CHINA'S MILITARY DECISION-MAKING

IN TIMES OF CRISIS AND CONFLICT

Edited by Roy D. Kamphausen

CHINA'S MILITARY DECISION-MAKING

in Times of Crisis and Conflict

NBR THE NATIONAL BUREAU *of* ASIAN RESEARCH

CHINA'S MILITARY DECISION-MAKING

in Times of Crisis and Conflict

Edited by Roy D. Kamphausen

With contributions from

Drew T. Holliday, David C. Logan, Shuxian Luo, Jagannath Panda, David Santoro, Phillip C. Saunders, Adam Segal, Balazs Szanto, and Zi Yang

THE NATIONAL BUREAU *of* ASIAN RESEARCH

Published in the United States of America by
The National Bureau of Asian Research, Seattle, WA, and Washington, D.C.
www.nbr.org

Cover design and illustration by Nate Christenson.

ISBN (electronic): 978-1-939131-78-2

Design and publishing services by The National Bureau of Asian Research

Contents

FOREWORD

I am privileged to present *China's Military Decision-making in Times of Crisis and Conflict*, a superb set of papers that draws from the proceedings of the 2022 People's Liberation Army (PLA) Conference cohosted by the National Bureau of Asian Research (NBR), the China Strategic Focus Group at U.S. Indo-Pacific Command, and the Department of Foreign Languages at the U.S. Military Academy at West Point.

The military capabilities of the People's Republic of China (PRC) have expanded exponentially over the past two decades, and its leaders have demonstrated an increasing appetite to use these capabilities as coercive tools against the United States and its maritime neighbors in the western Pacific. Much has been written about the tactical and operational consequences of these developments. Understudied, however, is China's crisis response decision-making and behavior. This volume addresses this critical knowledge gap.

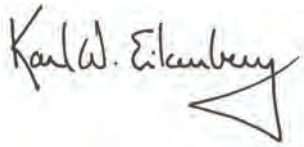
There are three potential triggers of a crisis between Washington and Beijing that might include military forces and lead to dangerous escalation. First, the armed forces of the United States and its allies and partners routinely operate in close proximity to those of the PLA Navy and Air Force with the ever-present possibility of an accident exciting nationalistic sentiments. Second, both sides conduct robust operations in space and cyberspace, including with uncrewed and unmanned vehicles. This creates important domains and modes of warfare for which there are inadequate agreed-to rules of the road and increases the likelihood of one side misperceiving the intention of the opposite side. The third potential trigger is the possibility that President Xi Jinping might decide to employ the PLA preemptively to realize goals associated with his vision of "the great rejuvenation of the Chinese nation," including actions to achieve control of the South China Sea or, even more worrisome, efforts to assert PRC sovereignty over Taiwan.

Chinese and U.S. civilian and military leaders, of course, understand that it is better to anticipate the inevitability of a bilateral crisis and put into place and practice communications protocols designed to contain and de-escalate before an unexpected day of reckoning. But for reasons brilliantly explained in this volume, efforts to do so have largely failed up to this point.

Thus, in the absence of substantive official Sino-U.S. dialogue on crisis avoidance and crisis management, one of the many merits of *China's Military Decision-making in Times of Crisis and Conflict* is the contributing authors' use of historical case studies, empirical evidence, and inductive reasoning, often grounded in primary PRC sources, to make persuasive arguments about how Beijing might approach and act at a time when the stakes verge on existential.

Although, as mentioned, this superb compendium of papers authored by some of the best global analysts of PRC security and military strategy draws from the 2022 PLA Conference, its implications are intragovernmental, international, and academic in nature. I highly commend this volume to an eclectic group of readers, including those in the U.S. Departments of State and Defense, Armed Forces, and intelligence agencies; academics, students, and media analysts trying to better understand Chinese crisis management doctrine; and international officials and academics focused on PRC foreign policy goals and Beijing's relevant playbooks.

Showing my experience (or age), I first traveled to the then Republic of China—now in official parlance Taiwan—in 1971 while a member of the U.S. Military Academy Chinese Language Club. In my opinion, *China's Military Decision-making in Times of Crisis and Conflict* is one of the most insightful and useful policy-relevant publications written over the five decades since that very different time and era.



Karl Eikenberry
Former U.S. Ambassador and Lieutenant General, retired, U.S. Army
September 2023

Introduction: The Differences and Risks in U.S.-China Military Crisis Management and Response

Roy D. Kamphausen and Jeremy Rausch

The July 2022 People's Liberation Army (PLA) Conference, cohosted by the National Bureau of Asian Research (NBR), the China Strategic Focus Group at U.S. Indo-Pacific Command, and the Department of Foreign Languages at the U.S. Military Academy at West Point, evaluated the People's Republic of China (PRC) and PLA's crisis response decision-making and behavior. Key questions the conference sought to address included:

- How is the PRC's crisis decision-making and behavior today different from the past?
- What impact has Xi Jinping had on the PRC and PLA's crisis decision-making and behavior?
- In what domains may the PRC be inclined to escalate or de-escalate a crisis?
- Against which actors may the PRC be inclined to escalate or de-escalate a crisis?
- What do past crises involving the PLA reveal about the PRC's crisis response?

Key findings included:

- The PLA may be increasingly comfortable in an environment that is characterized by more frequent crises and heightened tensions with the United States.

Roy D. Kamphausen is President of the National Bureau of Asian Research.

Jeremy Rausch is a Project Manager with the Political and Security Affairs group at the National Bureau of Asian Research.

- The PRC likely sees crises as opportunities to change the status quo in its favor by advancing territorial claims, testing the commitment of the United States to its allies and partners, and signaling displeasure with the actions of other countries to compel policy change.
- The PRC and the United States have fundamentally different understandings and approaches to crisis management and response, meaning that it may be difficult to swiftly address and resolve crises.
- The PRC may experiment more frequently with the employment of a wide range of capabilities—from conventional to asymmetric to nuclear—to test the resolve of the United States and other Indo-Pacific states without appreciation for possible escalation risks.
- The PRC may be willing to risk sharper escalation dynamics in situations where the United States is not directly involved.

Resolving crises between the U.S. military and the PLA has never been a straightforward task for Washington and Beijing. Beijing still believes that the accidental bombing in May 1999 of the PRC embassy in Belgrade was a deliberate act by Washington and that the blame for the collision between a U.S. EP-3 aircraft and a PLA J-8 fighter jet over Hainan Island in April 2001 lies with the United States. Although the resolution of previous crises was not without difficulty, crisis resolution with the PRC today and in the future will be exceedingly difficult and complex due to perceptions of a shifting balance of power in conjunction with a sharp deterioration in the bilateral relationship. As diplomatic, economic, and military competition between the two countries intensifies while unplanned and risky encounters between their militaries become more frequent, the United States must review and update its understanding of the PRC's crisis response behavior. This PLA Conference volume offers an in-depth analysis of why the PRC undertakes actions in crises with the United States and other Indo-Pacific actors, the institutional structures under which the Chinese Communist Party (CCP) leadership makes decisions in military crises, and the implications of PRC crisis response behavior for the United States and its allies and partners. It builds on the findings from the 2021 PLA Conference volume *Modernizing Deterrence: How China Coerces, Compels, and Deters*, which examined both China's evolving approach to deterrence and its possible responses when deterrence fails.

Escalation Pressures in U.S.-China Crisis Management

Unplanned and potentially dangerous encounters involving the PLA and regional militaries as well as the U.S. military have occurred with increasing frequency, while opportunities for dialogue and crisis management have shrunk. In response to then Speaker of the House Nancy Pelosi's visit to Taiwan in August 2022, the PLA undertook live-fire exercises around the island, dispatched warships, and increased already frequent incursions into Taiwan's air defense identification zone and across the median line of the Taiwan Strait. At the same time, Beijing announced the suspension of several defense dialogue mechanisms with the United States, including the China-U.S. Theater Commanders Talk, Defense Policy Coordination Talks, and Military Maritime Consultative Agreement meetings, among others.[1] Since then, additional unplanned encounters involving the PLA and the U.S. military have occurred. In December 2022 a PLA Navy J-11 fighter jet operated dangerously close to a U.S. Air Force RC-135 reconnaissance plane, and in June 2023 a PLA Navy guided-missile destroyer nearly collided with a U.S. Navy destroyer and a Canadian frigate during a joint transit through the Taiwan Strait.[2] Later in June, a visit to the PRC by Secretary of State Antony Blinken intended to stabilize the U.S.-China relationship and re-establish dialogue at the highest level resulted in the PRC explicitly rejecting an offer to set up a direct military line of communication between Washington and Beijing.[3]

In addition to the United States, several other countries in the Indo-Pacific region have been subject to unplanned encounters with and unprofessional maneuvers by PLA operators. These often dangerous incidents have taken place despite the promulgation of the Code for Unplanned Encounters at Sea (CUES), signed by more than twenty countries, including the PRC, in 2014. The agreement is intended to both reduce the likelihood of incidents at sea and prevent escalation when unplanned encounters occur between the signatories, but Beijing has continued to flout the standards and

---

[1] "The Ministry of Foreign Affairs Announces Countermeasures in Response to Nancy Pelosi's Visit to Taiwan," Ministry of Foreign Affairs of the People's Republic of China, August 5, 2022, https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/202208/t20220805_10735706.html.

[2] Oren Liebermann, "Chinese Fighter Jet Intercepts U.S. Recon Aircraft with 'Unsafe Maneuver,' U.S. Defense Department Says," CNN, December 29, 2022, https://www.cnn.com/2022/12/29/politics/chinese-fighter-jet-intercepts-us-reconnaissance-aircraft/index.html; and "USINDOPACOM Statement on Unsafe Maritime Interaction," U.S. Indo-Pacific Command, June 3, 2023, https://www.pacom.mil/Media/News/News-Article-View/Article/3415952/usindopacom-statement-on-unsafe-maritime-interaction.

[3] Laura Kelly, "Xi Rejects U.S. Offer to Set Up Military Crisis Hotline, Blinken Says," *Hill*, June 19, 2023, https://thehill.com/policy/international/4056697-xi-rejects-us-offer-to-set-up-military-crisis-hotline-blinken-says.

undertake aggressive behaviors against other countries. In February 2023, for example, a China Coast Guard ship used a laser against a Philippine patrol vessel in disputed waters in the South China Sea, temporarily blinding some of the crew aboard.[4] Incidents have occurred in other domains as well. In June 2022, PLA Air Force planes intercepted and harassed Australian and Canadian military aircraft operating in international airspace.[5] And since the deadly skirmish in June 2020 in the disputed Sino-Indian border region, subsequent confrontations have taken place between the PLA and Indian Army at the Line of Actual Control.[6]

An exacerbating factor in these incidents is the fundamentally different approach to crisis management and response by China and other countries. Despite efforts by the United States to re-establish and normalize communication channels and confidence-building measures to reduce the likelihood of miscalculation and crisis, the PRC remains fundamentally disinterested in adopting such frameworks. As this volume finds, Beijing is suspicious of efforts by the United States and its partners to establish crisis management mechanisms—or "guardrails"—because it interprets such measures as legitimizing the very operations the PRC wants to bring to an end. Chinese perspectives have a long history. Beijing continues to promote the narrative that if the U.S. military were not operating within the first island chain, there would not be an issue.

This lack of common understanding concerning the role of crisis management further reduces the space for such mechanisms. PRC scholars believe that "crisis escalation is often the only way to resolve a crisis."[7] In other words, while the United States may desire to de-escalate a situation through crisis mechanisms, the PRC often seeks to further its interests without triggering a military conflict by manipulating a crisis scenario to its advantage. As subsequent chapters in this volume argue, the PRC may be more comfortable than the United States with elevated levels of tension.

---

[4] Jim Gomez, "Philippines Says China Ship Used Laser against Coast Guard," Associated Press, February 13, 2023, https://apnews.com/article/politics-philippines-government-manila-china-8ee5459dcac872b14a49c4a428029259.

[5] Brad Lendon, "Chinese Fighter Jet 'Chaffs' Australian Plane Near South China Sea, Canberra Alleges," CNN, June 7, 2022, https://www.cnn.com/2022/06/05/australia/australia-china-plane-intercept-intl-hnk-ml/index.html; and Bernd Debusmann Jr., "Canada Says China 'Buzzing' Military Flights in Asia," BBC, June 2, 2022, https://www.bbc.com/news/world-us-canada-61654043.

[6] Sameer P. Lalwani, Daniel Markey, and Vikram J. Singh, "Another Clash on the India-China Border Underscores Risk of Militarization," United States Institute of Peace, December 20, 2022, https://www.usip.org/publications/2022/12/another-clash-india-china-border-underscores-risks-militarization.

[7] Chen Xiancai, "台海危机与风险管理: 1987–2017为例" [Taiwan Strait Crisis and Risk Management: The Case of 1987–2017], *Taiwan Studies*, February 20, 2018, 4, available at https://interpret.csis.org/translations/taiwan-strait-crisis-and-risk-management-the-case-of-1987-2017.

Whereas Washington seeks a return to the *status quo ante* through dialogue and crisis management mechanisms, Beijing may prefer to leverage instability in crises to alter the status quo and thus advance its strategic objectives.

The PLA's modernization of its strategic and asymmetric forces also gives rise to novel escalation risks and pressures. In particular, the PLA's nuclear expansion raises questions about how the PRC may seek to incorporate its increasingly sophisticated nuclear arsenal into both its conventional operational planning and crisis behavior. Russia's nuclear threats against Ukraine, as well as the United States and NATO, have effectively deterred direct third-party intervention. The efficacy of such nuclear brinksmanship raises the possibility of the PRC leveraging its nuclear arsenal in a potential conflict with the United States to challenge Washington's commitment to the defense of U.S. allies and partners in the Indo-Pacific. Furthermore, the asymmetric capabilities of the PLA afford it a more diverse range of coercive and kinetic options to employ against an adversary—a particularly concerning prospect given the lack of mutually accepted rules and norms governing the cyber and information warfare domains.

Xi Jinping's consolidation of authority, especially in the military decision-making domain, also holds profound implications for China's crisis behavior and crisis management. Through the 2015–16 organizational reforms to the PLA, Xi consolidated his control over the party-military apparatus, including by reinvigorating the Chairman Responsibility System within the Central Military Commission (CMC) under his sole leadership, purging rival and potentially disloyal officers through a widespread anticorruption campaign, and placing the CMC under his direction at the pinnacle of national security decision-making. The 2018 PLA Conference volume *People in the PLA 2.0* explored these institutional changes and found that Xi has assumed a degree of influence over military affairs unmatched by recent PRC leaders. The consequences of his preeminent influence in military decision-making, the growing frequency of unplanned encounters between the PLA and the U.S. military, and a lack of common understanding on crisis management heighten the risk of crisis and even conflict between the world's most advanced military powers.

Taken together, these developments require a comprehensive and nuanced understanding of why the PLA takes certain actions and exhibits certain behaviors in a crisis, how Chinese leadership approaches crisis response decision-making, and the collective implications of these trends for the United States and its allies and partners. Moreover, it is vital to better understand how the PRC integrates and operationalizes conventional,

strategic, and asymmetric capabilities with other sources of national power in peacetime and in preparation for crisis. To these ends, this volume examines doctrinal and theoretical guidance concerning military decision-making, institutional control structures, and decision-making procedures, as well as relevant case studies, to understand Chinese behavior in various crises, including China's ongoing border dispute with India and territorial disputes with the Philippines over Scarborough Shoal, and in emerging domains, including the cyber and strategic nuclear realms. This introduction briefly reviews the scope and arguments of each chapter and summarizes key findings.

The Doctrine and Theory Behind China's Crisis Behavior

The opening section evaluates the doctrinal concepts that frame the PRC's approach to crisis response and decision-making. In recent years, several crises have tested the ability of the United States, as well as its Indo-Pacific allies and partners, to engage responsibly with the PLA in an increasingly contested regional environment. As the PRC continues to resist efforts to establish and regularize crisis management mechanisms and dialogue with the United States, understanding how, when, and under what conditions Beijing may decide to escalate or de-escalate during a crisis is critical to preventing miscalculation and possible conflict. David Santoro of Pacific Forum and Balazs Szanto of Chulalongkorn University open the volume with chapters that examine the doctrinal guidance that informs decisions by PRC leadership in a crisis scenario.

In the first chapter, Santoro examines China's views of and approach to military crises and discusses the implications for crisis avoidance and management options, especially with the United States. He argues that in crisis situations China's primary objective is to advance its interests and "win" and that reducing escalation risks is, at best, a secondary consideration. Moreover, he argues that Beijing's confidence that it can readily control military crises, conflicts, and even wars means that it often believes that it can benefit from escalation. The one exception to this proclivity to escalate a crisis is the potential use of nuclear weapons. Beijing does not think that nuclear escalation would be controlled in a crisis or armed conflict between the United States and China. Yet certain behaviors, such as the commingling of nuclear and conventional variants of the same missile system using the same launchers and co-located at the same missile base, call into question whether the PLA is aware of how such risky behavior might result in the

very escalation the PRC seeks to avoid. Santoro concludes that Beijing's mindset leads it to assume that Washington pushes for crisis avoidance and management mechanisms less to deal with problems as they emerge and more to undermine China and, in the end, increase U.S. power and influence. Thus, understanding China's views of and approaches to crises in general and military crises in particular is paramount to manage expectations about the prospects for crisis avoidance and crisis management mechanisms. Moreover, focusing these mechanisms less on managing or resolving emerging military problems and more on communicating positions and intentions may yield better results. Finally, Santoro recommends that investing in unofficial U.S.-China dialogues about crisis escalation and management should be a priority, given the wide conceptual gap that exists between the U.S. and Chinese approaches as well as the misperceptions and misunderstandings that each side has about the other.

In the second chapter, Szanto presents a typology of China's crisis behavior through an examination of ten representative crisis scenarios. He argues that to successfully manage a conflict with China, it is essential to understand crisis scenarios as an interplay of complex factors, both purposive and expressive. Through his analysis, Szanto demonstrates that China depicts a strong capacity for expressive (nonrational) behaviors, which require that crisis management policies balance deterrence with reassurance in order to be successful. As such, he states that over-reliance on either deterrence or reassurance would lead to suboptimal results: too heavy deterrence plays into the insecurities of China, while pure engagement is likely to fail due to the expressive considerations of Chinese policy. The expressive component will make it difficult to engage with or counter China's behavior based on purely rational political calculations. Moreover, Szanto claims that to successfully counter escalatory behavior, one must distinguish between offensive and defensive behavior. Whereas successfully countering offensive behavior requires deterrence, defensive behavior is exacerbated by deterrence and requires reassurance while signaling resolve. China has shown a general reluctance to respond to a crisis with de-escalation, instead demonstrating a preference for an initial escalatory response. As such, he concludes that de-escalation can only be effectively pursued if this escalation is countered; otherwise, China will seek to use it as a coercive tool.

Institutional Control and Decision-making under Xi Jinping

This volume's second section examines the changing nature of crisis decision-making in the PRC within an institutional and technological framework. Given Xi Jinping's high degree of involvement in national security matters, his personal role in crisis decision-making must be considered as a discrete factor in the PRC's decision-making apparatus, especially as the PLA vies for greater bureaucratic influence. Moreover, the "New Generation Artificial Intelligence Development Plan" released by the PRC State Council in 2017 clarifies China's ambitions to become a world leader in artificial intelligence (AI) by 2030. As the PLA continues pursuing "intelligentization," the role of AI in command and control will become an increasingly central feature of its modernization objectives and milestones. Drew Holliday of the U.S. Department of Defense and Zi Yang of the S. Rajaratnam School of International Studies (RSIS) assess, respectively, the human-centric decision-making procedures within the PRC bureaucracy and the role that AI-enabled technologies could play in future military decision-making.

In the section's opening chapter, Holliday examines a set of baseline institutional and cultural crisis-response behaviors exhibited by the PRC within a context of changes in how the Xi administration views the PRC's relationship with the United States, the Asia-Pacific region, and the world. He finds that the CCP considers the political aspects of a crisis to be of central importance and thus that institutional structures and processes for responding to crises are designed to manage and shape their political ramifications. The Xi administration perceives an external security environment characterized by very broad and complex challenges, to which PRC leaders believe they must respond in a proactive, shaping manner. Holliday argues that the Xi administration's inverted foreign policy model is inherently less stable, and its emphasis on legal warfare in contested areas increases the risk of unintended confrontation and potential conflict. This analysis may explain why PRC leaders appear to believe that the previous, stable framework of the U.S.-PRC relationship may be losing—or may have already lost—its political viability. Holliday concludes with three key findings. First, the Xi administration's perceptions of the need to employ greater national power to proactively shape the PRC's security environment will increase the likelihood of crisis eventuation and exacerbate crisis resolution. Second, shifts in the U.S.-PRC relationship may have reduced the confidence of PRC leaders that a future military-crisis trigger event could

be managed within a stable, bilateral framework. Finally, their belief that the previous framework with the United States has lost political viability and that the relationship has entered a longer-term period of strategic crisis may result in calls for greater emphasis on shaping behaviors rather than stabilizing behaviors.

Yang investigates how the Chinese state and its military experts theorize, experiment, and apply AI to military decision-making and explores what positive and negative factors might affect its future use in this particular area. China has designated AI development as a national priority, and the use of AI has benefited the regime in various capacities that are increasingly prominent in the defense and security sectors. Looking ahead, Yang claims that AI will be a force multiplier for the PLA, pointing to the role of AI in military decision-making and recent gains in developing this technology for military use. Nonetheless, he finds that the progress of China's AI development in this domain has so far been limited and argues that the widespread adoption of AI technology to enhance military decision-making is more likely to be realized in the medium term than the short term. Xi's policy missteps and his adverse influence on state and military institutions present the greatest encumbrance to the PRC's AI ambitions. In particular, domestic difficulties under enduring despotism may become detrimental to the PLA's modernization and preparations for future AI-enabled warfare. Yet, even though the PRC's current progress in developing AI for military decision-making is limited, advancements in the coming years can be expected to bolster civilian and military leaders' confidence in undertaking military action.

The PLA in Action: Case Studies and Domain Analysis

The volume's final section uses case studies and domain analysis to understand how PRC and PLA decision-making takes place. From the 2012 Scarborough Shoal standoff and the repeated confrontations with the Indian military at the disputed Line of Actual Control to heightened escalation pressures brought about by the PRC's activities in cyberspace and its modernizing nuclear arsenal, these chapters analyze how and why the PRC makes certain decisions in these domains. Shuxian Luo of the University of Hawaii, Mānoa, and Jagannath Panda of the Institute for Security and Development Policy evaluate the drivers behind China's decisions to escalate the 2012 Scarborough Shoal standoff with the Philippines and the border dispute with India at the Line of Actual Control, respectively. Adam Segal,

of the Bureau of Cyberspace and Digital Policy at the U.S. Department of State, explores Beijing's approach to crisis management and response in the emerging domain of cyberspace. Phillip Saunders of the U.S. National Defense University and David Logan of Tufts University assess the potential interactions between the PLA's expanding nuclear arsenal and increasingly sophisticated suite of non-nuclear strategic capabilities and consider the implications for crisis management.

Luo examines the PRC's decision to escalate the 2012 Scarborough Shoal standoff and the role of the PLA in shaping the decision during the incident. She argues that China's crisis decisions in the South China Sea disputes should be understood as the result of Beijing weighing and making a tradeoff between anticipated domestic and international costs. The potential for a domestic backlash creates an incentive for escalation, whereas the potential for international pushback and reputational damage creates pressure on Beijing to de-escalate. Luo finds that the Scarborough Shoal standoff represents a case in which perceived low international costs and surging domestic costs led China to opt for escalation. She concludes that although China has demonstrated a growing level of assertiveness when handling maritime disputes in the South China Sea, its management of these disputes is shaped by competing expectations and costs generated by multiple audiences that include, but are not limited to, the PLA. Moreover, Luo finds that during a crisis such as the Scarborough Shoal standoff, the PLA is not necessarily as openly vocal as other hawkish actors in the PRC's maritime affairs system, but it can shape the broader context in its push to harden the Chinese approach toward sovereignty disputes. To the extent that China strives to credibly signal its resolve while maintaining an image of nonbelligerency among its smaller neighbors, stakeholders in the region still have the leverage to shape the country's crisis behavior in the South China Sea by tipping its cost-benefit calculation toward the international end.

Panda examines Beijing's decision-making process regarding the border conflict with India and considers the outlook for the bilateral relationship. He argues that the boundary dispute is a significant factor in Xi's decision-making calculus because it is critical to the PRC's regional posturing. Panda finds that early on in Xi's tenure Beijing's decision-making regarding the boundary dispute was shaped by the goal of cultivating cooperation with India to encourage its participation in the Belt and Road Initiative as well as to hedge against the United States' regional strategy. Nevertheless, this goal has largely been overshadowed by the PRC's perception of India and the boundary dispute through the lens of the historically complicated Tibet issue. Panda further argues that most of China's policies toward India have been

influenced by mistrust of the U.S.-India partnership and the belief that New Delhi's foreign policy choices vis-à-vis China are influenced by the United States. In other words, the PRC may see the disputed border issue through a broader strategic framework not centered exclusively on India but rather encompassing the larger geopolitical dynamics at play. Panda suggests that more recently the conflict in Ukraine has led to China pointing to India's posture of independence to emphasize the importance of the two countries strengthening cooperation based on mutual interests rather than weakening each other or letting border disputes dominate bilateral ties. Ultimately, he finds that Beijing appears to be increasing its efforts to encourage tactical cooperation with New Delhi in the economic and multilateral spheres while simultaneously employing intimidation tactics to deter India from coalescing with the U.S.-led security architecture.

Segal defines three types of cyber crisis that pose risks to China and assesses the tools that Chinese policymakers have developed to manage such crises. First, like all modern states, the PRC must defend, detect, contain, and respond to a domestic cyberattack that could have widespread destructive or disruptive effects on its economy and society. Second, it must prepare and respond to a potential diplomatic and foreign policy crisis created by reactions to Chinese cyberoperations that fall below the threshold for the use of force or armed attack. Third, during any border or maritime crisis, cyberoperations will be conducted to collect intelligence and possibly to signal, coerce, and deter adversaries. Segal argues that Chinese policymakers will need to manage the use of cyber tools during any military or diplomatic crisis and ensure that they do not inadvertently lead to escalation or loss of control. He finds that China has been developing institutions, regulations, and processes that should improve its ability to manage these three types of crisis. Yet, while China has many new tools for the management of a domestic cyber crisis, the effectiveness of the system during a national cyber crisis remains unknown. Further, the worsening of the Sino-U.S. relationship makes the management of a political crisis provoked by Chinese cyber industrial espionage significantly more difficult to control. China can be expected to conduct cyber intelligence operations during a crisis and may use more disruptive or destructive attacks for signaling, coercion, or deterrence. Segal cautions that the nature of cyberspace and Chinese approaches to it complicate signaling and heighten the risk that cyberoperations could cross a threshold, exacerbate a crisis, and possibly provoke a kinetic response.

In the volume's concluding chapter, Saunders and Logan assess the potential drivers for the PRC's nuclear expansion and modernization,

examine Chinese views of nuclear weapons and their utility in peacetime and crises, and explore the role of non-nuclear strategic capabilities. They find that China is presently undergoing the most significant nuclear weapons expansion in its history, which appears to be driven by the perceived need to maintain a secure second-strike capability and bolster the country's great-power status. With a larger and more secure nuclear deterrent, the PRC will likely be less susceptible to U.S. nuclear threats and intimidation and more willing to initiate conventional conflict due to the perceived reduced risk of nuclear escalation. As a result, Saunders and Logan caution that deterring conflict will therefore be more influenced by the conventional balance of power at the local level. To this end, China may use its expanded nuclear arsenal to bolster its prestige, challenge U.S. extended deterrence commitments, and dissuade U.S. intervention in a crisis or conflict. Furthermore, China's growing space and cyber capabilities, which are viewed as more usable weapons in a conflict, may interact with its nuclear capabilities in ways that heighten the risk of escalation. If U.S. decision-makers conclude that maintaining nuclear superiority is both valuable and achievable, then the United States might forgo strategic nuclear arms control in pursuit of a quantitative advantage. However, if U.S. policymakers conclude that China's quest for a robust second-strike capability cannot be stopped and that mutual assured destruction would maintain strategic stability, then the United States should work to manage nuclear competition with China instead of attempting to offset its buildup. In either case, given that China's nuclear buildup lowers the escalation risk of conventional military conflict and increases the importance of the local conventional balance, the United States may need to invest more in regional conventional forces. U.S. recognition of mutual nuclear vulnerability with China might decrease the risks of nuclear escalation in a crisis or conventional conflict as well as the incentives for a nuclear arms race.

Conclusion

The eight chapters collected in this volume from the 2022 PLA Conference provide a comprehensive picture of how the PRC undertakes the process of decision-making in both peacetime and crisis. The first two chapters reveal Beijing's confidence in its ability to control escalation of a crisis to advance its objectives and change the status quo in its favor. The next two chapters then offer a methodological analysis of how the PRC's decision-making procedures and structures have evolved under Xi

Jinping and of how the PLA is conceptualizing the role of next-generation technologies in command and control and military decision-making. The remaining four chapters provide case studies and domain analysis. The case studies of the 2012 Scarborough Shoal standoff and the Sino-Indian border dispute illuminate the drivers and implications of the PRC's decision-making in crisis scenarios. The final two chapters consider the potential impact of decision-making in the cyber domain and the PRC's ongoing nuclear modernization and expansion on the country's future crisis behavior. As a whole, the volume reveals important shifts in the PRC's approach to crisis decision-making through considering a combination of doctrinal guidance, evolving institutional mechanisms and control structures, technological innovation, and real-world case studies. The contributors have shared valuable insights, and their findings will inform ongoing and future studies of the PLA and PRC foreign policy writ large.

NBR is grateful for its sponsors and partners at the China Strategic Focus Group at U.S. Indo-Pacific Command and the Department of Foreign Languages at the U.S. Military Academy at West Point. Without their support, the research published in this volume would not have been possible. Conference discussants, panel chairs, attendees, and keynote speakers, as well as NBR staff, including Alison Szalwinski, Audrey Mossberger, Rachel Bernstein, and Daniel Schoolenberg, also deserve special thanks and acknowledgment for their contributions to the 2022 conference and accompanying volume.

EXECUTIVE SUMMARY

This chapter examines China's views of and approach to military crises and discusses the implications for crisis avoidance and management options, especially for the U.S.

MAIN ARGUMENT

In crisis situations, China's primary objective is to advance its interests and "win." Reducing escalation risks is, at best, a secondary consideration. Moreover, Beijing believes that it can benefit from escalation, due to a deep-seated belief that it can readily control military crises, conflicts, and even wars. The one exception is the use of nuclear weapons. Beijing does not think that nuclear escalation would be controlled in a crisis or armed conflict between the U.S. and China, or any other powers. Whether its ongoing nuclear buildup will change this long-standing approach is not yet clear. Regardless, Beijing's mindset leads it to assume that Washington pushes for crisis avoidance and management mechanisms less to deal with problems as they emerge than to undermine China and, in the end, increase its power and influence. Under these conditions, the prospects for successful U.S.-China cooperation on improving such mechanisms appear bleak.

POLICY IMPLICATIONS

- Understanding China's views of and approaches to crises in general and military crises in particular is paramount to manage expectations about the prospects for new U.S.-China crisis avoidance and crisis management mechanisms.
- Adapting the goals of these mechanisms by focusing them less on managing or resolving emerging military problems and more on communicating positions and intentions may yield better results and prove useful.
- Investing in unofficial U.S.-China dialogues about crisis escalation and management should be a priority given the wide conceptual gap that exists between the U.S. and Chinese approaches as well as the misperceptions and misunderstandings that each side has about the other.

