systems.<sup>35</sup> Instead of spending USD 8 billion on 66 new F-16s, Taiwan could use the same money to purchase more than 4,000 Valkyries or a combination of various types of UAVs to focus on contesting airspace through the employment of mass as opposed to exquisite platforms.<sup>36</sup>

The ROCAF can use two additional capabilities—drone swarms and loitering kamikaze drones—to close the gap with the PLAAF by threatening landing forces. Drone swarms are currently only in a testing phase for militaries worldwide, but increased investment in the artificial intelligence that underlies drone swarms will pay dividends for Taiwan. According to Paul Scharre, defensive drone swarms could provide “an automatically responsive protective bubble around

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<sup>32</sup> Elias Yousif, “Drone Warfare in Ukraine: Understanding the Landscape,” *Conventional Arms* (blog), 30 June 2022, <https://www.stimson.org/>.

<sup>33</sup> T.X. Hammes, *An Affordable Defense of Asia* (Washington, DC: Atlantic Council, June 2020), 15, <https://www.atlanticcouncil.org/>.

<sup>34</sup> Valerie Insinna, “Air Force Pilots Try Out XQ-58A Valkyrie Drones ahead of Potential UAV Wingman Program,” *Breaking Defense*, 10 November 2022, <https://breakingdefense.com/>.

<sup>35</sup> Reuters, “Taiwan Proposes Large Rise in Defense Spending amid Escalating China Tensions,” *CNBC*, 25 August 2022, <https://www.cnn.com/>.

<sup>36</sup> Phil Stewart, Idrees Ali, and Yimou Lee, “Exclusive: U.S. Seeks Way to Speed Delivery of New Fighter Jets to Taiwan,” *Reuters*, 20 January 2022, <https://www.reuters.com/>.

units, to intercept potential threats.”<sup>37</sup> Taiwan could employ these assets in the “air littoral” to disrupt PLAAF efforts to provide close air support (CAS) and act as a form of air defense. Once again, Bremer and Grieco note that the threat of collision could deny air superiority to countries operating expensive fifth-generation fighters, which China currently has allocated to its Eastern Theater Command.<sup>38</sup> In addition to swarm technology, Taiwan should seek to acquire numerous loitering drones from the United States, including the Switchblade. The United States provided Switchblade 300 drones to Ukraine, which used them to destroy lightly armored targets, including fuel trucks and personnel carriers. Reports indicate that the new Switchblade 600 can potentially destroy heavily armored targets.<sup>39</sup> Taiwan could use both swarming technology and loitering munitions to deny the PLAAF air superiority at the PLA’s landing sites while also threatening troop and ship transports. Low-cost threats such as these provide Taiwan with a unique force multiplier that will prove more capable than the ROCAF’s current crewed aircraft.

In addition to a roboticized air force, Taiwan must acquire additional SHORAD systems and stockpile munitions to attrit PLAAF aircraft forced to lower altitudes by the necessity to conduct CAS for landing forces. Determining the exact number of systems currently in Taiwan’s arsenal is difficult, but it possesses three significant SHORAD assets: the Avenger, Sky Sword, and Sea Oryx.<sup>40</sup> SHORAD systems such as the Avenger and its Stinger missile continue to prove lethal on the battlefield, particularly by Ukrainian forces who continue to request additional supplies.<sup>41</sup> Before Ukraine, Afghan mujahadeen fighters used the Stinger to destroy up to 269 Soviet aircraft throughout their employment.<sup>42</sup> Investing in large quantities of these systems and stockpiling their munitions is critical for Taiwan to contest its airspace and attrit PLAAF aircraft, particularly since Taiwan does not share a land border from which the United States can resupply it. The mobility of these systems and the MANPADS variant of the Stinger is vital to presenting the PLA with more problems than it can hope to counter. As

<sup>37</sup> Paul Scharre, “How Swarming Will Change Warfare,” *Bulletin of the Atomic Scientists*, 74, iss. 6 (2018), 387, <https://thebulletin.org/>.

<sup>38</sup> Maximilian K. Bremer and Kelly A. Greico, “The Air Littoral: Another Look,” *Parameters* 51, no. 4 (2021), 71, <https://press.armywarcollege.edu/>.

<sup>39</sup> Stephen Losey, “Switchblade Kamikaze Drone Production to Ramp Up Following Ukraine Use,” *Defense News*, 11 October 2022, <https://www.defensenews.com/>.

<sup>40</sup> “Taiwan,” *Missile Defense Advocacy Alliance*, 18 July 2018, <https://missiledefenseadvocacy.org/>.

<sup>41</sup> Mike Stone, “U.S. Buys More Stingers after Missiles’ Success in Ukraine,” *Reuters*, 27 May 2022, <https://www.reuters.com/>.

<sup>42</sup> David B. Ottaway, “Stingers Were Key Weapon in Afghan War, Army Finds,” *Washington Post*, 5 July 1989, <https://www.washingtonpost.com/>.

James Timbie and James Ellis note, short-range air defense is essential for increasing the level of risk China must assume when invading Taiwan. The cost imposed by these relatively cheap systems may deter China from launching an amphibious invasion.<sup>43</sup>

Some may argue that instead of a robust SHORAD capability, Taiwan should focus the bulk of its investment on long-range air defense (LRAD) systems to function as an antiaccess/area-denial (A2/AD) capability. Ukraine employed LRADs such as the S-300 to devastating effect against the Russian Air Force, forcing Russian forces to conduct stand-off strikes from Russian airspace or fly extremely low, leaving them vulnerable to MANPADS.<sup>44</sup> Yugoslavia had similar success in targeting NATO aircraft, as previously mentioned. Ultimately, LRADs will help attrit PLAAF ballistic missiles and aircraft during the initial assault but are unlikely to survive a saturation attack because they are relatively immobile. One of Taiwan's most mobile assets, the Patriot, takes a minimum of one hour to prepare for movement and another hour to emplace and prepare for operations.<sup>45</sup> In addition to mobility, Patriot batteries cost approximately USD 1 billion each, which is significant given Taiwan's small defense budget.<sup>46</sup> One potential solution to the immobility and exposure of LRADs is containerization. Major powers continue to demonstrate the ability to launch cruise missiles from containers, and experts believe that it is only a matter of time before air defense systems can launch from containers.<sup>47</sup> A European company, MBDA, demonstrated its ability to containerize a short-range system in 2019, enabling any ship with enough space for a container to act as an air defense asset.<sup>48</sup> Placing LRADs such as the Patriot into containers reduces the likelihood the PLA can identify and destroy Taiwan's assets during an initial strike.

## Conclusion

Despite Taipei's rhetoric toward creating an asymmetric force, the evidence seems to indicate that Taiwan is preparing for the opposite, particularly regarding

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<sup>43</sup> James Timbie and James O. Ellis Jr., "A Large Number of Small Things: A Porcupine Strategy for Taiwan," *Texas National Security Review* 5, iss. 1 (Winter 2021/2022), <https://tnsr.org/>.

<sup>44</sup> Bremer and Grieco, "In Denial About Denial."

<sup>45</sup> Department of the Army, FM 3-01: *U.S. Army Air and Missile Defense Operations* (Washington, DC: Headquarters, Department of the Army, 2020), 7–8, <https://armypubs.army.mil/>.

<sup>46</sup> Harry Halem and Eyck Freymann, "Ukraine Shows Why Taiwan Needs More Air Defense," *War on the Rocks*, 7 April 2022, <https://warontherocks.com/>.

<sup>47</sup> Hammes, "An Affordable Defense," 13.

<sup>48</sup> Joseph Trevithick, "This Containerized Missile Launcher Could Give Almost Any Ship Short-Range Air Defenses," *The Drive*, 22 February 2019, <https://www.thedrive.com/>.

the air domain. Current defense spending suggests that Taiwan will attempt to contest the PLAAF for command of the air by pitting its F-16 fighters against China's fourth- and fifth-generation aircraft. The PLA's ability to hold these aircraft and Taiwan's current air defenses at risk with long-range precision strikes dictates that Taipei must pursue a new strategy for the air domain in the event of an invasion. Deterring or defeating China will require Taiwan to adopt a strategy that creates enough redundancy in its air defense networks to absorb the PLA's initial strikes but retain the necessary capabilities to deny air superiority gradually and impose substantial costs on the PLAAF. A strategy of gradual denial will require the ROCAF to abandon its continued procurement of crewed platforms in favor of a roboticized air force supplemented by a robust SHORAD network. Through the application of mass, Taiwan can increase the PLA's operational cost to an unacceptable level and successfully retain its unique status. ☛

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# The People's Liberation Army's Command and Control Affects the Future of Out-of-Area Operations

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## Abstract

This article analyzes the challenges that China faces in developing an effective command-and-control (C2) structure to support its out-of-area military operations. Beijing's expanding global interests, unresolved territorial disputes, and increasing economic opportunities necessitate a strong military presence, which China hopes to achieve through a proficient out-of-area operations force. However, the current over-centralized decision-making process within the Central Military Commission (CMC) and its Joint Staff Department (JSD) causes inefficiencies in decision making and undermines the autonomy of unit-level operations outside of the First Island Chain. The article identifies the need for improvements in interservice collaboration, theater command responsibilities, and overall global C2 infrastructure to create a more effective and autonomous force. Additionally, the article discusses China's approach to the division of labor between theater commands and services and the role of political commissars in out-of-area operations. The article concludes that unless China makes these necessary changes, it will struggle to protect its increasingly global interests.

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China's expanding global interests, unresolved territorial disputes, and increasing economic opportunities have forced it to rely on its armed forces to defend its interests. The Chinese Communist Party (CCP) will need to improve the People's Liberation Army's (PLA) out-of-area operations beyond the First Island Chain to maintain a robust presence worldwide.<sup>1</sup> To achieve this goal, the PLA needs to reform its command and control (C2) doctrine and make improvements in inter-service collaboration, clarify theater command responsibilities, and bolster global C2 infrastructure. A proficient out-of-area operation force can project combat power, engage in humanitarian assistance, and conduct

<sup>1</sup> For the purposes of this analysis, the definitions of *near seas operations* and *far seas operations* are inherited from Phillip Saunders and the National Defense University. *Near seas operations* are conducted within the South China Sea, East China Sea, and the Yellow Sea. *Far seas operations* all occur past the First Island Chain. See, Phillip Saunders, "Command and Control of Overseas Operations in a Reformed PLA," in *The PLA Beyond Borders: Chinese Military Operations in Regional and Global Context*, ed. Joel Wuthnow, et al. (Washington: National Defense University Press, 2021), 107–22. <https://ndupress.ndu.edu/>.

other vital missions worldwide. Failing to make these necessary changes will limit China's ability to protect its growing global interests.

### Issues with Chinese C2

At present, Chinese tactical decision making, weapons employment, and day-to-day decisions are predominantly funneled through the Central Military Commission (CMC) and its Joint Staff Department (JSD).<sup>2</sup> However, due to the over-centralized decision-making process, China struggles to establish a powerful C2 infrastructure and to effectively act autonomously during out-of-area operations.<sup>3</sup> This phenomenon is evident in China's out-of-area exercises, such as joint firepower operations and long-distance missions with ballistic missile submarines. This lack of autonomy for unit-level operations beyond the First Island Chain creates scenarios that do not prepare the Chinese Communist Party (CCP) for large-scale conflicts or conflicts outside of its peripheral regions. This obstacle was intentionally built into the command structure by the CCP and CMC in response to past experiences with communication, logistics, and other issues during the Chinese Civil War, the Korean War, and in Vietnam.<sup>4</sup> However, these practices continue to plague theater-level missions across the services to this day. Therefore, there is a need to alter the current C2 doctrine and establish an efficient infrastructure that enables the Chinese military to carry out out-of-area operations autonomously, project combat power, provide humanitarian assistance, and carry out other vital missions globally.

China's C2 capability, although improving technologically, still lags behind the United States' abilities. In 2002, Major General Dai Qingmin, responsible for electronic countermeasures and radars for the PLA, recognized that the PLA's attention should focus on "integrated networks and electronic warfare."<sup>5</sup> However, experts at the time admitted that the PLA's current force lacked the necessary skill sets, infrastructure, and doctrine to engage in warfare that requires the coordinated use of sensors, digital networks, and secure communications to

<sup>2</sup> Joel Wuthnow and Phillip C. Saunders, *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms* (Washington: National Defense University, 2019), <https://ndupress.ndu.edu/>.

<sup>3</sup> Kartik Bommakanti and Aditya Gowdara Shivamurthy, "China's Military Modernization: Recent Trends," *Observer Research Foundation*, 25 May 2021, <https://www.orfonline.org/>.

<sup>4</sup> Laurie Burkitt, Larry M. Wortzel, and Andrew Scobell, *The Lessons of History: The Chinese People's Liberation Army at 75* (Carlisle Barracks, PA: Army War College, 2003), <https://press.armywarcollege.edu/>, and Chen Jian, *Mao's China and the Cold War* (Chapel Hill: University of North Carolina Press, 2001).

<sup>5</sup> Yulin Ying "PLA Cyber Operations: A New Type of Cross-Border Attack" in *The PLA Beyond Borders: Chinese Military Operations in Regional and Global Context*, ed., Joel Wuthnow, et al. (Washington: National Defense University Press, 2021), 295–307. <https://ndupress.ndu.edu/>.

disrupt net-centric systems.<sup>6</sup> While the PLA is slowly improving its C2 capability, it has yet to integrate these capabilities within its C2 doctrine for out-of-area operations. Moreover, the centralization of the PLA and theater commands makes it difficult to pass weapons release authority or information through C2 networks to leaders. These cultural operating norms have hindered the PLA's experience in integrating digital elements of C2 in out-of-area theater operations, presenting a major challenge to C2 doctrine.

An important factor to consider is the Chinese perspective on the division of labor between services and theater commands. In 2015, President Xi Jinping initiated joint military reforms aimed at modernizing China's military and achieving parity with other global armed forces. The reforms restructured China's military from a regional-based structure to five theater commands that prioritize joint command of ground, naval, air, and rocket forces.<sup>7</sup> This transformation marked a significant shift for the PLA, moving away from a primarily ground-mobile army and toward integrating naval and air capabilities into joint war-fighting operations.

This new division of labor in the Chinese military was intended to enhance interoperability between the theaters and services in joint planning, training, and execution. However, in practice, this division of labor has caused inefficiencies and confusion as each mission's responsibility and authority varies across the spectrum of Chinese operations. For example, international peacekeeping missions are under the JSD Overseas Operations Office,<sup>8</sup> while antipiracy operations, noncombatant evacuation operations, and other evacuation operations remain under the control of the navy service headquarters.<sup>9</sup> Additionally, exercises with foreign militaries are likely to be under service headquarters control, with the CMC Office of International Military Cooperation playing an authoritative role in planning and execution.<sup>10</sup>

There is significant confusion regarding the division of labor and command authority during out-of-area operations in the Chinese military. Although the 2015 military reforms created five theater commands to improve joint warfighting capabilities, practical implementation has led to inefficiencies and

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<sup>6</sup> Ying "PLA Cyber Operations."

<sup>7</sup> *China Military Power: Modernizing a Force to Fight and Win* (Washington: Defense Intelligence Agency, 2019), <https://www.dia.mil/>.

<sup>8</sup> Andrew Scobell and Nathan Beauchamp-Mustafaga, "The Flag Lags but Follows: The PLA and China's Great Leap Outward," in *Chairman Xi Remakes the PLA* (Washington: National Defense University Press, 2019), <https://ndupress.ndu.edu/>.