Chapter 1

How China Approaches Military Crises and the Implications for Crisis Management

David Santoro

The United States has sought to engage China on security and strategic issues for years. These efforts, however, have been largely unsuccessful. Beijing has long resisted U.S. pressure to join arms control agreements, for instance—a few years ago rejecting Washington's request to join the United States and Russia in a trilateral arms control arrangement.[1] China has even systematically declined to engage in strategic nuclear dialogue.[2]

Of late, while remaining committed to bringing China into the arms control fold, the United States has managed its expectations, accepting that progress in this area is not currently in the cards. Instead, the United States has prioritized engagement of China in crisis avoidance and crisis management by proposing "guardrails" that build on previous arrangements set up in the 2000s and 2010s.[3] The idea is that progress in this area, in addition to being important in and of itself, could help pave the way for

David Santoro is President and CEO of the Honolulu-based Pacific Forum, where he specializes in strategic deterrence, nonproliferation, and the geopolitics of Asia and Europe.

[1] "Foreign Ministry Spokesperson Geng Shuang's Regular Press Conference," Ministry of Foreign Affairs of the People's Republic of China (PRC), May 6, 2019.

[2] For background analysis, see David Santoro and Robert Gromoll, "On the Value of Nuclear Dialogue with China: A Review and Assessment of the Track 1.5 'China-U.S. Strategic Nuclear Dynamics Dialogue,'" Pacific Forum, Issues and Insights, November 2020. See also Brad Roberts, ed., *Taking Stock: U.S.-China Track 1.5 Nuclear Dialogue* (Livermore: Lawrence Livermore National Laboratory, 2020). For a more recent analysis of unofficial U.S.-China dialogues on these questions, see David Santoro, "Track-2 and Track-1.5 U.S.-China Strategic Nuclear Dialogues: Lessons Learned and the Way Forward," Asia Pacific Leadership Network, December 8, 2022, https://www.apln.network/analysis/special-report/track-2-and-track-1-5-us-china-strategic-nuclear-dialogues-lessons-learned-and-the-way-forward.

[3] "Readout of President Biden's Virtual Meeting with President Xi Jinping of the People's Republic of China," White House, Press Release, November 16, 2021, https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/16/readout-of-president-bidens-virtual-meeting-with-president-xi-jinping-of-the-peoples-republic-of-china.

arms control down the line, as was the case for the U.S.-Soviet relationship during the Cold War.[4] This push has not yet delivered, but it appears to be an easier lift because, in theory, neither the United States nor China wants their relationship to derail unnecessarily, and both sides are aware that their fierce and intensifying competition has strong escalation potential. It is unclear, however, how much progress the United States and China can make because each has a different understanding of what a crisis is, how it can and should be managed, what crisis avoidance and crisis management are, and how they can and should be used.

This chapter seeks to address these issues by analyzing primary sources, notably Chinese strategic and doctrinal documents, as well as drawing on the findings of Track 2 efforts, especially those led by the Honolulu-based Pacific Forum.[5] The first section examines Beijing's views on crises generally and military crises specifically, providing background on how China approaches them and how it defines key terms and concepts. The chapter then analyzes Chinese thinking about what China should do when it is faced with a military crisis. Finally, the chapter closes by discussing the implications of Chinese views for crisis avoidance and crisis management with the United States.

The chapter's chief argument is that China views and approaches military crises in a fundamentally different way from the United States and, as a result, the prospects for U.S.-China progress on crisis avoidance and crisis management are dim, especially in the current security environment. Still, this assessment should not discourage the United States from pursuing cooperation, provided it is clear-eyed about what can be achieved and adapts its goals and priorities accordingly.

China's Views on Military Crises

China has a long-standing interest in studying military crises, but that interest has risen considerably in recent years and is now a major focus of the Chinese national security community. This section surveys the evolution of China's views and considers its current understanding of military crises.

---

[4] Washington and Moscow concluded a hotline in 1963 and finalized arms control agreements less than ten years later.

[5] The Pacific Forum ran the Track 1.5 China-U.S. Strategic Nuclear Dynamics Dialogue in partnership with the China Foundation for International and Strategic Studies, and with the support of the U.S. Defense Threat Reduction Agency, between 2004 and 2019. The dialogue has since morphed into a Track 2 process. See Santoro and Gromoll, "On the Value of Nuclear Dialogue with China."

A New but Established Topic

China has always paid attention to crises, particularly military crises. Lin Yi says as much in her historical review, pointing out that the earliest piece of scholarship was Pan Fei's *Military Crisis of American Imperialism* in 1951.[6] That said, Lin also stresses that "systematic research" on this topic took time to emerge in China and has gradually grown since the early 1990s. Still, according to a 2008 study from the RAND Corporation, Chinese writings on crisis and escalation management through 2005 remained "undertheorized and still under development."[7] An earlier study from 2006 authored by Lonnie Henley had arrived at the same conclusion.[8]

A decade later, two studies reviewing more recent Chinese writings reached similar conclusions. A 2016 study by Alison Kaufman and Daniel Hartnett explains that "PLA views on these issues are evolving," but that there are still "many critical unknowns."[9] In a 2017 study, Burgess Laird, for his part, argues that "the substantive aspects of the treatment of escalation have changed very little over the years," adding that his review shows that Chinese views "continue to be characterized by the same or similar omissions and silences that led the authors of the 2008 RAND study to conclude that [these] writings…were 'undertheorized and still under development.'"[10] To be sure, these two studies make clear that crisis and escalation management had emerged as a topic of major importance in Chinese writings and in unofficial dialogues. Significantly, once considered unworthy of discussion by the Chinese side, starting in the mid to late 2010s, this issue became a central focus of the Track 1.5 U.S.-China Strategic Nuclear Dynamics Dialogue and subsequent Track 2 initiatives.[11]

Chinese writings have continued to increase in both quantity and quality. The 2020 *Science of Military Strategy* devotes a full chapter to crisis and escalation titled "Prevention and Handling of Military Crisis." The

---

[6] Lin Yi, "中外军事危机管理研究的历史回顾" [Studies of Military Crisis Control in China and Other Countries], *Military History*, no. 3 (2012): 14.

[7] Forrest E. Morgan et al., *Dangerous Thresholds: Managing Escalation in the 21st Century* (Santa Monica: RAND Corporation, 2008).

[8] Lonnie D. Henley, "War Control: Chinese Concepts of Escalation Management," in *Shaping China's Security Environment: The Role of the People's Liberation Army*, ed. Andrew Scobell and Larry M. Wortzel (Carlisle: Strategic Studies Institute, 2006), 81–104.

[9] Alison A. Kaufman and Daniel M. Hartnett, "Managing Conflict: Examining Recent PLA Writings on Escalation Control," CNA, February 11, 2016, https://www.cna.org/reports/2016/drm-2015-u-009963-final3.pdf.

[10] Burgess Laird, "War Control: Chinese Writings on the Control of Escalation in Crisis and Conflict," Center for a New American Security, March 30, 2017, 6, https://www.cnas.org/publications/reports/war-control.

[11] Santoro and Gromoll, "On the Value of Nuclear Dialogue with China," 17–20.

justification for this focus is twofold: first, "crisis has gradually become the normal state of national security"; and second, "military crises have also shown an increasing trend." The argument, in other words, is that the deterioration of the security environment demands that China "thoroughly study" the topic. Not doing so would be dangerous because crises could otherwise escalate and lead to wars, which would affect China's national development. This point is of utmost importance to Beijing. For example, the 2020 *Science of Military Strategy* underscores that the outbreak of a war would have "a major impact and interference on the peaceful development of our country, and even destroy the hard-won achievements of reform and opening up."[12]

Chinese writings, as well as discussions in unofficial dialogues, leave little doubt that Beijing is primarily concerned by the potential for the outbreak of a crisis between China and the United States, be it over Taiwan, the Korean Peninsula, or the East or South China Sea. At a recent Track 2 dialogue, for instance, Chinese participants accused the United States of launching a "multidimensional assault" meant to "suppress China at all levels," adding that the odds of a U.S.-China crisis emerging were thus increasing rapidly.[13] The 2020 *Science of Military Strategy* makes the same assessment, stating that the "intensified strategic competition between major powers is the main cause of frequent military crises."[14] The Taiwan question is by far the center of attention for Beijing, with Chinese scholars such as Cao Qun writing long essays accusing the United States of "playing the 'Taiwan card.'"[15] Still, past discussions have suggested that China is also increasingly concerned about the emergence of crises with a few other countries, notably India.[16]

Current Views

How does China today view and think about crises, notably military crises? In its chapter on the topic, the 2020 *Science of Military Strategy* provides specific language about key terms and concepts. It defines a military

---

[12] Xiao Tianliang, ed., 战略学 [Science of Military Strategy] (Beijing: National Defense University Press, 2020), 111–25.

[13] These comments were made at the U.S.-China Arms Control and Strategic Dialogue, December 19–20, 2022.

[14] Xiao, 战略学, 125.

[15] Cao Qun, "The Taiwan Strait Game between China and the United States: Risk Variables and Crisis Management," Center for Strategic and International Studies, Interpret: China, May 13, 2022, https://interpret.csis.org/translations/the-taiwan-strait-game-between-china-and-the-united-states-risk-variables-and-crisis-management.

[16] Santoro and Gromoll, "On the Value of Nuclear Dialogue with China," 16.

crisis as "a special phenomenon and form of struggle in international relations," stressing that such crises "are the crossroads of war and peace." The white paper also points to the 2011 edition of "Military Language," which defines a military crisis as "a dangerous state that may lead to armed conflict or war between countries or political groups." It further argues that military crises are composed of three factors: first, "the major strategic interests" of the involved parties must be threatened; second, uncertainty about the course of events and "the time for decision-making, response, and communication is urgent"; and third, a "relatively major risk that the crisis is out of control and escalates to war" is present.[17] In other words, the 2020 *Science of Military Strategy* defines military crises as situations that the involved parties cannot ignore, that are highly volatile, and that present a significant danger of escalation, with the real possibility of war.

Chinese scholars echo this characterization. Lin Yi, for instance, writes that military crises refer to "emergencies and states of emergency that occur between specific countries or political groups, threaten one or both parties, and may lead to war or military conflict."[18] Quoting the *Modern Chinese Dictionary*, Xu Zhou stresses that a crisis is "a critical moment of serious difficulties" and a military crisis is "a special social phenomenon between peace and war."[19]

The 2020 *Science of Military Strategy* goes beyond simple definitions, distinguishing between "main types" of military crises and identifying their "main features."[20] In describing the main types, it differentiates between traditional and nontraditional military crises, with the former being caused by territorial/maritime, resource, ethnic/religious, or geopolitical disputes or conflicts and the latter by terrorism, pirate attacks, or proliferation; accidental and deliberate crises; low-, medium-, and high-intensity crises, with the first two defined as "quasi-crises" and the last as "quasi-wars"; sudden and gradual crises; and those that involve the major powers, other countries, or groups. In describing the main features, the document argues that military crises often combine chance and inevitability, progressiveness and suddenness, confrontation and controllability, and risks and opportunities.

All in all, the idea is that military crises are "struggles," distinct but not completely removed from the normal course of events. Significantly,

---

[17] Xiao, 战略学, 111–12.

[18] Lin, "中外军事危机管理研究的历史回顾," 18.

[19] Xu Zhou, "军事危机管理及媒体应对" [Military Crisis Management and Media Response], *Journal of News Research* (2016)370.

[20] Xiao, 战略学, 112–14.

as mentioned earlier, the 2020 *Science of Military Strategy* deems the status quo to be increasingly characterized by crises.[21] So, if the new normal is now a crisis-prone environment—or worse, an environment in crisis—then military crises are the first stage along a continuum of conflict, with the last stage being total war. The suggestion, then, is that China now more than ever believes that it will likely be confronted with military crises and that it should actively prepare for them.

China's Approach to Military Crises

Chinese writings discuss a two-phased approach to military crises: prevention and management ("handling"). The actions China contemplates in the former are different from those in the latter. This section assesses China's approach to both phases.

Crisis Prevention

The 2020 *Science of Military Strategy* defines crisis prevention as "the targeted preparations taken in advance to prevent the occurrence of military crises." It lays out a sophisticated breakdown of requirements to prevent such crises: the need to "plan from the overall perspective" (i.e., shape dynamics while remaining focused on Chinese core interests) and monitor developments to "prevent potential crises from approaching or reaching the ignition point." The prevention phase, plainly, is active, so much so that it talks about the need to "pre-manage crises." Pre-management involves conducting good foreign policy, notably with other major powers. It also involves implementing measures and mechanisms to enhance interagency coordination to ensure "quick and effective" handling and calls for mechanisms "with countries with potential and actual conflicts of interest." Finally, Chinese writings talk about "action measures" or "targeted preventive dynamic measures," such as forecasting or early warning, to "reduce the suddenness and unexpectedness of crises," formulate "multiple plans for flexible response," and even conduct "actual combat drills."[22]

---

[21] Xiao, 战略学, 111. For background analysis on the concept of "struggle," see Rachel Esplin Odell, "'Struggle' as Coercion with Chinese Characteristics: The PRC's Approach to Nonconventional Deterrence," *Modernizing Deterrence: How China Coerces, Compels, and Deters*, ed. Roy D. Kamphausen (Seattle: National Bureau of Asian Research, 2023), 45–64.

[22] Xiao, 战略学, 117–18.

The goal of prevention is both to stop crises from developing and to prepare if they do develop—hence, the call for China to "seize the opportunity and strive for strategic initiative" during that phase.[23] Relatedly, central to Chinese thinking (and in line with the highly organized sequence of recommended actions) is the idea of controllability—i.e., that military crises, conflicts, and even wars can and should be controlled. This is the crux of China's "war control" strategy, which the 2015 *Science of Military Strategy* explains as follows: "The objective of war control is to prevent the occurrence of war and, once war is inevitable, it is necessary to control its horizontal and vertical escalation and do the most to reduce the negative consequences or to gain a major victory at minor cost."[24]

Chinese scholars echo this idea. Lin Yi, for example, states that the "generation and development of a military crisis is controllable; it can be prevented through prediction and monitoring."[25] Xu Zhou concurs, stressing that the "occurrence and development of a military crisis is controllable, and the escalation of the crisis can be avoided as long as it is handled properly."[26] Controllability is thus central to both prevention and handling.

Crisis Handling

According to the 2020 *Science of Military Strategy*, the goal of crisis handling is to "control and guide" the developments of a crisis "in a direction that is beneficial."[27] The white paper states that handling requires "active management" and generally a quick and effective response (i.e., the ability to make quick decisions, take quick actions, and quickly prepare for emergencies).

While stressing that political and diplomatic means are preferred to manage crises, the 2020 *Science of Military Strategy* stresses that military forces are essential "to make substantive achievements," especially "in actual struggles." It highlights that deterrence is front and center when dealing with military crises, and if this proves ineffective, combat operations are in order to "further deter" and prevent escalation or stop a developing war.[28] This is consistent with Xi Jinping's concept of the "peaceful employment of military

---

[23] Xiao, 战略学, 115–18.

[24] Peng Guangqian and Yao Youzhi, eds., *Science of Military Strategy* (Beijing: National Defense University Press, 2015), 197.

[25] Lin, "中外军事危机管理研究的历史回顾, " 17.

[26] Xu, "军事危机管理及媒体应对," 370.

[27] Xiao, 战略学, 118.

[28] Ibid., 120.

forces" (i.e., the use of force to prevent escalation).[29] Thus, while China envisions combat drills in the prevention phase, it contemplates combat operations—military engagement—in the handling phase.

To make good on the role it wants the military to play, China has of late strengthened its deterrence posture considerably by pressing on with modernization, integrating military and nonmilitary capabilities, and enhancing and consolidating its nonconventional capabilities in cyberspace, outer space, and electronic warfare within the People's Liberation Army (PLA) Strategic Support Force.[30] It has also built the world's "most active and diverse ballistic missile development program" and adopted what some have labeled a "projectile-centric strategy," which is based on the delivery of precision-strike munitions via individual projectiles (taking advantage of China's geography) rather than platform-based strike forces.[31] Significantly, the U.S. Department of Defense's 2021 China Military Power Report described China's military strategy as one that "entails seizing the initiative, paralyzing the adversary's operational system, and laying the groundwork for war termination."[32] Unsurprisingly, then, some analysts have characterized China's strategy as one of "first strike," which may include preemptive use. The PLA is now much more capable of carrying out a preemptive first strike thanks to its modernization.[33]

This position, too, reflects China's view that military crises and escalation can be controlled if proper principles and guidelines are followed. China does not seem to see a need to "know its enemies." Laird's characterization in his 2017 study that Chinese analysts think of crises and escalation as an "engineering problem" is still valid.[34] Chinese writings now even suggest that technology may enhance the potential for control. As Kaufman explains in

---

[29] Quoted in Roderick Lee and Marcus Clay, "Don't Call It a Gray Zone: China's Use-of-Force Spectrum," War on the Rocks, May 9, 2022, https://warontherocks.com/2022/05/dont-call-it-a-gray-zone-chinas-use-of-force-spectrum.

[30] Of note, in a recent paper, Elsa Kania argues that China's capacity to implement a truly integrated and innovative approach to strategic deterrence remains uncertain and will likely not take place in the short term. See Elsa B. Kania, "Designing Deterrence: The PLA's Outlook on Disruptive Technologies and Emerging Capabilities," in Kamphausen, *Modernizing Deterrence*, 121–38.

[31] See Defense Intelligence Ballistic Missile Analysis Committee, *2020 Ballistic and Cruise Missile Threat* (Washington, D.C., January 2021), 2; and Ian Easton, "China's Military Strategy in the Asia-Pacific: Implications for Regional Stability," Project 2049 Institute, September 26, 2013, https://project2049.net/wp-content/uploads/2018/06/China_Military_Strategy_Easton.pdf.

[32] U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2021* (Washington, D.C., November 2021), 155.

[33] Thomas Shugart and Javier Gonzalez, "First Strike: China's Missile Threat to U.S. Bases in Asia," Center for a New American Security, June 28, 2017, https://www.cnas.org/publications/reports/first-strike-chinas-missile-threat-to-u-s-bases-to-asia.

[34] Laird, "War Control," 14.

her chapter for the previous PLA Conference volume, the "heavy emphasis on technology…suggests that as the PLA's technological prowess improves, its planners may become increasingly confident in their ability to control escalation."[35]

That said, Chinese analysts (and leaders) also highlight the virtues of restraint and recommend caution with military power. The 2020 *Science of Military Strategy*, for instance, identifies four "handling methods" for military crises.[36] Two of the methods describe an assertive Chinese role: one where Beijing should "lead the crisis" by "seizing the opportunities and conditions created by the crisis situation" and turning them to China's advantage, and another, less ambitious method where Beijing should "affect the crisis" by influencing its development while preventing escalation. The other two methods emphasize restraint. One discusses "stopping the crisis" to "leave greater leeway and opportunities for crisis management," and the other mentions "setting aside the crisis" because resolution is not within reach or could endanger core interests. Relatedly, Chinese writings underscore the importance of domestic and international support for a chosen course of action, suggesting that without support for assertive action, China should opt for restraint.

Besides, the 2020 *Science of Military Strategy* talks about an "*appropriate* use of military power" (emphasis added) and insists that the military "must always obey and serve political needs." This is evidence that Beijing also worries about and wants to avoid unwanted escalation.[37] Chinese scholars concur that strategic interests must always guide military objectives. As Du Yang notes, "the crisis cannot be guided only from a purely military point of view but must obey the political purpose and the overall strategic situation."[38]

There is one important military dimension where China has long exercised caution: nuclear weapons. China does not believe—and never has believed—that nuclear escalation would be controlled in a crisis or armed conflict.[39] In this spirit, its nuclear tradition has been based on the limited utility of nuclear weapons, which supports a strategy of assured retaliation, and not on integrating nuclear strategy with conventional strategy or

---

[35] Alison Kaufman, "Planning for Escalation: PRC Views on Controlling Escalation in a Conflict," in Kamphausen, *Modernizing Deterrence*, 157.

[36] Xiao, 战略学, 123–25.

[37] Ibid., 120.

[38] Du Yang, "中国南海危机管理的战略探析" [Strategic Analysis of Crisis Management in the South China Sea], *Contemporary World*, no. 9 (2015).

[39] For background analysis, see Fiona S. Cunningham and M. Taylor Fravel, "Dangerous Confidence? Chinese Views on Nuclear Escalation," *International Security* 44, no. 2 (2019): 61–109.

pursuing nuclear warfighting. China's thinking has been that these weapons serve only to prevent nuclear coercion and deter nuclear attack. This is why Beijing has claimed that it has a "self-defense nuclear strategy" and why it has maintained tight control over its arsenal, never delegating authority over nuclear strategy to the PLA.[40] Moreover, China has only developed a small nuclear force ("minimum deterrence") and refused to engage in arms races while pledging to never be the first to use nuclear weapons ("no first use").

Whether China's recent rapid nuclear modernization (which the United States has called a "crash build-up") will bring about change is an open question.[41] Beijing has remained silent, and in unofficial dialogues Chinese scholars argue that China's nuclear policy and posture have not changed and will not change.[42] They say that Beijing's no-first-use policy is alive and well, and that modernization is, and always has been, exclusively focused on ensuring the survivability, safety, security, and reliability of the Chinese arsenal, which, according to them, needs to keep pace with U.S. military developments and deployments. They add that China does not seek nuclear parity with the United States (or Russia).

Yet even before the recent buildup, there were mounting questions about a possible change in Chinese nuclear policy and posture. In 2015, Beijing renamed the unit in control of Chinese nuclear forces (from the PLA Second Artillery Corps to the PLA Rocket Force) and upgraded it to full-service status. At the inauguration ceremony, Xi explained that the force should "possess both nuclear and conventional [capabilities]" and be prepared to conduct "comprehensive deterrence and warfighting" operations.[43] While the requirement to possess nuclear and conventional capabilities is not new, the emphasis on "comprehensive deterrence and warfighting" suggests a more expansive nuclear role, especially given Xi's expectation that the force should enhance its ability for "strategic balancing."

Speculation abounds about what that new role will be, with analysts suggesting that China might mate its nuclear warheads with its missiles, increase the PLA Rocket Force's alert status, or adopt a launch-on-warning

---

[40] For a long time, China's nuclear strategy was based on statements made by Chinese leaders and internal doctrinal publications. References to China's "self-defense nuclear strategy" first appeared in the 2006 defense white paper. See State Council Information Office (PRC), *China's National Defense in 2006* (Beijing, December 2006), available at http://www.chinadaily.com.cn/china/2006-12/29/content_771191.htm.

[41] The United States began saying that China was engaged in a "crash nuclear build-up" in 2020. See, for instance, Marshall Billingslea, "Behind the Great Wall of Secrecy: China's Nuclear Build-Up," Heritage Foundation, YouTube video, October 14, 2020, https://www.youtube.com/watch?v=l9syeZoUMf4.

[42] U.S.-China Arms Control and Strategic Dialogue, December 19–20, 2022.

[43] Bates Gill and Adam Ni, "The People's Liberation Army Rocket Force: Reshaping China's Approach to Strategic Deterrence," *Australian Journal of International Affairs* 73, no. 2 (2019): 162–63.

posture.[44] Some also say that Beijing might want to use its growing nuclear arsenal to prevent third-party intervention in a regional conflict, such as over Taiwan.[45]

Regardless, what transpires is that crisis handling, from China's perspective, is both about managing a bad situation (i.e., preventing its evolution from bad to worse) and strategizing to secure or even advance Chinese national interests whenever possible, notably with military deterrence and, if necessary, the use of force.

There is evidence that Beijing equates crisis handling with crisis management and even crisis resolution. The 2020 *Science of Military Strategy* stresses the importance of maintaining communication between all parties involved, despite the difficulty of pinpointing each party's actual intentions, and insists that "military crisis handling is essentially the art of compromise," adding that "without compromise, there is no resolution of military crises."[46] But the document is also quick to argue—in the very next sentence—that the best compromise is found through "fierce gaming." It further highlights that "in handling military crises, attention must be paid to fighting machines in crisis, gaining profit from harm, and striving to create more favorable national interests on the basis of compromise."

This approach permeates Chinese thinking. Xu Zhou, for instance, argues that a crisis contains both "the roots of failure" (because a bad situation has emerged and needs to be managed) and "the seeds of success" (because managing that situation involves avoiding the worst and, if possible, coming out on top).[47] Zhai Kun echoes this, saying that China "should not only deal with crises but also look for opportunities in crises and chaos to turn crises into opportunities."[48]

In sum, China is interested in preventing and managing crises, but it is also as much, if not more, focused on gaining the upper hand over its competitors in the process.

---

[44] For details, see David Santoro, "The U.S.-China Strategic Nuclear Relationship," in *U.S.-China Nuclear Relations: The Impact of Strategic Triangles*, ed. David Santoro (Boulder: Lynne Rienner, 2021), 23–58.

[45] Brandon J. Babin, "Xi Jinping's Strangelove: The Need for a Deterrence-Based Offset Strategy," in Kamphausen, *Modernizing Deterrence*, 67–97.

[46] Xiao, 战略学, 123.

[47] Xu, "军事危机管理及媒体应对," 370.

[48] Zhai Kun, "'转危为机':中国国际战略危机管理之道" ["Turn Crisis into Opportunity": The Way of China's International Strategic Crisis Management], China Social Sciences Online, March 26, 2022.

Implications for Crisis Avoidance and Crisis Management

Based on this analysis, what are the implications of Chinese views and approaches for crisis avoidance and crisis management? What, in particular, are the prospects for the establishment and success of the new mechanisms that the United States has recently pushed for to better manage the increasingly tense U.S.-China relationship?

Worlds Apart

The starting point is to realize that the United States and China have fundamentally different views of and approaches to crises in general and military crises in particular—and by extension, to crisis avoidance and crisis management mechanisms. As the dominant power, the United States generally sees crises as problems that need to be managed or resolved, whereas China views them both as problems to manage or resolve and as opportunities to advance its own interests. The latter goal appears to be significantly more important than the former. In other words, China is more interested in "winning" crises than in managing or resolving them, likely because it is a rising power unsatisfied with the regional and global orders. Furthermore, China views military escalation as a potentially useful way to deal with crises. Thus, while the United States tends to think of crisis avoidance and crisis management mechanisms as tools to help maintain communication between the parties involved in a crisis (notably their military forces) and de-escalate tensions, China is in practice highly suspicious of such mechanisms, even if it is not in theory opposed to them, because it assumes that U.S. officials will want to use them to prevail in a crisis.

These suspicions are rooted in the belief that the United States, as the dominant power, is committed to containing and even undermining China and its rise. This belief is entrenched now more deeply than ever, given references by U.S. officials to "the pacing challenge" and the bipartisan support in Washington to "take on" China.[49] Chinese observers are even convinced that the United States is intentionally creating crises in and around China. When in unofficial dialogues U.S. participants talk about the merits of crisis avoidance and crisis management mechanisms, Chinese participants insist that Washington cannot have it both ways (i.e., create

[49] The United States began talking about China as "the pacing challenge" in 2021. It appears, for instance, in Secretary of Defense Lloyd Austin's memorandum of March 4, 2021, that outlines the Defense Department's priorities.

crises and dangers for Beijing and then turn around and request Chinese help to address them).[50] Zhou Bo states as much in a recent essay: "Both China and the United States do not want military conflict, but the United States continues to provoke China's sovereignty and security in the South China Sea and the Taiwan Strait. In other words, the United States wants China to ensure their so-called 'security' when they challenge China."[51]

Chinese participants at the U.S.-China Arms Control and Strategic Dialogue have been especially vocal about Taiwan, accusing the United States of "reckless words and actions" and stressing that "nuclear escalation is in the cards" over the island because Washington would likely not be able to win a conventional war against Beijing.[52] They assess, plainly, that the United States would now have to use nuclear weapons first to "win" against China in a conflict over Taiwan. They also continue to claim that Beijing would not use nuclear weapons first, including in a contingency over Taiwan, or any other contingency, and appear genuinely shocked when they hear that Washington questions that claim.

To China, therefore, the idea is that avoiding or managing crises and escalation is the responsibility of the United States. Again, in unofficial dialogues, Chinese participants stress that the United States should "downplay the Taiwan issue" and even "manage the Congress factor" (the latter comment having been made in the context of then speaker of the U.S. House of Representatives Nancy Pelosi's visit to Taiwan in August 2022).[53] The message is clear: Chinese participants think that the United States is the troublemaker, and if it only behaved, the problem would go away. There would be no crisis.

To a lesser extent, this is also Beijing's assessment of the "root causes" of the problems with North Korea and Russia. When in unofficial dialogues U.S. participants stress that the United States now faces increasingly difficult relations with China and outrightly confrontational dealings with North Korea and Russia, Chinese participants recommend that Washington "self-reflect" about the reasons, suggesting that the United States brought these problems upon itself and should receive full blame.[54] To the Chinese participants, then, China and others are just reacting to issues created by the

---

[50] U.S.-China Arms Control and Strategic Dialogue, December 19–20, 2022.

[51] Zhou Bo, "周波: 中美两军间的危机管理考验" [The Crisis Management Test between Chinese and American Militaries], China News, January 20, 2021.

[52] U.S.-China Arms Control and Strategic Dialogue, December 19–20, 2022.

[53] Ibid.

[54] Ibid.

United States. This is how, for instance, Chinese participants have explained China's nuclear buildup. They blame the United States for pressing on with a "big and growing nuclear force" and "the ability to conduct a disarming first strike against us," forcing China to "take action to ensure the survivability of its nuclear arsenal."[55]

The bottom line is that, as earlier studies showed, there is little, if anything, to suggest that China considers that its decisions or actions can create problems, including triggering escalation in a crisis.[56] Furthermore, perhaps due to the worsening of U.S.-China relations and the assertive turn of the Chinese leadership, there is a palpable sense that China today genuinely believes that it is under attack from the United States and that all Chinese decisions and actions are—and would be—purely reactive and defensive. Put differently, China's growing military strength and apparent willingness to wield it have not been accompanied by considerations that Chinese behavior, too, could contribute to creating military crises or making them worse.

The Poor Record of Crisis Management

Given the differences between the two sides, it should come as no surprise that the record of U.S.-China engagement on crisis avoidance and crisis management has been poor. The United States and China have two hotline agreements in place. Dating back to 1997, the first is a hotline at the presidential level to allow for communication in the event of a serious crisis. At the time, President Bill Clinton said that the establishment of this channel would "make it easier to confer at a moment's notice."[57] The hotline, however, was not used during the 2001 EP-3 incident, when a Chinese fighter jet crashed into a U.S. aircraft and forced it to land on Hainan Island with U.S. service members on board.[58]

The second hotline, called the Defense Telephone Link, was established in 2008 at the secretary-of-defense level and is utilized for routine bilateral communications on a regular basis. During incidents, however, the hotline has seldom been used. It appears, for example, that the hotline was not utilized during the PLA seizure of an unmanned underwater vehicle in

---

[55] U.S.-China Arms Control and Strategic Dialogue, December 19–20, 2022.

[56] Laird, "War Control," 6.

[57] "President Clinton and President Jiang Zemin Joint Press Conference, 1997," White House, Press Release, October 29, 1997, available at https://china.usc.edu/president-clinton-and-president-jiang-zemin-joint-press-conference-1997#Bill_Clinton.

[58] John Keefe, "Anatomy of the EP-3 Incident, April 2001," CNA, 2002.

the South China Sea in 2016. More recently, during the balloon incident this year, Secretary of Defense Lloyd Austin attempted to reach out to his counterpart, Defense Minister Wei Fenghe, who refused to take the call because the United States had "not created the proper atmosphere" for dialogue and exchange.[59] It is no wonder that Kurt Campbell, the National Security Council coordinator for the Indo-Pacific, has discussed the merits of hotlines but has also said that a major problem is that they tend to "ring endlessly in empty rooms" when crises emerge.[60]

Still, in recent years, the United States and China have communicated and worked through some issues. At the end of 2020, and in an unprecedented move proving that China does sometimes seek to avoid or manage crises, Chinese officials took the initiative of using communication channels to seek reassurance that President Donald Trump would not create a crisis in the Taiwan Strait to increase his chances of re-election.[61] Various U.S.-China consultation agreements, despite their limitations, have also worked as expected.

At the end of 2021, however, Beijing used the Military Maritime Consultative Agreement to argue that more rules would not facilitate U.S.-China interactions, but that, at root, the solution to crises is for the U.S. military to stop operating within the first island chain.[62] This suggestion shows that Beijing fundamentally sees little use for crisis avoidance and crisis management mechanisms between countries that do not have a sound political relationship based on trust. As one Chinese observer put it, "with no mutual or political trust, China finds it impossible to use a military hotline to avoid possible conflict."[63] Accordingly, if there is virtually no chance of a U.S.-China breakthrough on arms control in the foreseeable future, the

---

[59] "Statement by Pentagon Press Secretary Peter Cook on Incident in South China Sea," U.S. Department of Defense, Press Release, December 16, 2016, https://www.defense.gov/News/Releases/Release/Article/1032611/statement-by-pentagon-press-secretary-peter-cook-on-incident-in-south-china-sea; and "China Declines U.S. Proposal for Phone Call between Defense Chiefs on Civilian Unmanned Airship Incident," Ministry of National Defense (PRC), Press Release, February 9, 2023, http://eng.mod.gov.cn/news/2023-02/09/content_4932214.htm.

[60] Quoted in Julian Borger, "Hotlines 'Ring Out': China's Military Crisis Strategy Needs Rethink, Says Biden Asia Chief," *Guardian*, May 6, 2021, https://www.theguardian.com/world/2021/may/06/hotlines-ring-out-chinas-military-crisis-strategy-needs-rethink-says-biden-asia-chief-kurt-campbell.

[61] Lolita C. Baldor and Robert Burns, "Gen. Milley Explains His Calls with China over Concerns about President Trump," *PBS NewsHour*, September 28, 2021, https://www.pbs.org/newshour/politics/watch-gen-milley-explains-his-calls-with-china-over-concerns-about-president-trump.

[62] "China Urges U.S. to Cease Hostile Naval, Airforce Maneuvers," Xinhua, December 31, 2021, https://english.news.cn/20211231/276f03386f2744f4bcb4cc6f02d46a91/c.html.

[63] Song Zhongping, "Bottom Line Must Be Respected Despite of Hotlines," *Global Times*, May 11, 2021, https://www.globaltimes.cn/page/202105/1223187.shtml.

prospects for progress on crisis avoidance and crisis management are not great either.

Conclusion

"There is no longer any such thing as strategy, only crisis management," former U.S. secretary of defense Robert McNamara famously stated in summarizing the lessons he and his colleagues drew from the Cuban Missile Crisis. While this view is understandable given the severity of the crisis and the real risks of escalation to the nuclear level, the turn of phrase obscures the reality that even in high-risk situations, including those where the use of nuclear weapons is possible, the parties involved are often pursuing two seemingly incompatible goals: avoiding escalation and prevailing over their adversaries.

This review of the Chinese conceptualization of and approach to military crises makes clear that Beijing is motivated by the pursuit of both goals but is first and foremost interested in advancing its interests and "winning" crises, possibly because it finds itself unsatisfied in the current regional and global orders. Reducing the military escalation risks is, at best, a secondary consideration. Worse still, Beijing thinks that escalation can be useful due to its deep-seated belief that military crises, conflicts, and wars can be controlled, with the notable exception of those involving nuclear weapons. Although China's rapid nuclear modernization may change this long-standing Chinese position, the prospects for successful U.S.-China work on crisis avoidance and crisis management remain dim. One reason is that China and the United States approach them in fundamentally different ways, with the United States, as the dominant power, having a greater proclivity to try to manage, and even resolve, crises. A second reason is that, deep down, Beijing assumes that Washington will try to use these mechanisms to enhance its power and influence, especially in the current context where U.S.-China relations are deteriorating at all levels.

What should the United States do in these circumstances? To begin with, it should not give up on cooperation with China on crisis avoidance and crisis management. It should continue to push such an agenda but be clear-eyed about what these mechanisms can and cannot achieve. Increasing crisis communication at the operational level would be helpful, given that there are currently no such mechanisms at that level. It would not be a panacea, however, because leaders in Beijing, not PLA officers, make decisions. Still, there is evidence that these mechanisms can work in

some circumstances. At the very least, these mechanisms could help support deterrence by providing a platform for the United States to use to convey its decisions or resolve in crisis situations.[64] This is important—even essential—because recent research has shown that China's default response in a crisis has been "to de-escalate once it perceives an acute risk of confrontation with the United States, a U.S. ally, or a country showing a strong will to resist."[65] Finally, the United States should invest in Track 2 forums so that U.S. and Chinese scholars can unpack, analyze, and discuss key questions together. Focusing on nuclear crisis avoidance and management is particularly critical, given the uncertainties surrounding Beijing's evolving approach to nuclear weapons.

[64] Lyle J. Morris and Kyle Marcrum, "Another 'Hotline' with China Isn't the Answer," RAND Corporation, July 27, 2022, https://www.rand.org/blog/2022/07/another-hotline-with-china-isnt-the-answer.html.

[65] Stein Tønnesson, "When and How China De-escalates in Crises," in Kamphausen, *Modernizing Deterrence*, 159.

EXECUTIVE SUMMARY

This chapter examines China's crisis behavior from a theoretical perspective and presents a typology of its behavior through an examination of ten representative crisis scenarios.

MAIN ARGUMENT

To successfully manage a conflict with China it is essential to understand crisis scenarios as an interplay of complex factors, both purposive and expressive. China demonstrates a strong capacity for expressive (nonrational) behavior. Accordingly, crisis management policies need to balance deterrence with reassurance to be successful. Overreliance on either would lead to suboptimal results: too heavy deterrence would play into the insecurities of China, while pure engagement would likely fail due to the expressive considerations of Chinese policy. Successful policy should deter China from rapid escalation but also seek to address ideational considerations beyond purposive strategic logic.

POLICY IMPLICATIONS

- To successfully counter escalatory behavior, one must distinguish between offensive and defensive behavior. Whereas successfully countering offensive behavior requires deterrence, defensive behavior is exacerbated by deterrence and requires reassurance while signaling resolve.
- There is an expressive component to China's behavior that predisposes China to escalate in a crisis. Expressive considerations exert different influences at different levels. In a nonunitary actor, lower-level agents may pursue officially unintended escalation motivated by expressive considerations.
- China has shown a general reluctance to respond to a crisis with de-escalation, demonstrating a preference for an initial escalatory response. De-escalation can only be pursued if this escalation is countered, given that China will seek to use it as a coercive tool.
- There is a strong expressive component to China's behavior that can make it difficult to engage with the country or counter its behavior based on purely rational political calculations. Ideational factors have to be incorporated into conflict management to successfully engage China.

Chapter 2

Managing a Crisis with China: Crisis Behavior and De-escalation

Balazs Szanto

This chapter conceptualizes China's crisis behavior through ten case studies selected from the East and South China Seas. This sampling is in no way comprehensive but provides a good indication of China's behavior in a crisis and capacity for de-escalation. The case studies were selected as notable examples of confrontation beyond the day-to-day incidents observable in the South China Sea. Most case studies also offer a longer time frame where crisis management could take place as part of a multilevel game. Essentially, the selection focuses on incidents where behavior is indicative of state policy at large rather than limited to the individual actions of various captains, which would be a concern in a nonunitary state model. Geographically, the case studies are limited to the East and South China Seas specifically. Even though Taiwan is an important crisis scenario, because of its special nature it merits a study of its own and is beyond the scope of this chapter.

The chapter is divided into three sections: (1) a theoretical conceptualization of crisis behavior, (2) a case study analysis of ten maritime crises between 2000 and 2019, and (3) an overview of the implications of China's behavioral characteristics for crisis management and de-escalation. The main focus is to determine how to successfully engage China in a crisis. This chapter finds that to do so one needs to (1) recognize the different motives behind various crises and tailor policy to counter different escalatory motives, (2) balance deterrence and engagement/reassurance, and (3) recognize the expressive component of Chinese behavior that can deviate from purely rational logic. Accordingly, to successfully manage a crisis with China one would need to (1) deter China's initial escalatory response, (2) show restraint in the face of ideational behavior, and (3) engage with China in a way that offers it a way out without a critical loss of face.

Balazs Szanto is a Lecturer in the Faculty of Political Science at Chulalongkorn University.

Conceptualizing Crisis Behavior

To effectively manage a crisis and achieve de-escalation, a state needs to understand the complex behaviors exhibited during a crisis. Crisis behavior operates on a matrix of intersecting factors. This section will look at three key factors that are necessary to conceptualize the behavior of a country: (1) the level within the state at which crisis behavior is taking place, (2) the objectives of the behavior and whether they are purposive or expressive, and (3) the behavior's effect on the crisis and whether it is escalatory or de-escalatory.

Where a state's behavior falls on these scales can result in a significantly different typology for crises, necessitating a different response to effectively manage the crisis and push for de-escalation. This is especially true when a conflict is viewed as a multilevel "game" in which one state engages a reactive opponent. In that situation, selecting an inappropriate response can further exacerbate the crisis, leading to undesired outcomes.

Conflict Level within a Nonunitary State

An assumption of many international relations theories is that the state is a unitary actor that presents a singular policy directive and engages other states on the international level as a unified whole.[1] However, crisis behavior in the Asia-Pacific demonstrates the limits of this approach and supports arguments in favor of the principle of a nonunitary state with agency vested in different agents.[2] For example, in 2020 a China Coast Guard vessel rammed and sunk a Vietnamese fishing vessel.[3] It is unreasonable to assume that the captain received direct orders from Beijing to do so; rather, the incident exposes the problems that arise when the state is a fractured entity with a myriad of actors that all possess their own agency. In contrast, in 2006 a Chinese submarine surfaced near the USS *Kitty Hawk*. It is unlikely that a Chinese captain would undertake such a provocative maneuver by accident or without approval from higher levels of the chain of command.

Incidents involving fewer decision-makers are more subject to expressive considerations: a single captain, for example, can make decisions that are easily swayed by patriotic zeal or animosity for a certain opponent. But the more levels of decision-making are involved in the process, the

---

[1] This is a core tenet of offensive realism. See, for example, John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: W.W. Norton, 2001).

[2] See Anne-Marie Slaughter, *A New World Order* (Princeton: Princeton University Press, 2004).

[3] "Are Maritime Law Enforcement Forces Destabilizing Asia?" Center for Strategic and International Studies, ChinaPower, https://chinapower.csis.org/maritime-forces-destabilizing-asia.

more one would expect them to exert a rationalizing influence. Though by no means immune to expressive considerations, multilevel decisions are less impulsive and more deliberate, as it takes time to run through the chain of command and reconcile the different perspectives. Looking at incidents in the East and South China Seas, the duration and the number of units involved are good indicators of conflict level. A crisis involving a single incident with one or two vessels is likely indicative of a single decision-making level. In contrast, a prolonged standoff involving dozens of vessels is indicative of multilevel decision-making. These conflicts would be more reflective of the thinking of the state as a whole than of the biases or mistakes of individual agents of that state.

Behavioral Objectives

Behavioral objectives are what a state or agent seeks to accomplish with its actions. The objectives of conflict behavior can be classified along two axes. Along one axis, purposive behavior seeks to realize strategic objectives, while expressive behavior seeks to communicate or manifest components of identity. Along the other axis, offensive behavior seeks to alter the status quo, while defensive behavior seeks to maintain it.

Purposive behavior is deliberate and calculating. Such behavior is the subject of the realist school of thought, focusing on the realpolitik dimension of international relations. Fundamentally, purposive behavior is rational: it is based on a cost-benefit analysis of various policy avenues to realize national interests by selecting an optimal course. Violence and appeasement are both the result of rational decisions to do so based on anticipated outcomes. While such decision-making is still subject to bounded rationality—the costs, benefits, and feasible options all being based on perceptions affected by identity—and imperfect information, an attempt is nevertheless made to balance the costs and benefits of the decision. Purposive behavior can be best understood by further breaking it down into its offensive and defensive variants.

Offensive purposive behavior seeks a deliberate alteration to the relative distribution of power (e.g., by expanding a state's power relative to another state). The structural theory of offensive realism offers a solid foundation for such behavior.[4] It asserts that systemic anarchy is a structural incentive for revisionist behavior whereby a state attempts to realize a secure position by achieving regional hegemony. According to this model of offensive

[4] Mearsheimer, *The Tragedy of Great Power Politics*.

purposive behavior, a state should always seek out any power advantage unless constrained by rational considerations. During the 1995 Mischief Reef incident, for example, China used coercion to establish de facto control over the reef, which represented a positive shift in the relative distribution of power by expanding territorial control. China's behavior during the crisis had a clear strategic objective (securing the reef), and the country clearly weighed the benefits (territorial control) against the costs (escalation with the Philippines). While Kenneth Waltz's defensive structural realism sees no structural reasons for expansion, it recognizes that occasionally rational considerations may necessitate a limited offensive behavior.[5] However, such behavior is further constrained by the need to consider the risk of the creation of a balancing coalition.

Offensive purposive behavior is primarily conceptualized as active: the desire to alter the status quo is generally viewed as unprovoked. Waltz argues in favor of status quo behavior to preserve stability in the international system.[6] M. Taylor Fravel, however, demonstrates that offensive behavior can also be reactive. If the status quo is highly unfavorable, then even actions taken in order to preserve the status quo can be viewed as threatening and thus necessitating a response, which would be offensive.[7] From this perspective, the entrenchment of the status quo is viewed as a threat, and disturbing the status quo is interpreted as defensive, even though it is viewed as offensive from a systemic perspective.

In contrast, defensive purposive behavior is deterrent: it seeks to persuade an opponent to abandon a course of action that is viewed as disrupting the status quo. Waltz favors defensive behavior, ultimately arguing for the formation of balancing coalitions to eliminate revisionist threats from the system.[8] Fravel also argues that an aggressive response in a dispute can be motivated by a desire to preserve a situation rather than overturn it. His model focuses on the balance of bargaining power within a dispute based on the amount of territory held and the ability to project military power into the theater.[9] The distribution of bargaining power is not static, and a dispute is most stable when there is balance. But that balance can be disturbed by shifts in bargaining power. If there is a negative shift in the distribution of

---

[5] Kenneth N. Waltz, *Theory of International Politics* (Long Grove: Waveland Press, 2010).

[6] Ibid.

[7] M. Taylor Fravel, "Power Shifts and Escalation: Explaining China's Use of Force in Territorial Disputes," *International Security* 32, no. 3 (2008): 44–83.

[8] Waltz, *Theory of International Politics*.

[9] Fravel, "Power Shifts and Escalation."

bargaining power, a state may adopt an aggressive response to counter the shift. This is meaningfully different from offensive purposive behavior so far as the goal is not to secure a power advantage but to return to or preserve equilibrium.

Defensive considerations frequently factor into the Senkaku/Diaoyu Islands dispute. Utilizing its power advantage in the South China Sea, China tends to adopt offensive purposive behavior. In contrast, the equilibrium of power in the East China Sea means that China holds only a weak bargaining position, which leads it to behave primarily defensively. During incidents in 1978, 1996, 2010, and 2012, for example, China's goal was to dissuade Japan from taking actions that were perceived as reinforcing Japanese sovereignty over the islands, thus representing a negative shift in bargaining position.[10] In none of these incidents did China seek a meaningful alteration of the territorial status quo or a considerable power advantage, which would be necessary to classify the behavior as offensive. Importantly, if a country's bargaining position is weak enough, even administrative actions can represent a perceived negative shift that requires a response, as was the case in 2010 and 2012.[11] In both incidents, the trigger was simply a display of Japanese administrative control. Fravel's arguments concerning anxiety over bargaining power also tie into legal arguments of prescription when it comes to sovereignty. Under international law, sovereignty can be established through discovery (occupation of unclaimed territory) or prescription (extended possession, even if the origin of possession is unclear). In the absence of signaling continued opposition, a party can reinforce another country's claim to prescription, especially if it possesses the majority of the disputed territory, as is the case in the Senkaku/Diaoyu Islands dispute.

Expressive behavior is distinguished by being nonrational (i.e., not constrained by cost-benefit calculations). It is motivated by identity, and its objective is to communicate a component of identity or national feeling rather than realize concrete strategic goals. Recognizing the influence of expressive considerations is especially important in light of recent events: the war in Ukraine hardly makes sense without understanding Russia's ideational framing of greatness and exceptionalism. Escalation and the eventual outbreak of hostilities were strongly influenced by how Russia

[10] In 1978, a fishing fleet surrounded the disputed islands in response to Japan's attempts to include them in treaty negotiations; in 1996, Japanese nationalists sought recognition for a lighthouse erected on the disputed islands, which led to a diplomatic row; in 2010, a Chinese captain rammed a Japan Coast Guard vessel near the disputed islands; and in 2012, Japan's potential government purchase of the islands sparked a diplomatic row with China.

[11] Fravel, "Power Shifts and Escalation."

viewed itself, its place in the world, and its opponents. These ideational factors undermined rational cost-benefit calculations, leading to Russia's invasion of Ukraine and seemingly pointless continuation of the conflict. While China is susceptible to expressive considerations, as will be discussed further below, the main difference appears to be that China's expressive behavior is more dominant at the lower levels of decision-making, whereas Russia's is more prominent at the higher levels of the chain of command.

Rivalry has been identified as a key factor in conflict escalation and can be viewed as a strong negative association between states, not for strategic reasons but due to shared history.[12] China possesses rivalries with Japan (which it views as the prime antagonist of its patriotic narrative) and Taiwan (which it views as an insurgent island). In the presence of such rivalry, a state is more likely to adopt a hostile response due to preexisting animosity. Rivalry as a constituent in the construction of animosity is supported by Alexander Wendt's argument that positive or negative security association between states is driven by their own identity as well as their shared history.[13] China has a history of territorial invasion, a wounded sense of exceptionalism, and a political identity that predisposes it to animosity toward other regional powers. This animosity is further reinforced by its dislike of Japan and hard line toward Taiwan. In light of these factors, an incident that under normal circumstances would be easily contained can quickly escalate into open hostility as China looks for, and finds confirmation of, preconceived narratives about its rivals' ill intentions. In dealing with Japan, Taiwan, or the United States, China often feels compelled to respond not because of strategic utility but to express a national sentiment.

It is important to distinguish between expressive escalation and various diversionary approaches. An idea present in dealing with China's more patriotic displays is that they serve a domestic purpose. However, such an interpretation does not explain expressive behavior. In such a case, there is still a purpose, albeit a domestic one, which would fit actions under purposive behavior. Expressive behavior is defined by its lack of strategic purpose and is a result of identity-based motivators, of which the agent may not be cognizant. Purposive and expressive behavior can be difficult to disentangle, especially given that behavior can have traits of both elements and these elements can also overlap. Bounded rationality provides a gateway for expressive factors to interfere with purposive calculations, while even

---

[12] Karen A. Rasler and William R. Thompson, "Contested Territory, Strategic Rivalries, and Conflict Escalation," *International Studies Quarterly* 50, no. 1 (2006): 145–67.

[13] Alexander Wendt, "Anarchy Is What States Make of It: The Social Construction of Power Politics," *International Organization* 46, no. 2 (1992): 391–425.

an expression of hatred can be tempered by catastrophic consequences. An agent is just as unlikely to be purely rational as purely nonrational.

Behavioral Effects

While behavioral objectives are what a country seeks to accomplish with its actions, behavioral effects focus on how those actions affect the larger security environment. Behavior can exert either an escalatory or de-escalatory influence.

Escalatory behavior exacerbates the regional security situation, intentionally or unintentionally. Intentional exacerbation falls under coercive intent and is characterized by Thomas Schelling as "diplomacy of violence": the threat of future damage is used to leverage a bargain.[14] By bringing the region closer to war, escalating tensions are used to pressure an opponent into compliance. At the same time, a state's behavior might exert unintentional escalatory influence due to a perception gap between the parties. In 2012, for example, Japan intended to de-escalate a conflict with China, but its actions were interpreted as escalatory by Beijing.

De-escalatory behavior seeks to calm a situation and reduce tensions. In most instances, the goal of a de-escalatory response is to prevent the outbreak of hostilities or other damages and persuade the opponent to calm the situation. However, a de-escalatory response can also be used offensively: for example, a party may pursue de-escalation to entrench a status quo favorable to itself. A de-escalatory response may also be employed strategically to deprive an opponent of justification for resorting to certain actions. Nevertheless, a key goal of crisis management is to seek de-escalation that can lead to the termination of the crisis.

Classifying China's Conflict Behavior

Based on the above considerations, one can categorize conflict behavior into archetypes (see **Table 1**). Various factors are on a scale and often overlap, but nonetheless, key behavioral patterns can be typecast.

In order to distinguish between conflicts such as the 2020 ramming of a Vietnamese fishing vessel and the 2019 four-month standoff between China and Vietnam, a prefix is attached to the categories to distinguish the probable level of command. "L-" indicates that the conflict took place at the lower levels of the chain of command, typically involving a small number

[14] Thomas C. Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966).

TABLE 1 Conflict behavior archetypes

	Purposive		Expressive
	Offensive	Defensive	
Escalatory	OPEB	DPEB	EEB
De-escalatory	OPDB	DPDB	EDB

NOTE: OPEB refers to behavior where a country increased tensions in order to gain a power advantage. DPEB refers to behavior where a country increased tensions in order to prevent an opponent from gaining a power advantage. EEB refers to behavior where a country increased tensions and was motivated by considerations other than the balance of power. OPDB refers to behavior where a country decreased tensions in order to gain or preserve a power advantage. DPDB refers to behavior where a country decreased tensions in order to prevent another country from gaining a power advantage or to annul a power advantage already gained by another country. EDB refers to behavior where a country decreased tensions and was motivated by considerations other than the balance of power.

of vessels in short engagements. "H-" indicates that the conflict took place at the higher levels of the chain of command, typically involving a larger number of vessels engaging for a longer period of time, sometimes with multiple rounds of behavior.

Accordingly, the behavior of a country or agent can be classified by an abbreviation such as H-OPEB, which indicates that an agent backed by higher levels of the chain of command deliberately increased tensions in order to seek a power advantage. This section utilizes this coding system to analyze the behavior exhibited by China and opposing states in ten crisis scenarios in the East and South China Seas between 2000 and 2019 (see **Table 2**).

Midair collision (2001). In the first case considered, the initiating incident was a midair collision between a Chinese and U.S. aircraft in 2001. It was accidental, with neither side having purposive or expressive intent. The influence of patriotic considerations on promoting dangerous actions was open to debate. After the collision, the U.S. plane conducted an emergency landing in China, upon which the crew was detained. While there was an expressive component to China's reaction, there was a clear strategic incentive to detain the crew for interrogation and study the plane, lending more credence to classifying it as H-OPEB. The United States issued a letter to de-escalate the situation, which can be characterized as H-DPDB.

Chunxiao gas field dispute (2005). The second case is an altercation in 2005 between China and Japan over the Chunxiao gas field. The Japanese

TABLE 2 Ten crisis scenarios in the East and South China Seas, 2000–19

Year	Crisis	Opposing state
2001	Midair collision	United States
2005	Chunxiao gas field dispute	Japan
2006	USS *Kitty Hawk* submarine incident	United States
2009	USNS *Impeccable* incident	United States
2010	Senkaku Islands fishing captain incident	Japan
2011	South China Sea survey ship incident	Vietnam
2012	Senkaku Islands purchase dispute	Japan
2012	Scarborough Shoal incident	Philippines
2014	South China Sea oil rig incident	Vietnam
2019	South China Sea survey ship standoff	Vietnam

behavior in the initiating incident was H-DPEB: Tokyo accused China of building the Chunxiao gas field too close to the maritime delimitation line, thus siphoning gas from the Japanese side. Japan threatened to abandon its moratorium for exploration in disputed waters. China's response was likewise H-DPEB: five People's Liberation Army (PLA) Navy vessels were dispatched to guard the field. The behavior is classified as defensive as it has never been clear whether actual siphoning was happening, and the field was not in disputed waters. China's offer to Japan to negotiate joint development can be classified as H-DPDB.

USS Kitty Hawk *submarine incident (2006)*. In the third case, from 2006, a PLA Navy submarine surfaced in the vicinity of the USS *Kitty Hawk*. The Chinese behavior initiating the incident was H-OPEB inasmuch as the submarine surfaced to demonstrate China's ability to intercept a U.S. carrier group. China's subsequent behavior can be classified as H-OPDB, as Beijing officially claimed that the incident was unintentional. De-escalation aimed to prevent a U.S. response that could reverse the demonstration of power.

USNS Impeccable *incident (2009)*. In the fourth case, Chinese nonmilitary vessels confronted the USNS *Impeccable* in 2009. The behavior of China in initiating the incident was L-EEB, while the behavior of the harassment of the USNS *Impeccable* can be classified as H-EEB. The involvement of multiple vessels and both air and naval assets indicates higher-level decision-making, while a defensive-purposive element is the proximity of Chinese submarine assets. On the other hand, the United States'

behavior was both H-DPDB (the USNS *Impeccable* exiting the conflict area) and H-DPEB (an additional vessel being dispatched to deter further Chinese harassment).

Senkaku Islands fishing captain incident (2010). The fifth incident, from 2010, involved the captain of a Chinese fishing vessel ramming a Japan Coast Guard vessel when confronted for illegally fishing in disputed waters. China's initiating behavior was L-EEB. After the captain and vessel were seized by Japan, however, China's behavior can be characterized as H-EEB with defensive-purposive elements from China, as Beijing demanded the release of the captain. The exercise of administrative control can be viewed as a negative shift, which accounts for the defensive-purposive elements. Under the circumstances, the behavior was highly expressive: there was not enough to gain to justify a dominant purposive interpretation. Japan's behavior in releasing the captain and vessel was H-DPDB.

South China Sea survey ship incident (2011). The sixth case considered is China's interception of a Vietnamese survey vessel in 2011. The initiating incident was L-EEB, as were the actions of Chinese vessels to sever the survey vessel's towing cables after the incident and the towing cables of another Vietnamese vessel one month later. The low-level decision-making of the incidents was supported by the fact that they were not repeated when the vessels were repaired and returned to the same area.

Senkaku Islands purchase dispute (2012). In 2012, Shintaro Ishihara, the right-wing mayor of Tokyo, announced plans for the purchase of the Senkaku Islands with the aim of developing them as a tourist resort. This initiating incident was L-EEB. China's response can be classified as H-EEB with defensive-purposive elements: Beijing strongly condemned the move as a violation of the status quo. Japan's subsequent decision to announce that it would purchase the islands to prevent nationalist control or development was H-DPDB. China's response of increased physical presence in the area was both H-DPEB and H-EEB: it was partially defensive-purposive (with administrative rights being viewed as a negative shift), and partially expressive (rivalry with Japan motivated a strong hostile response). Japan's attempt at deterrence through increased Japan Coast Guard presence can be classified as H-DPEB, while China's declaration the following year of a new air defense identification zone (ADIZ) covering the islands was H-OPEB, being an attempt to upset the status quo. Japan then responded by conducting military flights through China's ADIZ, which can be classified as H-DPEB. The dispute terminated without clear de-escalation, as any further escalation would threaten war.

Scarborough Shoal incident (2012). In 2012 the Philippines was confronted by China Coast Guard vessels seeking to prevent the arrest of Chinese fishers. This initiating incident by China was H-OPEB. The incident is classified as OPEB rather than EEB because it represented an effort to gain control of the shoal and as H- rather than L- because the arrival of reinforcements indicated state intent. The Philippines' attempts to defuse the standoff through negotiations, which ultimately failed, can be classified as H-DPDB. China remains in de facto control of the shoal.

South China Sea oil rig incident (2014). The ninth case considered is the altercation between China and Vietnam in 2014 over a Chinese oil rig. The initiating incident by China to move the rig into disputed waters in the South China Sea was H-OPEB, as was the subsequent behavior by both countries. When the oil rig was confronted by Vietnam, both sides dispatched more ships, leading to a standoff and collisions. China's decision to withdraw the oil rig after Vietnam threatened live-fire drills can be classified as H-DPDB.

South China Sea survey ship standoff (2019). In the tenth and final case, China Coast Guard vessels confronted Vietnamese survey vessels in disputed waters in 2019. The initiating behavior by China was L-EEB, while subsequent behavior by both China and Vietnam was H-EEB. Multiple ships were dispatched, leading to a standoff. The responses are classified as expressive because even though the outcome would indicate the balance of power in the area, there was no significant power advantage in victory for either side. Vietnam's long-standing rivalry with China better explains the needlessly strong response on both sides. The behavior of both sides in surveying and instructing some of their vessels to leave the area can be classified as H-DPDB.

Escalatory Behavioral Effects

China's initial response in a crisis is overwhelmingly to escalate. While in most cases it has not deliberately instigated a crisis, once an incident has materialized, Beijing responds with moves that exacerbate the security situation. Corresponding to this behavior is China's reluctance to pursue a clear de-escalation of a crisis if the initiating action has been conducted at a high level of decision-making. In lower-level disputes, China shows a willingness to de-escalate or at least sweep the dispute under the rug with a diplomatic dismissal.[15] However, in the ten disputes discussed above (selected based on higher-level state involvement) China shows little

[15] The Center for Strategic and International Studies' South China Sea incident tracker shows a compilation of Chinese diplomatic responses to maritime incidents that indicate this trend.

willingness to de-escalate and has only done so with Vietnam defensively. With near-tier competitors like the United States and Japan, China has only actively de-escalated once (during the 2006 submarine incident), and it did so for offensive reasons to cement the power advantage gained from the maneuver. In all other cases, another country sought de-escalation first.

A preference for escalatory behavior also lines up with the Chinese strategic doctrine of "active defense." The doctrine requires continuous preparation for all possible combat scenarios, strategically defensive objectives pursued through tactical offensives, and a quick, high-intensity response to an attack to dominate the early phases of a conflict. China's initial escalatory response fits into the doctrine's focus on early domination: escalation can be seen as a route to secure the initiative in an emerging crisis. Active defense also lends itself to coercive behavior. PLA doctrine remains unclear as to what constitutes an attack that necessitates an active defense response. While the 2015 and 2019 white papers establish that China sees active defense as reactive, there is no clear threshold for what constitutes an attack.[16] Although the 2019 white paper highlights the PLA's role in safeguarding China's maritime interests, it remains unclear whether a clash over sovereignty disputes would trigger an active defense response.

Lack of De-Escalatory Behavior

The lack of Chinese de-escalatory behavior can be partially explained by the fact that other countries seem cautious around China and are likely to adopt a de-escalatory response before its threshold is reached. This allows China to wield escalation coercively to pursue regional ambitions, counting on other countries to back down first to avoid a conflict. There is only one incident discussed where a near-peer competitor did not back down first: the 2012 purchase of the Senkaku/Diaoyu Islands. Confronted by reciprocal escalation, China did not actively de-escalate the conflict but did allow the incident to fizzle out once its rational threshold had been reached. Thus, in the above examples, China's overall lack of de-escalatory behavior could be a result of the lower escalation tolerance of other parties. When China faces a committed opponent (e.g., Vietnam or Japan), it is more likely to back down to avoid a deeper crisis.

---

[16] See State Council Information Office of the People's Republic of China (PRC), *China's Military Strategy* (Beijing, May 2015), http://english.www.gov.cn/archive/white_paper/2015/05/27/content_281475115610833.htm; and Ministry of National Defense (PRC), *China's National Defense in the New Era* (Beijing, July 2019), http://eng.mod.gov.cn/publications/2019-07/24/content_4846452.htm.

China's escalatory behavior and difficulty with de-escalation could also be motivated by Chinese strategic culture. Henry Kissinger has noted that the Chinese way of dealing with conflicts often focuses on escalation. He has argued that China seeks victory by dealing a psychological blow through escalating a conflict to a point where an opponent is unwilling to follow, thus forcing it into negotiations.[17] In such a context, escalation can be viewed as a route to conflict termination, which would characterize China's escalatory response as de-escalation. Crucially, however, China does not pursue escalation to simply nullify a conflict but to win by forcing an opponent to back down. In almost all the examples discussed above, China initially attempted to use these conflicts to affect the strategic environment. De-escalation or the cessation of the crisis was only pursued when that desire had been successfully deterred.