<sup>9</sup> Scobell and Beauchamp-Mustafaga, "The Flag Lags but Follows."

<sup>10</sup> Scobell and Beauchamp-Mustafaga, "The Flag Lags but Follows."

inconsistencies in responsibility and authority across various missions. Additionally, the role of political commissars, who report directly to party leaders and have duties equivalent to commanding officers, adds to the confusion over weapons release authority and command decision making during missions.<sup>11</sup> These “managers of risk” report evidence of nonconformity or abnormalities directly back to party leads ashore. Commissars embarked on naval missions or on individual maritime units may carry differing guidance and instruction than the commanding officer. The presence of two individuals seemingly in charge creates confusion regarding who holds weapons release authority for self-defense or wartime operations. In his July 2020 article *USNI News* article, John Grady suggested that confrontational moves by Chinese warships may not be the decision of the commanding officer, but rather a political commissar taking control.<sup>12</sup> The PLA’s tight handling of day-to-day operations through the political commissar inhibits the development of officers and prevents them from practicing essential elements of C2 doctrine such as commander’s intent and command by negation when operating beyond the First Island Chain. *Commander’s intent* refers to the accomplishment of the desired end state and should be understood and executed two levels below the issuing commander.<sup>13</sup> Similarly, *command by negation* involves officers using their own initiative to carry out orders until a superior issues a negative order, enabling theater-level superiors to focus on the bigger picture while unit leaders manage daily operations more efficiently.<sup>14</sup>

In Chinese culture, there is a strong emphasis on respecting elders and superiors, which can discourage officers at all ranks from exercising initiative. Decision-making is often viewed as a collective process rather than an individualistic task.<sup>15</sup> These values are prevalent in authority relationships and decision-making processes in China.<sup>16</sup> However, in certain circumstances, taking initiative could lead to an officer being audited or forced into early retirement. President Xi’s reforms prioritize conformity among officers and seek to remove those who do not align

<sup>11</sup> Ryan Kinsella, Brian Chao, and Kenneth Allen, “China’s Military Political Commissar System in Comparative Perspective,” *China Brief* 13, no. 5 (2013), <https://jamestown.org/>.

<sup>12</sup> John Grady, “Political Commissars on Chinese Warships Play Crucial Role in Interactions with Foreign Vessels,” *USNI News*, 3 July 2020, <https://news.usni.org/>.

<sup>13</sup> W. Michael Phibbs, “Commander’s Intent: A Framework for Success,” *FBI Law Enforcement Bulletin*, 6 October 2016, <https://leb.fbi.gov/>.

<sup>14</sup> James E. Higgins, “Future Warfare and the Viability of Command by Negation” (student paper, Naval War College, March 1996), <https://apps.dtic.mil/>.

<sup>15</sup> Kenneth G. Lieberthal and David M. Lampton, *Bureaucracy, Politics, and Decision Making in Post-Mao China* (Berkeley: University of California Press, 1992), <http://ark.cdlib.org/>.

<sup>16</sup> Lieberthal and Lampton, *Bureaucracy, Politics, and Decision*.



with party ideology or are perceived as disloyal.<sup>17</sup> These complexities make it challenging to apply a one-size-fits-all model to Chinese out-of-area operations or speculate about how the CMC would delegate strategic capabilities and decisions to theater commands during peacetime or wartime.

One notable mission set where the Chinese struggle with weak C2 and inefficient leaders is out-of-area operations requiring aircraft identification and airspace control. The PLA Air Force (PLAAF) still faces significant challenges in conducting combat operations in a joint engagement zone where both surface-to-air missiles (SAM) and fighter interceptors operate within the same airspace. Reports indicate that the PLAAF relies heavily on cooperative targeting recognition methods to identify aircraft in such zones, which often results in lengthy identification times and incorrect identification of friendly or foe aircraft when other methods are used.

Furthermore, ground-based forces remain unable to identify Chinese helicopters, resulting in the downing of friendly aircraft despite following proper protocol upon entering a joint engagement zone. In situations where electronic interrogation is not possible or where equipment is affected by electromagnetic interference, the PLAAF does not typically rely on C2 capabilities held by other services within the theater to overcome joint-engagement barriers.<sup>18</sup>

These exercises demonstrate the urgent need for the PLA to improve its out-of-area operations capability. If Chinese forces continue to operate under basic C2 functions in training environments, it is unlikely that they would succeed in real-world operations beyond the First Island Chain. Therefore, developing the PLA's C2 infrastructure, in conjunction with strengthening officer autonomy, could enhance training and lead to greater accuracy and efficiency in joint engagements.

## **Recommendations**

First, the Chinese must continue to develop a diverse C2 global framework. Combining intelligence, surveillance, and reconnaissance (ISR) data across network-centric systems can provide for prompt decision-making advantage in major combat operations. These interconnected networks can work in tandem with the PLA's goals to integrate information technology and improve information usage during military operations and warfare. China's C2 infrastructure is beginning to rely heavily on command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) capabilities to produce

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<sup>17</sup> Wuthnow and Saunders, *Chairman Xi Remakes the PLA*. In Wuthnow's piece, the author refers to this as *political orthodoxy*, also prevalent, if not strictly necessary, in the echelons of CCP and PLA leadership.

<sup>18</sup> Bonny Lin and Cristina L. Garafola, *Training the People's Liberation Army Air Force Surface-to-Air (SAM) Missile Forces* (Santa Monica, CA: RAND Corporation, 2016), <https://www.rand.org/>.

sophisticated common operating pictures, through phases known as *digitization*, *networkization*, and *intelligentization*.<sup>19</sup> Future capabilities will require advanced sensor input and integration from space systems and undersea assets, particularly as the Chinese begin to rely on cross-domain functions during warfare. These capabilities will provide improved latency and communication throughout all levels of theater and service commands, brigades, and units operating out-of-area. PLA forces can then practice and implement C2 into their day-to-day operations to build experience in passing commands during peacetime and war. Faster acquisition of data and communication will inevitably lead to faster, more informed decisions. As the nature of warfare continues to shift toward a digitized environment, China is likely to further fuse these technologies to improve C2 across theaters.

In addition to these improvements, the CMC must clearly delineate the division of labor. The CMC must allow theater commands, in collaboration with service headquarters, to establish and retain control over missions and operations. The 2015 military reforms have left the PLA without clarity regarding whether the service or theater commands will have full responsibility for mission planning and execution. Setting clear guidelines on who will lead operations such as humanitarian assistance, forward presence, and antipiracy operations would simplify the allocation of resources, deployment of fast-action teams, and management of out-of-area operations for theater commands. The PLA could benefit from adopting the structure of US combatant commands regarding the delineation of duties and responsibilities. Out-of-area missions are largely coordinated by the service heads within a specific theater or area of responsibility. Through interservice collaboration, a combatant commander identifies a mission lead who executes the theater commander's intent for the mission with little to no oversight. This would also alleviate any ambiguity in the division of leadership between commanding officers of air and naval units and political commissars. Such a clear division of labor will allow PLA forces to pursue more robust functions in areas where Beijing seeks to project military power.

This recommendation highlights the importance of empowering military officers to exercise operational independence and commander's intent at all levels of leadership. The PLA must adopt doctrine such as command by negation at the unit level with minimal oversight from force-level and theater-level commanders. However, implementing this change is no easy feat and may be the most challeng-

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<sup>19</sup> Elsa B. Kania, *Battlefield Singularity: Artificial Intelligence, Military Revolution, and China's Future Military Power* (Washington: Center for a New American Security, November 2017), <https://s3.us-east-1.amazonaws.com/>.

ing change the PLA needs to undergo. The PLA must reform education for officers early on in their service to develop decision-making skills that will enable them to act autonomously in out-of-area operations, including exercising self-defense and weapons release.

An example of training that could be used as a model is the PLAAF's noncommissioned officer corps (NCO) training, which focuses on building resilient NCOs capable of receiving task directives and acting upon them in environments where communication with leadership is limited or compromised.<sup>20</sup> While this training is a step in the right direction, it is only a small one. PLA leadership must innovate to develop a formalized training process that builds comfortability with tough decisions and that is tailored to their cultural nuances. PLA officers need practical experience to hone these skills if they are to conduct out-of-area operations effectively without heavy input from theater-level leaders.

To effectively integrate all these elements together into practice, the PLA must prioritize exercises that rely on digital C2 capabilities and encourage leaders throughout theater commands and service components to exercise initiative and autonomy. The PLAAF has already conducted several exercises that closely simulate out-of-area operations, spanning a five-year period with concentrated efforts to hone their capabilities in "competitive and multi-dimensional skills competitions."<sup>21</sup> These multibranch exercises integrated combined-arms simulations, including SAMs and antiaircraft artillery across services. They tested the PLAAF's ability to engage with "system-of-systems confrontational drills," a central concept in Chinese military training.<sup>22</sup> Pilots even used real-time video and flight data recordings to assess performance and analysis. According to a RAND study, PLAAF trainings combine conventional and strategic capabilities while integrating C2 doctrine into exercises.<sup>23</sup> Emulating these trainings and building experience in C2 and initiative will enable Chinese commanders to operate vessels, aircraft, and troops promptly and accurately. Such operations will allow units to engage in weapons release and effectively determine if situations meet doctrinal requirements for engagement. Exercises like these are the best way for PLA forces to practice joint integration, C2 doctrine, and leadership in out-of-area operations.

One way China is actively working toward improved integration is through a series of events titled "Cross-Military Branch Talks." The series aims to break

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<sup>20</sup> Bommakanti and Shivamurthy, "China's Military Modernization: Recent Trends."

<sup>21</sup> Lin and Garafola, *Training the People's Liberation Army Air Force*.

<sup>22</sup> Lin and Garafola, *Training the People's Liberation Army Air Force*.

<sup>23</sup> Lin and Garafola, *Training the People's Liberation Army Air Force*.

down barriers across the services and branches and achieve greater system integration. Through these interactions, forces can strengthen relationships across the military to allow for dialogue and the exchange of insights. Thanks to these talks, regiments and aviation divisions in Beijing regularly observe each other's exercises, recognize the benefits of training together, and learn the strengths and weaknesses of different combat methods firsthand.<sup>24</sup> SAM units now recognize the urgent need to coordinate military action and train jointly.

Moreover, evaluations of Chinese PLAAF SAM units have evolved to assess teams on their individual and joint ability to survive and complete an exercise. On a global scale, the PLA has conducted an increasing number of joint military exercises with Pakistan, Russia, and other members of the Shanghai Cooperation Organization. These exercises allow involved ground, naval, and air units to use improved and digitized infrastructures to practice C2 doctrine under theater command supervision.<sup>25</sup>

With greater confidence in the ability of PLA officers to lead large and complex operations in accordance with military doctrine, the PLA can pursue a more decentralized C2 framework in long-distance military operations. Decentralized C2 will promote joint interoperability and pave the way for increased effectiveness in out-of-area Chinese operations. By diversifying the capabilities of their force through the aforementioned recommendations, the PLA can efficiently support and protect Chinese interests around the globe.

## Conclusion

In conclusion, China's economic expansion and unresolved territorial disputes have forced the country to rely on its armed forces to defend its interests. To keep up a robust global presence, China needs to improve its out-of-area operations, which would require a significant shift in its command and control (C2) doctrine. The lack of autonomy in unit-level operations and centralization of decision-making funnels in the Chinese military pose significant challenges to effective C2 infrastructure. China's current C2 abilities, while improving in technical and digital capacity, still lag far behind American C2 capabilities. Therefore, the People's Liberation Army (PLA) must look to make significant improvements in inter-service collaboration, clarify theater command responsibilities, and bolster overall global C2 infrastructure. These changes would allow the PLA to project

<sup>24</sup> Lin and Garafola, *Training the People's Liberation Army Air Force*.

<sup>25</sup> Lin Congyi, "Past Decade Sees Normalization of China-Foreign Joint Military Drills and Games," *China Military Online*, 12 August 2022, <http://eng.chinamil.com.cn/>.

combat power, engage in humanitarian assistance, and conduct other vital missions anywhere in the world. Failure to make these changes could lead to significant challenges in protecting China's increasingly global interests. Ultimately, the success of China's military and its ability to defend its interests in the international arena will depend on the country's ability to adapt to the changing global security environment and modernize its C2 infrastructure. 🌟

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# Inducing New Bilateral Oil Interdependencies

## The Unintended Impact of 2014 US-led Sanctions on Russia

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### Abstract

Russia's annexation of Crimea, which began in late February 2014, was met with economic sanctions by a US-led coalition. These measures included a ban on the provision of technology for oil and gas exploration and a ban on the provision of credits to Russian oil companies and state banks. These sanctions were intended to affect the Russian national budget immediately and thereby "punish" Russia through nonmilitary means. However, sanctions have also led to consequences that were likely unintended and potentially undesirable. As Russia was being pushed to find new customers for its fuel exports, China was also increasing its investments abroad to secure its energy needs. The result has been to drive China and Russia into a highly interdependent relationship initiated by oil trade. Moreover, this increasing interdependency between Russia and China has been accompanied by decreasing oil interdependency between China and Iran. Finally, we use limited data to speculate on impacts of the recent 2022 sanctions on Russia and find that, in contrast, these newer sanctions have increased interdependence between the EU and China.

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Imposing sanctions rather than direct military interference has become an increasingly popular instrument for US policy making since it avoids the destruction caused by military action.<sup>1</sup> The Russian annexation of Crimea and use of force in eastern Ukraine via supporting Russophile separatists in 2014 led to one instance of US-led Western sanctions. These sanctions started in March 2014 following the annexation and were expanded in April, May, July, and

<sup>1</sup> Funding: This material is based upon work supported by the US Air Force Office of Scientific Research under award number FA9550-21-1-0140. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the United States Air Force. Peter Rutland, "The Impact of Sanctions on Russia," *Russian Analytical Digest*, 157, no. 17 (2014): 2–7, <http://prutland.faculty.wesleyan.edu/>.

September 2014.<sup>2</sup> The progression of their severity moved from adopting Tier 1 (diplomatic) sanctions to Tier 2 (individuals/entities) sanctions, and finally Tier 3 (economic) sanctions.<sup>3</sup> The latest round announced by the US Treasury imposed sanctions on the “Financial Services and Energy Sectors of Russia, Against Arms or Related Materiel Entities.”<sup>4</sup> Energy-related sanctions were included to stop the export of goods and services in support of the exploration or production of oil for Russian deepwater, Arctic offshore, and shale projects. The sanctions specifically targeted five Russian energy companies: Gazprom, Gazprom Neft, Lukoil, Surgutneftegas, and Rosneft.<sup>5</sup>

At the time the sanctions were imposed, oil and gas exports accounted for approximately two-thirds of Russia’s total exports, and their revenues comprised around half the country’s national budget.<sup>6</sup> Moreover, Russia’s fuel exports had been on an upward trend. Russia was the world’s largest producer of crude oil, including lease condensate, and the third-largest producer of petroleum and other liquids (after Saudi Arabia and the United States) in 2014, with average liquids production of 10.9 million barrels per day (b/d).<sup>7</sup> Russia was also a considerable oil and natural gas producer and exporter, but it had an important vulnerability, which was a lack of diversification of export destinations. By 2014, more than 70 percent of Russia’s crude exports and almost 90 percent of Russia’s natural gas exports went to Europe. However, Russia’s dependency on European consumption was reciprocal: 30 percent of European crude oil supplies were coming from Russia. Europe’s heavy dependency on Russian gas was already well-known. Thus, there was a high level of bilateral interdependency between Europe and Russia at the time.