Expressive Considerations in China's Behavior

China's behavior is strongly affected by expressive considerations. In other words, there are identity-based considerations beyond pure strategic utility that explain its behavior. Expressive considerations played a role in virtually all the incidents discussed above. To highlight a few examples:

- The 2001 midair collision, which was clearly an accident, was discussed by some Chinese commenters as a deliberate act of provocation.[18] Others viewed China as a victim of foreign aggression,[19] and some even claimed that the incident, and the response of the Chinese Communist Party (CCP) to it, humiliated China.[20]
- The 2005 deployment of PLA Navy warships was characterized by China as Japanese "media hype," creating hysteria surrounding routine naval operations.[21]

---

[17] Henry Kissinger, *On China* (New York: Penguin Press, 2011).

[18] Cheng Linsheng, "中美撞机事件的客观背景及其深层原因" [The Background and Root Causes of the 2001 Hainan Island Incident]," *World Economic and Political Forum*, no. 4 (2001): 43–46; and Lu Jiaping, "中美撞机事件—世界'新冷战'时期的始发点" [The 2001 Hainan Island Incident—the Starting Point of the "New Cold War" Period], *Aisixiang*, April 16, 2001, https://m.aisixiang.com/data/1405.html.

[19] Qin Xiaocheng, "中美撞机事件中的若干国际法问题" [International Law Issues in the 2001 Hainan Island Incident]," *Foreign Affairs Review*, no. 2 (2001): 27–31.

[20] Lu, "中美撞机事件."

[21] Liang Hongfeng, "The Ministry of Foreign Affairs States Chinese Warships Patrolling Oil and Gas Fields in the East China Sea Is Part of Normal Military Training," *World Journal*, 2005; and "外交部就日方侵犯中国东海主权权益提出抗议" [The Ministry of Foreign Affairs Protests Against Japan's Violations of China's Sovereign Rights and Interests in the East China Sea], *PLA Daily*, July 16, 2005, available at http://mil.news.sina.com.cn/2005-07-16/0652306236.html.

- In 2009, China criticized the United States for its reckless behavior.[22]
- The 2010 ramming of a Japan Coast Guard vessel was characterized by China as a "challenge" to Chinese sovereignty, "arousing the strong indignation of the Chinese people." Japan was viewed as "playing tricks" against international opinion.[23]
- In 2012, China argued that Japan had hurt the feelings of 1.2 billion Chinese people by purchasing the disputed Senkaku Islands.[24]

Three elements are worth singling out in China's behavior in these examples: (1) China thinks of itself as a victim in a crisis perpetrated by an interfering foreign power, (2) the incidents are portrayed as hurting the Chinese people, and (3) there is always the perception of an intent to humiliate the party-state behind each incident. How China responds to these incidents is motivated just as much by its identity—one that is deeply suspicious of foreigners and experiences the world from a position of exceptional victimhood—as by any sense of strategic utility. Both Zheng Wang and Susan Shirk identify the influence of these factors on China's crisis behavior.[25]

To understand what China is seeking to express through its behavior, one thus needs to examine its identity. The main feature of China's identity is a sense of exceptional victimhood. China perceives itself as exceptional both in its accomplishments and in the tragedies it has suffered from foreign aggression. It also views its exceptionally long civilizational history as peaceful and devoid of the imperialism that characterizes Western or Japanese history.[26] At the same time, during the "century of humiliation," China suffered great tragedies as an innocent victim of imperialism.[27] Greatness

---

[22] "国防部：美军监测船非法在中国专属经济区活动" [Defense Ministry: U.S. Military Surveillance Ship Illegally Operates in China's Exclusive Economic Zone], *Oriental Daily*, March 12, 2009, available at http://mil.news.sina.com.cn/2009-03-12/0535545137.html.

[23] "Foreign Ministry Spokesperson Jiang Yu Answers Questions from the Press," Ministry of Foreign Affairs (PRC), 2010.

[24] "Statement of the Ministry of Foreign Affairs of the People's Republic of China," Xinhua, September 10, 2012, available at https://www.fmprc.gov.cn/mfa_eng/topics_665678/diaodao_665718/201209/t20120911_701817.html.

[25] Zheng Wang, *Never Forget National Humiliation: Historical Memory in Chinese Politics and Foreign Relations* (New York: Columbia University Press, 2012); and Susan Shirk, *China: Fragile Superpower* (Oxford: Oxford University Press, 2007).

[26] William A. Callahan, "Sino-Speak: Chinese Exceptionalism and the Politics of History," *Journal of Asian Studies* 71, no. 1 (2012): 33–55.

[27] The "century of humiliation" is roughly the period between 1842 (First Opium War) and 1949, which marks the downfall of the Chinese empire. This is viewed as a period of humiliation suffered at the hands of Western imperial powers and Japan during which China declined from a great civilizational power to the "sick man of Asia."

and tragedy combine in what William Callahan defines as "pessoptimism": a drive to restore past greatness combined with deep-rooted suspicion toward an international system viewed as hostile to China.[28] Through this lens, there are no accidents or mundane disagreements; rather, everything is part of an intentional plan to prevent China from reclaiming its greatness. Similarly, China cannot be the aggressor. Instead, it is the historically wronged party, still struggling against a system designed to keep it down. Seen in this light, any action China takes is inherently defensive and thus justified. Not standing up for its rights adds to national humiliation. This is well expressed by Lu Jiaping when arguing that the CCP's decision to not characterize the midair collision in 2001 as an intentional military invasion brought humiliation to China and invited chaos to the whole world.[29]

Combined with this patriotic ethos is the cultural concept of "maintaining face" by safeguarding one's reputation within the context of cultural norms. Respect is a central element of maintaining face. Thus, a conflict in the international system is not simply a clash of interests but a question of cultural norms. If China fails to stand up to its opponents, it will lose face. In most instances, the very occurrence of conflict is interpreted as a sign of disrespect, aggravated by an already bruised sense of national honor. This creates an oversensitivity in international politics that leads to events such as the "Voldemort wars," where China could not let remarks by the Japanese ambassador to the United Kingdom likening China to the fictional character Voldemort pass without retaliation.[30] Friction in international politics is unavoidable. However, China often interprets mundane friction as a deliberate insult. These ideational components are deeply entrenched in Chinese political thinking. One could argue that the patriotic narrative is simply a ploy by the CCP to increase its legitimacy, but one cannot discount that it represents a genuine expression of the party's view of the world and history. China's history—including its struggle against Japan's invasion in World War II and its struggles against the United States and Soviet Union during the Cold War—fundamentally shapes how the country views the world.

Ultimately, expressive considerations predispose China to adopt an escalatory posture. It tends to view incidents in the worst possible light and feels a need to stand up for itself due to a bruised national ego. Viewing

---

[28] William A. Callahan, *China: The Pessoptimist Nation* (Oxford: Oxford University Press, 2009).

[29] Lu, "中美撞机事件. "

[30] For further context, see Tyler Roney, "The Sino-Japanese Voldemort Wars: China's Doomed PR Battle," *Diplomat*, January 9, 2014, https://thediplomat.com/2014/01/the-sino-japanese-voldemort-wars-chinas-doomed-pr-battle.

every act as intentional pushes China to respond strongly. It also limits its potential for de-escalation, which is viewed as bowing to foreign powers and as a loss of face. China sees itself as a great power, and per its definition, great powers are countries that are universally respected and accommodated in the international order, which in turn leads to China acting according to these expectations. Fundamentally, what China's identity reveals is an insecure country that expects to be treated in an accommodating manner due to its greatness. Failure to do so is viewed not as a clash of interests but as an act of disrespect and dishonesty. This makes China a troublesome opponent in a crisis, exacerbating its hostile tendencies and hindering de-escalation short of appeasement.

Countering China's Crisis Behavior

While on the surface many of the ten crises discussed appear similar, closer examination shows that China exhibits a wide range of crisis behaviors, each of which requires an appropriate countermeasure.

- For purposive behavior, it is necessary to appeal to China's rational calculations. Since this behavior focuses on the rational pursuit of strategic objectives, a state can push for de-escalation by raising or decreasing the perceived costs and benefits for China of different courses of action.
- Within purposive behavior, it is crucial to distinguish between offensive and defensive behavior. Offensive behavior necessitates a deterrent response; appeasement will only invite further hostile behavior by confirming the validity of the behavior. Seeking a de-escalatory response will likely be exploited. In contrast, defensive behavior will only be exacerbated by a deterrent response. Defensive behavior requires a strategy of reassurance and the adoption of a de-escalatory posture. While offensive behavior is pursued from a position of strength, defensive behavior is rooted in insecurity. A failure to address the root of these insecurities will only lead to further hostile behavior from China.
- It is important to recognize that China is not a purely rational actor. Expressive considerations that can skew rational calculations are always at play. While it is important to not play into the narrative of China's patriotic mythos, it is equally important to avoid being paralyzed by the irrationality of China's behavior. While the country's hostile nationalism cannot be resolved by external actors, it nevertheless needs to be accounted for when seeking to successfully engage with China.

- It is also important to separate different levels of decision-making. One can observe more aggressive behavior motivated by expressive considerations at the lower levels of decision-making. However, because of the nature of China's patriotic politics, the higher levels cannot simply disown or dismiss this behavior. It is crucial that the early phase of a crisis is contained and that a low-level actor's patriotic zeal is prevented from doing significant damage. After the initial incident is contained, the conflict can be de-escalated if higher levels can find a way to step back without losing face or showing national weakness.

Successfully managing a crisis with China requires agility and an understanding of the underlying motivations of its complex behavior. A crisis with China is rarely only about the immediate matters at hand. Rather, it is often an interplay of opaque strategic designs, national emotions, and a nonunitary chain of command. While China seems to always react by initially escalating a crisis, de-escalation is still possible. However, as the ten cases examined show, this is only possible once China recognizes that escalatory behavior will deliver no strategic utility. Successfully countering China's behavior is dependent on a combination of signaling resolve, removing opportunities for further escalation, and addressing China's expressive insecurities. In sum, successful crisis management depends on identifying the underlying behavioral matrix of the crisis and employing the appropriate mixture of deterrence and reassurance.

EXECUTIVE SUMMARY

This chapter examines a set of baseline institutional and cultural crisis-response behaviors exhibited by the People's Republic of China (PRC) within the context of changes in how the Xi Jinping administration views the PRC's relationship with the United States, the Asia-Pacific region, and the world.

MAIN ARGUMENT

The Chinese Communist Party considers the political aspects of a crisis to be of central importance. Institutional structures and processes for responding to crises are designed to manage and shape their political ramifications. The Xi administration perceives an external security environment characterized by very broad and complex challenges, to which PRC leaders believe they must react in a proactive, shaping manner. The administration's inverted foreign policy model is inherently less stable, and its emphasis on legal warfare in contested areas increases the risk of unintended confrontation and potential conflict. PRC leaders appear to believe that the previous, stable framework of the U.S.-PRC bilateral relationship may be losing—or may have already lost—its political viability.

POLICY IMPLICATIONS

- The Xi administration's perceptions of the need to employ greater national power to proactively shape the PRC's security environment will increase the likelihood of crisis eventuation and exacerbate crisis resolution.
- Shifts in the U.S.-PRC bilateral relationship may have reduced the confidence of PRC leaders that a future military-crisis trigger event could be managed within a stable, bilateral relationship framework.
- PRC leaders may perceive that they are entering a transition period during which the previous relationship framework with the U.S. has lost political viability. They may perceive this transition as a longer-term period of strategic crisis that calls for greater emphasis on shaping behaviors rather than stabilizing behaviors.

Chapter 3

PRC Crisis Response Behaviors at the End of Xi Jinping's Second Term

Drew T. Holliday

By the summer of 2022, the view that the EP-3 incident between the United States and the People's Republic of China (PRC) could not be resolved as peaceably today as it was in 2001 had become a common theme in discussions with researchers, academics, and even officers serving in the People's Liberation Army (PLA) on various aspects of bilateral crisis response. The implication is clear: neither the United States nor the PRC should expect that the crisis response behavior they learned two decades ago is still a reliable roadmap for how the response to a military trigger event would play out today.

While the existing body of historical and analytic work on PRC crisis response behavior provides a fulsome and useful examination of how PRC leaders approached crises in the past, changes occurring during Xi Jinping's time in office limit the forecasting power of the historical material if taken on its own. The dynamics of change already observable in the PRC's view of itself and its relationships with the Asia-Pacific region, the United States, and the rest of the world will almost certainly manifest in potentially significant changes in the response of the Chinese Communist Party (CCP) and PRC leadership to future crises.

First, despite changes in some aspects of PRC thinking and behavior, the underlying crisis response philosophy—how leaders think about the fundamental nature of, the proper management of, and the institutional response to crisis events—appears to remain consistent. Second, the senior leadership under Xi has developed a range of ideas about the dynamics of the PRC's role in the region and the world that influence the likelihood of

Drew T. Holliday is a Senior Advisor in the U.S. Defense Attaché Office at the U.S. Embassy Beijing, People's Republic of China.

The views expressed here are those of the author only and do not reflect the policy or position of the U.S. Department of Defense or the U.S. government.

crisis eventuation. Third, the development of the power resident in a range of individual national instruments is already beginning to influence how PRC leaders respond to international events, including crisis events. It is likely that this evolutionary development across and between domains will continue to develop and play a role in future PRC crisis response strategies.

This chapter will first examine elements of the PRC's thinking about crises and baseline crisis response behaviors that appear to provide a consistent framework within which to consider other elements of crisis response. It will then examine a selection of PRC behaviors that have become more prominent during the Xi administration and that have the potential to elevate the likelihood of crisis eventuation and to exacerbate crisis resolution. The chapter concludes by considering how PRC perceptions of crisis type—tactical versus strategic crises—may affect the selection of crisis resolution objectives and resolution strategies.

Philosophical Foundations

CCP crisis "philosophy" draws from the convictions that occasional crises are inherent in human interaction and that the fundamental significance of any crisis, regardless of type or scale, is political.[1] This approach stems both from the larger CCP view that the essence and significance of all human interaction is political and from the Marxist worldview in which struggle and contradiction are inherent components of the human social experience. In this conceptual context, the CCP view of crisis differs in a significant way from the views of most Western leaders. The tendency in most Western cultures is to view crises as anomalies, aberrations in otherwise noncrisis postures, that need to be addressed and resolved. By contrast, conflict and occasional crises, though they may not be welcome, are inherent components of the CCP worldview. In this sense, a crisis is akin to a symptom of a chronic illness: something to be managed but that cannot be cured.

Therefore, PRC behavior tends to treat crisis response as part of an ever-present deterrent continuum of "shape-manage-contain-win"[2] rather than

[1] "Philosophy" in this context is intended as a descriptive shorthand for a consistent set of views that appear to inform baseline behaviors. It is not a term the PRC uses in describing its own crisis response behavior or that of others.

[2] Nathan Beauchamp-Mustafaga et al., "Deciphering Chinese Deterrence Signaling in the New Era: An Analytic Framework and Seven Case Studies," RAND Australia, 2021, https://www.rand.org/pubs/research_reports/RRA1074-1.html. Although the authors were describing PRC deterrent behavior, this concept of an interconnected spectrum of political and military activities also underlies PRC thinking about crisis response behavior.

as an aberration that needs to be—or can be—resolved. CCP crisis response behaviors are inherently rooted in the political significance of any crisis, and shaping a political outcome will be the driving consideration in crisis response behavior.

There also appears to be a symbiotic relationship between the political calculations underlying the CCP's response to any given crisis and the amount of time that the party perceives to be available for achieving related political objectives. Institutionally, the scope, significance, and complexity of the political objectives—and therefore the quantity and quality of resources invested and the range and orchestration of instruments of power—will be key factors in determining the party and state actors involved. Shorter-term crises will see a more limited range of actors in pursuit of more limited political objectives; longer-term crises will see a broader orchestration of institutions and actors and more extensive and significant political objectives.

Unanticipated trigger events involving military platforms tend to be the most highly visible form, and the form most likely to spiral into crisis. The perceived time available tends to be limited, leading to the involvement of a leaner number of actors and a more limited set of political objectives. For these reasons, the following discussion of baseline behaviors is keyed to a crisis precipitated by this form of trigger event.[3]

Baseline Behaviors

While the CCP's crisis philosophy deeply informs PRC crisis response thinking, it is operationalized through a relatively consistent, institutionalized process, which can be summarized as a series of "baseline behaviors."[4] This section highlights four baseline behaviors: decision-making center of gravity, phased decision-making process, serial analytic process, and checklists.

---

[3] The conclusion to this chapter contains a more extensive discussion of how these factors may be adapted to a larger-scale crisis over a longer period, involving a larger number of actors and more significant political objectives.

[4] It is not at all clear that this is a formalized or written process. Some elements are specifically directed, while others are probably habitual behaviors conditioned by institutional culture. Nevertheless, there is sufficient consistency between past PRC crisis response behaviors and current discussions with knowledgeable PRC interlocutors to support the expectation that senior leaders will approach future crisis response from a similar institutional and procedural perspective.

Decision-making Center of Gravity

The first baseline behavior is the rapid shift in the decision-making center of gravity from the tactical platform to the highest levels of leadership in Beijing. This shift is driven by the recognition among senior leaders that tactical developments could easily precipitate unintended strategic consequences.

For an unintended trigger event, the decision-making center of gravity will shift to the Central Military Commission (CMC) as soon as reporting of the trigger event reaches relevant PLA organizations in Beijing. In early 2022 a retired PLA senior officer familiar with the process described this shift to the author as establishing a communications channel "with only two nodes: national leadership and the commander on the scene." According to this officer, "there is nothing in between." This characterization is almost certainly limited to the minutes and hours immediately following a trigger event and lasting until the end of the first phase of the decision-making process, described further below.

The significance of this behavior is that the decision-making center of gravity on the U.S. side will shift to national decision-makers in Washington less quickly and less completely. Decision-making authorities and responsibilities will remain at various military command and diplomatic levels on the U.S. side long after the center of gravity on the PRC side has shifted to Beijing.

Phased Decision-making Process

The second baseline behavior is the initiation of a phased decision-making process that includes at least three phases: (1) information gathering and decision-making, (2) negotiation, and (3) resolution.[5]

The first phase, information gathering and decision-making, initiates when the PRC senior leadership learns that a crisis trigger event has occurred. This phase concludes once the senior leadership has identified the root causes of the trigger event, adopted a set of principles to guide

[5] Both PRC and U.S. sources reflect this phased approach, although the number of phases and subphases varies between three and six, depending on the discussant. This chapter uses these three major phases because the actions they represent are consistently reflected across the crisis response literature that the author reviewed and are consistent with the author's professional experience of PRC crisis response behavior.

resolution of the crisis, and defined the desired political outcomes and a general strategy to pursue them.[6]

The most significant aspect of this first phase is that the PLA's communication—incoming or outgoing—with the other nation-state actor involved typically shuts down until these issues are decided. Only then will the senior leadership authorize substantive two-way communication with the other side. Historically, this "blackout period" has lasted roughly between 12 and 24 hours. This is the period of the "telephone ringing out in an empty room" that Kurt Campbell, the Indo-Pacific affairs coordinator on the U.S. National Security Council, spoke about in 2021.[7] As a result of these differences in institutional response, the demand for information at various levels on the U.S. side will be at its peak at exactly the same time that communications and information availability on the PRC side will be lowest.

The negotiation phase begins with the first substantive communications outside the senior leadership group and concludes once an acceptable agreement on resolution has been achieved with the other nation involved. Finally, the resolution phase begins with steps to implement the agreements reached during the negotiation phase and concludes once acceptable outcomes have been achieved.

Serial Analytic Process

The third baseline is the serial analytic process through which PRC leaders, first, determine the "root cause" of the trigger event; next, develop a set of guiding principles that will form the conceptual framework of the response strategy; and finally, generate strategies and execution plans to achieve the desired political outcomes.[8]

The underlying concept behind "root cause" contextual analysis is that no trigger event can occur without a surrounding political dynamic that makes it possible. In this view, every trigger event is inextricably linked to

---

[6] This is not to imply that the PRC routinely acts opportunistically in crisis response; that may or may not be the case, depending on the specific trigger event and surrounding circumstances. Rather, this recognizes that the philosophy of crises being inherently political in nature carries with it the idea that response to a crisis has the potential to generate both negative and positive political outcomes, which must be accounted for in the crisis response decision-making process.

[7] Julian Borger, "Hotlines 'Ring Out': China's Military Crisis Strategy Needs Rethink, Says Biden Asia Chief," *Guardian*, May 6, 2021, https://www.theguardian.com/world/2021/may/06/hotlines-ring-out-chinas-military-crisis-strategy-needs-rethink-says-biden-asia-chief-kurt-campbell.

[8] For an extensive examination of this analytic process, see Michael D. Swaine et al., "CEIP-CFISS U.S.-China Crisis Management Project Report on Findings: 2004–2015," Carnegie Endowment for International Peace, 2015. See also Wang Jisi and Xu Hui, "Pattern of Sino-American Crises: A Chinese Perspective," in *Managing Sino-American Crises: Case Studies and Analysis*, ed. Michael D. Swaine and Tousheng Zhang (Washington, D.C.: Carnegie Endowment for International Peace, 2006).

the broader, multidimensional political dynamic that generated it. This is a two-way connection: the fact that a complex political dynamic generated a trigger event means that responding to the trigger event will inherently generate a commensurate change in the political dynamic. PRC leadership decisions will be made with the objective of generating a desirable effect on the broader political context. Based on the historical record and U.S. diplomatic experiences, the objective is likely limited to incremental improvement in the political environment rather than resolution of the trigger event itself as the primary consideration.[9]

This approach reflects an important cultural difference between PRC and Western thinking about the cause of an unintended military trigger event. Western thinking tends to be proximal: two airplanes colliding may have been caused by the unsafe and unprofessional behavior of one of the pilots, or a collision between ships may have been caused by one of the vessels disregarding codified behavior. The PRC's assessment is more likely to be that the root cause of either event was the political context of the U.S. platform's presence in the area in the first place—for example, the United States' refusal to recognize the PRC's sovereignty claims in the South China Sea.

Once the PRC has reached an understanding of the root cause, the next step is to generate a set of guiding principles or guidelines for responding to the trigger event and achieving the desired political effects. These guiding principles and desired political effects will form the conceptual framework for a resolution strategy, which will emerge—and evolve—during the execution of the negotiation and resolution phases.

Based on historical and analytic work on the PRC's crisis response thinking, guiding principles have included "demonstrate strength and resolve," "take the moral high-ground," and "avoid escalation to war with the United States."[10] They also will contain themes specific to the trigger event, such as "push forward one step with efforts to reduce U.S. interference in our legitimate claims in the South China Sea." In each case, the guiding

---

[9] For a representative example of this thinking, see Xia Liping, "Crisis Management in China and the U.S.: A Comparative Study," in Swaine and Zhang, *Managing Sino-American Crises*, 171–72.

[10] See, for example, Swaine et al., "CEIP-CFISS U.S.-China Crisis Management Project Report on Findings"; Jisi and Hui, "Pattern of Sino-American Crises"; Michael D. Swaine, "Chinese Crisis Management: Framework for Analysis, Tentative Observations, and Questions for the Future," in *Chinese National Security Decisionmaking Under Stress*, ed. Andrew Scobell and Larry M. Wortzel (Carlisle: Strategic Studies Institute, 2005); "'Decisionmaking under Stress' or 'Crisis Management'?: In Lieu of a Conclusion," in Sobell and Wortzel, *Chinese National Security Decisionmaking Under Stress*; and Ron Christman, "How Beijing Evaluates Military Campaigns," in *The Lessons of History: The Chinese People's Liberation Army at 75*, ed. Laurie Burkitt, Larry M. Wortzel, and Andrew Scobell (Carlisle: Strategic Studies Institute, 2003).

principles provide the conceptual foundation for generating objectives to be pursued and strategies to pursue them.

Checklists

The fourth and final baseline behavior involves a checklist of questions about the basic characteristics of the specific trigger event that have the potential to fundamentally shape the response strategies:

- Were PRC lives lost?
- Were other lives lost?
- Was there a challenge to the PRC's sovereignty (perceived or actual)?
- Was there a challenge to territory that is under the PRC's physical control?
- Does one side have physical control of personnel or property belonging to the other side?
- Did the trigger event occur in or near an area the PRC considers sensitive?
- Was the timing close to a politically sensitive event?
- What information about the event, if any, has already become public knowledge?
- Has the trigger event itself ended by the time the PRC senior leadership learns of it (e.g., the 1999 bombing of the Chinese embassy in Belgrade and the 2001 EP-3 incident); or is the trigger event still ongoing as the leadership is deliberating about its response (e.g., the 1995–96 Taiwan Strait crisis)?

While the above checklist was compiled largely from historical materials, future trigger-event checklists might include different questions: for example, "Did the event involve only military platforms, or also paramilitary or even commercial platforms?" and "Did the event include platforms belonging to a third party?"

Other Considerations

A discussion of baseline behaviors would not be complete without a note about the range of actors involved in the process, how the suite of actors is affected by the specific trigger event, and how the actors involved may change during the unfolding of the crisis response process. The preceding

discussion describes baseline response behaviors to an unanticipated trigger event involving U.S. military and PLA elements. The primary phase-one actors in this type of event will likely be contained within the PLA command-and-control structure: the tactical element commanders on the scene, the intermediate PLA nodes providing information upward to the CMC and providing interim guidance downward, the offices supporting the CMC decision-makers, and the CMC senior leadership itself.

Initial information regarding the trigger event will flow into the CMC primarily through two parallel channels. First, the PLA's internal information concerning the event and the initial PLA response will flow from tactical units—presumably through the relevant theater commands but possibly also through the relevant military service channels—to the relevant organizations supporting the Joint Staff Department. It will then probably enter the CMC via the chief of the Joint Staff Department, who is a CMC member.[11] Second, initial information from the other nation-state actor involved will flow from that actor's embassy in Beijing to the Office for International Military Cooperation (OIMC), which is the organization responsible for interaction with Beijing-based foreign military attachés. Given that the OIMC falls under the Ministry of National Defense, which is a parallel organization to the Joint Staff Department, OIMC information will enter the CMC through the minister of national defense, who is also a CMC member.

Decisions about stabilizing the immediate environment after an unintended military trigger event and managing any military escalation will probably continue to reside with the CMC, while consultations on managing the political ramifications emanating from the event will require input from nonmilitary experts. Indeed, the PRC's behavior has been clear and consistent that the Ministry of Foreign Affairs (MFA) is the lead organization dealing with international issues, even if the issue involves interests outside the MFA's primary area of responsibility, such as military activities.

It is worth noting that within this structure there are no organizational intersections between the CMC and the MFA or any other non-PLA actor. Historical experience has been that, unlike military channels, MFA channels may remain open to accepting incoming information in the early hours after a trigger event. However, there are no demonstrated historical behaviors and no apparent institutional structures that would allow for information that enters the MFA or other non-PLA actors to flow into the CMC during the

[11] Information from the government of the other actor may also flow from that actor's national capital through the PLA military attachés in the resident PRC embassy. PLA attachés are aligned under the Joint Staff Department, so their information will also enter the CMC through the chief of the Joint Staff Department.

initial hours, nor are there institutional linkages for the MFA to be involved in the CMC's initial deliberations.[12] This suggests that the initial hours after an unintended military trigger event will be largely dedicated to decisions on stabilizing the immediate situation and that military decisions on how to do so may affect, and potentially limit, decisions on the political objectives that will follow.

Although the specific suite of actors will vary depending on actual conditions, the overarching response process remains highly institutionalized. Therefore, actions relating to different crisis categories—for example, the response to an anticipated crisis event or the employment of a precipitated crisis—will be of the same type (i.e., politically focused, multi-instrumental, following guidelines, and an execution strategy), but they may differ from this description primarily in intensity. The critical factor is time. In an anticipated or precipitated crisis event, there is simply more time available for leaders to think through political objectives and strategies, consult with a broader range of experts, engage political constituents, and more carefully orchestrate a whole-of-government response, possibly to be executed over a longer time frame.

Changes Affecting the Likelihood of Crisis Eventuation: Behavioral Developments under Xi Jinping

Changing Worldview

All PRC senior leaders develop signature policies that reflect their priorities and views of how to approach key issues. Xi Jinping's signature policies reflect a greater focus on external issues than any of his post–Deng Xiaoping predecessors. The Belt and Road Initiative and its spinoffs, the concept of a "shared destiny for all mankind," the Global Development Initiative, the Global Security Initiative, and the attempts to manipulate the United Nations are all efforts to shape the PRC's international environment.

These policies do not simply reflect the natural evolution of a PRC that has seen its comprehensive national power grow to the point that it is now able to take on a more proactive role in shaping its external environment. Tai Ming Cheung has examined the emergence of the "national security state" under Xi and its influence on the perceived need to proactively shape

[12] There are institutional channels between foreign policy and military institutions, but they are only at the working level and are intended for routine, periodic coordination and deconfliction. They are not intended, empowered, or positioned to deliver timely and reliable information to the senior decision-making circles, at least during phase one.

the PRC's security environment. Cheung's research provides a striking perspective on the differences between previous administrations and Xi's conceptualization of the world that his administration would have to deal with:

> The dangers imperiling China in the twenty-first century are not the gravest that it has ever faced but are the most complex.…From this vantage point, the world is a far darker and more menacing place, thus justifying the establishment of a strong national security state….[T]he concrete security environment that China faced in the early 2010s had not radically deteriorated, *but the way its new leaders perceived the situation had been significantly altered* [emphasis added].[13]

Periods of change are inherently less stable. Periods in which change is intentionally driven by an ambitious great power are all the more prone to becoming significantly destabilizing.

Changing View of the U.S.-PRC Bilateral Relationship

Although there were highs and lows, U.S.-PRC relations were remarkably stable from the establishment of bilateral relations in 1979 well into Xi's first term. During this period, trade relations were typically regarded as the cornerstone, the engine, and the principal stabilizing factor in the overall bilateral relationship.

In fact, the true stabilizing factor had been the implicit belief in both Washington and Beijing that maintaining a stable overall bilateral relationship was the overriding priority that best served their strategic interests. As long as leaders in both countries held this view, everything else they encountered—trade frictions, the 2008 global financial crisis, the occasional military-political crisis trigger event—could be resolved as a subordinate variable. Both sides even moved quickly, but quietly, to restabilize the basic bilateral framework after the 1989 Tiananmen Square incident.[14] More than anything else, it has been this concept that has held open a strategic space for the U.S.-PRC relationship to remain essentially stable throughout the frictions, tensions, and crises of the last 40 years.

That may no longer be the case. At the risk of oversimplifying the cause-and-effect dynamic, the suite of PRC actions set in motion in the 2013–15 time frame by Xi's darker and more aggressive view of the PRC's emerging

---

[13] Tai Ming Cheung, "The Chinese National Security State Emerges from the Shadows to Center Stage," *China Leadership Monitor*, Fall 2020, https://www.prcleader.org/_files/ugd/af1ede_4b68b1b77f7e4e8fad01900b98850d04.pdf.

[14] Daniel Southerl, "U.S. Envoys Visit China to Improve Ties," *Washington Post*, December 10, 1989. This contemporary portrayal of the visit is especially useful for evaluating some of the similar rhetoric the PRC uses today.

needs and security environment eventually (and inevitably) precipitated a commensurate response from Washington, culminating in the recognition that, despite decades of investment in a U.S. policy of engagement, the PRC appeared set on behaving as a strategic competitor. To be sure, some form of this trend was evident long before Xi took power.[15] The tipping point was that the PRC leadership had apparently come to believe that its security interests required a more proactive effort to shape the PRC's external environment, and that the country's comprehensive national power had become great enough to effect this view.

Although some elements of the previous framework concept remain—both nations, for instance, still see areas for stable and cooperative relations—on the whole, the two sides are entering an interim period between the stability of the previous framework and the emplacement of a new, stable framework. As one experienced national-level PRC researcher expressed to the author in late 2019, "When we analyze the elements of the old bilateral framework, we can see it is falling apart piece by piece; but there is not yet a new framework to take its place. This is a very dangerous situation."

This transition period, at least in its current, early stage, displays two important characteristics. First, a key aspect of the previous, stable bilateral framework was that both sides sought to compartmentalize individual areas of disagreement or friction—for example, by handling trade frictions within trade channels, diplomatic disagreements within diplomatic channels, and military issues within military channels—without resorting to horizontal escalation or purposefully leveraging one area to express dissatisfaction in another area. This approach allowed both sides to operationalize the relationship in a stable way over the long term. However, it is no longer the dominant tactical approach on either side.

Second, essential to the long-term, stable management of the relationship under the previous model was a tacit understanding that both sides would avoid allowing disagreement or friction in any subordinate component of the relationship to rise to the level that it would poison the overall political relationship. So long as both sides retained political space to sustain a positive overall relationship, all other frictions could be handled in their own manner.

However, the PRC perceived the United States under the Trump administration as having abandoned that restraint and actively seeking to damage the political image of the PRC across all areas. As a result, PRC

[15] This is reflected in the fact that PRC leaders had long expressed distaste at being forced to conform to a world order they had no hand in designing, and which they maintained was designed to benefit the West in general and the United States in particular.

leaders now believe that the larger political relationship has become thoroughly poisoned.[16] They sense that Washington's view of Beijing has become pervasively—even viscerally—negative, and they see themselves left only with the recourse of pushing ahead with designing a new framework to suit this new normal—one that, as discussed above, must be founded on Beijing's views and interests.[17]

A Changing Foreign Policy Framework

PRC leaders appear to be approaching the task of actively shaping their environment through changes in their foreign policy framework that are inherently unstable. For decades, PRC foreign policy has rested on the Five Principles of Peaceful Coexistence,[18] reflecting the concepts that the nation-state is the essential building block of a stable international system and that its territorial integrity and sovereign inviolability are essential prerequisites to the maintenance of a stable and peaceful international order.

However, the Xi administration appears to have deliberately inverted this structure. For instance, the PRC's decision to adopt a position of "pro-Russian neutrality" in Russia's war against Ukraine, while giving only lip service to the importance of sovereignty and territorial integrity, suggests that specific national interests now take precedence over principles of foreign policy. Rather than the previous view that national interests must be handled within a principled framework, it now seems that principles will only be defended when it is in the national interest to do so. PRC leaders' insistence that they will "decide each case on its own merits" is a clear expression of precisely this inversion.

The original model is consistent, uniform, encompassing, and stable: principles play the role of enduring truisms applicable across all nations and

---

[16] This belief also holds true at the tactical level, where it has direct and exacerbating relevance to crisis response behavior. For instance, the post-dialogue report of the Centre for Humanitarian Dialogue's 2nd U.S.-China Maritime Crisis Management Dialogue, held October 21–23, 2020, concludes with the following observation: "Throughout the discussions, participants pointed to the added challenges of crisis management in the current environment of heightened U.S.-China strategic distrust. The deficit of trust makes reaching consensus around a single version of events extremely difficult and propels both sides to assume malign intentions behind the other's actions and words."

[17] It is worth noting the almost complete lack of any sense of self-reflection that tends to characterize PRC analysis, and possibly PRC leadership thinking, when considering this dynamic. There is a pervasive belief that the PRC is purely a passive actor and is only responding to the United States. The idea that it is the United States that is responding to changes in PRC behavior is, at best, recognized as cognitively coherent but intellectually and functionally inconsistent with—and even irrelevant to—the PRC assessment. This is not just a propaganda position; many well-informed and experienced PRC thinkers appear to hold this as a sincere belief.

[18] As provided in the 1955 Bandung Conference, these principles are "mutual respect for sovereignty and territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, equality and mutual benefit, and peaceful coexistence."

all issues at all times. As such, they provide a framework within which to manage national interests. Because national interests are to be handled as subordinate variables within the parameters of these universally applicable principles, this is an extremely stable approach to foreign policy.

The inverted framework is a loose assembly of much narrower, transactional frames of reference. In the inverted framework, national interests define the potential roles that principles should play, if any, depending on the nations involved, the specific issue, and the situation at the time it is being considered. This is a transactional, tactically focused, and much less coherent framework, one that is inherently unstable over the long term.

"Lawfare" and the Rise of Legal Obfuscation

One of the "Three Warfares," legal warfare or "lawfare," seeks to obfuscate the boundaries of clear legal authority, to blur the limits between what behavior is subject to PRC domestic law and what is subject to international law, and to create a political space in which the PRC can impose its own authority over areas and under circumstances where it would otherwise not apply.[19] Although the full range, nuance, and complexity of the PRC's lawfare campaigns are beyond the scope of this chapter,[20] several elements of this practice warrant closer inspection because they increase uncertainty and thus increase the likelihood of miscalculation and crisis eventuation.

These elements are particularly relevant in examining the role of "lawfare" in the PRC's South China Sea campaign. One of the cornerstones of this campaign is the concept of "offshore archipelagos" (外围群岛).[21] Although the concept is conditionally provided for in the United Nations Convention on the Law of the Sea (UNCLOS),[22] the PRC's use of it seeks to create an extralegal framework for claims to features in the South China Sea.

Under the offshore archipelagos theory, the PRC maintains that the four principal groups of South China Sea features (the Paracel Islands, the Spratly

---

[19] The "three warfares" refer to the three concepts of nontraditional warfare as codified by the CMC under the "Political Work Guidelines of the People's Liberation Army" in 2003. The other two are media warfare and psychological warfare. For a more detailed examination of the PRC practice of legal warfare, see Peter Mattis, "China's 'Three Warfares' in Perspective," War on the Rocks, January 30, 2018, https://warontherocks.com/2018/01/chinas-three-warfares-perspective.

[20] For an excellent examination of PRC lawfare in the maritime domain, see U.S. Department of State, Bureau of Oceans and International Environmental and Scientific Affairs, "People's Republic of China: Maritime Claims in the South China Sea," *Limits in the Seas*, no. 150, January 2022, https://www.state.gov/wp-content/uploads/2022/01/LIS150-SCS.pdf.

[21] This concept is sometimes referred to as "远群岛" and translated as "distant archipelago."

[22] J. Ashley Roach, "Offshore Archipelagos Enclosed by Straight Baselines: An Excessive Claim?" *Ocean Development and International Law* 49, no. 2 (2018): 176–202.

Islands, Pratas Island and nearby features, and the group of features anchored in the west by Macclesfield Bank and in the east by Scarborough Shoal) may be treated as archipelagic adjuncts to the PRC mainland. As such, the PRC would enjoy the right to draw straight baselines around these groups of features. UNCLOS, by contrast, reserves this right only for archipelagic nations such as Indonesia and the Philippines.[23] Under UNCLOS, straight baselines around groups of features would render the waters between the individual features "internal waters" and therefore fully sovereign territory.

Further, the PRC claims features and maritime spaces that UNCLOS prohibits any nation from claiming as sovereign territory and then asserts that other nations must respect PRC rights and interests there. This, for example, is the basis for PRC tensions with Indonesia over the exploitation of the exclusive economic zone (EEZ) generated by the Natuna Islands.[24] The island group is undisputed Indonesian territory, but the PRC claims that the EEZ overlaps with "traditional Chinese fishing grounds," which is a term with no legal standing under UNCLOS, and perhaps also with the EEZ that the PRC might assert would be generated by James Shoal. James Shoal, which Beijing calls "the southernmost point of the PRC," is actually a permanently submerged feature, and as such it is entirely ineligible for sovereignty claims by any nation.

De facto assertion of legal rights and authorities that exceed the limits defined under international law increases the risk of crisis events because it defines as acceptable for one party—in this case, the PRC—behavior that is fundamentally outside the parameters of acceptable behavior in the same space for any other party acting in accordance with international law.

Discussions with knowledgeable PRC interlocutors since about 2020 indicate that the PRC is working to develop new authorities out of whole cloth. In discussions regarding codified behaviors under established maritime management mechanisms, PRC interlocutors have indicated that all parties should recognize and expect that PRC adherence to established mechanisms would depend on two factors. The first is the location of an encounter. The likelihood of adherence will be much greater for encounters that occur "far from China" or "away from China's jurisdiction"[25] than it would be for encounters that occur "close to China," which could

---

[23] United Nations Convention on the Law of the Sea, Part IV, Articles 46–49.

[24] Sebastian Strangio, "China Demanded Halt to Indonesian Drilling Near Natuna Islands: Report," *Diplomat*, December 2, 2021, https://thediplomat.com/2021/12/china-demanded-halt-to-indonesian-drilling-near-natuna-islands-report.

[25] Centre for Humanitarian Dialogue, "Outcome Document: U.S.-China Maritime Crisis Management Dialogue," February 22–24, 2022.

inherently increase the likelihood that a given action would "make China feel threatened."[26] The second factor is whether the PRC side feels that its "sovereign rights"—as distinct from legally defined sovereignty—are being challenged or violated. PRC views on "sovereign rights" in an international context remain undefined, but the implication appears to be founded less on the actions of another state and more on the PRC's interpretation of the intentions behind the actions.[27]

Conclusion: Conceptual Frameworks for Future Study

The above discussion attempts to map an underlying PRC crisis response topography, described as baseline behaviors that are dictated by institutional culture and cultural views of the nature of crisis. It further examines evolutionary changes under Xi Jinping that affect how PRC leaders perceive the political context of a crisis event.

What has not yet been discussed is how the principal trends in bilateral, regional, and global geopolitical dynamics may be superimposing a larger geostrategic layer on the PRC's views of the emerging national security environment, and how PRC leaders may believe that their enduring interests require them to navigate this phenomenon. A useful starting point for this discussion may be to consider two different levels of crisis from the PRC perspective, namely tactical crises and strategic crises.

If we accept the idea that political stability is a core interest for the CCP, then we may postulate that PRC leaders might consider a crisis as occurring when there is the presence of or the potential for significant instability in

---

[26] See "China Rebuts U.S. Defense Secretary's Remarks on South China Sea, Taiwan," Xinhua, June 11, 2022. In the Xinhua report, the deputy chief of the PLA Joint Staff Department, Lieutenant General Zhang Zhenzhong, refutes Australian and Canadian protests of unsafe and unprofessional PLA intercepts of their aircraft operating off the PRC's east coast over the South China Sea. While rejecting claims of unprofessional or unsafe behavior, Zhang justifies the PLA actions because they occurred "in air space *near China's Xisha [Paracel] and Nansha [Spratly] Islands*" and because the United States "frequently sends warships and planes to *intrude into the adjacent waters and air space of China's islands and reefs*" (emphasis added). See also "2022年6月13日外交部发言人汪文斌主持例行记者会 [Ministry of Foreign Affairs Spokesperson Wang Wenbin's Regular Press Conference on June 13, 2022]. Spokesperson Wang also addresses the Australian and Canadian protests, stating that "the Canadian aircraft *repeatedly and continuously approached* China's territorial airspace and engaged in frequent, large-scope and back-and-forth *provocations at close distance*….It is China, not Canada, that should feel threatened" (emphasis added).

[27] A former senior PRC official in 2022, describing "actions that threaten China's sovereign rights" in the maritime domain, included a list of actions that would affect sovereignty and jurisdiction as defined under international law, alongside actions that occur during routine engagements in international waters and airspace and that lie entirely outside definitions provided by international law. Mixing the two under the same rubric highlighted the likelihood that the PRC views "sovereign rights" in the maritime domain as existing in parallel with accepted behaviors under international law.

critical political structures. A tactical crisis occurs when a trigger event presents the potential to destabilize political structures within an otherwise stable strategic political framework. Since the United States established diplomatic relations with the PRC in 1979, crises or potential crises between the two countries have been of this type. The 1989 Tiananmen Square incident, the 1999 Belgrade embassy bombing, the 2001 EP-3 incident, and various maritime incidents such as the PRC's harassment of the USNS *Impeccable* in 2009 all occurred at points of heightened tension, but during a period of tacit understanding between Washington and Beijing that the overriding priority for both nations was to preserve the basic stability of the overall bilateral relationship. That tacit understanding allowed them to manage each incident as a subordinate variable and to manage the resolution with the strategic objective of ensuring that the relationship as a whole could remain stable and operationally routine.

A strategic crisis, on the other hand, results when there are real or perceived shifts in the overarching political structures themselves. In a strategic crisis, PRC leaders may perceive that previously stable bilateral or regional structures may have lost, or be at risk of losing, political viability. The PRC's involvement in the Korean War, the first two Taiwan Strait crises (1953–54 and 1958), the border conflicts with the Soviet Union beginning in 1969, and the decision to invade Vietnam in 1979 are examples of this type of crisis.

The PRC's choice of guiding principles and strategies in pursuit of a political response to a crisis event can be considered along a spectrum, running from stabilizing behaviors at one end to shaping behaviors at the other. While the response to any given crisis is likely to be a blend of both types of behavior, we might postulate that this spectrum of behaviors would be affected by the type and level of crisis, as explored above. For instance, responding to an unanticipated tactical crisis might call for more stabilizing behaviors, while an anticipated strategic-level crisis would be more enduring, with greater inherent implications, and may therefore require a series of shaping behaviors. This would certainly be the case during a deliberate or engineered event, which would be a shaping behavior in its own right.

If a result of the transition to strategic competition in the bilateral relationship is that PRC leaders believe that the United States has decided to redesign the previous, stable relationship framework, or if PRC leaders have concluded that the framework of the previous relationship is no longer politically viable or no longer suits their strategic objectives, then they may have concluded that the stable framework within which tactical crises could previously have been effectively contained and resolved is no longer entirely

viable. If this is the case, we should expect PRC leaders to adopt actions that tend to be more toward the shaping end of the spectrum than toward the stabilizing end.

However, we should not assume that this tendency implies a central role for violent conflict or that the military will be the lead instrument. Indeed, PRC leaders appear to already be engaged in shaping behaviors through a whole-of-government orchestration of instruments of power, employed through both direct and indirect approaches. In doing so, the PRC leverages two fundamental types of nonalignment between U.S. and PRC instruments of power to its advantage. One is the relative significance of the military instrument on the U.S. side, as a legacy of the Cold War, versus the relative significance of trade relations and the economic instrument as a feature of development on the PRC side. Another type of nonalignment is the PRC's ability to manipulate information to weaponize public opinion and shape political contexts, which is a major outcome of over 70 years of CCP rule. While the United States has a more powerful economy and information environment, overwhelming control of both instruments is in private hands.

The history of the CCP's domestic struggle against the Nationalists and Japan generated the concept of "active defense." This concept envisions differing packages of power and operational art employed through three phases of conflict, starting with the CCP facing a stronger opponent, gradually achieving parity, then achieving superiority and victory. Today, these packages of operational art are applied across a greatly expanded suite of instruments of national power, but the three phases of conflict remain. Beginning in at least the 1990s, the PRC narrative reflected the first phase, summarized in the phrase, "The weak can defeat the strong." Today, entering Xi Jinping's third term, perhaps we should consider PRC leaders' new views toward their nation and its role in the region, the world, and its relations with the United States to be entering the second phase of active defense. As Yang Jiechi, the director of the CCP Central Committee Foreign Affairs Commission, told his U.S. counterparts in Anchorage in March 2021, "The U.S. is not qualified to say it wants to speak to China from a position of strength."[28]

[28] "How It Happened: Transcript of the U.S.-China Opening Remarks in Alaska," *Nikkei Asia*, March 19, 2021.

EXECUTIVE SUMMARY

This chapter investigates how the Chinese state and its military experts theorize, experiment, and apply artificial intelligence (AI) to military decision-making and explores what positive and negative factors might affect the future use of AI in this particular area.

MAIN ARGUMENT

In recent years, China has designated AI development a national priority. The use of AI has benefited the regime in various capacities, and its presence is felt in the defense and security sectors. Looking ahead, AI will be a force multiplier for the People's Liberation Army (PLA), an organization critical to ensuring regime survival. An analysis of the Chinese conceptualization of AI's role in military decision-making and recent gains in developing AI technology for military use finds that the progress of China's AI development for military decision-making is limited. Given the positives and negatives influencing future trends, the widespread adoption of AI technology to enhance PLA decision-making appears to be realizable in the medium term rather than the short term (that is, within ten rather than five years).

POLICY IMPLICATIONS

- The Chinese government has made AI R&D a national priority and is poised to commit further resources to developing AI for military decision-making, which will enhance the capabilities of the PLA and make it a more serious threat to Indo-Pacific stability.
- Although current progress in developing AI for military decision-making is limited, advancements in the coming years are certain, which will bolster Chinese civilian and military leaders' confidence in undertaking military action.
- Among the impediments that will hold back China's AI ambitions, Xi Jinping's policy missteps and his adverse influence on Chinese state and military institutions present the greatest encumbrance. On this point, foreseeable domestic difficulties under enduring despotism could become detrimental to the PLA's modernization and preparations for future AI-enabled warfare.

Chapter 4

How China Leverages Artificial Intelligence for Military Decision-making

Zi Yang

Advances in science and technology play an important role in raising a nation's competitiveness. In recent years, emerging technologies—spearheaded by artificial intelligence (AI)—have gained increasing prominence in China, serving diverse state interests such as economic development, totalitarian rule, and strengthening the People's Liberation Army (PLA).

Realizing the enormous potential of AI in assuring regime survival, the Chinese government made scientific and technological advancement in this area a national priority. In July 2017 the State Council promulgated the "Developmental Regulations on a New Artificial Intelligence Generation," which serves as the blueprint for China's AI development. Identifying AI R&D as part of the national rejuvenation master plan, the regulations pledge state commitment to this sector with the objective of making China a world leader in AI theory, technology, and application by 2030.[1] Using AI for defense purposes features prominently in the document. In particular, command decision-making, military simulation, and defense equipment are core areas where "new generation AI technologies" will lend "strong support."[2] Additionally, private enterprises will be invited to work with state-owned enterprises (SOEs) on AI projects with the purpose of advancing national AI goals. In essence, expanding and consolidating the place of AI

Zi Yang is a PhD candidate in the S. Rajaratnam School of International Studies (RSIS) at Nanyang Technological University in Singapore, where his research interests include civil-military relations, China's security issues, and Chinese intelligence history.

[1] State Council of the People's Republic of China (PRC), "国务院关于印发新一代人工智能发展规划的通知" [Notice from the State Council on the Issuance of the New Generation of Artificial Intelligence Development Plan], July 20, 2017, http://www.gov.cn/zhengce/content/2017-07/20/content_5211996.htm.

[2] Ibid.

in the military sphere ranks high on China's defense agenda in the coming decade and beyond.

Generally speaking, Chinese military thinkers envision future wars as conflicts between unmanned weapon systems operating autonomously with limited interference from human operators. An intelligent military will dominate enemies still operating in the information age. In the words of Guo Ming, deputy director of the PLA Academy of Military Sciences' Institute of War Studies, the party that achieves superiority in algorithms, data, and cognitive abilities will establish "intelligence dominance" (制智权) that will grant victory to its forces on the battlefield. Future war is therefore determined by a party's ability to safeguard its algorithms, data, and cognitive abilities while decimating its opponent's intelligence capabilities and making them commit errors detrimental to their degree of intelligence.[3]

In addition to the kinetic forms of emerging technology–enabled warfare, AI will assist in command and control (C2). AI will shorten the OODA loop (observe-orient-decide-act), raise situational awareness, and assist commanders in formulating judgments, planning missions, generating action plans, controlling operations, and making decisions.[4] Future wars will be increasingly complex, involving various kinds of systems and platforms across multiple domains at an intense tempo—or, in the words of one Chinese thinker, in "extreme combat situations."[5] Facing an information overload, commanders must rely on machines to assist them in coming up with action plans.[6] Those machines with superior algorithms, data, and cognitive abilities will more wisely predict battlefield developments and produce a finer course of action. Through human-machine cooperation in decision-making, military operations will become more effective. Better decisions can be made within a shorter period of time, eventually benefiting campaigns and battles that will help realize strategic objectives.

C2, and especially decision-making, is one determinant of a war's progress and outcome. It is thus critical for observers of the Chinese military to understand the function of AI in PLA decision-making. With that being said, this chapter seeks to address the following questions: In what ways are the Chinese government and PLA attempting to apply AI, among other

---

[3] Ming Guo, "关于智能化战争的基本认知" [Basic Understanding of Intelligentized Warfare], *Academic Frontiers* (2021): 16–17.

[4] Zili Ji and Wenhua Wang, "人工智能在作战指挥中的应用" [The Application of Artificial Intelligence in Combat Command], *Military Digest* (2020): 16–17.

[5] Minghai Li, "智能化战争制胜机理" [The Winning Mechanism of Intelligentized Warfare], *Frontiers* (2019): 38.

[6] Ji and Wang, "人工智能在作战指挥中的应用. "

emerging technologies, to their decision-making processes? What are the prospects and implications of China's objective to enhance AI-enabled decision-making in place of human-based calculations? Is this transition feasible in the short, medium, or long term (that is, five, ten, or beyond ten years)? Is there more to the application of AI in decision-making beyond the objective to achieve "informatization" and "intelligentization" of the PLA? How will these technological capabilities be deployed in a crisis scenario?

Based on a review of open-source data, this chapter argues that China's political and military leaders are taking concrete steps to expand the role of AI in military decision-making. AI and emerging technologies are slowly but surely establishing a presence at all levels of war. However, current progress is limited, and widespread PLA adoption of AI technology to enhance decision-making looks realizable in the medium term rather than the short term (within ten rather than five years).

Imagining Intelligent Decision-making

Strategic Visions

The strategic level of war focuses on national policies and overall war aims. When considering decision-making at this level, Chinese military thinkers mainly discuss two subjects: (1) how to learn from, compete against, and surpass the United States in AI development; and (2) what future war might look like, how to prepare for it, and how AI and emerging technologies might benefit C2.

The United States is China's chief competitor in AI R&D. In recent years, China has designated outmatching the United States in this area as a national goal, and much effort has been invested. Although China has made significant gains in some realms, such as AI theory and research, in general it still trails the United States. When assessing China's AI R&D, Chinese thinkers usually express resentment about U.S. efforts to inhibit China's push toward AI primacy.[7] However, besides being the chief competitor, the United States is also an object of emulation among Chinese AI experts, who carefully study its experience, research programs, technological advancements, and innovations.[8] Nearly every article referring to AI and its military applications cites U.S. experience in some capacity. In contrast, the Russian military's

[7] Yushu Liu, "中美人工智能战略及政策的比较研究" [A Comparative Study of Artificial Intelligence Strategies and Policies between China and the United States], *Journal of Yunnan Administration College* (2022): 117.

[8] Ibid., 107–13.

cultivation of AI receives only a sprinkling of mentions. Sometimes, large segments of specialist journal articles are dedicated to evaluating U.S. programs developing AI's military applications—a testament to the United States being a paragon as well as a competitor to China. China desires U.S. achievements and learns from U.S. visions, which heavily influences how Chinese thinkers envision future wars.

While the State Council pledged in 2017 to make China the global leader in AI, eclipsing the United States, a strategic vision of future wars is required to make headway in AI's military applications. In other words, to prepare for wars of the future, one must first have an idea of their possible attributes and manifestations. In general, Chinese thinkers imagine four types of future warfare where AI will play a lead role: (1) algorithmic warfare, (2) mosaic warfare, (3) joint all-domain warfare, and (4) intelligentized warfare. The first three types of warfare, borrowed from American theorists, receive less attention than intelligentized warfare, which is a more indigenous view of future warfighting. According to researchers from the Beijing-based PLA Air Force Units 93236 and 93221, intelligentized warfare, sometimes rendered as "fully intelligentized warfare," is defined as a type of war that

> relies on intelligent communication networks, uses intelligent combat techniques and methods, utilizes intelligent equipment, weapons, and ammunition. A variety of combat, training, and support operations are carried out in a multi-domain integrated combat space, with command, control, and operational planning centered on intelligent algorithms. Fully intelligentized warfare is the inevitable future stage of mechanized and information warfare, where cutting-edge technologies with artificial intelligence as the core penetrate and expand in the fields of combat, training, equipment, logistics, etc.[9]

The foremost traits of intelligentized warfare include severely compressed combat duration, transparent battlefields, human-machine joint decision-making, autonomous weapons, and intelligent support for combat systems.[10] AI is expected to play a lead role in all parts of intelligentized warfare, and certainly in C2, of which decision-making support is a subcomponent. The ideal form of intelligentized C2 entails intelligent decision-making systems that use superior algorithms to analyze data in order to produce plans and decisions that increase the probability of victory.

Machines are outstanding aids because they can maintain their cognitive ability and make intelligent decisions despite operating in

---

[9] Xiang Fu et al., "'全智能化作战'科技迷雾的深度分析与辨识" [An In-Depth Analysis and Identification of "Fully Intelligentized Warfare" Technology Fog], *Aero Weapons* (2021): 12.

[10] Shaoqiu Zheng et al., "智能化作战及其智能指挥控制技术需求" [Intelligent Operations and Intelligent Command and Control Technical Requirements], *Fire Control and Command Control* (2022): 2, 5.

complex environments and intense combat. In the ideal scenario, humans and machines have an in-depth understanding and high trust of each other. Depending on the levels of trust, AI can provide decision-making assistance in five stages: first, as an "intelligent tool" that completes tasks assigned by the human operator; second, as an "intelligent helper" that uses the human operator's input (algorithms and rules) to intelligently make decisions; third, as an "intelligent partner" that can connect to and obtain information from the human nervous system and subsequently make intelligent decisions; fourth, as an "intelligent housekeeper" to which human operators can fully delegate missions and decision-making, with human intervention only when necessary; and fifth, as an "intelligent supervisor" that scrutinizes the human operator's decision-making characteristics and manages the mission autonomously.[11] Although stage five might be the PLA's end goal, current Chinese progress is likely in stage one and attempting to enter stage two.

There exist challenges to intelligent C2, and Chinese research on the subject has largely focused on the theoretical and technological studies of a few areas.[12] As of 2020, however, there were no comprehensive plans for researching and developing intelligent C2.[13] Other necessary pillars of intelligent decision-making, such as quality C2-centered databases, operations cloud computing, and an autonomous intelligent decision-making system that can analyze data from all domains, formulate decisions with incomplete information, and conduct deep learning with insufficient data, have not been operationalized.[14]

Intelligent Decision-making at the Campaign and Tactical Levels

PLA scholars at the Army Command College Combat Laboratory envision humans taking the lead in decision-making at the strategic level of war, humans and machines sharing equal responsibilities in campaign decision-making, and machines autonomously making decisions at the tactical level.[15] Simply put, in the near term, the PLA is seeking to realize

---

[11] Fengchun Wang, "智能化指挥决策力生成研究" [Research on the Generation of Intelligentized Command Decision-making Capabilities], *Ordnance Industry Automation* (2021): 30.

[12] Yuxiang Sun et al., "智能指挥与控制系统发展路径与未来展望" [The Development Path and Future Prospects of Intelligent Command and Control Systems], *Fire Control and Command Control* (2020): 61.

[13] Ibid.

[14] Wei Zhao and Jun Ye, "基于人工智能的智能化指挥决策和控制" [Artificial Intelligence-Based Intelligentized Command Decision-making and Control], *Information Security and Communications Privacy* (2022): 5.

[15] Shengli Zhou et al., "人机智能融合的陆军智能化作战指挥模型体系" [Research on Army Intelligent Operational Command Model System Based on Human-Machine Intelligence Fusion], *Fire Control and Command Control* (2020): 37–38.

machine-led tactical decision-making while allowing machines more input in campaign decision-making. As a result, there is a decent amount of literature on the role of AI in tactical decision-making, yet writings about the campaign level remain inadequate.

The tactical level of war refers to the engagements and battles that constitute a campaign or operation, while the campaign level deals with major operations in a theater of war that will affect strategic goals. Researchers from the Chinese National Defense University's Joint Operations Academy admit that AI systems lack the knowledge and capacity to independently command campaigns and battles.[16] Thus, training AI algorithms has become a top priority. Utilizing deep learning, such training must be conducted in complex simulated battlefield environments where natural (e.g., land, sea, weather, atmospheric, electromagnetic spectrum, and nuclear), social (e.g., human, psychological, social network, and international), and artificial (e.g., defensive networks, battlelines, and smokescreens) environments must be as realistic as possible to maximize the algorithms' acquirements.[17] On top of that, the complexity of campaigns and battles encompasses real and virtual domains, real time, unpredictability, the fog of war, and asymmetry between opposing parties, all of which must be included in the simulated environment. Constructing such environments is a key task of Chinese researchers in their quest to prepare AI for C2 decision-making at the campaign and tactical levels. However, Chinese researchers have admitted that the lack of data from real wars constrains their capacity to create realistic battlefield environments, which has negatively affected AI training.[18]

The actual conduct of operations will incorporate extensive use of unmanned systems. Chinese military thinkers view AI-enabled battles as having speed, precision, comprehensiveness, depth, and constancy. Speed refers to an unmanned system's ability to quickly enter the battlefield and establish superiority. Precision refers to an intelligent system's ability to see through the fog of war and formulate decisions that will allow precise strikes on enemy targets. Comprehensiveness refers to the ability of intelligent systems to simultaneously address threats in all domains of war, both real and virtual. Depth refers to understanding enemy weaknesses from

---

[16] Xiaofeng Hu and Dawei Qi, "智能决策问题探讨—从游戏博弈到作战指挥, 距离还有多远" [On Problems of Intelligent Decision-making—How Far Is It from Game Playing to Operational Command], *Journal of Command and Control* (2020): 359.

[17] Di Zong, "智能化作战中的复杂战场环境仿真初探" [An Initial Exploration of Complex Battlefield Environment Simulation in Intelligentized Operations], *System Simulation Technology and Its Application* (2020): 327.

[18] Zhao and Ye, "基于人工智能的智能化指挥决策和控制," 7–8.

every dimension and organizing intelligent unmanned attacks accordingly. Constancy refers to the replacement of human operators by machines that can continuously operate far beyond human physiological limits.[19] Whichever party can effectively employ intelligent unmanned systems will have a higher chance of securing victory in future campaigns and battles. However, in China's case, the operational potential of unmanned systems has yet to be fully realized. Unmanned ground vehicles, which are a cornerstone of future land warfare, can operate at only short to medium range.[20] As of late 2021, the PLA's unmanned ground vehicles barely had the ability to jointly operate, and the same can be said for unmanned ground vehicles working with the C2 system.[21]

The Sea Domain

Future crises involving China will be seabound. Given that the Taiwan Strait, East China Sea, and South China Sea all remain hotspots, the sea is a major concern for PLA contingency planning. Grasping how the Chinese military conceptualizes future wars at sea is essential for U.S. military planners and U.S. forces in Asia. Such factors, combined with the complexity of naval warfare, which embraces all domains of war, make the sea domain a helpful case study of intelligent decision-making at the campaign and tactical levels of war.

Scholars from the PLA Naval Aviation University define intelligentized naval warfare as follows:

> Naval operations employing artificial intelligence technology in intelligent equipment, situational awareness, transmission of information, command decision-making, and strikes against critical nodes. Using artificial intelligence technology to execute autonomous or semi-autonomous combat operations to achieve objectives. Having the ability to update combat methods and operations according to changes in battlefield conditions. Liberating humans from inside the loop to render decision-making more accurate and rapid, the degree of automation higher, and combat effectiveness improved far beyond traditional naval warfare.[22]

Future naval battles will be highly networked and connect all domains. Battles will be short in duration and high in tempo. There will be in-depth

---

[19] Zheng et al., "智能化作战及其智能指挥控制技术需求," 2.

[20] Zhigang Lu et al., "地面无人系统编组作战的指挥与控制智能化" [The Intelligentization of Command and Control in Formation Operations of Unmanned Ground Systems], *Journal of Command and Control* (2021): 352.