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<sup>2</sup> Viljar Veebel and Raul Markus, “Lessons from the EU-Russia Sanctions 2014-2015,” *Baltic Journal of Law & Politics* 8, no. 1 (2015): 165–94.

<sup>3</sup> European Parliament, “Sanctions over Ukraine: Impact on Russia,” 2018, <https://www.europarl.europa.eu/>.

<sup>4</sup> US Department of the Treasury, “Announcement of Treasury Sanctions on Entities Within the Financial Services and Energy Sectors of Russia, Against Arms or Related Materiel Entities, and those Undermining Ukraine’s Sovereignty” (press release, DOT, 16 July 2014), <https://home.treasury.gov/>.

<sup>5</sup> US Department of the Treasury, “Announcement of Expanded Treasury Sanctions within the Russian Financial Services, Energy and Defense or Related Materiel Sectors” (press release, DOT, 12 September 2014), <https://home.treasury.gov/>.

<sup>6</sup> US Energy Information Administration, “Oil and natural gas sales accounted for 68% of Russia’s total export revenues in 2013,” 23 April 2014, <https://www.eia.gov/>.

<sup>7</sup> US Energy Information Administration, “Russia,” 28 July 2015, <https://www.eia.gov/>.

## How Did Sanctions Affect the Russian Oil Sector?

Given oil revenue's big share of Russia's national budget, the 2014 sanctions would ideally work at undermining Russia's actions. However, the scope of sanctions was not aimed at an immediate or a mid-term impact.<sup>8</sup> Exploring and producing in the Arctic and deep offshore and shale oil requires long-term planning and efforts. Thus, the sanctions' impact on the Russian economy would mainly be in the long term. Moreover, 2014 was the year that the oil market started experiencing oversupply and underdemand, which meant decreasing oil prices (see fig. 1). The price of USD 115 a barrel in June 2014 decreased to USD 60 by December 2014. Regarding its impact on the Russian economy, a USD 1 fall in the oil price per barrel cuts federal tax revenue by about USD 1.4 billion.<sup>9</sup> In other words, the fall in oil prices would have as great an effect as sanctions. The decline in oil prices also had a direct impact on the economy, which shrank by 3.8 percent in 2015.<sup>10</sup> The ruble lost its value against the dollar by around 60 percent. However, monetary and fiscal policies followed to counter the situation.<sup>11</sup> The ruble's decreased value helped Moscow discourage imports and lower the costs of domestic supplies, which are the key to energy production. Financial reserves previously strengthened were used to help the energy sector. It was the breaking point for the Russian oil sector.

Oil prices and investment in wells are proportional in free-market dynamics because higher prices mean potentially higher profits, which make the risk of investing in wells worthwhile. While the sanctions were stopping the "exportation, or reexportation of goods, services (not including financial services), or technology,"<sup>12</sup> they were also blocking foreign private investors who had already become jittery in 2015 due to global oil prices. As a result, Russian state-owned oil companies boosted their investments.<sup>13</sup> Thus, the sanctions did not reduce Russia's oil production; on the contrary, they kept its investments afloat when oil prices fell (see fig. 2). The question then arises: If Russian oil production did not suffer despite the sanctions and continued to maintain its important position in the global market, what was the outcome of US-led Western sanctions on Russia's

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<sup>8</sup> Anders Åslund, "Western Economic Sanctions on Russia over Ukraine, 2014–2019," *CESifo Forum* 20 (2019), <https://www.cesifo.org/>.

<sup>9</sup> Rutland, "The Impact of Sanctions on Russia."

<sup>10</sup> World Bank, *Global Economic Prospects: Spillovers Amid Weak Growth* (Washington, DC: World Bank Group, 2016).

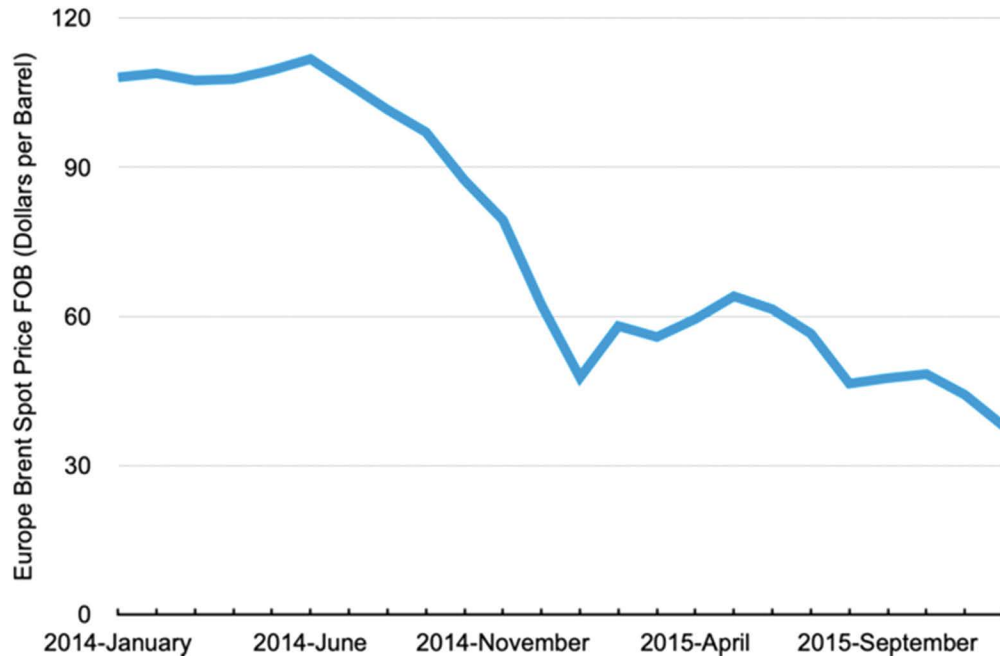
<sup>11</sup> Bud Coote, *Impact of Sanctions on Russia's Energy Sector* (Washington, DC: Atlantic Council, March 2018), <https://www.atlanticcouncil.org/>.

<sup>12</sup> US Department of the Treasury, "Ukraine and Russia Sanctions," 2014, <https://2009-2017.state.gov/>.

<sup>13</sup> Coote, *Impact of Sanctions on Russia's Energy Sector*."



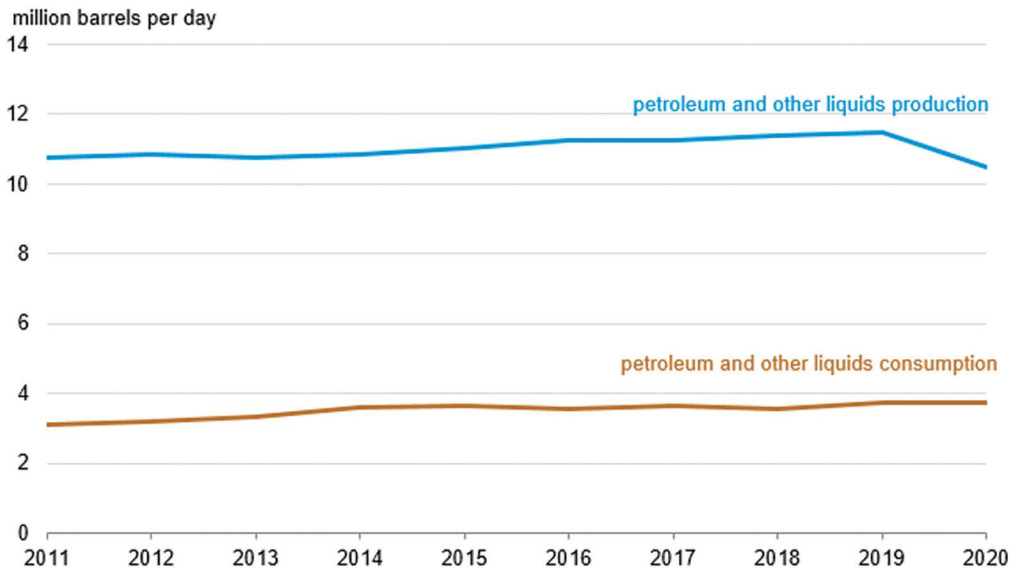
oil export destinations? Two factors are critical: first, Europe, which was the biggest buyer of Russian oil at that time, also participated in these sanctions, and second, Russia's "Pivot to Asia," announced in 2012, pursued economic and foreign policy diversification. Specifically, the latter also invokes the "Pivot to China" debate.<sup>14</sup>



**Figure 1. Global oil prices per barrel, January 2014–December 2015<sup>15</sup>**

<sup>14</sup> Alexander Gabuev, "A 'Soft Alliance'?: Russia-China Relations After the Ukraine Crisis," *ECFR Policy Brief*, February 2015, <https://ecfr.eu/>.

<sup>15</sup> US Energy Information Administration, "Spot Prices (Crude Oil in Dollars per Barrel, Products in Dollars per Gallon)," 2022, <https://www.eia.gov/>.



**Figure 2. Russia's petroleum and other liquids production and consumption, 2011–2020<sup>16</sup>**

Two emerging economic powers, China and India, which needed the energy for industrial production influenced the global oil market. To continue growing economically, New Delhi and Beijing needed to diversify energy types and suppliers to secure their energy markets. In China's case, diversification away from coal led to increases in oil and gas imports. These policies worked; while China imported 4,766 b/d of crude oil in 2010, that rate increased to 10,852 in 2020.<sup>17</sup> China still relies on fuel imports now, and capital expenditures (CAPEX) of China's national oil companies was projected to increase by 4.6 percent in 2022 compared with 2021.<sup>18</sup> However, supplier countries and supplier routes also needed diversification because China has historically relied heavily on oil imports by sea, which decreases the security of these energy supplies.<sup>19</sup> Russia was one of the options to alleviate this problem. Trade between China and Russia increased by the mid-2000s, and subsequent Sino-Russian energy cooperation witnessed major increases during 2013–14 via signed deals.<sup>20</sup> The US-led coalition applied

<sup>16</sup> US Energy Information Administration, "Country Analysis Executive Summary: Russia," 13 December 2021, <https://www.eia.gov/>.

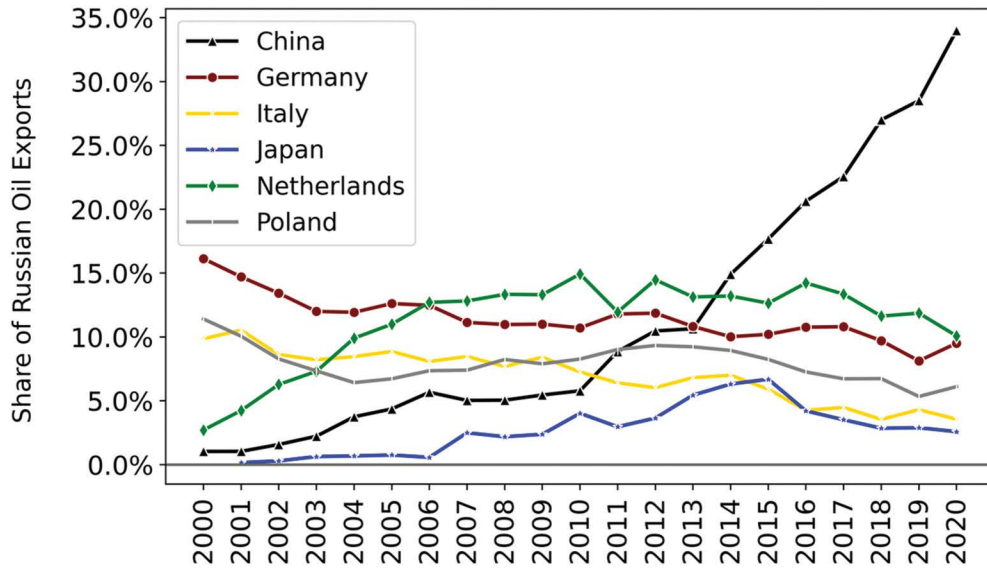
<sup>17</sup> CEIC, "China Crude Oil: Imports," 2022, <https://www.ceicdata.com/>.

<sup>18</sup> US Energy Information Administration, "China," 8 August 2022, <https://www.eia.gov/>.

<sup>19</sup> Keun-Wook Paik, *Sino-Russian Gas and Oil Cooperation: Entering into a New Era of Strategic Partnership?* (Oxford: Oxford Institute for Energy Studies, April 2015), <https://a9w7k6q9.stackpathcdn.com/>.

<sup>20</sup> European Parliament, "Sanctions over Ukraine: Impact on Russia."

sanctions at a key time, when Russia was already considering Asia, and specifically China, as an opportunity for market expansion and diversification. However, sanctions rendered this a necessity more than an opportunity. As a result, China, which accounted for only 1 percent of Russian oil exports in 2000 and 6 percent in 2010, grew to become Russia's top importer, accounting for 34 percent of Russian oil exports by 2020 (see fig. 3).



**Figure 3. Russia's oil export destinations, 2000–2020.** Source: UN Comtrade (HS Code 2709). See data description below for more detail.<sup>21</sup>

### How to Understand What Has Happened?

Did the 2014 sanctions work as intended? Apparently not (see fig. 2). As Thijs Van de Graaf and Jeff D. Colgan argue, sanctions were not as extensive as the ones imposed on Iran from 2012 to 2016, which also discouraged third countries from

<sup>21</sup> Data Description: The data used in figures 3 and 4 come from the United Nations (UN) Comtrade database. UN Comtrade data includes international trade of goods and services. The goods and services are categorized according to the Harmonized System (HS). The HS Code used for figures 3 and 4 is 2709, "Petroleum oils and oils obtained from bituminous minerals; crude." The data used in this analysis was retrieved 15 August 2022. In UN Comtrade data, both importers and exporters can submit data. However, submitted data are not always in agreement. In instances where one country reports trade while the other does not, the reported data are used. In instances where both can submit data but the values disagree, the average of the two values is taken. The value used here is the dollar amount of trade converted to shares of exports (fig. 3) or imports (fig. 4).

buying Iranian oil.<sup>22</sup> Further, the EU was dependent on Russian oil and did little to decrease imports. Thus, the sanctions did not work as intended, but led to unintended consequences (see fig. 3).<sup>23</sup> Russia did not lose momentum in oil production and export, rather Moscow diversified its customer countries. China's trade and political interaction with Russia also became much stronger due to how the US-led West positioned itself relative to Russia. This happened as a result of the connection between Crimea's annexation and Russia's shift eastward for energy.<sup>24</sup> In parallel to this, some argue that the outcomes of sanctions may prove to be far different than those intended.<sup>25</sup> On the other hand, others argue that the annexation did not lead to a sudden strengthening of Sino-Russian relations but rather represented an international context increasingly conducive to cooperation between China and Russia, a relationship that had already been growing in the preceding decades.<sup>26</sup> It remains an open topic of debate; however, figure 3 shows how much the strengthening of Sino-Russian relations accelerated after 2014 in the context of oil trade.