[21] Ibid.

[22] Yao Wang et al., "智能化海战作战研究与思考" [Research and Thinking on Intelligentized Naval Warfare Operations], *Aerospace Technology* (2020): 12.

exchanges between humans and machines, with the latter taking the lead in decision-making. Deep learning will be utilized to improve a C2 system that will oversee all types of unmanned smart naval weapons and platforms.[23] These include intelligent naval artillery, unmanned surface vessels (USVs), unmanned underwater vehicles (UUVs), and unmanned ship-based helicopters (USHs). For naval artillery, the goal is to increase intelligentization so a system can fire intelligent munitions and autonomously make decisions based on changing battlefield conditions.[24] USVs will become indispensable to future naval warfare, taking on tasks such as maritime patrols, reconnaissance and surveillance, antisubmarine warfare, mine laying, maritime search and rescue, and strikes on enemy targets.[25] AI will occupy a leading position in the innovative use of USVs, such as swarming attacks and amphibious assault.[26] The infusion of AI has made Chinese UUVs "more autonomous" and "enhanced their ability to perform more complex tasks and missions."[27] UUVs in the future will achieve greater autonomy and acquire abilities to operate with submarines. Recently, PLA researchers have expressed interest in joint submarine-UUV operations and published new theories concerning this idea.[28] In October 2019, the PLA Navy unveiled its extra-large UUVs at the Chinese National Day Parade, which, according to reports, will extensively utilize AI to "manage the sea's complex environment."[29] USHs can be deployed for reconnaissance, attack, and deception operations. While the goal is to make USHs fully autonomous, as of now they still depend on ship-based human operators. In the future, Chinese researchers hope to develop autonomous USHs that can plan and execute missions independently.[30]

---

[23] Rong Luo et al., "深度学习研究现状及在海战场指挥信息系统中应用展望" [Research Status of Deep Learning and Its Application Prospect in Sea Domain Command Information System], *Ship Electronic Engineering* (2020): 1–3.

[24] Yajie Liu and Yu Zhang, "舰炮武器智能化思考" [Thoughts on Naval Artillery Intelligentization], *Ordnance Industry Automation* (2022): 21.

[25] Yang Song and Jianzhou Mao, "多无人艇协同作战智能指挥控制系统研究" [Research on Multi-Unmanned Vessels Coordinated Operations and Intelligent Command Systems], *Ship Electronic Engineering* (2020): 1–2.

[26] Kamlesh K. Agnihotri, *Leveraging High-Technology Developments in the Chinese Military and Maritime Domains: Impact on Indian Ocean Regional Security* (New Delhi: KW Publishers, 2022), 105–6.

[27] Ibid., 109.

[28] Xinming Zhang et al., "潜艇与UUV协同作战发展现状及关键技术" [Current Development Status and Key Technologies of Submarine and UUV Cooperative Operations], *Journal of Unmanned Undersea Systems* (2021): 502.

[29] Agnihotri, *Leveraging High-Technology Developments*, 122–23.

[30] Shengzhi Sun et al., "舰载无人直升机作战应用模式及关键技术" [Operational Application Modes and Key Technologies of Shipborne Unmanned Helicopters], *Journal of Ordnance Equipment Engineering* (2022): 69–71.

In addition to intelligentized naval weaponry, campaign and tactical C2 systems will command new AI-enabled weapons, such as high-energy laser weapons, high-power electromagnetic weapons, and supersonic weapons, that will be used for naval combat.[31] AI will also improve naval stealth technology, naval intelligence, and communications capabilities. Weapons from the information age will adopt AI technology and utilize big data to increase effectiveness and seize battlefield initiative. Autonomous, smart missiles will have deep learning abilities in order to adjust to battlefield environments and destroy targets with a high success rate. As the workhorse of naval warfare, anti-ship missiles will greatly benefit from intelligentization. AI technology will endow these weapons with improved target recognition, real-time communication, autonomous path planning, multimode guidance, and joint attack capability.[32]

Competitions and Technological Advancements

The world realized AI's enormous potential in strategic planning and execution in 2016 when AlphaGo defeated Lee Sedol in a game of Go. Since then, China has placed increasing emphasis on developing AI technology for defense purposes. The Chinese government and PLA regard competitions like the Go tournament as treasured venues to evaluate intelligent decision-making systems, spot new talent, and build connections among AI industry participants.

There are two types of state-backed AI competitions: those internal to the PLA and those open to the public. They share roughly the same format, with contests between opposing teams that will ultimately bring out the best technology and talent. In recent years, PLA services have launched AI competitions of their own. The PLA Army's "Overcoming Obstacles" (跨越险阻) competition aims to hone unmanned ground vehicles.[33] The PLA Navy sponsors AI competitions that focus on improving USVs and UUVs. The PLA Air Force's "Intelligent Aerospace" (智胜空天) and "Unmanned Dominance" (无人争锋) competitions concentrate on unmanned aerial vehicle (UAV) designs and swarm technologies, respectively. The PLA Rocket Force's "Intelligent Rocket and Fire Eyes" (智箭·火眼) competition

---

[31] Wang et al., "智能化海战作战研究与思考," 12.

[32] Ibid., 13–14.

[33] Wei Dong, Tianshu Dai, and Xiaohu Qian, "'跨越险阻2021'陆上无人系统挑战赛开幕" ["Overcoming Obstacles 2021" Land Unmanned Systems Challenge Kicks Off], China Military, September 16, 2021, http://www.81.cn/yw/2021-09/16/content_10090270.htm.

seeks to enhance precision missile strikes with AI. The PLA Strategic Support Force's "Intelligent Space Cup" aims to apply AI to data processing and analytics.[34]

Public competitions advance China's AI agenda by activating resources of the whole society. In recent years, major computerized wargaming competitions have emerged that exhibited three computerized wargaming platforms and two outstanding intelligent decision-making systems. In 2018 and 2019, the National Defense University's Joint Operations Academy, Chinese Academy of Sciences' Institute of Automation, Chinese Institute of Command and Control, and Beijing Zongheng Wargaming Information Technology Research Institute jointly hosted the "Prophet—Warlike Sage" (先知·兵圣) competition, which pitted humans against machines and machines against machines in simulated land combat scenarios. Teams were scored based on the number of enemy strongholds captured and casualties inflicted.[35] The first competition attracted thousands of participants, and the most successful teams received financial rewards and were encouraged to participate in future PLA projects.[36] The subsequent competition saw upgrades in weapon types and a diversification of simulated environments.[37] However, there has been no report of a third iteration.

In 2020 the Central Military Commission's Equipment Development Department, China Electronics Technology Group, National University of Defense Technology, and China Aerospace Science and Industry Corporation hosted the "Stratagem at Heart, Jointness for Victory" (谋略方寸·联合制胜) competition, which employed C2 algorithms in a joint island offensive campaign that counted hundreds of combat units in the land, sea, air, and electromagnetic spectrum domains.[38] Taking charge of C2, AI systems fought against one another with "target reconnaissance,

---

[34] Marcus Clay, "The PLA's AI Competitions," *Diplomat*, November 5, 2020, https://thediplomat.com/2020/11/the-plas-ai-competitions.

[35] Zijian Feng, "运筹帷幄！兵棋推演大赛在这里火热展开" [Strategize from Afar! The Wargame Competition Is in Full Swing Here], China Military, September 16, 2020, http://www.81.cn/jx/2020-09/16/content_9903910.htm.

[36] "征集'先知·兵圣'战术级人机对抗挑战赛AI参赛团队" [The "Prophet—Warlike Sage" Tactical Human-Machine Competition Challenge Calls for AI Teams], Sohu, September 4, 2018, https://www.sohu.com/a/251833597_358040.

[37] "'先知·兵圣—2019'人机对抗赛裁判集训活动圆满召开" [The "Prophet—Warlike Sage 2019" Human-Machine Competition Referee Training Activity Successfully Held], NetEase, April 22, 2019, https://www.163.com/dy/article/EDCL680H05119ALQ.html.

[38] Equipment Development Department of the Central Military Commission (PRC), "'谋略方寸·联合制胜'联合作战智能博弈挑战赛" ["Stratagem at Heart, Jointness for Victory" Joint Operations Intelligence Wargaming Competition], August 4, 2020, available at https://www.caa.org.cn/article/192/379.html.

electromagnetic countermeasures, and coordinated fire strikes."[39] Besides identifying the talented individuals behind the best algorithms, developing a competent C2 system was a central goal. Yet there has been no sequel since the competition concluded.

Since 2017, the "National Wargaming Competition" (全国兵棋推演大赛) has been hosted annually by the Chinese Institute of Command and Control, a state-backed academic body that promotes C2 technology R&D. The institute is China's most authoritative organization in steering C2 technology R&D and publishes several journals, organizes a range of events, and has 34 professional committees that guide research on all aspects of C2, with AI receiving high priority. Members hail from the PLA, universities, SOEs in the defense industry, the Ministry of Public Security, and the Chinese Academy of Sciences. As of 2022, nearly 100,000 contestants from military and civilian universities had participated in the competition, where human-human and human-machine tournaments took place in simulated environments.[40] In conjunction with the competition, national defense education activities were organized to indoctrinate participants in China's security priorities and needs. Overall, the National Wargaming Competition remains the most consistent computerized wargaming competition open to the public. It has improved national defense education at universities, cultivated talented individuals for the PLA, and increased China's overall national defense capabilities.

So far, these AI competitions have disclosed three computerized wargaming platforms. "Temple Calculations—Smart Victory" (庙算·智胜) is a tactical wargaming, real-time strategy, and human-machine confrontation platform used during the Prophet—Warlike Sage competition.[41] However, it has not been updated since 2020.

At present, the most frequently employed computerized wargaming platform is "Mozi—Future Commander" (墨子·未来指挥官). Developed by Beijing Huashu Defense Technology, the platform has been widely used in PLA contests and the National Wargaming Competition. Mozi is modeled after the warfare simulation video game "Command: Modern

---

[39] Elsa B. Kania and Ian Burns McCaslin, "Learning Warfare from the Laboratory—China's Progression in Wargaming and Opposing Force Training," Institute for the Study of War, September 2021, 24.

[40] "'墨子杯'2021第五届全国兵棋推演大赛颁奖典礼召开" ["Mozi Cup" 2021 Fifth National Wargaming Competition Award Ceremony Held], *Hubei Daily*, April 19, 2022, http://news.cnhubei.com/content/2022-04/19/content_14676185.html.

[41] "自动化所'庙算·智胜'战术兵棋即时策略人机对抗平台开放访问" [Automation Institute's "Temple Calculation—Smart Victory" Tactical Wargame Real-Time Strategy Human-Machine Confrontation Platform Opens Access], Chinese Academy of Sciences, Bureau of Science Communication, November 5, 2020, http://www.bsc.cas.cn/sjdt/202011/t20201106_4765745.html.

Air Naval Operations," developed by Greek studio Warfare Sims. With data on over 130 countries' militaries, Mozi allows joint operations in the land, sea, air, space, and electromagnetic spectrum domains; supports the construction and simulation of campaign and tactical combat scenarios; and can be utilized for "operational concept and tactics research, operational command training, operational plan evaluation, as well as weapon and equipment demonstration."[42] In 2019 a civilian version of Mozi was released, called "Smart Weaponry—Future Commander" (智戎·未来指挥官). This platform was also developed by Beijing Huashu Defense Technology with assistance from the Chinese Institute of Command and Control.[43] Sharing similar features with Mozi, Smart Weaponry has also been put to use during the National Wargaming Competition.

Other than testing computerized wargaming platforms, the competitions have distinguished two outstanding AI decision-making systems: "Prophet" (先知) and "War Skull" (战颅). During the 2018 National Wargaming Competition, Prophet 1.0, an AI C2 system developed by the Chinese Academy of Sciences, won seven out of eight rounds against human opponents.[44] (The one loss was due to Wi-Fi disruptions that temporarily took Prophet offline.) In preparation for the competition, Prophet studied data from previous iterations of the National Wargaming Competition. Compared to its human opponents, the system was more powerful in conducting analysis and mathematical calculations. With deep learning, Prophet quickly studied large quantities of data and refined its competence in C2. Unlike humans, it has no emotions—an element that can severely disrupt human decision-making.[45]

Nevertheless, War Skull would soon eclipse the success of Prophet. War Skull was created by the National University of Defense Technology's School of Systems Engineering to undertake intelligent decision-making for military operations in complex combat environments, with research beginning in 2016 when Chinese AI research was still nascent.[46] The system

---

[42] "墨子联合作战推演系统" [Mozi Joint Operations Deduction System], National Wargaming Competition, http://m.ciccwargame.com/col.jsp?id=110.

[43] "'墨子杯'2022第六届全国兵棋推演大赛" ["Mozi Cup" 2022 Sixth National Wargaming Competition], National Wargaming Competition, http://m.ciccwargame.com/col.jsp?id=110.

[44] "兵棋人机大战开锣" [Human-Machine Wargaming Competition Opens], Center for Research on Intelligent System and Engineering, November 16, 2018, http://www.crise.ia.ac.cn/news_view.aspx?TypeId=4&Id=427&FId=t2:4:2.

[45] Ibid.

[46] Ning Fan, Mengying Zhu, and Qiang Zhang, "远超阿尔法狗？'战颅'成战场辅助决策'最强大脑'" [Far Better Than AlphaGo? War Skull Becomes the "Best Brain" to Assist Decision-making on the Battlefield], *Science and Technology Daily*, April 19, 2021, http://digitalpaper.stdaily.com/http_www.kjrb.com/kjrb/html/2021-04/19/content_466128.htm?div=-1.

was tested against human opponents in computerized wargames after four months of development, which exposed the system's low intelligence levels.[47] Returning to the lab, developers concluded that a lot more work was needed before it could perform satisfactorily. In 2019 the updated War Skull system was showcased at the third National Wargaming Competition. It faced down top-tier human opponents in 22 rounds of contests and went undefeated—a milestone in Chinese intelligent decision-making history.[48] The triumphant return of War Skull can be attributed to its employment of emerging technologies. Prior to the 2019 competition, developers used data from previous human-human and machine-machine wargame confrontations to train the system, which took 136 days. During that period, War Skull played over 160 games per day and thoroughly learned the tactics of human opponents, in addition to independently creating unique tactics.[49]

In 2020, War Skull returned to the fourth National Wargaming Competition and achieved impressive results in the modules of joint air defense, naval offensives, and air combat.[50] The system was significantly more agile, and its autonomous decision-making model had much better control over tactical units.[51] It needed only 90 minutes to defeat its human opponent in the human-machine tournament.[52] According to its developers, the system "integrates a series of methods such as logical reasoning, supervised learning, semi-supervised learning, integrated learning, and reinforced learning to build an intelligent decision-making model."[53] Curiously, there has been no news about War Skull since its superb performance in 2020, which suggests that the developers might be reworking the system for PLA adoption in the near future.

---

[47] Fan, Zhu, and Zhang, "远超阿尔法狗？'战颅'成战场辅助决策'最强大脑.'"

[48] Ibid.

[49] Ibid.

[50] Mengying Zhu and Jingbei Li, "从'坐等指令'到'主动出击,'看'战颅二号'制胜智能博弈场" [From "Waiting for Instructions" to "Taking the Initiative to Attack," See How "War Skull 2.0" Wins Wargaming Competitions], China Military, December 30, 2020, http://www.81.cn/jx/2020-12/30/content_9959960.htm.

[51] Ibid.

[52] "第三届全国兵棋推演大赛'人机挑战赛'在长沙举行" [The Third National Wargaming Competition "Human-Machine Challenge" Opens in Changsha], China Youth Online, January 5, 2020, http://m.cyol.com/content/2020-01/05/content_18311547.htm.

[53] Ibid.

Conclusion: Challenges and Prospects

Negative and positive factors will determine the future of research, development, and military application of AI technology. This section considers the challenges and prospects for the PLA's embrace of AI-enabled intelligent decision-making systems.

Challenges

Corruption within the PLA and SOEs in the defense industry poses a threat to AI technology. Although Xi Jinping's anticorruption campaign has reduced malfeasance in the military, corruption remains a problem due to institutional deficiencies. Between 2015 and 2020, several high-profile arrests were made at the China Shipbuilding Industry Corporation (CSIC), an SOE crucial to the country's blue water navy ambitions. Among those arrested was Hu Wenming, a former Chinese Communist Party secretary and CEO of CSIC.[54] He was charged with a litany of financial crimes that caused "major losses of state-owned enterprise assets."[55] In early April 2021, Yin Jiaxu, a former party secretary and CEO of Norinco, was charged with "serious violations of discipline and the law" and handed over to prosecutors in September.[56] In late April 2021, Song Xue, the PLA Navy's deputy chief of staff, met his downfall due to "serious violations of discipline and the law." Song had a long career at the PLA Navy's Equipment Department and was well connected with the naval armament industry. Furthermore, he once served as a deputy commander of the aircraft carrier *Liaoning*'s aircraft takeoff and landing test missions.[57]

Such high-profile arrests indicate that corruption is a continuing issue in both the PLA and defense SOEs. Moreover, incidents have thus far only revealed the tip of the iceberg, and there are surely more problems hidden beneath the surface. Corruption imposes heavy costs on military modernization, and no military program is safe from the corrosive effects. As the state increases its investments in AI, more opportunities for corruption will become available.

---

[54] Zi Yang, "The Invisible Threat to China's Navy: Corruption," *Diplomat*, May 19, 2020, https://thediplomat.com/2020/05/the-invisible-threat-to-chinas-navy-corruption.

[55] Ibid.

[56] William Zheng, "Former Head of Chinese Weapons Giant to Face Corruption Charges after Formal Arrest Approved," *South China Morning Post*, October 25, 2021, https://www.scmp.com/news/china/politics/article/3153619/former-head-chinese-weapons-giant-face-corruption-charges-after.

[57] Zhen Liu, "Former Chinese Navy Official Suspected of Violating Law and Discipline Sacked as NPC Deputy," *South China Morning Post*, April 30, 2021, https://www.scmp.com/news/china/military/article/3131820/former-chinese-navy-official-suspected-violating-law-and.

The centralization of power presents another challenge to AI programs. Since becoming paramount leader in 2012, Xi has made centralizing power his top priority. The anticorruption campaign, the removal of legal barriers to personalist dictatorship, and the clampdown on political dissent are hallmarks of the Xi era. To consolidate and maintain his hold on power, Xi needs to control the PLA, and he has done so through a combination of purges, the promotion of loyal officers, and the institution of the Central Military Commission (CMC) Chairman Responsibility System, which made him the final arbiter on all important matters.[58] Not surprisingly, the new CMC of the 20th Party Congress is filled with Xi loyalists.

However, while Xi has cemented his position as the undisputed commander-in-chief, he has only limited experience in military affairs. From 1979 to 1982, Xi served as one of three personal secretaries to CMC general secretary Geng Biao. Few details are available regarding this period of Xi's career. He participated in high-level decision-making, inspected the armed forces, and visited the United States with a PLA delegation to fortify the Sino-U.S. anti-Soviet entente.[59] He also might have learned about unconventional warfare due to Geng Biao's involvement in China's support of Thailand-based Cambodian insurgents devoted to expelling the Vietnamese presence from their homeland.[60]

In any case, Xi is not a bona fide military professional, yet he retains enormous power in dictating PLA affairs. Although everyday CMC responsibilities are left to the vice chairs, dictators tend to micromanage in times of military emergency.[61] In the future, AI systems could assist in decision-making at the CMC level and potentially increase the efficiency and effectiveness of strategic planning. As a result, the PLA might institute reforms to limit the power of staff officers in favor of allowing AI systems a more prominent role. Yet, at the end of the day, Xi's personal preference will overshadow not only the ideas of professional officers but also AI recommendations. As his political paramountcy becomes unassailable, Xi's self-confidence will increase, especially under post–20th Party Congress

---

[58] James Mulvenon, "The Cult of Xi and the Rise of the CMC Chairman Responsibility System," *China Leadership Monitor*, January 23, 2018, 7, https://www.hoover.org/sites/default/files/research/docs/clm55-jm-final.pdf.

[59] Alfred L. Chan, *Xi Jinping: Political Career, Governance, and Leadership, 1953–2018* (New York: Oxford University Press, 2022), 45–46.

[60] Kenneth J. Conboy, *The Cambodian Wars: Clashing Armies and CIA Covert Operations* (Lawrence: University Press of Kansas, 2013), 131, 360.

[61] Erin Snodgrass, "Putin Is Making Low-Level Tactical Decisions and 'Micromanaging' Russia's War Efforts, According to Reports," *Business Insider*, May 17, 2022, https://www.businessinsider.com/putin-is-micromanaging-russian-war-efforts-per-reports-2022-5.

conditions, to the point where no elite dare oppose him. In both the civilian and military spheres, Xi's *modus operandi* will become the official standard, contrasting opinions will be muffled, self-censorship will be normalized, and the decision-making system will be steadily rigidified, depending on the thoughts of one man. Such a restrictive decision-making environment is not conducive to an AI-enabled future and will handicap AI decision-making in a crisis scenario involving the PLA.

The quality and experience of PLA officers can present additional problems to AI systems. While in recent years the PLA has participated in skirmishes, it has not fought a war since the Sino-Vietnamese War in 1979. China has engaged in low-intensity conflicts on its periphery in recent years, but such experiences are quite different from a future Taiwan Strait scenario that might evolve into a full-blown war. Accordingly, China lacks both an officer corps tempered in war and the vital data from real combat to train its AI systems. To make matters worse, the PLA is a highly politicized military force interwoven with party politics, which encourages the rise of politically reliable officers who lack professional skill sets.

Since Xi became commander-in-chief, he has accelerated the PLA's politicization. Propaganda, indoctrination, and political performances have frequently occurred with the goal of building support for Xi. Yet such events take precious time and energy away from the professional enrichment of officers. Generally speaking, the current environment in the PLA is detrimental to efforts to cultivate a professional officer corps that could work with AI systems and trained AI technology specialists for a future war. Additionally, politicization might even affect the design of AI decision-making algorithms. Creativity can be compromised to accommodate political sensitivities through the insistence on the commander-in-chief's infallibility or the denial of an enemy's actual capabilities and other facts that are politically unacceptable. Such suppression of machine intelligence can reduce an AI system's effectiveness as a decision-making aid.

The military applications of AI technology will also be affected by the domestic political-economic situation influencing society and the technology industry. The turn toward personalism in recent years has reversed trends and expectations associated with the reform and opening-up era. The Chinese government increasingly has sought to impose further limits on individual rights, curb private sector dynamism, and clamp down on liberal undercurrents. In 2022 alone, the draconian "zero Covid" policy led to enormous human misery and economic costs, followed by Xi's rise to an all-powerful position second only to Mao Zedong. With Xi's reign further consolidated in March 2023, China's political-economic outlook seems

increasingly dim. Combined with a shortage of semiconductors due to U.S. restrictions and the difficulty of recruiting new talent, the AI industry will face greater challenges ahead.

Prospects

China is closely watching the Russia-Ukraine war, a conflict determined to shape world affairs over the next decade. As early as March 2022, Chinese experts had already held workshops on the war and its implications for C2 in future wars, although the contents of the discussions have not been publicized.[62] As with their examinations of the 2020 Nagorno-Karabakh war, Chinese experts probably concluded that AI technology will be critical in future military conflicts, judging by the Ukrainian military's early success in utilizing unmanned technology against Russian forces. In fact, despite their pro-Russia sentiments, Chinese analysts have recognized Ukraine's effective use of UAVs and expressed dismay at Russia's inability to do the same from the outset.[63] One year after the war began, Chinese analysts concluded that weak army units, the inability to integrate cutting-edge technology into combat, and a decrepit logistics network are the main reasons behind Russia's failures.[64] Hence, China must avoid similar mistakes if it finds itself in a comparable scenario, which means that the PLA will prioritize AI's military applications.

Despite the aforementioned factors, AI development programs will receive adequate state funding and policy support due to AI's status as a national priority. This has been confirmed with developments at the "two sessions" meeting in March 2023 that saw further state commitment to science and technology, especially AI research. The Chinese government recognizes that it can harness the power of AI for regime survival and thus has dedicated significant funding to related programs in recent years. In the military sphere, a PLA strengthened with AI technology will ensure that the

---

[62] "'俄乌冲突对未来指挥控制的挑战'研讨会在京召开" [Workshop on "Challenges of the Russian-Ukrainian Conflict to Future Command and Control" Held in Beijing], Chinese Institute of Command and Control, March 28, 2022, http://www.c2.org.cn/h-nd-727.html.

[63] Mo Jin, "从俄乌战争看TB-2无人机的优势和不足" [Reviewing the Pros and Cons of the TB-2 Unmanned Aerial Vehicle through the Russia-Ukraine War], *Ordnance Industry Science Technology* (2022): 76; and Tu Tu, "专家眼中的俄乌战争" [Expert Views of the Russia-Ukraine War], *Ordnance Industry Science Technology* (2022): 46–47. The author would like to thank Lyle J. Goldstein for his valuable insights on the Russia-Ukraine war and how Chinese analysts are responding to the conflict.

[64] Minnie Chan, "Ukraine War, 1 Year On: What Lessons Has China's Military Learned?" *South China Morning Post*, February 22, 2023, https://www.scmp.com/news/china/military/article/3210977/ukraine-war-1-year-what-lessons-has-chinas-military-learned; and Lyle Goldstein and Nathan Waechter, "As Russia's Military Stumbles in Ukraine, Chinese Strategists Are Taking Notes," *Diplomat*, February 24, 2023, https://thediplomat.com/2023/02/as-russias-military-stumbles-in-ukraine-chinese-strategists-are-taking-notes.

regime is protected from external and internal threats. Consequently, despite economic pressure, state financial support for AI technology will proceed. In addition, private enterprises specializing in AI research will also continue to receive policy support. New schemes will encourage firms and research institutions to concentrate on AI technology that the state deems most important, such as military applications. Furthermore, new military-civil fusion policies will be introduced to harness the private sector's innovation to benefit defense SOEs. Although in recent years the state has discriminated against private capital, those who fall in line with its AI development policies can profit in the years ahead, despite the distrust between state and nonstate entities. China's mastery of industrial espionage, whether through cyber or traditional means, can provide a boost to state-linked entities working on AI technology.

In sum, China is unlikely to achieve its ambitious target of outmaneuvering the United States and becoming the world leader in AI technology by 2030, given the country's current progress. Yet, because of the plan's political nature, we should expect in 2030 that Chinese leaders will somehow proclaim the goal has been accomplished by certain metrics. Drawing on available evidence, the general military adoption of AI C2 and decision-making technology will not be realized in the short term (within five years), but achieving this goal is possible in the medium term (within ten years).

Looking ahead, the positive factors conducive to China's AI technological advancement can be hindered by negative factors that slow progress and affect the quality of R&D. Meanwhile, human decision-making will take the lead as China tries to close these gaps, which will require the commitment of more time and resources. Major changes will first be experimented with at the tactical level, then at the campaign level, and finally at the strategic level. In the foreseeable future, AI might take on a staff position at the strategic level, possibly assuming the previously mentioned role of an "intelligent helper" that uses the human operator's input to intelligently make decisions. At the campaign level, perhaps the aim is to make AI an "intelligent partner" that can connect to and obtain information from the human nervous system and subsequently make intelligent decisions. Last but not least, at the tactical level, AI can act as an "intelligent housekeeper" to which human operators can fully delegate missions and decision-making, with human intervention only when necessary, or even as an "intelligent supervisor" that can manage missions autonomously.

EXECUTIVE SUMMARY

This chapter examines China's decision to escalate the 2012 Scarborough Shoal standoff and the role of the People's Liberation Army (PLA) in shaping the decision during the incident.

MAIN ARGUMENT

China's crisis decisions in the South China Sea disputes should be understood as a result of Beijing weighing and making a tradeoff between its anticipated domestic and international costs because the two types of competing costs pull the Chinese decision in different directions. The potential domestic costs and backlash create incentive for escalation, whereas the potential international pushback and reputational damage create pressure on Beijing to de-escalate. The 2012 Scarborough Shoal standoff represents a case in which perceived low international costs and surging domestic costs led China to opt for escalation. China employed a multipronged nonmilitary escalation strategy against the Philippines during the standoff to signal its resolve while avoiding unintentionally militarizing the situation. Moreover, Chinese propaganda might have overstated the intensity of the escalation for domestic consumption.

POLICY IMPLICATIONS

- While China has demonstrated a growing level of assertiveness when handling maritime disputes in the South China Sea, its management of these disputes is shaped by competing expectations and costs generated by multiple audiences that include, but are not limited to, the PLA.
- During a crisis such as the Scarborough Shoal standoff, the PLA is not necessarily as openly vocal as other hawkish actors in China's maritime affairs system, but it is capable of shaping the broader context in its push to harden the Chinese approach toward sovereignty disputes.
- To the extent that China strives to credibly signal its resolve while maintaining an image of nonbelligerency among its smaller neighbors, stakeholders in the region still have the leverage to shape Chinese crisis behavior in the South China Sea by tipping China's cost-benefit calculation toward the international end. External efforts, however, will be most effective when an unequivocal, strong U.S. response is combined with a unified voice from ASEAN.

Chapter 5

China's Decision to Escalate the 2012 Scarborough Shoal Standoff

Shuxian Luo

This chapter examines China's decision to escalate the 2012 Scarborough Shoal standoff. It argues that the decision should be understood as a result of China weighing and making a tradeoff between anticipated domestic and international costs that pull the country's decision in different directions.[1] At the outset of the standoff, Beijing was facing a domestic push to harden its posture on maritime disputes, on the one hand, and ambivalent responses from other stakeholders, especially the United States and members of the Association of Southeast Asian Nations (ASEAN), on the other hand. As the situation developed, the United States' perceived reluctance to reaffirm its defense commitment to the Philippines and the lack of unity in ASEAN's response led Beijing to believe that an assertive posture was unlikely to incur substantial diplomatic and geopolitical costs. This calculation incentivized China's decision to escalate the incident.

With respect to the role of the People's Liberation Army (PLA) specifically, the PLA was not as openly vocal as other Chinese maritime security agencies during the Scarborough Shoal episode. Beyond this particular incident, however, the PLA is capable of shaping the broader discourse within China's foreign policy establishment and public sphere through its push to harden the country's approach toward sovereignty disputes.

Shuxian Luo is an Assistant Professor in Asian Studies at the University of Hawaii, Mānoa.

[1] For a detailed explanation of the cost-tradeoff thesis, see my article "The Rising Power's Audiences and Cost Trade-Offs: Explaining China's Escalation and Deescalation in Maritime Disputes," *Asian Security* 18, no. 2 (2022): 172–99. This chapter draws partly on this *Asian Security* article.

The Debate That Reformulated China's Policy on Sovereignty Disputes

The Scarborough Shoal episode came at a time when China's traditional foreign policy line and longtime approach to dealing with maritime disputes were undergoing an internal reformulation. With China emerging from the 2007–8 global financial crisis as the world's economic powerhouse, Beijing's traditional, moderate foreign policy confronted growing internal criticism.[2] For most of 2010, advocates of a more assertive Chinese policy had "gone unchallenged publicly."[3] As the year drew to a close, the Chinese foreign policy community conducted a review in response to mounting international concerns about an increasingly assertive China. This review culminated in a long article penned by then state councilor Dai Bingguo in December, which reaffirmed China's commitment to its traditional policy line.

Defending Deng Xiaoping's policy of "keeping a low profile" (韬光养晦), which promotes caution and international engagement, Dai argued that China had benefited tremendously from its adherence to peaceful development in terms of both domestic economic growth and its international emergence as a great power. As China grew stronger, Dai contended, it must refrain from arrogance and triumphalism while always bearing in mind that the country was still facing enormous socioeconomic difficulties at home. It could continue development by expanding international cooperation, whereas challenging the existing international order or countries as a way of seeking national development was neither necessary nor feasible.[4] Dai's article, which appears to have had Hu Jintao's support, was perceived by foreign observers as an authoritative, strong, and sincere rebuttal to hard-liners and a return to the traditional, moderate policy line.[5]

Dai's argument, however, encountered immediate pushback from hard-liners, including in the military, maritime law-enforcement agencies, the energy sector, and propaganda interest groups that constitute what Susan Shirk calls the "control coalition."[6] On the maritime disputes specifically, hard-liners within the Chinese maritime affairs system also invoked Deng's

---

[2] Henry Kissinger, *On China* (New York: Penguin Press, 2011), 503–7.