However, one point needs clarification. As an outcome of the sanctions, this newly emerging energy interdependency between Russia and China is different from the one between Russia and Europe. While Moscow gained political influence in Europe by selling Russian oil there, Chinese dominance in economic, political, and military prowess did not provide the same space for Russia.<sup>27</sup> This brings the interdependency debate to the center of the discussion. Both the decreasing oil interdependency of Russia–Europe and the increasing oil interdependency of Russia–China represent bilateral interdependencies mentioned in liberal international relations theory.<sup>28</sup> Bilateral relationships can characterize the power and vulnerability of states. It is based on mutually advantageous interactions, but

<sup>22</sup> Thijs Van de Graaf and Jeff D. Colgan, "Russian gas games or well-oiled conflict? Energy security and the 2014 Ukraine crisis," *Energy Research & Social Science* 24 (February 2017): 59–64, <https://www.sciencedirect.com/>.

<sup>23</sup> Lara Geiger, "2014 Sanctions Against Russia Failed, is the Second Time the Charm?," *Columbia Political Review* (blog), 7 April 2022, <http://www.cpreview.org/>.

<sup>24</sup> John Biersack and Shannon O'Lear, "The Geopolitics of Russia's Annexation of Crimea: Narratives, Identity, Silences, and Energy," *Eurasian Geography and Economics* 55, no.3 (2014): 247–69.

<sup>25</sup> Veebel and Markus, "Lessons from the EU–Russia Sanctions," 165–94.

<sup>26</sup> Indra Overland and Gulaikhan Kubayeva, "Did China Bankroll Russia's Annexation of Crimea?: The Role of Sino-Russian Energy Relations," in *Russia's Turn to the East: Domestic Policymaking and Regional Cooperation*, ed. Helge Blakkisrud and Elana Wilson Rowe (Cham: Palgrave Pivot, 2018), 95–118.

<sup>27</sup> Morena Skalamera, "Sino-Russian energy relations reversed: A new little brother," *Energy Strategy Reviews* 13–14 (November 2016): 97–108.

<sup>28</sup> Joanne Gowa and Edward D. Mansfield, "Power Politics and International Trade," *American Political Science Review* 87, no. 2 (June 1993): 408–20.

both sides' powers are shaped by their dependency and vulnerability in relation to one another.<sup>29</sup> It means there are reciprocal rather than one-sided vulnerabilities. Liberals have argued that such reciprocal dependence would make coercive strategies less effective.<sup>30</sup> Through time, these symmetries are ideally expected to be less effective. In addition to liberal accounts, the interdependency of network structures has also been highlighted recently.<sup>31</sup> This approach is based on prioritizing network structures rather than solely bilateral connections and aims to analyze via "nodes" and "ties." *Nodes* are the hubs of networks, and *ties* are the connections between nodes, which channel information, resources, or other forms of influence. As a common point for bilateral relations and networks, interdependency can always be "weaponized." In other words, more powerful/less vulnerable states can use their power as leverage.

Since oil has a global market, which always creates options for buyers and sellers, there is no single control point. Thus, there cannot be a weaponization of network structures, but states can use oil as a "stick" in bilateral relationships. In fact, it has been used as a "weapon" since the 1973 oil crisis. The historical evolution of the fuel market marks an interesting point here. Initially, oil producers and then gas producers have used their position to gain an advantage during the bargaining process of international politics. As the power of interdependency is defined by dependency and vulnerability, US policy makers have discussed whether they are dependent or vulnerable in terms of oil since the crisis. *Energy independence* is one of the most frequent terms of rhetoric in US politics since the Nixon administration.

## **Discussion and Conclusion**

Sanctions, however, have their own dynamics regarding weaponized interdependency. When the US Treasury becomes a part of the process, sanctioned states are not the only target. Washington's privileged position and US dominance over the global financial market lead to threats to global private actors active in sanctioned countries.<sup>32</sup> In the 2014 case, international private actors—including Russian oil producer companies that were planning to be part of Russian oil production (e.g.,

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<sup>29</sup> G. J. Ikenberry, *Liberal Leviathan: The Origins, Crisis, and Transformation of the American World Order* (Princeton, NJ: Princeton University Press, 2011).

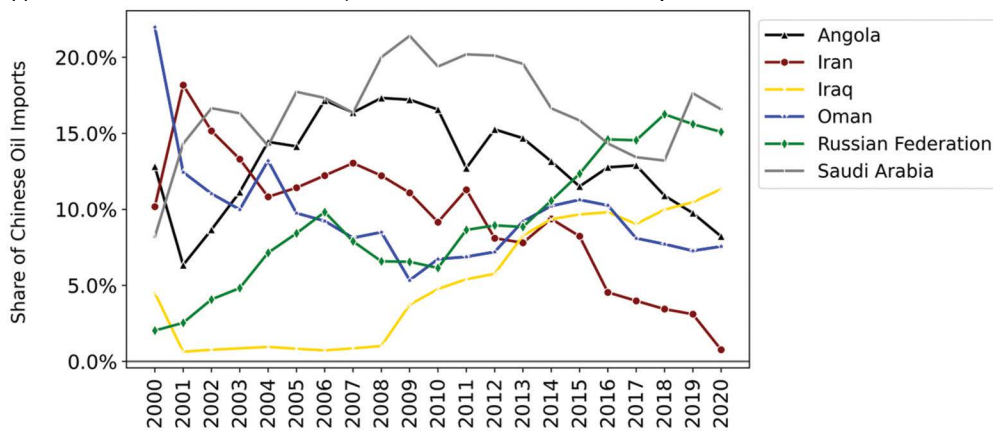
<sup>30</sup> Robert O. Keohane and Joseph S. Nye, *Power and Interdependence*, 4th ed. (New York: Longman, 1993).

<sup>31</sup> Henry Farrell and Abraham L. Newman, "Weaponized Interdependence: How Global Economic Networks Shape State Coercion," *International Security* 44, no.1 (2019): 42–79.

<sup>32</sup> Abraham L. Newman and Elizabeth Roseberg, "Weaponized Interdependence – Economic Networks, Sanctions, and State Coercion," interview by Morgan Kaplan, *MIT Press* (blog), 17 April 2020, <https://mit-press.mit.edu/>.

service or technology providers)—were affected. For example, projects that Rosneft and ExxonMobil were developing, such as offshore drilling projects on the Arctic shelf, Sakhalin Island and the Black Sea were suspended.<sup>33</sup> Russian companies needed new partners. In the aftermath of the sanctions, China was not only part of Russian fuel production but also bankrolled Russian fuel companies.<sup>34</sup> Thus, the sanctions' impacts went well beyond Russian oil production and the Russian economy, as they touched on global private actors and Russia's approach to China.

While sanctions have been used as a weapon due to Russia's dependency on oil revenue, Russia has proved able to find alternative markets and investors. In other words, when states use oil interdependency as a tool, outcomes may include the creation of new interdependencies (see fig. 3). However, unintended consequences abound. China, as mentioned above, had been trying to diversify its oil imports away from sea route transportation, such as those from Iran. Further, when Moscow joined the discount price providers because of sanctions, Russian oil could be substituted for others (e.g., Iran). These two reasons (i.e., transportation routes and discount prices) created danger for Iran, which had previously been one of the largest suppliers of oil to China. Consequently, a rise in oil interdependency between Russia and China has led to a decrease in oil interdependency between China and Iran (see fig. 4). In the aftermath of Russia's 2022 invasion of Ukraine and a new regime of Western sanctions, this induced Iran to cut prices even further.<sup>35</sup>



**Figure 4. Share of Chinese oil imports, 2000–2020.** Source: UN Comtrade (HS Code 2709).

<sup>33</sup> Anastasia Nevskaya, "US sanctions on Russian energy sector: first results and side effects" (working paper, 2022), <https://www.imemo.ru/>.

<sup>34</sup> Overland and Kubayeva, "Did China Bankroll Russia's Annexation of Crimea?"

<sup>35</sup> "United States and Allies and Partners Impose Additional Costs on Russia" (fact sheet, The White House, 24 March 2022), <https://www.whitehouse.gov/>.

In this study we have used rich historical data to assess the impact of the 2014 sanctions on Russia. Unfortunately, the typical lag in publication of this type of data precludes a similar analysis at this time of sanctions imposed on Russia in 2022 following its latest invasion of Ukraine. However, we may use various emerging anecdotal data to at least speculate on two possible impacts of the ongoing sanctions. First, these data hint at limited success of current sanctions, just as in 2014. For example, a primary target of the 2022 sanctions was Russia's energy sector. However, due to impacts of the war, energy prices at the end of 2022 were 10-percent higher than at the beginning of 2022.<sup>36</sup> This positively impacted Russia's revenues, generating a surplus for the period January–September 2022 that was roughly USD 120 billion higher than for the same period in 2021.<sup>37</sup> Realizing this, the European Council established a price cap for oil exported from Russia at USD 60 per barrel.<sup>38</sup> The current sanctions have also created an unexpected interdependence outcome. EU imports of photovoltaic solar panels from China has more than tripled since the war began, and China now accounts for 90 percent of the EU's total panel imports.<sup>39</sup> Thus, the EU has seemingly replaced energy dependence on Russian hydrocarbons with dependence on Chinese raw materials. While the 2014 sanctions induced unexpected interdependence between Russia and China, the 2022 sanctions have induced strong interdependence between the EU and China. Second, there appears to again be a fracturing of the global energy trade network, but this time with the EU disconnecting from Russia in favor of the United States. After Russia invaded Ukraine, Moscow dramatically reduced gas exports to Europe.<sup>40</sup> The threats at the initial invasion prompted the EU to work to build liquified natural gas (LNG) ports that could accept gas from any exporter, not just those connected via pipeline.<sup>41</sup> The United States and Norway have accounted for the

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<sup>36</sup> US Energy Information Administration, "Energy Commodity Prices in 2022 Showed Effects of Russia's Full-scale Invasion of Ukraine," 3 January 2023, <https://www.eia.gov/>.

<sup>37</sup> Maria Demertzis, et al., "How Have Sanctions Impacted Russia?," *Policy Contribution* 18, 2022, <https://www.bruegel.org/>.

<sup>38</sup> European Council, "EU Response to Russia's Invasion of Ukraine," 17 January 2023, <https://www.consilium.europa.eu/>.

<sup>39</sup> Eurostat, "International Trade in Products Related to Green Energy," 17 January 2023, <https://ec.europa.eu/>.

<sup>40</sup> Georgi Kantchev, "Russia Threatens to Reduce Gas Exports to Europe Further," *Wall Street Journal*, 22 November 2022, <https://www.wsj.com/>.

<sup>41</sup> Georgi Kantchev, "The Five-Year Engineering Feat Germany Pulled Off in Months," *Wall Street Journal*, 8 December 2022, <https://www.wsj.com/>.

biggest share of new supply.<sup>42</sup> In essence the energy trade network has effectively been rewired with the link between the United States and the EU replacing the link between Russia and the EU.

In summary, sanctions could not affect the Russian oil sector directly and immediately, instead they pushed Moscow to concentrate more on finding new oil export destinations. Here, Beijing's increasing investments abroad, including those in the oil sector, rendered China an attractive alternative market for Russian exports. Old bilateral fuel interdependency (i.e., between Russia and Europe) could now be replaced with the new one (i.e., Russia and China). However, the domino effect of sanctions did not stop there. Increasing Russian oil imports to China helped Chinese national oil companies to reduce their imports from Iran. This study has shown that sanctions designed to increase or decrease specific bilateral oil interdependencies can induce long-term changes in complex trade networks. Some of those changes may be unforeseen and unintended. Thus, it is likely that the application of network analysis prior to sanction enforcement may better inform future policy decisions by anticipating how sanctions might impact global trade networks. 🌐

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<sup>42</sup> Matthew Dalton, "How Europe Escaped a Looming Energy Crisis," *Wall Street Journal*, 14 January 2022, <https://www.wsj.com/>.



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# India's G20 Presidency and the Death of Democracy in Myanmar

BHUPENDRA KUSHWAHA

## Abstract

This article explores the challenges India faces in upholding its aspiration of becoming a democratic world leader while holding the G20 presidency, given its nonchalant approach toward the erosion of democracy in Myanmar. Despite claiming to be the “mother of democracy,” India’s indifference toward the ongoing civil war in Myanmar and the increasing proximity of its military leaders with China contradicts its aspirations of becoming a world leader. As India marches toward fulfilling its role as a democratic global power, persistent violent attacks on democracy and rule of law in its eastern neighborhood pose a direct threat to its strategic and economic interests in the Indo-Pacific region. The article sheds light on the implications of the military rule in Myanmar for India during its G20 presidency.

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Since India’s assumption of the presidency of G20 in December 2022, there has been a growing conversation about India’s ambition of becoming a “leading power” and its role in shaping global outcomes. New Delhi’s new role comes at one of the most critical times in contemporary history and presents an opportunity for India to showcase its capabilities in addressing global challenges. It also raises questions about India’s response to critical issues beyond its borders, such as the ongoing political and civil unrest in Myanmar. Thus, the presidency offers India a chance to prove its leadership caliber. While solving the world’s problems are all well and good, this critical issue just beyond India’s eastern frontier requires serious attention from New Delhi. The military coup in Myanmar in February 2021, which overthrew the democratically elected government of National League for Democracy (NLD), has resulted in violent suppression of protests and widespread human rights abuses. Being a major neighboring country, India’s response to the crisis in Myanmar is crucial, as the military rule not only has consequences for the people of Myanmar but also for other countries in the Indo-Pacific region.

China’s stance on the issue has been widely discussed, with allegations of its involvement in the coup. In contrast, India’s response has been relatively muted, with condemnation of the violence but no explicit criticism of the military leaders. This approach raises questions about New Delhi’s commitment to India’s demo-

cratic values and its aspiration to become a democratic world leader.<sup>1</sup> This article explores India's approach to the crisis in Myanmar in light of its G20 presidency and its global ambitions, analyzing the implications of its nonchalant and contradictory approach toward the ongoing crisis.

### **India's Myanmar Challenge**

As global geopolitical power dynamics shift from unipolar to multipolar, emerging powers like India and China are becoming more assertive in shaping the world order. India's ambition to become a leader for the Global South is a notable example. Despite this, India's lack of action regarding the systemic killings of Rohingya Muslims by Myanmar's military leaders has been glaring.<sup>2</sup> Additionally, it is worth noting that many articles, opinion pieces, and research papers have excluded the crisis in Myanmar from the list of global challenges facing India, such as the COVID-19 pandemic, US–China rivalry, the Russian invasion of Ukraine, global recession, and climate change, among others.

The crisis in Myanmar may seem slightly insignificant when compared to other global challenges, but it has far-reaching consequences for India. First, Beijing's influence in Myanmar following the coup is a cause for concern for India. The leaders of the Tatmadaw are becoming increasingly dependent on China for financial and political support, which could jeopardize New Delhi's relations with Myanmar. Such influence is evident from the statement issued by Tatmadaw leaders in 2021 that, "Myanmar will start accepting Renminbi as an official settlement currency next year for trade with China."<sup>3</sup> Second, the civil war and insurgency in Myanmar are detrimental for peace in northeast India. The influx of refugees from Myanmar is causing tension between the central government of India and the state governments of Mizoram and Manipur. Third, the ongoing conflict in Myanmar undermines India's Act East Policy and the geostrategic economic projects that form its core. These projects include the India–Myanmar–Thailand Trilateral Highway Project (IMT Highway) and the Kaladan Multi-

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<sup>1</sup> Ministry of Education, Government of India, "Shri Dharmendra Pradhan launches the book 'India: The Mother of Democracy' prepared and published by ICHR," *PIB Delhi*, 24 November 2022, <https://www.pib.gov.in/>; and Saket Ambarkhane and Sanjay Valentine Gathia, "Over a Year Later, Myanmar's Military Coup Threatens India's National Security," *United States Institute of Peace*, 10 May 2022, <https://www.usip.org/>.

<sup>2</sup> Suhasini Haidar, "Should India Change Its Policy on the Rohingya?," *The Hindu*, 26 August 2022, <https://www.thehindu.com/>; and Shriansh Jaiswal and Ananya Kumar, "India's Response to Rohingyas: A Gross Misuse of Defense of National Security and Turning Away from Its International and Constitutional Obligations," *Jurist*, 2 July 2021, <https://www.jurist.org/>.

<sup>3</sup> John Geddie, "Myanmar Seeks closer China Ties with Renminbi Trade Project," *Reuters*, 22 December 2021, <https://www.reuters.com/>.

Modal Transit Transport Project (KMTT). Besides these challenges, New Delhi's engagement with the Tatmadaw and India's tepid response to the democratic and human rights crisis in Myanmar are at odds with its aspirations of being a democratic world leader.

### The Chinese Dynamic

The Tatmadaw leaders have allowed several multibillion-dollar Chinese projects under Beijing's Belt and Road Initiative (BRI) to proceed, despite these projects having been stalled by the previous NLD-led government for environmental and socioeconomic assessment. Among these projects is the USD 2.5 billion Mee Lin Gyaing liquefied natural gas (LNG) plant that will provide power to one of the major economic zones in the Ayeyarwady region.<sup>4</sup> The military junta has also announced plans to move ahead with the Kyaukphyu deep-sea port in the Bay of Bengal and other special economic zones that will give China easier access to the Indian Ocean.<sup>5</sup> This is of particular concern to New Delhi, as the Kyaukphyu port is not far from India's Andaman and Nicobar Islands. Maritime affairs analyst Abhijit Singh warns that "India must be aware that a consolidation of Chinese maritime power in Southeast Asia has a direct bearing on the People's Liberation Army Navy's (PLAN) power projection plans in the Indian Ocean."<sup>6</sup> Additionally, the lack of socioeconomic and environmental assessments of the BRI projects in Myanmar, combined with the imprisonment of officials involved in such assessments, may lead to instability domestically and international condemnation.<sup>7</sup> The long-term ecological damage resulting from these projects is also a significant concern for the region.

India's strategic interests in the Indo-Pacific region are closely linked to the peace and stability of its eastern neighborhood, especially Myanmar. Therefore, India needs to pay close attention to the ongoing political turmoil there. While it is crucial to engage with the military generals to prevent Myanmar from falling completely into China's arms, India must also be careful not to compromise its democratic values and human rights principles. Moreover, the continuing insurgency and civil unrest in Myanmar could undermine India's strategic projects in

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<sup>4</sup> "Junta Approves \$2.5bn Power Plant Project Backed by Chinese Companies," *Myanmar Now*, 14 May 2021, <https://myanmar-now.org/>.

<sup>5</sup> Dipanjan Roy Chaudhury, "Myanmar Junta Expedites Work on China funded Kyaukphyu Port," *Economic Times*, 9 August 2021, <https://m.economictimes.com/>.

<sup>6</sup> Abhijit Singh, "Why India Is Right about Its South China Sea Stand," *ORF*, 26 July 2016, <https://www.orfonline.org/>.

<sup>7</sup> Jason Tower and Priscilla A. Clapp, "Myanmar: China, the Coup and the Future," *United States Institute of Peace*, 8 June 2021, <https://www.usip.org/>.

the region, such as the IMT Highway and the KMTT. As Praveen Swami of *The Print* notes, “The intensified insurgency in Myanmar, though, could leave the military in no position to keep delivering on its commitments to India. Should China gain greater influence, the Generals might also have little incentive to do so.”<sup>8</sup> Therefore, India must adopt a nuanced and proactive approach to the situation in Myanmar to safeguard its interests and regional stability.

The view that China sponsored the coup in Myanmar and is behind the ongoing political turmoil is widely held by the people of Myanmar. By engaging with Myanmar’s military leaders, India risks damaging its goodwill among the Burmese people, as noted by analysts at the United States Institute of Peace.<sup>9</sup> Moreover, the Tatmadaw’s dependence on China is much deeper than its relations with India, particularly in terms of financial and economic support. This dependence has only increased after the coup and amid international isolation, particularly from the Association of Southeast Asian Nations (ASEAN). As a result, New Delhi needs to adopt a more nuanced approach toward Myanmar that balances India’s strategic interests and its commitment to democratic values.

### **Dangers of Civil War in Myanmar for India**

Long-term instability and violence in Myanmar pose significant threats to India’s geostrategic and economic interests. New Delhi has made substantial investments in Myanmar, including the USD 6 billion petroleum refinery near Yangon, in addition to the KMTT Project and the IMT Highway. Cross-border trade with Myanmar has been a crucial driver of employment and income generation in northeast India.<sup>10</sup> However, all such economic ventures are bound to suffer due to the ongoing civil unrest. Although the Tatmadaw in Myanmar shares a strong relationship with the Indian government, according to Dr. Amit Singh, a professor of political science at the University of Delhi, “instability in the region would threaten India’s near \$780 million worth of investments in Myanmar and hinder the completion of vital infrastructure projects.”<sup>11</sup> Political analyst Radha Kumar notes that given India’s “land and sea borders with Myanmar, and the troubled

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<sup>8</sup> Praveen Swami, “Why White Elephant Democracy Will Fuel Civil War in Myanmar, Instability in India’s Northeast,” *The Print*, 8 January 2023, <https://theprint.in/>.

<sup>9</sup> Ambarkhane and Gathia, “Over a Year Later, Myanmar’s Military Coup.”

<sup>10</sup> Mira Patel, “A Complex History and Layered Present: What Determines India’s Response to Military Rule in Myanmar,” *Indian Express*, 20 May 2021, <https://indianexpress.com/>.

<sup>11</sup> Cited in Patel, “A Complex History and Layered Present.”

history of cross-border insurgencies between our two countries, the Modi administration's inertia is alarming, though not entirely surprising."<sup>12</sup>

The ongoing civil war in Myanmar poses several challenges for India, including the risk of violence and infiltration along the Indo-Myanmar border. Such incidents could harm New Delhi's image and prove detrimental to India's economic interests and infrastructure projects in Myanmar. In January 2023, bombings by Myanmar's armed forces targeting ethnic armed organizations (EAO) fighting against the Tatmadaw—dangerously close to the border in Mizoram—highlighted the potential dangers.<sup>13</sup> The influx of refugees from Myanmar—many of whom share deep socio-cultural ties with the ethnic populations of northeast India<sup>14</sup>—also presents several challenges, including security risks, burden on resources, spread of communicable diseases, and a possible increase in smuggling of narcotics.<sup>15</sup> The ongoing civil war could also lead to insurgency spreading along the border, putting pressure on the Indian Army to control it. Therefore, as Radha Kumar argues, India has “a direct security interest in the restoration of our neighbour's democracy.”<sup>16</sup> Such interest may prove reciprocal, as the Indian Army has been successful in reducing insurgency in northeast India to a great extent—it might be stated that the Tatmadaw needs the Indian Army far more than India needs the Tatmadaw.

New Delhi has justified its relations with the Tatmadaw junta based on the belief that the assistance of Myanmar's military is essential for curbing insurgency in northeast India. However, various analysts have claimed “this assumption was never fully correct and has completely fallen apart since the coup.”<sup>17</sup> The Tatmadaw has failed to manage insurgency within its own country, with several EAOs intensifying rebellion against the military junta after the coup. Therefore, it is uncertain—perhaps even unlikely—the Tatmadaw will be of much use for managing insurgency in India. Furthermore, insurgency in northeast India has decreased significantly, with recent revocation of Armed Forces Special Powers Act (AFSPA) in many parts of the region. The Indian Army has undertaken various initiatives to engage the youth of the northeast and keep them from

<sup>12</sup> Radha Kumar, “Radha Kumar Writes: India's Response to Sri Lanka and Myanmar Crises Is a Study in Contrast. It Shouldn't Be,” *Indian Express*, 2 August 2022, <https://indianexpress.com/>.

<sup>13</sup> Rahul Karmakar, “Myanmar's Civil War Gets Too Close to India's Border for Comfort,” *The Hindu*, 7 February 2023, <https://www.thehindu.com/>.

<sup>14</sup> Ninglun Hanghal and Makepeace Sitthou, “Manipuris Help Myanmar Refugees, Ignoring BJP Order to ‘Politely’ Turn Them Away,” *Article 14*, 11 May 2021, <https://article-14.com/>.

<sup>15</sup> Ambarkhane and Gathia, “Over a Year Later, Myanmar's Military Coup”; and Patel, “A Complex History and Layered Present.”

<sup>16</sup> Kumar, “Radha Kumar Writes.”

<sup>17</sup> Ambarkhane and Gathia, “Over a Year Later, Myanmar's Military Coup.”

joining insurgent groups, and recruitment by the armed factions has dramatically declined, with most of the cadres surrendering and joining mainstream society.<sup>18</sup> Among these initiatives, the most popular ones include efforts to provide soccer training and coaching and instruction for students to appear for the national-level entrance examinations for medicine and engineering.<sup>19</sup> Thus, India's relationship with the Tatmadaw may no longer be necessary or advantageous for curbing insurgency, as internal efforts to address this issue have been successful in decreasing violence and promoting stability in northeast India.

India has a complex history with Myanmar, having previously supported the democratic movement in the country. However, in 1998, the Indian government changed its approach and began engaging with the Tatmadaw, recognizing the need to strengthen connections with Southeast Asia and improve the situation in the northeast.<sup>20</sup> This policy of aligning with "whoever worked in India's interests" may no longer be effective, as the Tatmadaw has proven ineffective in containing the civil war and addressing the economic crisis in Myanmar. Additionally, ongoing protests, insurgency, and serious human rights abuses in Myanmar make it increasingly questionable for India to maintain ties with the Tatmadaw.

India's policy of noninterference and reluctance to condemn the Tatmadaw's actions in Myanmar is at odds with its global democratic aspirations. The ASEAN has taken a collective stance in condemning Myanmar's armed forces and has excluded them from important ASEAN meetings. However, India recently held a meeting with the military leaders of Myanmar to discuss border management issues.<sup>21</sup> Without coordination from the remaining ASEAN countries, India's plan of connecting with the ASEAN through Myanmar may not be successful. Therefore, it is imperative for India to carefully reassess its relationship with Myanmar and consider the broader implications of its engagement with the Tatmadaw in light of the ongoing violence and instability in Myanmar.

## Conclusion

Recalling India's close ties with the former dictator of Pakistan Pervez Musharraf the editors of *The Indian Express* caution that "the Mumbai attacks . . . should

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<sup>18</sup> Snehash Alex Philip, "Peace in Northeast after Decades Allows Army to Finally Pull Out of Counter-insurgency Ops," *The Print*, 22 September 2022, <https://theprint.in/>.

<sup>19</sup> Dinakar Peri, "Insurgency Down in Northeast, Army Shifts to LAC," *The Hindu*, 18 September 2022, <https://www.thehindu.com/>.

<sup>20</sup> Patel, "A Complex History and Layered Present."

<sup>21</sup> Suhasini Haidar, "Foreign Secretary Meets Myanmar Military Leaders, Discusses Border Management," *The Hindu*, 22 November 2022, <https://www.thehindu.com/>.

be a reminder to India that talking to a military dictator or an Army Chief alone, hoping that other ‘stakeholders’ will fall in line, is not a promising path to normalising relations with Pakistan.”<sup>22</sup> India’s present approach toward Myanmar is quite similar. The Indian government has chosen to engage with the military leaders of Myanmar while sidelining the other stakeholders in Myanmar completely. Complacent interaction with the military junta may not prove fruitful in the long run. Additionally, the EAOs’ insurgency in Myanmar had decreased under the rule of the NLD, while political instability has only grown since the military coup. Rather than finding a stable solution, the military junta has tried to suppress opposition with force. It is therefore imperative for New Delhi to reassess its approach to Myanmar and consider the long-term implications of India’s engagement with the military junta.

The people of Myanmar have shown their desire for a functional democracy in their country through their election of the NLD in the general elections of 2020. However, the power-hungry and superstitious leaders of the Tatmadaw are unlikely to relinquish their positions easily. However, their tactics are ultimately unsustainable, as they cannot rule over a population for long without their support. New Delhi must consider the democratic aspirations of the people of Myanmar and the outcome of the 2020 elections when crafting India’s policy toward its troubled eastern neighbor. Ignoring the violence against Rohingya Muslims or the suppression of democratic protests is incompatible with India’s aspiration to be a democratic global leader.

In his recent book, Indian External Affairs Minister S. Jaishankar warns that “indifference to global developments is no longer affordable; In fact, it is downright dangerous.”<sup>23</sup> New Delhi’s apparent indifference to the dictatorial developments in Myanmar contradicts India’s aspiration to become a democratic world leader and could prove dangerous in near future. As India assumes its G20 presidency, it should follow its External Affairs Minister’s call to “ensure that it emerges as a voice for societies and countries that would otherwise get left behind and not have somebody else to speak for them.”<sup>24</sup> Indian policy makers must accept their responsibility to promote peace and democracy in their neighborhood, while avoiding *imposing* their values on the Tatmadaw. New Delhi should push for a peaceful settlement between the Tatmadaw and the people of Myanmar, with the

<sup>22</sup> “Hares and Hounds,” *Indian Express*, 6 February 2023, 12.

<sup>23</sup> S. Jaishankar, *The India Way: Strategies for an Uncertain World* (Gurugram, India: HarperCollins Publishers, 2020), xi.

<sup>24</sup> Press Trust of India, “India’s G20 Presidency ‘Very Big Deal’: EAM Jaishankar to Critics,” *The Hindu*, 2 January 2023, <https://www.thehindu.com/>.



goal of ending the turmoil in Myanmar as soon as possible. A stable democratic government in Myanmar would ultimately benefit Indian interests in the long run, and India should not shy away from pursuing that goal. ★

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# Optimizing India's Smart-Power Matrix in Maldives

## Making a Case for Cricket Diplomacy to Balance New Delhi's Hard-Power Presence on the Island

PRATYUSH PARAS SARMA  
ANUBHAV SHANKAR GOSWAMI

### Abstract

Recently, India has increased its engagement with Maldives. This development coincides with the growing strategic competition between India and China over the Indian Ocean's littoral states. New Delhi has employed a range of hard- and soft-power instruments to operationalize India's smart-power influence in Maldives. However, the "India Out" protests and #saveaddu online campaigns have exposed the lack of equilibrium between India's hard and soft power in its smart-power matrix. This study argues that India needs to prioritize its soft-power inputs in Malé to restore the balance in its smart-power matrix. Therefore, the objective of this article is to offer recommendations on how New Delhi can optimize its hard and soft power by promoting cricket diplomacy as a soft-power tool to enhance India's national influence in Maldives.

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In international politics, *power* refers to the ability to dominate and control the actions of others. American political scientist Joseph Nye distinguished between two types of power: hard power and soft power. *Hard power* denotes the capacity to coerce an entity to behave in a specific manner.<sup>1</sup> In academic writing, hard power is typically associated with the neorealist approach, which prioritizes the state's hard power. In contrast, liberal scholars tend to emphasize soft power as an essential component of statecraft.