[3] Jeffrey A. Bader, *Obama and China's Rise: An Insider's Account of America's Asia Strategy* (Washington, D.C.: Brookings Institution Press, 2013), 122.

[4] "中国国务委员戴秉国:坚持走和平发展道路" [China's State Councilor Dai Bingguo: Stick to the Path of Peaceful Development], Ministry of Foreign Affairs of the People's Republic of China (PRC), Press Release, December 12, 2010, available at http://www.gov.cn/ldhd/2010-12/06/content_1760381.htm.

[5] Bader, *Obama and China's Rise*, 123; and Kissinger, *On China*, 512.

[6] Susan L. Shirk, *Overreach: How China Derailed Its Peaceful Rise* (Oxford: Oxford University Press, 2022).

teachings but interpreted them in a way to support an assertive approach. They contended that "sovereignty belonging to China" (主权属我) must be a precondition for—and therefore take precedence over—the principle of "shelving the disputes and pursuing joint development" (搁置争议, 共同开发).

The hard-liners contended that understanding Deng's policy merely as "shelving the disputes and pursuing joint development" while ignoring the basic premise of "sovereignty belonging to China" had led to a "serious deviation from the very essence of Deng's thinking." They criticized the fact that the traditional policy had been manipulated by the other claimants in such a way that the principle of "sovereignty belonging to China" had in effect been "abandoned." Calling for a more "scientific" understanding of Deng's guidance for resolving maritime disputes, they argued that "keeping a low profile" must not be used as justification for inaction on the issue of sovereignty and that some "dated ideas" on how to handle China's maritime disputes "must be subject to a rethinking" and be given a "new meaning in the context of the era." Some even argued that under "new historical circumstances," once peaceful resolution cannot be achieved and other claimants attempt to escalate the situation, defending China's sovereignty by force would be inevitable. As such, according to the hard-liners, the most important leg of "sovereignty belonging to China" must be prioritized and made a precondition for shelving disputes and pursuing joint development because it enables China to retain the right of using force as a last resort to resolve the disputes.[7]

The hard-line push started in late 2010, peaked in 2011 as more prominent PLA strategists and propagandists joined the endeavor, and continued into 2012.[8] The influence of hawkish pressure found its way into China's top leadership, which seemed to lack a consensus at the time with respect to how China should handle the flareups on its maritime periphery. At an August 2012 Chinese Communist Party leadership meeting in

---

[7] Zhang Wenjie and Chen Minhang, "科学理解邓小平解决海洋权益争端的战略思想" [A Scientific Understanding of Deng Xiaoping's Strategic Thinking on Resolving Maritime Rights Disputes], *China Social Sciences*, December 13, 2010, https://www.sinoss.net/c/2010-12-13/521427.shtml; "《中国海洋石油报》原总编辑、《激荡中国海》作者王佩云:对中国来说, 现在已经是最后的海洋和迟到的觉醒" [Wang Peiyun, Former Editor-in-Chief of CNOOC News, Author of Stirring the China Sea: For China, It Is the Last Ocean and a Late Awakening], *21st Century Business Herald*, January 24, 2011; "解放军少将解读南海局势:要对子孙后代负责" [PLA Major General Interprets the Situation in the South China Sea: Be Accountable to Our Descendants], *Tuanjie Bao*, April 24, 2012; Qiao Liang, "南海局势中的政治智慧" [The Political Wisdom in the South China Sea Situation], *Economic Observer*, June 27, 2011; and "重温邓小平同志关于钓鱼岛的论述" [Revisiting Comrade Deng Xiaoping's Statements on the Diaoyu Islands], *China Ocean News*, March 7, 2012.

[8] Luo, "The Rising Power's Audiences and Cost Trade-Offs," 179.

Beidaihe, Hu Jintao reportedly came under attack from hard-liners within the leadership for his weak handling of maritime disputes, especially Japan's move to purchase the Diaoyu/Senkaku Islands.[9] The impacts of leadership disunity were magnified by the party's upcoming once-in-a-decade power transition. Although Hu would not officially leave office until November, his successor, Xi Jinping, was already in charge of China's maritime affairs by the middle of 2012. For Xi, the growing tensions over maritime disputes represented an "important test" of his competence in defending national sovereignty as well as an opportunity to "project strength in contrast to Hu."[10]

The hard-liners eventually carried the day when Xi gave his endorsement to the three-legged formula of "sovereignty belonging to China, shelving disputes, and pursuing joint developments" at a Politburo study session in July 2013.[11] Some scholars noted that Xi's repetition of Deng's guideline came as a sign that "Beijing may be reconsidering the merits of its most assertive actions in the East and South China Seas."[12] This line of argument seems to interpret the debate as being over whether Deng's formula should be discarded as a whole, thus concluding that Xi's repetition of Deng's guideline represented a continuity with Deng's policy. Nevertheless, as elaborated in the preceding paragraphs, the real focus of the internal debate appears to have been on whether the allegedly long-forgotten first leg, "sovereignty belonging to China," should be re-emphasized, prioritized, and even made a precondition to the other two legs. Viewed in this light, Xi's articulation of the three-legged guideline (as opposed to the traditional two-legged narrative), as well as the way the three legs were ordered, leads to a very different conclusion: it is a sign that the hard-liners had increasingly dominated and finally won the debate. This was the broad context in which the Scarborough Shoal standoff and Beijing's decision to escalate took place.

---

[9] Ryosei Kokubun et al., *Japan-China Relations in the Modern Era*, trans. Keith Krulak (New York: Routledge, 2017), 186.

[10] Todd Hall, "More Significance than Value: Explaining Developments in the Sino-Japanese Contest over the Senkaku/Diaoyu Islands," *Texas National Security Review* 2, no. 4 (2019): 31.

[11] "习近平在中共中央政治局第八次集体学习时强调:进一步关心海洋认识海洋经略海洋推动海洋强国建设不断取得新成就" [Xi Jinping Underscored in the 8th Politburo Study Session: Further Care About, Understand, and Manage Oceans, Pushing Great Maritime Power Construction toward New Progress], *People's Daily*, August 1, 2013.

[12] M. Taylor Fravel, "Xi Jinping's Overlooked Revelation on China's Maritime Disputes," *Diplomat*, August 15, 2013, https://thediplomat.com/2013/08/xi-jinpings-overlooked-revelation-on-chinas-maritime-disputes.

The Onset of the Standoff and Beijing's Cost-Benefit Calculation

While China's bilateral relationship with the Philippines had shown signs of strain before President Benigno Aquino III assumed office in 2010, from Beijing's perceptive, the relationship was in its best state during the administration of President Gloria Pacapagal Arroyo, which persistently "strove to avoid provoking China."[13] After 2010, however, the bilateral relationship witnessed a steadfast deterioration. Aquino was seen by Beijing as being more explicit in criticizing China's behavior in the South China Sea and as actively pushing for what Beijing called "internationalizing" the disputes—an approach clearly at odds with Beijing's insistence that the disputes be resolved bilaterally. Starting in 2011, the Aquino administration proposed that the two countries submit their competing claims to the International Tribunal for the Law of the Sea, which Beijing rejected.[14]

Bilateral tensions steadily increased during the months leading up to the standoff. In March 2011, Manila accused Chinese patrol ships of harassing a survey vessel operating in the Reed Bank under a contract with the Philippine government.[15] In April, the two countries submitted their respective *notes verbales* to the United Nations, staking competing claims to the Spratly Islands. In June, Manila claimed that Chinese ships had made at least seven major intrusions into Philippine-claimed waters in the first half of 2011.[16] In March 2012, tensions heightened again after the Philippines built a loading ramp and renovated a runway on Thitu Island.

Against this backdrop, a standoff erupted on April 10 when the Philippine Armed Forces dispatched a frigate to inspect several Chinese fishing boats spotted in a Scarborough Shoal lagoon. Philippine sailors boarded the Chinese boats and found copious giant clams, corals, and live sharks inside one of the boats. China insisted that the Chinese fishers were taking shelter in the lagoon from harsh weather conditions.[17] After receiving calls from the Chinese fishing ships, two China Marine Surveillance (CMS) patrol vessels in the vicinity, which were on routine patrol, responded after

---

[13] Cao Yunhua and Ju Hailong, eds., 南海地区形势报告 (2011–2012) [Report on the Situation in the South China Sea (2011–2012)] (Beijing: Shishi Chubanshe, 2012), 203.

[14] "China Rejects Philippine Proposal on Disputed Sea," Agence France-Presse, July 12, 2011.

[15] "Philippines Set for Oil Drilling amid China Spat," Agence France-Presse, March 23, 2011.

[16] Carlyle A. Thayer, "China's New Wave of Aggressive Assertiveness in the South China Sea" (paper presented at the Maritime Security in the South China Sea Conference, Washington, D.C., June 20–21, 2011).

[17] "Chinese Embassy Urges Philippines to Stop Illegal Activities in China's Territory," Xinhua, April 11, 2012.

getting approval from CMS headquarters, the State Oceanic Administration (SOA), and the Ministry of Foreign Affairs.[18] Upon arrival, the CMS ships interposed themselves between the Chinese fishing boats and the Philippine warship, preventing the arrest of the Chinese fishers. As neither side was willing to budge, a standoff ensued. Diplomatic negotiations for a quick de-escalation were likewise deadlocked.

The South China Sea has long been rife with fishing disputes between the claimants that have resulted in detentions of fishers and confiscation of catches. While encouraging Chinese fishers to operate in the contested waters as a way of asserting China's sovereignty, Beijing had traditionally adopted a confrontation-averse approach. Chinese fishing boats operating in the contested areas were instructed to keep a minimum distance of three nautical miles from islets and reefs occupied by other countries as well as from foreign oil rigs. Catching endangered or protected marine species was prohibited, as this would "cause trouble for China's diplomacy and damage China's international image." In the event of detention by foreign authorities, the Chinese fishers were instructed to "wait patiently" for Chinese diplomats to negotiate their release.[19] Viewed in this light, China's actions in the Scarborough Shoal episode marked a departure from its traditional practice in that the Chinese maritime law enforcement (MLE) ships intervened and blocked the detention of Chinese fishers by another claimant.[20]

While the PLA was the major fighting force that China used to resolve maritime disputes in the twentieth century,[21] China has gradually moved away from a navy-centric approach toward an approach that employs MLE agencies as first-response, front-line units and the PLA as a backstop force.[22] The rationale for this transition is multipronged. First, it enables the PLA to invest in blue water capabilities to fulfill what the Chinese leadership envisioned in the early 2000s as the institution's "new historic missions," including conducting low-intensity and noncombatant operations to protect

---

[18] "黄岩岛, 炎黄岛" [Huangyan Island, Chinese Island], China Newsweek, May 11, 2012, available at http://news.sohu.com/20120511/n342969585.shtml.

[19] Xia Zhangying, 南沙群岛渔业史 [A History of Fisheries in the Nansha Islands] (Beijing: Haiyang Chubanshe, 2011), 209–13.

[20] Author's interview in Guangzhou, China, May 2019.

[21] M. Taylor Fravel, *Strong Borders, Secure Nation: Cooperation and Conflict in China's Territorial Disputes* (Princeton: Princeton University Press, 2008).

[22] State Council Information Office (PRC), *China's National Defense in 2000* (Beijing, October 2000); and M. Taylor Fravel, "The PLA and National Security Decision-making: Insights from China's Territorial and Maritime Disputes," in *PLA Influence on China's National Security Policymaking*, ed. Phillip C. Saunders and Andrew Scobell (Stanford: Stanford University Press, 2015), 249–73.

China's strategic waterways and overseas interests beyond the country's immediate periphery.[23]

Second, despite the PLA performing a supporting role, merely the display of its presence is sufficient to signal China's resolve and ability to defend territorial claims by force.[24] Deployed over the horizon, the PLA enables the MLE and other civilian actors, such as Chinese fishers and national oil companies, to expand the scope of their activities and establish a constant presence in contested areas. In the event of a confrontation, the PLA can weigh in as an ultimate security guarantor for these actors. This presence-without-interference approach is perceived by the PLA and China's civilian researchers as having a stabilizing effect through deterrence.[25]

Third, China believes that the use of nominally civilian MLE agencies as a front-line force in contested waters lowers the risk of escalation in the event of a confrontation or clash with foreign vessels.[26] By the time the standoff occurred, China's major MLE agencies had established a constant presence in the South China Sea. The Fisheries Law Enforcement Command (FLEC) started active patrols in the South China Sea in 1998, and the CMS started patrols in 2007.[27] However, as Geoffrey Till has cautioned, the perception that MLE vessels are less escalatory may have the paradoxical effect of emboldening governments to employ them more assertively.[28]

During the standoff, the PLA maintained a relatively measured tone in its official statements, which was consistent with its secondary role. Its first official response came on April 24, when Chinese minister of national defense Liang Guanglie said that he was confident in the co-management of the incident by the Ministry of Foreign Affairs and other agencies charged with jurisdiction over maritime affairs and that he believed that the standoff

---

[23] U.S. Office of Naval Intelligence, *The PLA Navy: New Capabilities and Missions for the 21st Century* (Washington, D.C., April 2015), 11; and Roy Kamphausen, David Lai, and Travis Tanner, eds., *Assessing the People's Liberation Army in the Hu Jintao Era* (Carlisle: U.S. Army War College, 2014), 2–3.

[24] Fravel, "The PLA and National Security Decision-making," 259–69.

[25] Author's interviews in Tokyo, Japan, and Singapore, August 2018; and Zhang Jie, "黄岩岛模式与中国海洋维权政策的转向" [The Huangyan Model and the Shift of China's Maritime Rights Protection Policies], *Southeast Asian Studies*, no. 4 (2013): 26.

[26] He Zhonglong et al., 中国海岸警卫队组建研究 [A Study on the Establishment of China's Coast Guard] (Beijing: Hai Yang Chu Ban She, 2007), 15.

[27] Ministry of Agriculture (PRC), 中国渔业年鉴2000 [China Fisheries Yearbook 2000] (Beijing, 2000), 2; and "中国海监已实现对宣布管辖海域进行维权巡航" [CMS Expands Rights Protection Patrols to Cover All China-Administrated Sea Areas], Sina, February 27, 2009, http://mil.news.sina.com.cn/2009-02-27/0906543720_2.html.

[28] Geoffrey Till, *Seapower: A Guide for the Twenty-First Century* (London: Routledge, 2017), 354.

could be resolved through diplomatic means.[29] Two days later, defense ministry spokesperson Geng Yansheng stated that the military would work with the FLEC and CMS to collaboratively defend China's maritime rights and interests.[30] On May 12, a *PLA Daily* commentary stated that there was still room for resolving the standoff through diplomatic means and called for adherence to the principle of "on just grounds, to our advantage, and with restraint" (有理、有利、有节) to preserve China's "strategic initiative."[31] In late May, when attending the ASEAN Defense Ministers' Meeting-Plus in Phnom Penh, Liang welcomed a sideline meeting with his Philippine counterpart. During the meeting, Liang urged Manila to "prioritize the broad interests" of the region.[32] China's relatively restrained official line notwithstanding, hard-liners within the PLA enjoyed plenty of liberty during the standoff, openly calling on Beijing to "show the sword" to deter further provocations by the Philippines and prevent other claimants from following suit.[33]

Meanwhile, bureaucratic interests and interagency rivalry between MLE agencies played a role in hyping tensions and publicity surrounding the standoff. The fact that it was two CMS ships that first responded and intervened was used by CMS and the SOA to undergird the institution's leading role in safeguarding China's maritime rights. Competing to project a leading role, the FLEC invited a TV news crew to ride with its vessel deployed to Scarborough Shoal. The news company's request for a media ride had been pending for two years before the FLEC extended the invitation. The FLEC used this publicity to showcase the process of resupplying Chinese fishing boats at the shoal and ritually planted the Chinese flag on a reef. The message was clearly articulated: "The FLEC represents the sovereignty of the Chinese government."[34] SOA director Liu Cigui even complained during an interview with Xinhua on June 8 that media reports on the standoff often

---

[29] "解放军有能力捍卫南海权益" [The PLA Has the Capability to Defend China's Rights and Interests in the South China Sea], *China National Defense Daily*, May 1, 2012.

[30] "Chinese Army to Safeguard National Marine Rights," Xinhua, April 26, 2012.

[31] "有理有利有节, 赢得更大战略主动" [On Just Grounds, to Our Advantage, and with Restraint to Win Greater Strategic Initiative], *PLA Daily*, May 12, 2012.

[32] "梁光烈会见菲律宾国防部长" [Liang Guanglie Meets with Philippine Defense Secretary], *PLA Daily*, May 30, 2012.

[33] "'韬光养晦' 须和 '有所作为' 相结合" ["Hiding Our Capabilities" Must Be Combined with "Doing Something"], *Southern Daily*, April 22, 2012; and Zhou Erquan, "解决南海争端，该打就打" [To Settle Disputes in the South China Sea, We Must Fight When the Time Comes], *China Business Herald*, April 30, 2012.

[34] "五星红旗插上黄岩岛" [The Flag of China Has Been Planted on Huangyan Island], *Wenhui Bao*, May 17, 2012.

mistook CMS vessels for FLEC ships, although the former have "always been at the forefront in defending China's maritime rights and interests."[35]

As details of Chinese decision-making processes during the standoff remain unavailable to external observers, it is difficult to determine the specific level of influence that each agency has on Beijing's decisions. But a general observation is that the PLA, national oil companies, and Hainan's provincial authorities were more powerful and had greater sway over decision-makers, whereas the CMS and FLEC were "not known as bureaucratic heavy hitters" and thus logrolled with the more powerful players in order to advance their own parochial institutional interests.[36] This observation is consistent with the fact that strategists and scholars within the PLA played a major role in hardening China's approach toward sovereignty issues.

Meanwhile, moves made by the Philippines in the early stage of the standoff enabled the hard-liners to justify a firm Chinese posture. First, it deployed a naval frigate to inspect and arrest the Chinese fishers. This deployment was portrayed by proponents of a firm Chinese response as indicating Manila's hostile intention, even though the Philippine warship was an antiquated World War II–era cutter, whereas the Chinese MLE ships were newer, larger, and more modern.[37] Second, Manila released a group of photos on April 11 that showed the Chinese fishing boats at Scarborough Shoal being inspected by armed Philippine soldiers and the Chinese fishers being held at gunpoint. Releasing such photos was not an unprecedented practice by the Philippines,[38] but publicizing them during an ongoing standoff represented a key departure from past incidents and was conveniently used by China to justify an assertive response. An article penned by former senior Chinese government officials with firsthand involvement in the standoff claimed that the photos triggered "an outcry among the Chinese general public" that pushed Beijing to take countermeasures.[39]

With respect to the international response, China perceived regional stakeholders as ambivalent at the onset of the standoff. The first source of ambivalence came from Washington on the critical question of how the United States would respond to a clash between China and the Philippines in

---

[35] "为了这片'蓝色国土'" [For This "Blue National Territory"], *Ocean Development and Management*, no. 6 (2012).

[36] Shirk, *Overreach*, 102–3.

[37] Author's interview in Shanghai, April 2019.

[38] Xia, 南沙群岛渔业史, 209.

[39] Fu Ying and Wu Shicun, "South China Sea: How We Got to This Stage," *National Interest*, May 9, 2016, https://nationalinterest.org/feature/south-china-sea-how-we-got-stage-16118.

the South China Sea. As tensions grew in the area, Manila began to regularly push Washington to reaffirm its commitment to honoring the 1951 U.S.-Philippines Mutual Defense Treaty. But Washington had been reluctant to clarify its treaty obligations to the Philippines on the South China Sea issue. In June 2011, when asked how the United States would respond in the event of a Chinese attack on Philippine forces in the Spratly Islands, Secretary of State Hillary Clinton declined to discuss "hypothetical events."[40] A Congressional Research Service report on U.S.-Philippine relations released on April 5, 2012—three days prior to the outbreak of the standoff—acknowledged that the treaty "may leave room for different interpretations."[41] U.S. ambivalence led Manila to openly complain that there was "strategic ambiguity on the part of Washington."[42] Writings by Chinese analysts at the time indicate that Beijing was clearly aware of Washington's ambivalence and its implications in a South China Sea scenario.[43]

Washington remained ambiguous during the incident. On April 30, the U.S.-Philippines 2+2 meeting ended without clarifying whether the mutual defense treaty covered the Philippines' offshore claims.[44] On May 3, a *People's Daily* article described Washington's attitude as a sign of "neutrality."[45] The importance that Beijing attached to this perception of Washington's neutrality was also clear in a meeting on June 1 between Chinese vice foreign minister Fu Ying and U.S. assistant secretary of state Kurt Campbell to work out a solution to end the standoff. According to Fu, she explicitly asked Campbell what role Washington played, and his response that the United States did not play any role was "very important" because "it is related to China's judgment of the incident."[46]

The second source of ambivalence came from ASEAN. As tensions in the South China Sea escalated, Beijing seemed more worried about the prospect of ASEAN countries forming a "united front" against China

---

[40] Hillary Rodham Clinton, "Remarks with Philippines Foreign Secretary Albert Del Rosario after Their Meeting," U.S. Department of State, June 23, 2011, https://2009-2017.state.gov/secretary/20092013clinton/rm/2011/06/166868.htm.

[41] Thomas Lum, "The Republic of the Philippines and U.S. Interests," Congressional Research Service, CRS Report for Congress, RL33233, April 5, 2012, 28.

[42] "U.S. Under Pressure over Sea Dispute," *South China Morning Post*, June 17, 2011.

[43] Cao and Ju, 南海地区形势报告 (2011–2012), 217.

[44] Michael Green et al., *Countering Coercion in Maritime Asia: The Theory and Practice of Gray Zone Deterrence* (Washington, D.C.: Center for Strategic and International Studies, 2017), 110.

[45] Shen Dingli, "美国保持中立有助南海稳定" [The U.S. Maintaining Neutrality Is Helpful for Stability in the South China Sea], *People's Daily*, May 3, 2012.

[46] Fu Ying, 看世界2: 百年变局下的挑战和抉择 [Seeing the World 2: Challenges and Choices Amidst Changes Unseen in a Century] (Beijing: CITIC Publishing House, 2021), 265.

than a strong U.S. reaction. Long before the Scarborough Shoal episode, Beijing had made it clear that it would "actively prevent ASEAN from forming a unified position ostensibly adverse to China's interests."[47] But ASEAN's muted response to the standoff mitigated Beijing's worries about galvanizing regional counterbalancing efforts against China. More than a week into the standoff, the Philippines complained that ASEAN had not issued "even a resolution of concern or of sympathy."[48] Still, Beijing's lingering unease about a united ASEAN position was reflected in a commentary published in the *People's Daily* on the eve of the ASEAN Foreign Ministerial Meeting. The commentary urged the ministers to not allow the broad interests of ASEAN-China cooperation to be harmed by the South China Sea controversies.[49] On July 13, the foreign ministers failed to issue a joint communiqué due to internal disagreement over whether to include a reference to the South China Sea.[50] This failure, the first in ASEAN's 45-year history, came as a clear sign of the organization's inability to form a united front vis-à-vis China.

A Multipronged Nonmilitary Escalation

Incentivized by its cost-benefit calculation to take an escalatory posture, China's goal was twofold: get the fishers back; and after their departure from the scene, "deter the Philippines from continuing to confront China."[51] Given the power asymmetry between the two countries, the Philippines obviously did not have the capabilities to alter the local power balance in its favor or militarily confront China. Manila's repeated calls to submit the dispute to international arbitration, however, raised the prospect of fundamentally delegitimizing China's claims in the legal and political dimensions.[52] The nonmilitary and nonphysical nature of international arbitration introduced a need for a proportionate Chinese escalation strategy that would enable China to credibly signal its resolve without unduly militarizing the situation.

---

[47] Liu Fu-kuo and Wu Shicun, eds., "2010 年度南海地区形势评估报告" [2010 Assessment Report on the Situation in the South China Sea], National Chengchi University, August 2011, 65–66.

[48] "Philippines, U.S. Hold War Games amid Row with China," *Straits Times*, April 17, 2012.

[49] Zhong Sheng, "警惕干扰东盟外长会议图谋" [Watch Out for Plots to Disrupt ASEAN Foreign Ministers' Meetings], *People's Daily*, July 3, 2012.

[50] "ASEAN Sharply Split on South China Sea Row," Agence France-Presse, July 11, 2012.

[51] Li Xiangyang, ed., 亚太地区发展报告 (2013) [Annual Report on the Development of the Asia-Pacific (2013)] (Beijing: Social Sciences Academic Press, 2014), 152.

[52] "Dispute with China Continues: Philippines Stands Firm," *BusinessWorld*, April 18, 2012.

Hence, Beijing engaged in a multipronged nonmilitary escalation that did not directly involve the PLA.

On May 2, China's General Administration of Quality Supervision, Inspection and Quarantine announced that due to "bacteria problems," bananas and pineapples imported from the Philippines were being held at Chinese ports.[53] The Philippines' top fruit exports to China in 2011 in terms of value were bananas, followed by pineapples,[54] and China had been the second-largest importer of Philippine bananas.[55] Quiet bilateral diplomacy ensued. On May 24, Manila announced that after a joint inspection of the fruits by Chinese and Philippine authorities, the uninfected fruits were cleared for entry to China, while those infested would be destroyed or shipped back to the Philippines.[56] Given the nonessential nature of the targeted goods and the relatively short duration, the economic sanction seemed intended as a warning, as opposed to sanctions intended to inflict serious strategic costs, which would likely target essential goods and commodities such as rare earths, oil, or semiconductors.

Starting in mid-May, information about the suspension of China's Philippines-bound tourism and flights began to surface.[57] However, despite claims by Chinese media that over one million Chinese tourists travel to the Philippines every year and that the boycott would deal a "heavy blow" to the country's tourism industry,[58] data from Philippine sources reveals a different story (see **Figure 1**). The number of Chinese tourists to the Philippines was well below one million until 2017. The year-to-year changes demonstrate a clear trend of growth from 2005 to 2018, with only minor drops in 2009 and 2014. Notwithstanding the suspension of tourism, 2012 saw a modest 3% increase. To be sure, given the robust growth in Chinese tourism in 2010 and 2011, the Philippines could have seen a much larger increase in 2012 had there been no boycott. But a mere slowdown in growth—and no decrease in absolute terms—arguably had a limited effect as an economic punishment. Moreover, 2013 saw a 70% spike in inbound

---

[53] General Administration of Quality Supervision, Inspection and Quarantine (PRC), "关于加强进口菲律宾水果检验检疫有关问题的通知" [Notice on Strengthening Inspection and Quarantine on Fruits Imported from the Philippines], May 2, 2012, available at http://law.foodmate.net/show-174806.html.

[54] "Philippines Looks for Alternative Markets for Fruit Exports," *BusinessWorld*, May 14, 2012.

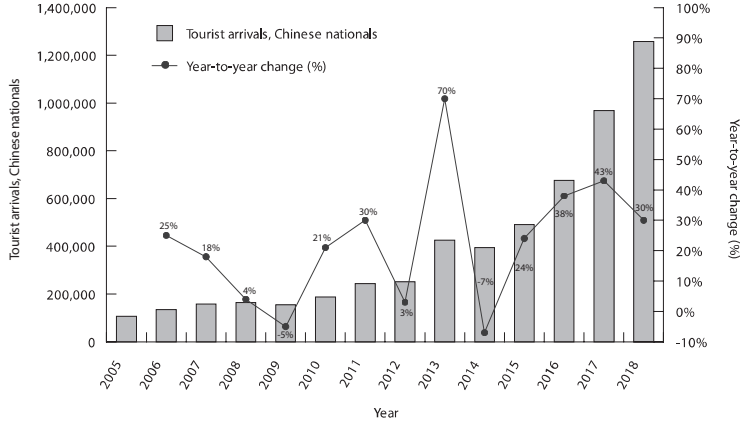
[55] "Trade, Public Anger Sharpening Beijing-Manila Spat," Associated Press, May 10, 2012.

[56] "Agriculture Dep't Addresses China's Concerns on Fruits," *BusinessWorld*, May 25, 2012.

[57] "China Airline Cuts Flights to Philippines," Xinhua, May 15, 2012.

[58] "多地旅行社暂停赴菲旅游, 或重创菲律宾旅游业" [Multiple Travel Agencies Suspend Philippine-Bound Tours, Likely to Deal a Heavy Blow to Philippine Tourism], China Broadcasting Network, May 10, 2012, available at http://news.sohu.com/20120510/n342890179.shtml.

FIGURE 1 Chinese tourist arrivals in the Philippines



SOURCE: Data for 2005–10 is from J.C. Punongbayan, "Why the Influx of Chinese in the Philippines?" Rappler, June 17, 2019, https://www.rappler.com/thought-leaders/233238-reasons-influx-chinese-philippines. Data for 2011 is from Apa M. Agbayani, "Impact of China Travel Boycott 'Immediate but Temporary,'" Rappler, May 10, 2012, https://www.rappler.com/nation/5166-dot-chinese-travel-boycott-unfortunate. Data for 2012 is from "4.27-M Tourists in PH in 2012: Record High but Below Goal," Rappler, January 23, 2013, https://www.rappler.com/business/20304-4-27-m-tourists-in-ph-in-2012-record-high-but-below-goal. Data for 2013–18 is from Department of Tourism (Philippines), "Tourism Demand Statistics—Visitor Arrivals to the Philippines," http://www.tourism.gov.ph/tourism_dem_sup_pub.aspx.

Chinese tourists, which seems to suggest that the suspension of tourism during the standoff was intended more as a symbolic punitive measure than a substantive retaliatory one.

In addition, China imposed a fishing ban from May 16 to August 1 in waters encompassing Scarborough Shoal and warned that foreign fishing activities in the banned area would face punishments such as fines, confiscations, and even criminal charges.[59] The Philippines reciprocated by imposing its own fishing ban in the area.[60]

In June, the United States stepped in and proposed a mutual withdrawal of the Chinese and Philippine government ships from the shoal as a way to end the standoff. While the Philippines pulled out on June 16, China denied

[59] "China Focus: China to Impose South China Sea Fishing Ban," Xinhua, May 14, 2012.

[60] "Philippines to Also Implement Fishing Ban in Panatag Shoal," *BusinessWorld*, May 15, 2012.

on June 18 the existence of any commitment to a mutual withdrawal.[61] On July 18, five days after the ASEAN Foreign Ministerial Meeting failed to issue a joint statement, the Philippines Department of Foreign Affairs reported that China had opportunistically seized full control of Scarborough Shoal and blocked the entrance of the lagoon to prevent Philippine vessels from returning, presenting Manila with a *fait accompli*.[62]

Different accounts exist with respect to China's refusal to withdraw and its decision to seize Scarborough Shoal. Conventional wisdom asserts that China acted in bad faith, reneging on what was believed to be a U.S.-brokered agreement to de-escalate.[63] Some studies, however, conclude that China's action was likely a result of crisis communication errors during the process of U.S. shuttle diplomacy and that the Philippines' untimely disclosure and withdrawal during June 16–18 led China to backtrack to avoid being perceived domestically as compromising on national sovereignty.[64] Without obtaining complete and accurate information from Chinese, U.S., and Philippine negotiators and doing a rigorous three-way information triangulation,[65] one cannot rule out either explanation for China's action. Each explanation points to a Chinese rationale that requires a tailored approach from the United States and its allies. If the conventional explanation is valid, the United States and its allies need to make clear to Beijing that negotiating in bad faith and reneging on agreements come with a substantial price. But if the explanation of poor communication has more validity, then a greater emphasis should be given not just to improving crisis communications between Washington and Beijing but also to strengthening coordination between the United States and its allies on crisis diplomacy and signaling.