Nye defines *soft power* as the use of persuasion or attraction, rather than coercion, to achieve one's objectives. Soft power aims to acquire almost everything except for economic and military capabilities, which are components of hard power. According to Nye, "In terms of resources, soft-power resources are the assets that produce such attraction."<sup>2</sup>

<sup>1</sup> Ernest J. Wilson III, "Hard Power, Soft Power, Smart Power," *The Annals of the American Academy of Political and Social Science* 616: 110–24, <http://www.jstor.org/>.

<sup>2</sup> Wilson III, "Hard Power, Soft Power, Smart Power," 114.

In addition to hard and soft power, there is another type of power: smart power. *Smart power* is the ability of an actor to combine elements of both hard and soft power in a way that they can effectively and efficiently contribute to achieving the actor's goals.<sup>3</sup> Success depends on understanding how to blend the components of hard and soft power in a manner that reinforces the intended purpose rather than acting as a barrier. It should be noted that only through optimal integration of hard and soft power can leaders achieve national influence in the modern, digital world.

A strategy that disregards the blending of hard and soft power components will always yield suboptimal results. The US intervention in the Middle East, which aimed to promote democracy, primarily relied on hard power without adequate attention to soft power. This flawed strategy failed to garner public support and rendered the United States unpopular in the region. The lesson learned from the US failure in the Middle East is that *relying solely on hard power will not necessarily yield the desired outcomes for a nation*.

However, achieving effective smart power by optimally utilizing hard- and soft-power resources is not a straightforward task. Major countries tend to fixate on a hard-power approach, and consequently, struggle to find a balance between hard and soft power. Consequently, these countries often fail to achieve the desired level of influence in the countries where they want to exert their power.

India's management of its hard- and soft-power resources in its neighborhood has followed a similar pattern. Some analysts argue that New Delhi's pursuit of a security-centric approach to foreign policy in the region has distorted India's image among its neighbors. As a result, New Delhi has demonstrated a greater preference for hard-power resources to maintain or expand India's influence in South Asia. In response to China's growing influence in the region, India has attempted to maintain its position by constructing ports, such as the Western Container Terminal in Sri Lanka; developing infrastructure, such as roads in Myanmar and Afghanistan; conducting military exercises, such as the Sri Lanka–India Naval Exercise (SLINEX) and India–Bangladesh army exercise (Sampriti); and installing coastal surveillance radar stations in Sri Lanka and Maldives for regional security.

From time to time, New Delhi has also offered economic assistance to neighboring countries facing financial difficulties. In 2022, India provided Sri Lanka with nearly USD 4 billion in financial aid to assist Colombo in addressing a severe economic and energy crisis triggered by a shortage of foreign exchange.<sup>4</sup>

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<sup>3</sup> Wilson III, "Hard Power, Soft Power, Smart Power."

<sup>4</sup> Shubhangi Gupta, "No Further Financial Aid to Crisis-hit Sri Lanka? Indian Embassy Responds," *Hindustan Times*, 20 September 2022, <https://www.hindustantimes.com/>.

Foreign aid initiatives and similar measures, although seemingly benign, ultimately function as hard-power tools that rely on tangible resources and may involve more direct and coercive methods (whether symbolic or actual). For example, New Delhi's financial assistance to Sri Lanka is accompanied by an implicit goal to counter China's growing influence in the region and bring the island nation back under India's sphere of influence. Pursuing overt hard-power objectives such as maintaining strategic strongholds or securing alliances can backfire in the long run, seriously compromising a country's influence over target nations. There are already rumors in Sri Lanka that New Delhi may deploy the Indian Army to the island, a claim that the Indian High Commission immediately denied.<sup>5</sup> Such rumors arise from anti-imperialist sentiments that often fuel a confrontational posture toward nations that rely excessively on hard power without balancing it with an equivalent amount of soft power in target nations.

India's suboptimal application of smart power in its neighborhood has created concerns among its civilizational neighbors regarding its alleged Indo-centric approach. Maldives is the latest country to raise issues about India's overbearing hard-power presence on the island nation. India–Maldives relations have come under scrutiny due to political and economic developments in Maldives and the country's evolving foreign policy direction. Despite the friendly government in power in Malé, a section of Maldivian society has launched a strong campaign called “India Out” in response to increasing defense cooperation with New Delhi.<sup>6</sup> The driving issue behind such protests is the perception that New Delhi is militarizing the island nation for India's own maritime-security interests. The Maldivian government has asserted that the Indian military was present in the country solely for certain rescue operations, including three rescue-and-surveillance aircraft of the Maldivian armed forces and a medical team at a military hospital.<sup>7</sup>

Another campaign that emerged almost simultaneously is the “Save Addu” campaign, launched by the youth of the Feydhoo Island who are protesting the establishment of an Indian Consulate in Addu City. These frequent campaigns by segments of Maldivian society are a clear indication that New Delhi has been unable to effectively maximize India's influence in the strategically located island nation. This is a cause of concern for New Delhi.<sup>8</sup>

<sup>5</sup> Wilson III, “Hard Power, Soft Power, Smart Power.”

<sup>6</sup> Alasdair Pal and Mohamed Junayd, “Maldives' Former President Plots Comeback with ‘India Out’ Campaign,” *Reuters*, 25 March 2022, sec. Asia Pacific, <https://www.reuters.com/>.

<sup>7</sup> Pal and Junayd, “Maldives' Former President Plots Comeback.”

<sup>8</sup> Fathmath Zunaam, “‘Save Addu’ Is a Campaign Slogan of Opposition: MP Nihad,” *Times of Addu*, 6 June 2021, <https://timesofaddu.com/>.

Maldives, a nation comprising 1,190-island nation, sits on crucial sea lines of communication (SLOC) in the Indian Ocean region (IOR).<sup>9</sup> China's growing influence in Maldives is a direct threat to India's security, and as such, New Delhi cannot afford to let its influence diminish in its own backyard. In order to do so, New Delhi must quickly cultivate its smart power by implementing policies, qualities, and actions that will endear India to Maldives. One way to optimally balance its hard power is through the use of cricket diplomacy, which can serve as a powerful tool for enhancing India's national influence in Maldives.

### **Cricket Diplomacy in South Asia**

Many scholars believe that sports have the potential to shape diplomatic ties between countries. With the growing interest in sports in the world, it has become an important instrument for confidence building and conflict resolution.<sup>10</sup> One of the most notable examples of sports diplomacy occurred in the early 1970s when Beijing invited table tennis players from the United States to visit China during the World Table Tennis Championship in Nagoya, Japan. This event played a significant role in the improving relations between the United States and China, and in 1972, President Richard Nixon visited China, paving the way for improved bilateral relations. This historical event came to be known as *ping-pong diplomacy*.<sup>11</sup>

Among various sports, cricket has emerged as a key diplomatic tool for creating bilateral relations, particularly among South Asian countries that have a history of long-standing conflicts.<sup>12</sup> These countries have been plagued by domestic civil unrest and external border conflicts in the past few decades.

Many observers consider India and Pakistan as among the top cricketing powerhouses, particularly among South Asian countries. Introduced by British colonials residing in South Asia in the 1800s, cricket slowly gained popularity and, by 1920, it had become a mainstream sport in British India. India became a test-playing nation in 1932 when CK Naidu led the team to play against England at Lord's. Pakistan followed suit just five years after its formation in 1947. Both countries found joy in the game as they were able to showcase their teams' talents

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<sup>9</sup> Samatha Mallempati, "Internal Developments in Maldives and India-Maldives Relations," *Indian Foreign Affairs Journal* 12, no. 3 (July–September 2017): 243–57, <http://www.jstor.org/>.

<sup>10</sup> Ibtesam Mazahir, Aazadi Fateh Muhammad, and Safeena Yaseen, "Examining Sports/Cricket Diplomacy as a Tool to Instigate Political Interests: A Comparative Analysis of Media Portrayal of Cricketing Relations between India and Pakistan," *PalArch's Journal of Archaeology of Egypt / Egyptology* 17, no. 7 (2020): 6118–60. <https://archives.palarch.nl/>.

<sup>11</sup> Emily Crick, "Can Cricket Be Used as Multi-Track Diplomacy in the Context of India's Neighbourhood Policy" (MSc dissertation, University of Bristol, 2006), <https://www.academia.edu/>.

<sup>12</sup> Crick, "Can Cricket Be Used as Multi-Track Diplomacy."

and defeat their colonial masters and other heavyweights such as Australia. The game slowly became a symbol of national pride in these countries, and cricketers became celebrities were sometimes apotheosized.<sup>13</sup> Thus, it is fair to say that cricket has become a sport that carries tremendous national sentiments in the international arena.

India and Pakistan have been in a state of conflict since their independence in 1947, with numerous armed conflicts and border disputes. The Kashmir issue and the Kargil War of 1999 have further escalated tensions between the two countries.<sup>14</sup> However, cricket has also played a significant role in improving bilateral relations at times. Despite this, any progress made towards better relations is often short-lived due to Pakistan's support for proxy warfare.

The first instance of cricket diplomacy between New Delhi and Islamabad dates back to 1987 when President Muhammad Zia-ul-Haq of Pakistan visited Jaipur, India, to watch a cricket match between India and Pakistan. In fact, Zia coined the term *cricket diplomacy*.<sup>15</sup> Two decades later, in 2005, President Pervez Musharraf came to India after a successful cricket series between the two nations in Pakistan in 2004. This tournament followed a series of talks between Islamabad and New Delhi over the course of 14 months, known as *composite dialogues* because they discussed a range of topics regarding normalizing relations. The visits of these two Pakistani presidents provided an overview of how leaders from both countries attempted to reduce tensions between the countries with the help of cricket.<sup>16</sup> Through cricket, people from both countries traveled to each other's countries to watch their teams play and enjoy mutual hospitality. These exchanges lead to the development of a perception of positive relations.<sup>17</sup>

Sri Lanka, Bangladesh, and Afghanistan are also cricket-playing nations. Afghanistan, in particular, has made great strides in the international cricket circuit in recent years. Sri Lanka achieved test status in 1981, while Bangladesh earned it in 2000. In 2018, India hosted Afghanistan in Bengaluru for the latter's first test match, marking a significant milestone in Afghanistan's cricketing journey. Other countries, such as Nepal and Maldives, are also beginning to make their mark in the international cricket scene. In fact, Nepal achieved a major upset when they defeated South Africa in the 2018 ICC Under-19 Cricket World Cup.<sup>18</sup>

<sup>13</sup> Crick, "Can Cricket Be Used as Multi-Track Diplomacy."

<sup>14</sup> Zoya and Asma Awan, "Indo-Pak Cricket Resumption: A Peace Plan for Resolving the Conflict," *Journal of Indian Studies* 2, no. 2 (July–December 2016): 171–80, <http://pu.edu.pk/>.

<sup>15</sup> Zoya and Awan, "Indo-Pak Cricket Resumption."

<sup>16</sup> Crick, "Can Cricket Be Used as Multi-Track Diplomacy."

<sup>17</sup> Zoya and Awan, "Indo-Pak Cricket Resumption."

<sup>18</sup> Crick, "Can Cricket Be Used as Multi-Track Diplomacy."

## **How India Is Dominating the Subcontinent**

The emergence of India as a cricketing powerhouse began with the stunning win of its team against the two-time world champion West Indies in the 1983 Prudential World Cup. As cricket's popularity surged in India in the decade after the win, the country's economic liberalization of the early 1990s sparked similar growth in the nation's domestic and international economic standing. Along with this, the influence of mass media increased as well. The Board of Control for Cricket in India (BCCI) skillfully leveraged this opportunity to commercialize cricket in the country.<sup>19</sup>

Today, the BCCI has emerged as the wealthiest cricket board in the world. The BCCI has maintained cordial relationships with major corporations since its inception, and the Reliance Group, an Indian conglomerate, funded the 1987 World Cup, cohosted by India and Pakistan. These relationships with business giants for cricket sponsorships have helped to boost viewership.<sup>20</sup> In 2014, the Indian cricket team generated around 70 to 80 percent of revenue for the International Cricket Council (ICC).<sup>21</sup> During the 2019 World Cup, the India's contribution to commercial sponsorship was 350-percent greater than that of Australia, which was in the second place—followed by Pakistan in the third—according to the POWA index global ranking.<sup>22</sup> The Indian Premier League (IPL), which played its fourteenth season in 2022, is the world's most lucrative cricket league, generating nearly 60 percent of the BCCI's revenue. In 2021, the IPL's brand value was around USD 5 billion. Therefore, it is significant to note that with such a high brand value, Indian Cricket Has started to export and promote cricket to other countries in South Asia, including Nepal, Maldives, and Afghanistan, engaging in multitrack diplomacy with neighboring countries through the sport.<sup>23</sup>

### ***India–Maldives Relations***

Maldives has significant economic, strategic, and military relations with India. New Delhi has maintained cordial relations with Malé since Maldivian independence from the United Kingdom in 1965. A clear example of their friendly relationship can be traced back to 1988 when the Indian government sent troops to

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<sup>19</sup> Alyssa Ayres, "How You Play the Game: Cricket, World Order, and India's Rise," *Octavian Report*, 1 September 2015, <https://octavianreport.com/>.

<sup>20</sup> Hana Masood, "Smashing Past the Boundary Wall: India's Cricket Diplomacy," *Statecraft*, 6 July 2019, <https://www.statecraft.co.in/>.

<sup>21</sup> Ayres, "How You Play the Game."

<sup>22</sup> Masood, "Smashing Past the Boundary Wall."

<sup>23</sup> Masood, "Smashing Past the Boundary Wall."

support Abdulla Gayoom's democratic government against a coup. Despite this, in recent years, India has been a prominent topic in the internal political debates of Maldives. However, some Maldivian political parties opposed to democratic principles use anti-India expressions to prevent the government from making any economic or political reforms. Indeed, the topic of India has been a prominent factor in the past two presidential and parliamentary elections in Maldives, with some political parties using unfounded misinformation to generate fear of possible Indian intervention to suit their political interests.<sup>24</sup>

At the same time, China has tried to increase its strategic presence in the Indian subcontinent. Maldives, with its strategic significance, is viewed as a valuable asset in China's pursuit of South Asian dominance. The strategic location of Maldives in the Indian Ocean holds great significance, particularly for Beijing. In fact, China has expressed interest in building a maritime base in one of the Maldivian atolls with the goal of securing China's sea routes, through which it imports vital energy resources from Africa and West Asia via the Indian Ocean.<sup>25</sup>

Following Mohamed Nasheed resignation from the Maldivian presidency in February 2012, the India-Maldives bilateral relationship went through a tumultuous phase. However, the current Maldivian President Ibrahim Solih's ascension to power in 2018 has restored stability and warmth to the relationship, although it has taken considerable effort from New Delhi to achieve this. The ab-initio termination of the GMR contract by Mohammed Waheed Hassan, Nasheed's successor, was indicative of his anti-Indian stance.<sup>26</sup> This decision was not purely driven by internal politics but was also influenced by China's growing presence in Sri Lanka and its expanding influence in the region.

During the Waheed administration and President Abdulla Yameen's tenure, ties with China increased, with some Maldivians appreciating Beijing's indifference to democratic backsliding on the island. Yameen's half-brother and former despot Maumoon Abdul Gayoom had advocated for Malé to pivot away from the West and India and toward China during the campaign for the 2013 presidential elections.<sup>27</sup> While the current Solih government has reset India-Maldives ties at

<sup>24</sup> Mallempati, "Internal Developments in Maldives."

<sup>25</sup> N. Manoharan, "Three Years of the Modi Government India-Maldives Relations: A Tale of Two Concerns," Institute of Peace and Conflict Studies, June 2017. <http://www.ipcs.org/>.

<sup>26</sup> R. K. Radhakrishnan, "Maldives Denies China Role in GMR Row," *The Hindu*, 10 December 2012, <https://www.thehindu.com/>.

<sup>27</sup> Anand Kumar, "India-Maldives Relations: Is the Rough Patch Over?," *Indian Foreign Affairs Journal* 11, no. 2 (April-June 2016), 158, <http://www.jstor.org/>.



the government level since 2018, there is still a significant section of Maldivians with anti-India sentiments.<sup>28</sup>

To clearly understand the relationship between Maldives and India, it is crucial to pinpoint New Delhi's interests in the island nation. According to Anand Kumar of the Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA), these interests are:

"Firstly, India is interested in political stability in its neighbourhood, and the Maldives is no exception. Secondly, India would like to prevent the Maldives from falling under the influence of any force (state or non-state) that is inimical to its security interests. These forces can also change the security environment in the IOR. Thirdly, a large number of Indians work in the Maldives, and India is interested in their safety and security. Finally, India would like the investments of its companies in the Maldives to remain secure."<sup>29</sup>

Some of India's efforts to further its interests include the signing of the defense cooperation agreement with Maldives in 2009 by then-Indian Defense Minister AK Anthony. The agreement involved joint patrolling and surveillance activities by the naval forces of the two countries in the Indian Ocean. The Indian government also provided assistance in constructing a 25-bed military hospital and a Dhruv helicopter for the island nation.<sup>30</sup> Additionally, there were reports of India constructing a system that would connect the ground radars in 26 Maldivian atolls to build a possible network with the Indian coastal command.<sup>31</sup>

However, this agreement faced rejection from some Maldivian politicians who stated that "Maldivian sovereignty was under threat and that the country was becoming an Indian protectorate."<sup>32</sup> Despite these concerns, Maldives continues to cooperate with India on security matters as the tourism industry, which is a key driver of the Maldivian economy, depends on the security in the IOR. To maintain security, India provides assistance by deploying warships and reconnaissance aircraft in Maldives' territorial waters. Both countries have also planned counter-

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<sup>28</sup> Aditya Gowdara Shivamurthy, "Understanding the 'India Out' Campaign in Maldives," ORF Occasional Paper No. 371, October 2022, <https://www.orfonline.org/>.

<sup>29</sup> Kumar, "India-Maldives Relations," 154.

<sup>30</sup> "Joint Statement on the Visit of Defence Minister of India to Maldives" (press release, Ministry of External Affairs, Government of India, 17 September 2012), <https://mea.gov.in/>; and Rangoli Mitra, "The China-India Cold War in Maldives," *ICS Research Blog*, 17 February 2022, <https://icsin.org/>.

<sup>31</sup> Manu Pubby, "Work Resumes Full Steam on Maldives Coastal Radars," *Economic Times*, 23 April 2019, <https://economictimes.indiatimes.com/>.

<sup>32</sup> Kumar, "India-Maldives Relations."

terrorism strategies to prevent any future seaborne attacks on India. The Indian and Maldivian navies conduct regular joint exercises as well.<sup>33</sup>

### **Hard Power Galore; Soft Power . . . Not So Much**

Despite India's investment, there has been a rise in anti-Indian protest in Malé. These protests can be attributed to India's emphasis on hard-power investments in Maldives. Therefore, New Delhi must balance such measures with commensurate soft-power investments. India has already demonstrated its intent to utilize soft power to attract strategically located nations toward its orbit and, most importantly, keep such neighbors away from China's influence by building people-to-people relations. A prime example of this is Afghanistan.

When the first Taliban government was ousted from power in 2001 and the national government of Hamid Karzai was beginning to find its feet with the support of the US and allied "boots on the ground," India began investing in Afghanistan's healthcare, education facilities, housing, roadways, and dams. In addition, New Delhi used cricket as a soft-power tool to extend its goodwill to the war-torn populace. Starting in 2015, India began supporting the Afghan National Cricket Team in their journey to success. The Indian government gifted the Afghan cricket board two "home" stadiums, one in Greater Noida, Haryana, and the other one in Dehradun, Uttarakhand.<sup>34</sup> With the availability of home stadiums at Dehradun, the Afghan team hosted an international T20 series against Bangladesh.<sup>35</sup> Although India did not disclose the estimated value of donating the grounds to Afghanistan, the goodwill that this cooperation and development generated is a testament to India's potential to use cricket diplomacy as a significant soft-power tool.

Cricket can be a significant tool to enhance and strengthen people-to-people relations with Maldives. Given its longstanding history on the islands, India is leveraging the sport to raise the profile of the Maldivian team and foster goodwill across all segments of Maldivian society. In February 2019, the Maldivian Ministry of Youth, Sports, and Community Empowerment sponsored a friendly series

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<sup>33</sup> Kumar, "India-Maldives Relations."

<sup>34</sup> Masood, "Smashing Past the Boundary Wall." These stadiums are located in India, but served as the homes of the Afghan team.

<sup>35</sup> Ratnadeep Choudhary, "The Rise and Rise of Afghan Cricket, with a Little Help from India," *The Print*, 12 June 2018, <https://theprint.in/>.

between India and Maldives, with two renowned Indian cricketers, Harbhajan Singh and Yuvraj Singh, representing Air India in the tournament.<sup>36</sup>

President Solih, a cricket enthusiast himself, was impressed with India's efforts in shaping and nurturing the Afghan cricket team and expressed his desire for the Indian government to develop cricket in Maldives as well. In April 2019, Solih flew to Bengaluru, India to watch an IPL match between Royal Challengers Bangalore (RCB) and Chennai Super Kings (CSK). Television and newspaper clips showed RCB and CSK captains, Virat Kohli and Mahendra Singh Dhoni, respectively, gifting their jerseys to a visibly elated Solih.<sup>37</sup>

Solih requested the Indian government to help in developing the game in his country; in return, India extended USD 1.5 billion in financial assistance to Maldives. The Maldivian president also "requested for a coaching program" for cricketers and training for "coaches, umpires, scorers and match referees."<sup>38</sup> Subsequently, the Indian government provided cricket kits to Maldivian cricketers, and in 2019, BCCI officials, as a part of India's initiative, visited Maldives to discuss building a stadium. Finally, it was decided that a cricket stadium will be constructed at Hulhumalé, an artificial island located just northeast of the capital Malé.<sup>39</sup>

The BCCI tweeted that it would provide a level-2 cricket coaching course for Maldivian coaches that was prepared and arranged by the National Cricket Academy in Bengaluru.<sup>40</sup> However, there is a need for India to do more, as there are significant demands from Maldives to help develop the sport at the national level. A well-tailored policy is necessary to institutionalize Indian efforts in Maldives and fill gaps in Maldivian cricket development.

According to the Cricket Board of Maldives, one of the biggest impediments to cricket development has been the decline of club cricket. The board has acknowledged that "Club cricket has seen ebbs and falls over the past four years. After a revival of club cricket in the early and mid-2000, club and player numbers have dwindled over the last few years. The aim of the next four years will be to halt the decline and revitalise club cricket by improving methods of support to clubs."<sup>41</sup> The board intends to make clubs the primary links between the board and cricket players with clubs serving as the nursery grounds for "the transformation of youth

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<sup>36</sup> Sudarshan Ramabadrán, "India's Cricket Diplomacy in the Maldives: A Step in the Right Direction?," *Times of India Blog*, 3 March 2020, <https://timesofindia.indiatimes.com/>.

<sup>37</sup> Ramabadrán, "India's Cricket Diplomacy in the Maldives."

<sup>38</sup> "India to Gift Maldives a Cricket Stadium and Help Develop the Sport in Country as PM Modi Prepares to Visit," *CricTracker*, 8 June 2019, <https://www.crictracker.com/>.

<sup>39</sup> "India to Gift Maldives a Cricket Stadium," *CricTracker*.

<sup>40</sup> Ramabadrán, "India's Cricket Diplomacy in the Maldives."

<sup>41</sup> Cricket Board of Maldives, "Cricket Development," 2020, <http://www.maldivescricket.org/>.

players into players of national calibre.”<sup>42</sup> The four-year plan aims to establish “at least 10 well governed, well managed and resourced clubs that provide their members with quality coaching, organization, and playing opportunities.”<sup>43</sup> Furthermore, the board plans to financially support each club in training and to promote interclub tournaments. Additionally, the board has supported many young promising players in gaining valuable experiences and coaching in Sri Lanka. The development of Maldivian club players is being nurtured in top-level clubs in Sri Lanka, providing the necessary environment for their growth.

India has the potential to assist the Cricket Board of Maldives in developing their young talents by drawing inspiration from Sri Lanka. With a significantly larger budget, the BCCI has the resources to improve the skills of budding Maldivian cricketers using India’s top-notch cricket training infrastructure. The BCCI can utilize its elite National Cricket Academy (NCA) in Bangalore to groom these talents. The NCA is one of India’s most prestigious cricket academies, and it has produced some of India’s most accomplished cricketers, including Rohit Sharma, Piyush Chawla, Rahul Dravid, Harbhajan Singh, Kapil Dev, and Anil Kumble.

The BCCI can also team up with other esteemed cricket institutes in India to expose Maldivian players to the best possible training. One of these institutions is the MRF Pace Foundation, which specializes in producing and training fast bowlers. Established in 1987 by MRF Limited, the foundation is backed by Australian cricket legend, Dennis Lillee. Many Indian fast bowlers, including Javagal Srinath, Irfan Pathan, Munaf Patel, and Zaheer Khan, have trained at this academy and gone on to represent India. Additionally, foreign players such as Chaminda Vaas from Sri Lanka, Henry Olonga from Zimbabwe, and Glenn McGrath and Brett Lee from Australia have also undergone training at the foundation.

The NCA and MRF Pace Foundation could collaborate with the BCCI to support Maldivian cricket’s junior development. The Cricket Board of Maldives intends to “set up a partnership with interested parties to establish a Cricket Academy which will become the nerve center of cricket development.” The BCCI or the Government of India should incentivize these two renowned Indian institutions to partner with Maldivian cricket and set up its own domestic cricket academy. This would provide an excellent training environment for the island nation.

The Cricket Board of Maldives recognizes that school circuit tournaments are essential to grassroots-level sporting development. To this end, the board plans to establish school cricket clubs in “each of the cricket playing schools in Malé and in interested schools in other islands. The aim is to rationalize the junior develop-

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<sup>42</sup> Cricket Board of Maldives, “Cricket Development.”

<sup>43</sup> Cricket Board of Maldives, “Cricket Development.”

ment programme and to create a body within each school to provide cricket coaching and training to all children.”<sup>44</sup> The objective is to standardize the junior development program and create a body within each school to provide cricket coaching and training to all children. India can assist by organizing exchange programs for Maldivian school cricketers, similar to student exchange programs with foreign educational institutes, to give players exposure to competitive school cricket tournaments like the Mumbai School Cricket or Delhi School Cricket circuit. Combined with other efforts at the school level, these programs will create a pool of young players who can be targeted for focused training.

Maldives is also launching several advocacy and incentive programs to attract girls to cricket.<sup>45</sup> The India Women's Cricket Team has become a powerhouse in international cricket, and many players have had to overcome societal pressures to succeed in their sport. The BCCI can send members of the India Women's team to Maldives as game ambassadors who can inspire Maldivian girls to participate and excel in cricket.

Last but not the least, the coaching environment in Maldives could be greatly enhanced if the BCCI were to offer a coaching development program that provides high-quality educational opportunities for coaches. Recognizing the significance of good coaching, such a program could support and assist school and club-level cricket with a comprehensive coaching module.

## **Conclusion**

The main objective of this article has been to demonstrate how a well-balanced integration of India's hard- and soft-power tools can effectively enhance its influence in the strategically significant Maldives. In recent years, India's attempts to exert its influence on the island have yielded mixed results for its national interests, especially at a time when China has established a foothold in Maldives. India's response to this slow encroachment has largely been through the application of hard power, which, unfortunately, has not yielded the desired dividends. The excessive use of hard power has led to many Maldivians questioning India's role in their country, and this anxiety is being exploited by Beijing-backed politicians to further destabilize India-Maldives bilateral relations. Hence, it is strategically imperative for the Indian government to launch a comprehensive outreach program to engage with the Maldivian people.

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<sup>44</sup> Cricket Board of Maldives, “Cricket Development.”

<sup>45</sup> Cricket Board of Maldives, “Cricket Development.”

Of late, cricket has gained immense popularity in Maldives, presenting a unique opportunity for India to utilize this shared love of the sport as a soft power tool for influence maximization. India has previously employed cricket as a means of building capacity and infrastructure in Afghanistan, and this approach has generated lasting goodwill among the Afghan people toward India. To exert effective influence on Malé, India must adopt a similar smart-power approach. By using cricket as a form of soft power to balance its growing hard power presence in Maldives, India can enhance its diplomacy and create a more comprehensive smart power matrix in the country. In short, cricket can play a crucial role in maximizing India's influence in Maldives. ★

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# Seize the Technological High Ground for Success in Great-Power Competition

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## Abstract

Beijing's crucial advantage in great-power competition with the United States is China's application of military and economic power in pursuit of advanced technology and capabilities. Over the past 30 years, China developed and fielded capabilities to counter US power and is now on a path to achieve technological dominance over the United States by obtaining leap-ahead technologies through a continued focus on defeating US systems and the fusion of China's civilian and military economic sectors. Despite China's military and economic capacity and bold plans, Beijing lacks partners and allies. The United States must expand its relationships with other nations to include research and development of new capabilities, not merely transferring technology. By leveraging its partners' broad and diverse technology investments and talents, the United States can mass research-and-development efforts to counter China's high-tech breakout and avoid being outgunned and outmatched.

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The rollout of the B-21 was not a day of celebration but one of caution. While the US Air Force boasted of another multi-billion-dollar program grounded in decades-old methods of warfare, the Chinese continued their focused efforts to counter the United States through new ways and means of war. US history provides a warning about similar situations. In his discussion of the slaughter visited upon the retreating British army through the New England countryside in April 1775, the British general Lord Percy described the skill and perseverance of the colonists. The militiamen knew their adversary, understood his weaknesses, and ruthlessly exploited those vulnerabilities.<sup>1</sup> Much like the American colonists of 200 years ago, the Chinese studied US capabilities and now seek to counter and exceed them in new and unexpected ways. In China's competition with the United States, its crucial advantage is its application of military and economic power in pursuit of advanced technology and capabilities. China's singular focus on countering US military capabilities enables it to field systems that negate US advantages. Beijing seeks technical dominance over the United

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<sup>1</sup> Derek W. Beck, *Igniting the American Revolution: 1773–1775* (Naperville, IL: Sourcebooks, 2015), 216.

States by continuing this focus and blending its military and economic instruments of power through military-civil fusion (MCF).

However, China is primarily alone in its efforts, which puts it at a disadvantage in its competition with the United States. Beijing neglects the value of diplomatic partnerships, whose diversity provides value through shared technological development and strategic relationships.

Military acquisition decisions are crucial for a nation's success in great-power competition. National leaders must allocate economic resources wisely to maximize their return on investment. Appropriate focus on threats is necessary to ensure a nation's development efforts are orientated against the correct threat and receive adequate investment to deliver effective capabilities.

For more than three decades, China has concentrated its technology and capability development efforts on countering the United States, consistent with Adrea Gilli and Mauro Gilli's description of state military-technical competition where nations "devise countermeasures and counter-innovations to limit, and possibly eliminate, the advantage their enemy derives from its innovations."<sup>2</sup> As early as 1991, Chinese military leaders recognized how far they lagged behind the United States in technology. Following the Taiwan Straits crisis of 1996, Chinese military planners initiated efforts to modernize their forces and specifically "deter, delay, or defeat US military forces," according to Phillip C. Saunders.<sup>3</sup> Anthony Cordesman's analysis of the 2013 and 2015 Chinese defense white papers shows how China recognized the significant threat posed by military technology competition with the United States and directed broad modernization efforts to address it.<sup>4</sup> This intense focus on the United States as a threat prevents shifts in investment priorities which can affect many US development efforts. The current US *National Security Strategy* directs the Department of Defense (DOD) to counter China, Russia, climate change, and other threats, making it necessary for the DOD to adjust funding and refocus investments.<sup>5</sup> However, investment stability is vital to the success of technology and capability development. The Department of the Air Force's Rapid Capabilities Office (DAFRCO), a specialized program office tasked with delivering the most advanced and sensitive capabilities

<sup>2</sup> Andrea Gilli and Mauro Gilli, "Why China Has Not Caught Up Yet: Military-Technological Superiority and the Limits of Imitation, Reverse Engineering, and Cyber Espionage," *International Security* 43, no. 3 (Winter 2018/19), 145, <https://doi.org/>.

<sup>3</sup> Phillip C. Saunders, "China's Global Military-Security Interactions," in *China and the World*, ed. David Shambaugh (New York: Oxford University Press, 2020), 186, <https://doi.org/>.

<sup>4</sup> Anthony H. Cordesman, *Chinese Strategy and Military Modernization in 2016: A Comparative Analysis* (Washington, DC: Center for Strategic and International Studies, 2016), 37–38 and 50–54.

<sup>5</sup> *National Security Strategy* (Washington, DC: The White House, October 2022), 23–31.



to the DAF, explicitly mentions the criticality of funding stability as a fundamental operating principle.<sup>6</sup> Unfortunately, the DAFRCO is the exception. China likely applied the DAFRCO principle; it maintained focus on countering US advantages and deployed a robust, regional integrated air defense system (IADS) intended to deny access and impose high costs on an attacker.<sup>7</sup>

With a credible counterbalance to US technology presently fielded, Beijing is pursuing an ambition to surpass US capabilities. Rather than solely countering US technology, China seeks to gain a “first mover advantage,” as described by Dr. Jared McKinney, by entering new technological domains where the United States will need to catch up.<sup>8</sup> The phrase “Big Hairy Audacious Goal” (BHAG), coined by management writer Jim Collins, describes a “huge, daunting challenge”—a lofty, nearly impossible goal designed to drive a team to achieve beyond its perceived limits.<sup>9</sup> China is adopting the BHAG concept to focus its military development on leap-ahead technology. Instead of aiming for parity with the United States, China is striving for technological BHAGs to achieve military dominance and establish a strategic advantage over the United States.

In his 28 May 2021 Science and Technology Speech, President Xi Jinping made it clear that China intends to become a dominant power by innovating and seeking the “commanding heights” of technology and development. The Chinese *Science of Military Strategy* directs Beijing to pursue paradigm-changing technologies and capabilities across domains, which will not offer mere incremental improvements in military capability but change the conflict landscape.<sup>10</sup> These capabilities will provide the Chinese military with an asymmetric advantage over the United States akin to how the longbow or machine gun altered warfare in their respective eras. China’s focus on artificial intelligence, quantum computing, electronic warfare, and informatized warfare can combine to form a network capable of inflicting severe costs on US airpower. For example, a quantum-enabled network could simultaneously fuse multi-domain sensor data, conduct cognitive electronic warfare, and cue long-range missiles, rendering the most-advanced USAF platforms ineffective and canceling decades and billions of dollars of US

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<sup>6</sup> Heather Wilson, et al., *Charter for the Air Force Rapid Capabilities Office* (Pentagon, Washington DC, 13 August 2018), 2-3.

<sup>7</sup> Office of the Secretary of Defense, *Military and Security Developments Involving the People’s Republic of China* (Washington, DC: DOD, 2022), 82.

<sup>8</sup> Jared M. McKinney, “Emerging Strategic Domains: Space, Network, Deep Sea, Polar Regions, Biology, Intelligence” (lecture, Air War College, Maxwell AFB, Alabama, 9 December 2022).

<sup>9</sup> James C. Collins and Jerry I. Porras, *Built to Last: Successful Habits of Visionary Companies* (New York: Collins, 2009), <https://www.jimcollins.com/>.

<sup>10</sup> McKinney, “Emerging Strategic Domains,” 5–22.

research and development (R&D). By revealing such capabilities, Beijing could send a deterrence message that China can impose high costs on the US military. Alternatively, China could keep such capabilities secret and only reveal them in the event of armed conflict, but the result would be the same: China could cripple the advanced platforms that form the backbone of the US way of war. To prevent this, the United States must reduce its reliance on well-known capabilities and focus investments on achieving breakthroughs in revolutionary technologies before China gains the advantage.

China is aggressively pursuing breakthrough technologies to establish a new playing field where it leads and can negate US advantages. The country's investments in R&D and its alignment of civilian and military interests through MCF provide a whole-of-nation construct where developments and requirements in one sector support the other. A key aspect of MCF is the Military-Civil Coordinated Technology Innovation System, which according to the DOD, "focuses on fusing innovations and advances in basic and applied research" and promotes "civilian and military R&D in advanced dual-use technologies."<sup>11</sup>

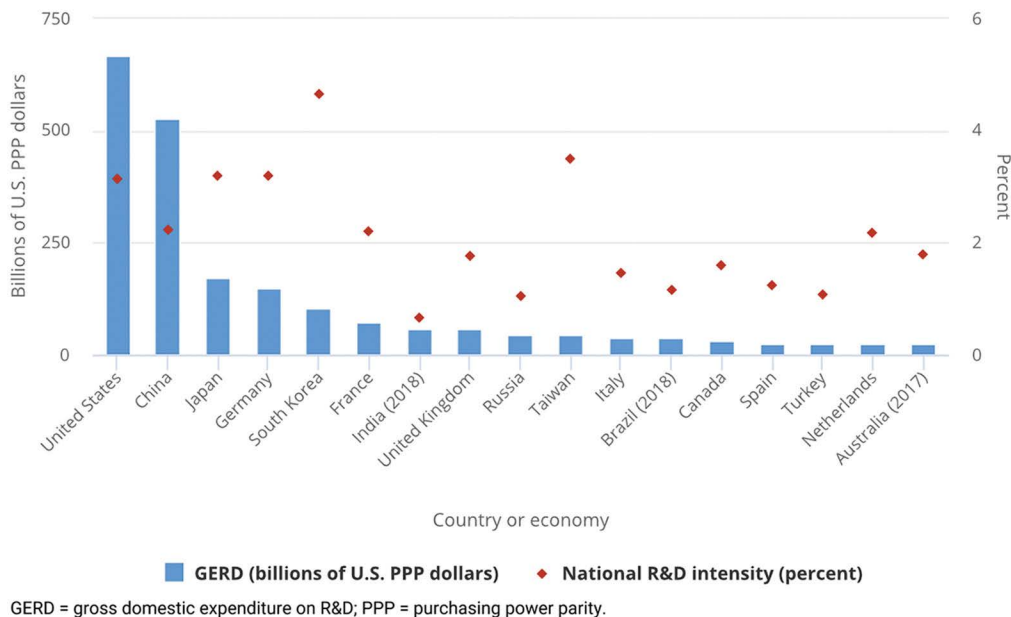
China's R&D investment has been growing rapidly, accounting for nearly USD 100 billion more growth in global R&D investment than the United States since 2000, according to the National Science Board. China invested USD 525.7 billion in R&D in 2019, compared to the United States' USD 668.4 billion. However, the vast majority, 74.5 percent, of US R&D expenditures are in the private sector, where most of the funding supports commercial interests and may not be accessible to the DOD. In contrast, all R&D funding in China supports MCF requirements, without any delineation between civilian and military applications. Furthermore, China's R&D investment focuses mainly on experimental development, which accounts for 83 percent of its R&D spending, the highest in the world.<sup>12</sup> This suggests that China is betting on different technology areas, hoping some will deliver revolutionary capabilities such as quantum computing and AI that can provide an asymmetric military advantage. This holistic picture of China's substantial R&D investment aligns with McKinney's assertion that China is pursuing paradigm-changing technologies across domains to gain an advantage over the United States.<sup>13</sup>

<sup>11</sup> Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China*, 27–29.

<sup>12</sup> National Science Board, National Science Foundation, *Research and Development: U.S. Trends and International Comparisons. Science and Engineering Indicators 2022* (Alexandria, VA, 2022), 27–35, <https://ncses.nsf.gov/>.

<sup>13</sup> McKinney, "Emerging Strategic Domains," 25.

One critical factor for accurately understanding the accurate global R&D investment picture is relationships. While the data may suggest that China is making significant strides in pursuing cutting-edge technologies while the United States falls behind, it is important to note that the United States collaborates with its allies and partners and vice versa, which creates a multiplier effect through shared investments and diversity of knowledge. The following table from the National Science Board includes the total R&D investment rates and percentage of GDP for several of our allies and partners.<sup>14</sup>



**Figure 1. GERD and R&D intensity for world's top 17 R&D-performing countries and economies: 2019 or most recent data year**

This data highlights an opportunity for the United States and its allies to leverage their combined R&D investments to address current technical challenges and counter China's increasing R&D expenditures. By combining the R&D investments of Japan, Germany, South Korea, France, and the United Kingdom, the total investment exceeds China's R&D spending—(USD 525.7 billion versus USD 554.1 billion).<sup>15</sup> A united front of technological investment could double the available R&D funds to counter China. Additionally, such a coalition could benefit from the unique technological advantages or specialized areas of expertise

<sup>14</sup> National Science Board, "Research and Development," 24.

<sup>15</sup> National Science Board, "Research and Development," 24.

possessed by partner nations, such as Australian radars and electric Japanese submarines, giving them an edge over China. In contrast, China has no such option to access external technological advancements or expertise.

Beijing's technology and capability development are moving in a distinctly Chinese direction. In contrast, the United States has a long history of R&D partnerships with many of its allies and partners, which is particularly important as modern military systems become more complex and costly. In late 2020, Dr. Will Roper, Assistant Secretary of the Air Force for Acquisitions, Technology, and Logistics, engaged in several bilateral discussions with Royal Air Force (RAF) leadership, crafting a partnership for developing a sixth-generation fighter.<sup>16</sup> The cost of developing a new fighter aircraft and its associated payloads is exorbitant. Additionally, the US defense industrial base has shrunk, reducing competition and innovation. Dr. Roper and the RAF leaders sought to expand the competitive landscape by creating an environment where US and UK companies could compete for parts of the aircraft development, and both nations could share technical information to assist in their respective aircraft design. This approach would combine the R&D investments of both nations, leverage their unique technical knowledge, and create a more affordable system through increased competition and cost-sharing.

China, on the other hand, appears to lack many similar developmental partnerships, though the joint fighter it has developed with Pakistan is an exception. While Beijing's MCF enables China to leverage commercial and military resources, the costs and the cognitive capacity are still solely China's. Moreover, according to Elsa Kania and Lorand Laskai, "(o)ver the past 30 years, China's defense sector has been primarily dominated by sclerotic state-owned enterprises that remain walled off from the country's dynamic commercial economy." It is reasonable to conclude that China lacks rich sources of creativity and innovation offered by partnerships with other nations.<sup>17</sup>

Developmental partnerships are crucial for enabling coalition war fighting through standard system baselines and enhancing diplomatic relationships. However, China has few true allies, aside from recent overtures with Russia and Beijing's efforts to buy friends and influence through the Belt and Road Initiative (BRI). China's aggressive diplomatic activities focus on compelling other nations' compliance rather than earning trust and building relationships. Katherine Mor-

<sup>16</sup> I served as Dr. Roper's military assistant from July 2020 until his departure in January 2021. I personally attended the meetings with the RAF on sixth-generation collaboration.

<sup>17</sup> Elsa B. Kania and Lorand Laskai, "Myths and Realities of China's Military-Civil Fusion Strategy" (Washington, DC: Center for a New American Security, January 2021), 4.

ton describes Xi's motivations in global governance as focused on advancing China's interests specifically, "1. To defend China's interests on a global scale, 2. To strengthen China's strategic role in institution building, 3. To broaden China's normative voice as a means of legitimating its role as a global power."<sup>18</sup> While all nations act in their self-interests, the motivations, Morton's description highlights China's singular focus on maximizing its own benefits without much consideration for other nations.

China's lack of interest in building mutually beneficial relationships with other nations is further demonstrated through its corrupt and aggressive pursuit of influence in international organizations and BRI investments. For instance, Chinese officials may have bribed and coerced Cambodian officials in 2012 when Phnom Penh held the chairmanship of the Association of Southeast Asian Nations (ASEAN) to prevent bloc from issuing any condemnation of China's action in the South China Sea.<sup>19</sup> Additionally, Beijing acquired contracts with the Philippines in an unlawful manner.<sup>20</sup> These blatant, aggressive, and corrupt actions diminish China's legitimacy on the international stage and give it a reputation as an unreliable partner. They reinforce the perception that Beijing's diplomatic efforts seek to maximize China's benefit while disregarding other nations' interests.

China's diplomatic instrument of power also lacks a unifying vision that transcends borders and draws others to its orbit; it has no constructivist ideal or value to attract support. In contrast, the United States shares a vision with its allies and partners that represents the ideals of freedom and self-determination, transcending borders and firmly uniting allies and partners in shared goals and sacrifice. China exploits other nations and offers a vision of authoritarianism and dependence. Consequently, Beijing is likely to find itself alone in its competition with the United States, while Washington can leverage the support and resources of its many allies and partners.

China aims to gain an advantage in great-power competition by focusing on leap-ahead technologies, rather than competing with the United States on the present-day playing field where it is playing catch-up. Beijing's MCF strategy combines its military and economic resources to achieve China's goals and deliver asymmetric capabilities. However, China's crucial weakness is its lack of allies and

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<sup>18</sup> Katherine Morton, "China's Global Governance Interactions," in *China and the World*, ed. David Shambaugh (New York: Oxford University Press, 2020), 164, <https://doi.org/>.

<sup>19</sup> "China Gives Cambodia Aid and Thanks for ASEAN Help," *Reuters*, 4 September 2012, <https://www.reuters.com/>.

<sup>20</sup> "World Bank Applies 2009 Debarment to China Communications Construction Company Limited for Fraud in Philippines Roads Project," World Bank, 29 July 2011, <https://www.worldbank.org/>.

partners. Without diverse technical talent and cognitive diversity that come from diplomatic relations built on shared values and mutual respect, China may struggle to match the creativity and innovation of the United States and US allies and partners. In contrast, Washington has the advantage of numerous beneficial relationships with other countries. By focusing on developing new technology together rather than simply transferring US technology, the combination of raw investment dollars and diverse technical talent can unlock a powerful competitive tool. Through these relationships, the US can improve its thinking, advance research, and outpace China in the race for leap-ahead technologies before B-21s end up like the Red Coats on that April afternoon in 1775. ⚡

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