---

[61] "Philippines Pulls Out Ships from Disputed Shoal," Associated Press, June 16, 2012; and "2012年6月18日外交部发言人洪磊举行例行记者会" [MFA Spokesperson Hong Lei Holds Regular Press Conference June 18, 2012], Ministry of Foreign Affairs (PRC), Press Release, June 19, 2012, http://www.gov.cn/xwfb/2012-06/18/content_2163968.htm.

[62] Michael Del Callar, "DFA: China Boats Blocking PHL Vessels from Panatag Shoal," GMA News Online, July 18, 2012, https://www.gmanetwork.com/news/news/nation/265889/dfa-china-boats-blocking-phl-vessels-from-panatag-shoal/story.

[63] Ely Ratner, "Learning the Lessons of Scarborough Reef," *National Interest*, November 21, 2013, https://nationalinterest.org/commentary/learning-the-lessons-scarborough-reef-9442.

[64] Green et al., *Countering Coercion in Maritime Asia*, 119.

[65] Gregory B. Poling, *On Dangerous Ground: America's Century in the South China Sea* (Oxford: Oxford University Press, 2022), 192.

Beijing's Approach toward Crisis Decision-making

Chinese decision-makers underestimated the long-term geopolitical repercussions that China's escalation of the Scarborough Shoal incident would generate. To compensate for their unprecedented failure to present a cohesive stance during the standoff, the ASEAN foreign ministers issued a statement in July 2012 stipulating six principles on the South China Sea issue.[66] From Beijing's perspective, this development came as an alarming pushback and suggested the surging reputational and geopolitical costs that China would face among ASEAN countries in the long run. A South China Sea expert at the Chinese Academy of Social Sciences cautioned against employing the same tactics used during the standoff (dubbed the "Huangyan model") to consolidate China's position in the Spratly Islands because doing so would likely generate "high sensitivity and political spillovers" as "relevant disputants and countries outside of the region would make stronger reactions and probably form and strengthen a concerted position against China."[67] Indeed, a Chinese interviewee acknowledged that the Scarborough Shoal strategy is essentially "non-reusable" (不可复制).[68]

However, Beijing's awareness of the long-term costs and its decision to abstain from using similar tactics elsewhere did not bring an end to the Scarborough Shoal episode. In early 2016, U.S. intelligence found that China was moving toward reclamation at the shoal, which was reportedly advocated for by the PLA. China eventually refrained from making such a move after President Barack Obama warned Xi Jinping during a March meeting that any reclamation would cross a red line.[69]

The Philippines pressed ahead with the international arbitration in 2013, and the award was issued in July 2016 shortly after its new president Rodrigo Duterte was inaugurated. Beijing rejected the ruling entirely, on the one hand, and utilized the change in Philippine leadership as an opportunity to co-opt the Duterte administration and dampen the effect of the arbitral ruling, on the other hand.[70] In December of that year, Duterte announced

---

[66] "Statement of the ASEAN Foreign Ministers: ASEAN's Six-Point Principles on the South China Sea," ASEAN, July 20, 2012, https://asean.org/wp-content/uploads/images/AFMs%20Statement%20on%206%20Principles%20on%20SCS.pdf.

[67] Zhang, "黄岩岛模式与中国海洋维权政策的转向," 29.

[68] Author's interview in Beijing, China, May 2019.

[69] "Obama Forced Xi to Back Down over South China Sea Dispute," *Financial Times*, July 12, 2016.

[70] Ruan Zongze, "2016, 中国外交的'破'与'立'" [2016, "Breakthroughs" and "Achievements" in China's Diplomacy], *People's Daily*, December 24, 2016.

his decision to shelve the award after Beijing pledged development aid and investment (which would not materialize throughout Duterte's term).[71]

For other claimants, the arbitration ruling provided a new potential course of action they could resort to in the face of a stronger China in the South China Sea. To be sure, delegitimizing China's claims in the legal dimension is far from adequate to effectively counter its expanding activities and control in the region. Nonetheless, the accumulated reputational damage could make Beijing think twice before pursuing escalatory measures akin to those it took during the Scarborough Shoal episode. In 2014, during its clash with China over the deployment of a Chinese oil rig to the Paracel Islands, Vietnam publicly considered the option of initiating arbitration, which likely contributed to China's decision to eventually back down and remove the rig.[72] In 2019, Vietnam raised the legal option again amid flare-ups over China's deployment of a marine survey ship to prospect waters within Vietnam's claimed exclusive economic zone.[73] Writings by some Chinese analysts revealed China's concerns that a Vietnam-initiated arbitration could seek to delegitimize China's claims not only in the Spratly Islands but also in the Paracel Islands.[74]

China's decision-making is driven as much by power distribution as by Beijing's desire to be recognized and respected as a major power by both established powers and smaller states.[75] This mentality was manifested when Chinese foreign minister Yang Jiechi asserted in 2010 that "China is a big country and other countries are small countries, and that is just a fact."[76] But this rationale does not translate into across-the-board assertiveness in China's dealings with weaker states in the South China Sea. Historically, China has a track record of compromising in territorial disputes with its smaller neighbors but confronting militarily more powerful adversaries, such as the Soviet Union and India during the Cold War.[77] In the past two decades, China has demonstrated a more risk-acceptant and confrontational

---

[71] Poling, *On Dangerous Ground*, 233.

[72] Carlyle Thayer, "Vietnam, China and the Oil Rig Crisis: Who Blinked?" *Diplomat*, August 4, 2014, https://thediplomat.com/2014/08/vietnam-china-and-the-oil-rig-crisis-who-blinked.

[73] David Hutt, "Vietnam May Soon Sue China on South China Sea," *Asia Times*, May 7, 2020, https://asiatimes.com/2020/05/vietnam-may-soon-sue-china-on-south-china-sea.

[74] Zheng Zhihua, "越南如提起海南仲裁, 中国会如何反应?" [If Vietnam Initiates a South China Sea Arbitration, How Will China React?], South China Sea Probing Initiative, June 10, 2020, http://www.scspi.org/zh/dtfx/1591756997.

[75] M. Taylor Fravel and Charles L. Glaser, "How Much Risk Should the United States Run in the South China Sea?" *International Security* 47, no. 2 (2022): 88–134.

[76] John Pomfret, "U.S. Takes a Tougher Tone with China," *Washington Post*, July 30, 2010.

[77] Fravel, *Strong Borders, Secure Nation*.

posture vis-à-vis Japan in the East China Sea than with claimants in the South China Sea.[78] In addition, the accelerated economic integration between China and many Southeast Asian countries over the past few decades enables China to induce their accommodation to its interests by leveraging its economic heft.[79] This approach can be summarized, in the words of a retired PLA major general, as "using both carrots and sticks, being both accommodating and assertive" (恩威并举,软硬都有).[80]

To the extent that China strives to credibly signal its resolve while maintaining an image of nonbelligerency among its smaller neighbors, stakeholders in the region still have the leverage to shape Chinese crisis behavior in the South China Sea by tipping China's cost-benefit calculation toward the international end. External efforts, however, are most effective when an unequivocal, strong U.S. response is combined with a unified voice from ASEAN.

Regarding the United States, the country should continue to throw its weight behind ASEAN, bolster the credibility of collective counterbalancing efforts in the region, and strengthen other regional stakeholders' resilience in their dealings with China, especially in the economic realm. Meanwhile, the United States should avoid approaching the South China Sea disputes in the region solely through a prism of great-power competition or by over-relying on major power–centric groupings in the area such as AUKUS (Australia, the United Kingdom, and the United States) and the Quad (Australia, India, Japan, and the United States). Doing so may backfire by marginalizing ASEAN, which should play a central role in managing the disputes. For ASEAN members, they need to leverage Beijing's aversion to ASEAN unity as well as its desire to still project an image of nonbelligerency to constrain China more effectively when it oversteps.

---

[78] Shuxian Luo, "Taking It to the Sea: Nonmilitary Actors in China's Maritime Disputes and Crisis Management" (PhD diss., Johns Hopkins University, 2021).

[79] Audrye Wong, "Reaping What You Sow: Subversive Carrots, Public Accountability, and the Effectiveness of Economic Statecraft" (unpublished working paper, 2020), available at https://ndisc.nd.edu/assets/320488/wong_audrye_emerging.

[80] "罗援: 中国在南海恩威并举, 并未一味亮肌肉" [Luo Yuan: China Is Using Both Carrots and Sticks in the South China Sea, Not Just Blindly Flexing Its Muscles], Phoenix TV, April 25, 2016, http://phtv.ifeng.com/a/20160425/41599283_0.shtml.

EXECUTIVE SUMMARY

This chapter examines China's decision-making process regarding the border conflict with India and considers the outlook for the bilateral relationship.

MAIN ARGUMENT

The China-India boundary dispute is significant in Xi Jinping's decision-making calculus. The politico-military apparatus in China perceives India in increasingly antagonistic terms and chooses to create periodic tensions with India on the boundary dispute. This will continue to be the case in Xi's third term, especially as the centennial goal of building a modern military by 2027 steadily approaches. At the same time, the China-India border dispute must be seen as a corollary of the wider geopolitics at play. In particular, Beijing's decision-making is effectively controlled by the belief that India's foreign policy choices vis-à-vis China are influenced by the U.S. and that India depends on the U.S. to counter China's expanding regional dominance. In addition, as China's modernization of its defense forces continues, the border dispute with India is playing a key role in decision-making about the requirements for engaging in and defending other contested regional theaters, such as the Taiwan Strait and the South China Sea. Finally, it is important to recognize that China views India concurrently through multiple lenses beyond merely their bilateral differences in the boundary dispute.

POLICY IMPLICATIONS

- Given the larger geopolitical dynamics at play, China and India are unlikely to resolve their border disputes because of what Beijing sees as New Delhi's backtracking on a tacit consensus of the post-1993 (and 1996) deal that favored strategic cooperation.
- There is widespread consensus in China that a rising, nationalistic, and assertive India is a key component of the regional (if not global) security architecture. At the same time, China is concerned about the growing collaboration among regional Indo-Pacific countries.
- Beijing appears to be increasing its efforts (as part of its global strategy) to encourage tactical cooperation with India in the economic and multilateral spheres, while simultaneously employing intimidation tactics (psychological and military) to prevent India from coalescing with the Western-led security architecture and, ultimately, to emphasize its overall superiority. There is little chance of a shift in strategy in the near future.

Chapter 6

China's Decision-making and the Border Dispute with India

Jagannath Panda

The conflict between the People's Republic of China (PRC) and India along their disputed border, the Line of Actual Control (LAC), has not completely de-escalated in the three years since the Galwan Valley clash of May 2020. After more than eighteen rounds of talks and negotiations with top military officials from both sides, any collaboration remains marked by deep mistrust. While the disengagement process has remained stalled, reports suggest that the People's Liberation Army (PLA) has not completely withdrawn from its forward location in the Kongka La region in eastern Ladakh, and problems with patrols in Depsang and Demchok have not yet been fully resolved.[1] A step toward ending the standoff was made when both India and China successfully withdrew from Patrolling Point 15 in the Gogra-Hotsprings region of eastern Ladakh; yet, complete disengagement is still far from being achieved.[2] Moreover, the new skirmish along the mountainous border in the Tawang region of the Indian state of Arunachal Pradesh has further highlighted that the LAC remains highly sensitive and dangerous three years after the Galwan Valley skirmishes.

Jagannath Panda is the Head of the Stockholm Center for South Asian and Indo-Pacific Affairs at the Institute for Security and Development Policy in Sweden and a Senior Fellow at The Hague Centre for Strategic Studies in the Netherlands.

[1] Shishir Gupta, "Two Years after Galwan, De-escalation Still to Take Place on Ladakh LAC," *Hindustan Times*, May 5, 2022, https://www.hindustantimes.com/india-news/two-years-after-galwan-de-escalation-still-to-take-place-on-ladakh-lac-101651719113285.html.

[2] Dinakar Peri, "India, China Troops Disengage at LAC Friction Point in Ladakh," *Hindu*, September 8, 2022, https://www.thehindu.com/news/national/india-china-begin-disengagement-in-gogra-hotsprings-pp-15-in-eastern-ladakh/article65866319.ece.

What factors have prevented the PRC and India from moving past the stalemate over the LAC and reaching a sustainable solution to the border conflict? Looking at the PRC's decision-making process and outlook toward India (and the region at large), what are the prospects for successful negotiations between the two countries moving forward?

To answer these questions, it is imperative to understand the trajectory of both the China-India border confrontation and, broadly, their "developmental partnership." This requires an examination of how the PRC perceives the issue within the Chinese government's decision-making calculus on the matter.[3] In other words, it is worth looking at the factors, particularly through the strategic lens of China, that led to a relatively sudden escalation of tensions between the two countries, so much so that it resulted in the deadliest clash between the two sides in over four decades. Although no guns were used—per the 1996 and 2005 agreements that disallowed the use of firearms (including "blast operations" or explosives) within two kilometers of the LAC—primitive weaponry like nail-studded iron rods was used to bloody effect.[4] The Chinese side had admitted to injuries and casualties amid a "physical clash" between troops without mentioning crude weapons.[5] Even three years after the incident, there is little clarity on the fundamental causes that led to the sudden escalation after years of stability at the border.

China's actions at borders disputed with its neighbors—including its Galwan Valley clash with India in 2020 and its buildup of infrastructure in contentious areas near the LAC—are widely interpreted as unilateral acts of aggression. Looking at China's domestic debates and its decision-making processes can help gain critical insight into Chinese perceptions on the issue and, therefore, help project the future of the boundary crisis.

---

[3] "Joint Statement between the People's Republic of China and the Republic of India," Ministry of Foreign Affairs of the People's Republic of China (PRC), May 20, 2015, https://www.fmprc.gov.cn/mfa_eng/gjhdq_665435/2675_665437/2711_663426/2712_663428/201505/t20150520_511931.html; and "Joint Statement between the Republic of India and the People's Republic of China on Building a Closer Developmental Partnership," Prime Minister's Office (India), September 19, 2014, https://www.pmindia.gov.in/en/news_updates/joint-statement-between-the-republic-of-india-and-the-peoples-republic-of-china-on-building-a-closer-developmental-partnership,

[4] "Agreement between the Government of the Republic of India and the Government of the People's Republic of China on Confidence-Building Measures in the Military Field along the Line of Actual Control in the India-China Border Areas," UN Peacemaker, November 29, 1996, https://peacemaker.un.org/sites/peacemaker.un.org/files/CN%20IN_961129_Agreement%20between%20China%20and%20India.pdf; and "Galwan Valley: Image Appears to Show Nail-Studded Rods Used in India-China Brawl," BBC News, June 18, 2020, https://www.bbc.com/news/world-asia-india-53089037.

[5] Liu Xuanzun and Liu Xin, "China Urges India to Restrain," *Global Times*, June 16, 2020, https://www.globaltimes.cn/content/1191837.shtml.

Against this backdrop, this chapter attempts to demystify the PRC's decision-making around the boundary conflict with India. It first outlines how India has factored into China's calculus, with a focus on Xi Jinping's consolidation of power through the Chinese Communist Party (CCP) and the Central Military Commission (CMC). It then examines the executive role of the PLA under Xi and analyzes the recent shift in China's policy toward India. Finally, the chapter considers the prospects of achieving realistic progress in border negotiations.

China's Decision-making and the Sino-Indian Border Dispute

The CCP today, as in previous decades, considers the armed forces critical and integral to its survival. It holds absolute power over the PLA, not just in spirit but to the letter. Thus, the modernization and strengthening of the PLA as per "Xi Jinping Thought" are under the party's command. One aim of the CCP constitution is to develop the PLA so as to enhance its loyalty to the party. Thus, the PLA, as a party-armed wing comprising soldiers that are also party members, is a "political actor" that influences state governance. As general secretary of the CCP for the past decade and chair of the CMC, Xi Jinping has held the top position in China's decision-making infrastructure. To maintain and strengthen the CCP's ability to dominate policymaking and enhance his authority over China's policy agenda, Xi has augmented his influence and rigorously centralized decision-making power across all policy sectors, especially in the military dimension.

Xi's Boundary-Plus Policy

The disputed China-India boundary is critical in Xi's decision-making calculus, especially as India's own regional and global power grows. Further, military centrality in foreign relations has shaped China's decision-making, particularly regarding the Sino-Indian border dispute.[6] Yet it is important to remember that Xi, in his initial years as leader, viewed India rather cordially. Beijing's decision-making regarding the China-India boundary was shaped by the goal of cooperative engagement with India to chalk out a partnership under the Chinese umbrella of the Belt and Road Initiative

[6] John W. Garver, "China's Decision for War with India in 1962," in *New Directions in the Study of China's Foreign Policy*, ed. Alastair Iain Johnston and Robert S. Ross (Stanford: Stanford University Press, 2006), 86–130.

and to appease India as a hedge against the United States' regional strategy and initiatives. These efforts were supported by China's neighborhood diplomacy policy and the "developmental partnership" outlined by the Xi and Modi administrations in 2014. In addition, as its naval might and self-assurance grew, China perceived friendly ties with India as a prerequisite for extending its reach into the Indian Ocean, which could have resulted in peaceful progress and aid in establishing a Sino-centric regional order. Thus, improving relations with India was high on China's foreign policy agenda. In 2014, Xi even authored an article in an Indian newspaper following his three-day state visit to India amid tensions in the Chumar valley, which argued that China and India must emerge as "cooperation partners" to take forward the "Asian century of prosperity."[7]

However, China's outlook on its border conflict with India swung sharply later in the decade, as Beijing attempted to unilaterally impose its land claims, thereby raising tensions. This pivot can be attributed to two key factors: first, the changing security environment and great-power politics China faced; and second, China's changing perception of India as India became an increasingly assertive voice in regional geopolitics as an Indo-Pacific power. Beijing's perspective of India as a developmental partner had, if anything, been overshadowed by its assessment of India and the boundary dispute through the prism of the historical Tibet issue. Particularly under Xi, China's Tibet policy to a great extent has been built on caution as well as assertion. This policy is underpinned by the Mao Zedong–era fears of India attempting to undermine Chinese influence in the region and desiring to weaken China's hold on Tibet by leveraging the Dalai Lama's ties with India. This wary perception toward India has been deep-seated in China's decision-making process for decades and is bound to persist until the succession of the fourteenth Dalai Lama is settled. On Tibet as a territorial question, Xi, like Mao, has concentrated on the other "five fingers" of the Tibetan Plateau, which include the northeastern Indian states of Arunachal Pradesh and Sikkim, the Indian territory of Ladakh, and the countries of Bhutan and Nepal. As demonstrated by the December 2022 encounter between Indian and Chinese forces in Arunachal Pradesh, Xi wants to continue to solidify China's authority in the area, with Tibet taking on more significance as a key concern, especially as potential Dalai Lama succession politics could unravel at any time.

[7] Xi Jinping, "Towards an Asian Century of Prosperity," *Hindu*, September 17, 2014, https://www.thehindu.com/opinion/op-ed/towards-an-asian-century-of-prosperity/article6416553.ece.

In this context, Beijing has been investing heavily in the region through developmental projects and military means. In China's perception, a stable, safe, and infrastructurally advanced border region (including in the Tibetan Plateau) would thwart India's attempts to weaken China's influence and power in the Himalayan valley. At the same time, demonstrating Beijing's power and tactical advantage over New Delhi would effectively keep India's fast-paced infrastructural development plan in the area under check. Though the Galwan Valley clash was more a military response to the Doklam clash of 2017, which the PLA perceived as a moral loss, it was equally perpetuated by India's construction of the Daulat Beg Oldi (DBO) road.[8] The connection between the December 2022 Tawang clash and India's construction of the frontier highway in Arunachal Pradesh must be made along these lines.

Thus, Xi has paid distinct attention to the PLA Western Theater Command. This is the largest of China's five theater commands, controlling the country's frontiers with Afghanistan, Pakistan, India, Nepal, and Myanmar. The Chinese personnel and property along the China-Pakistan Economic Corridor are among the targets of its duties. Further, it is the same command that played an instrumental role in orchestrating the tensions in the Ladakh region in April 2020. The uniqueness of the Western Theater Command can be evaluated by reviewing the fact that it comprises two military districts: the Tibet Military District and the Xinjiang Military District, both of which fall under the direct control of the PLA Ground Force.[9] Further, in contrast to other theater commands administered and led by the CMC, the Tibet and Xinjiang military districts have been upgraded to mini-theater or subset unit status. This signifies the influence of the Tibet and Xinjiang military districts, which might possess the charge of military and strategic planning during a conflict.[10]

Additionally, China has been emphasizing the growth of the Western Theater Command, approving large-scale infrastructure projects to increase

---

[8] "从洞朗到加勒万河谷:警惕中印边界问题的三个改变" [From Doklam to Galwan Valley: Be Wary of Three Changes on the Sino-Indian Border Issue], Institute of Regional and Country Studies, Peking University, August 29, 2020, available at https://m.thepaper.cn/baijiahao_8911416.

[9] Kevin McCauley, "Snapshot: China's Western Theater Command," Jamestown Foundation, China Brief, January 13, 2017, https://jamestown.org/program/snapshot-chinas-western-theater-command.

[10] "PLA Modernizes Xinjiang's Military Units in 'Reaction' to India-China LAC Row," *Hindustan Times*, March 17, 2021, https://www.hindustantimes.com/world-news/pla-modernises-xinjiang-s-military-units-in-reaction-to-india-china-lac-row-101621231048385.html; "PLA Xinjiang Military Command Commissions First Type 15 Light Tanks," China Military, February 1, 2022, http://eng.chinamil.com.cn/CHINA_209163/WeaponryEquipment/News_209182/9978551.html; and M.S. Prathibha, "PLA's Western Theatre Command in Transition," Manohar Parrikar Institute for Defence Studies and Analyses, Issue Brief, November 9, 2021, https://www.idsa.in/issuebrief/pla-western-theatre-command-ms-prathibha-091121.

its capabilities. Military development has included providing it with cutting-edge hardware and the newest jet aircraft ahead of most of the other theater commands. Developmental initiatives, particularly under the 14th Five-Year Plan, also play a major role in restating the CCP's priorities in developing the Tibet region. In particular, the Chinese government aims to finish building new railways, a new highway, and 30 additional airfields in the Tibet Autonomous Region and its environs by 2030–35.[11]

Xi's Political Choice and Political Brass on India

The events of the 20th National Congress of the CCP, held in October 2022, further underscored the party's heightened attention on the Sino-Indian border dispute and the importance of the Western Theater Command.[12] As a part of the National Congress convened every five years, the CCP selected 2,296 delegates for the key meeting "in accordance with the party Constitution" and "under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era."[13] Significantly, this included the selection of 30 delegates from the Western Theater Command—nearly double that of the other four theater commands—to showcase its strategically prime position in Xi's decision-making. Further, the CCP elected PLA commander Qi Fabao, who was reportedly injured in the skirmishes with Indian soldiers in the Galwan Valley clash in 2020, as one of the Western Theater Command's delegates. The party also played a video clip from the clash at the meeting to showcase the victories of the PLA in the conflict,[14] further signifying the growing importance of the role played by the boundary dispute in Xi's strategic and political reckonings.

The 20th Party Congress points toward a renewed focus by Xi on South Asia, and particularly India. This has been demonstrated through Xi's evident selection and elevation of candidates with robust experience in managing China-India relations. The most evident is Ding Xuexiang—selected as a member of the Politburo Standing Committee—who accompanied Xi during his visit to Mamallapuram in 2019, along with Yang Jiechi and

---

[11] Jayadev Ranade, "Xi Strengthens Western Theatre Command," *Tribune* (India), September 19, 2022, https://www.tribuneindia.com/news/comment/xi-strengthens-western-theatre-command-433039.

[12] Eerishika Pankaj, "China's 20th Party Congress and Implications for India," Organisation for Research on China and Asia, November 14, 2022, https://orcasia.org/chinas-20th-party-congress-and-implications-for-india.

[13] "Details of Party Congress Delegates Expounded, 33.6% from Frontlines of Work and Production," *People's Daily*, September 27, 2022, http://en.people.cn/n3/2022/0927/c90000-10152102.html.

[14] "At Communist Party Congress, China Plays Galwan Valley Video," *Daily Guardian*, October 17, 2022, https://thedailyguardian.com/at-communist-party-congress-china-plays-galwan-valley-video.

He Lifeng.[15] Termed as Xi's "most trusted aide,"[16] Ding has experience in agenda planning, briefings, and foreign travel to India that could lead the CCP to strengthen its focus on Sino-Indian relations.

Apart from Ding, the connections to India of General He Weidong, who serves as vice chair of the CMC and a member of the current Politburo, are also rather interesting.[17] Having dealt with border matters related to India, particularly as commander of the PLA Ground Force in the Western Theater Command from July 2016 to December 2019, General He would have been at the forefront of shaping China's military posture during the Doklam standoff in 2017. He might have also played a prominent role in setting the decision-making stage during the Galwan Valley clashes in 2020. Promoting someone with such crucial on-the-ground experience is evidence of Xi's commitment to bringing in those who are proficient with the military posturing of the Indian side and could lead the PLA successfully during another localized conflict with the Indian Army. Also picked to join the Central Committee were Li Fengbiao, who, as the political commissar of the Western Theater Command, will be tasked with ensuring the implementation of Xi's political agenda in the region,[18] and Xu Qiling, who currently serves on the Joint Staff Department of the CMC and was the commander of the Western Theater Command in 2020.[19] As mentioned earlier, these appointments signify Xi's changing tactical focus on the China-India boundary, while the Politburo and Central Committee appointments reiterate the robust current and future implications for India and its strategic relations with China.

---

[15] "Brief Introductions of Members of CPC Central Leading Bodies," *China Daily*, October 24, 2022, https://www.chinadaily.com.cn/a/202210/24/WS635569c9a310fd2b29e7e107_6.html; "Xi Jinping Meets with Prime Minister Narendra Modi of India," Ministry of Foreign Affairs (PRC), Press Release, October 12, 2019, https://www.fmprc.gov.cn/mfa_eng/gjhdq_665435/2675_665437/2711_663426/2713_663430/201910/t20191015_513388.html; and "Xi Jinping and Other Leaders Meet with Delegates, Specially Invited Delegates and Non-voting Participants of 20th CPC National Congress," Ministry of Foreign Affairs (PRC), Press Release, October 23, 2022, https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/202210/t20221024_10791272.html.

[16] Jane Cai, "Ding Xuexiang, 'Xi's Most Trusted Aide,' Joins Party's Top Decision-making Body," *South China Morning Post*, October 24, 2022, https://www.scmp.com/news/china/politics/article/3196878/ding-xuexiang-xis-most-trusted-aide-joins-partys-top-decision-making-body.

[17] Ministry of National Defense (PRC), "He Weidong," October 23, 2022, http://eng.mod.gov.cn/leadership/2022-10/23/content_4924242.htm.

[18] "How Did the 20th Party Congress Impact China's Military?" Center for Strategic and International Studies, ChinaPower, October 25, 2022, https://chinapower.csis.org/20th-party-congress-china-military-pla-cmc.

[19] 20th National Congress of the Communist Party of China, "List of Members of 20th CPC Central Committee," October 22, 2022, http://english.scio.gov.cn/20thcpccongress/2022-10/22/content_78480697.html; and Minnie Chan, "China Puts Rising Star in Command of Forces in Border Face-off Against India," *South China Morning Post*, June 9, 2020, https://www.scmp.com/news/china/military/article/3088099/china-puts-rising-star-command-forces-border-face-against-india.

Executing the Executive Decisions of Xi Jinping

Apart from military appointments, it is worth examining the appointments to the Central Foreign Affairs Commission, which sets the foundation for China's foreign policy planning and execution and concurrently influences Beijing's ties with New Delhi. The most interesting appointment here remains that of state councilor and foreign minister Wang Yi, whose "wolf warrior" tactics, particularly during the Galwan Valley standoff, raised many eyebrows in India. More recently, Wang represented the PRC on March 25, 2022, during a surprise visit to India after stopovers in Pakistan and Afghanistan. He was the first high-level Chinese official to visit India since December 2019. The appointment can be considered a reiteration of China's determination to showcase a firm attitude toward India, particularly at the border. Wang's "four-pronged perseverance"—reaching strategic consensus, sidelining boundary issues, leveraging common strengths, and expanding "Oriental" multilateral cooperation—seems to be the direction in which the bilateral relationship will head if China controls the discourse.[20]

Furthermore, the United States is now permanently dominant in China's strategic outlook toward India. The Arunachal Pradesh border clash in December 2022 took place only days after the conclusion of joint U.S.-India war games. Unlike in Galwan, disengagement following the clash was immediate in this case; however, it must be viewed as a sign of potentially increasing violence within the LAC commands.[21] Significantly, China had not previously considered India a primary threat or an equal power[22] but, judging New Delhi by its comprehensive national power, a secondary power.[23] However, with the United States and India working together on defense, China faces a much more genuine and severe threat along its southern border and in the Indian Ocean. Cooperation of this sort not only would likely jeopardize the safety and stability of China's western borderlands and weaken its strategic influence in South Asia, but it could

---

[20] "Wang Yi Meets with New Indian Ambassador to China Pradeep Kumar Rawat," Ministry of Foreign Affairs (PRC), Press Release, June 22, 2022, https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/202206/t20220623_10708685.html.

[21] Khushboo Razdan, "Indian and Chinese Troops Clash at Disputed Border Days after U.S.-India Joint War Games," *South China Morning Post*, December 13, 2022, https://www.scmp.com/news/china/diplomacy/article/3203054/indian-and-chinese-troops-clash-disputed-border.

[22] Selina Ho, "China's Shifting Perceptions of India: The Context of Xi Jinping's Visit to India," East-West Center, Asia Pacific Bulletin, no. 278, October 2014, https://scholarspace.manoa.hawaii.edu/server/api/core/bitstreams/56efe87f-6516-4ddf-be1e-ffb672074c12/content.

[23] Yun Sun, "China's Strategic Assessment of India," War on the Rocks, March 25, 2020, https://warontherocks.com/2020/03/chinas-strategic-assessment-of-india.

jeopardize China's access to energy from the Middle East by impeding the country's power-projection capabilities in the Indian Ocean.[24] Moreover, the United States' recognition of India's leadership role in the Indian Ocean weakens (and even severely challenges) China's influence in the region and the world at large, while encouraging Japan, Australia, and other Indo-Pacific countries to forge stronger ties with New Delhi.[25]

In this light, the idea that outside factors play a major role in China's tense relationship with India is troubling to Beijing. Many of its policies toward India have been influenced by the path that New Delhi and Washington have taken together. As a matter of fact, the PRC's decision-making toward India is controlled by the belief that India's decisions are influenced by the United States,[26] and India requires the support of the United States to counter China's expanding regional dominance.[27] Beijing's critical view toward India persists irrespective of India maintaining "strategic autonomy" and seeking diverse partnerships, including with Russia (a U.S. adversary and a strong partner of China). This hostility has increased since India has enhanced its strategic ties with the United States, along with participating in groupings like the Quad, involving the United States, Japan, and Australia, as well as having established strong defense ties through defense industry cooperation, arms sales, and information- and intelligence-sharing mechanisms.[28]

Thus, several factors, including China's ambition to secure its borders and core interests, along with its resolve to reject the growing U.S. influence, have likely influenced China's decision-making in the boundary dispute with India. This case also sheds light on China's views on other middle powers and great powers, revealing how the country's behavior and stance in a conflict shift depending on the opponent's level of global or regional

---

[24] Antara Ghosal Singh, "China's Evolving Strategic Discourse on India," Stimson Center, Policy Paper, May 4, 2022, https://www.stimson.org/2022/chinas-evolving-strategic-discourse-on-india.

[25] Jagannath Panda, "Beijing's Asian NATO Maxim on Quad Is Structural," Pacific Forum, PacNet, no. 61, November 22, 2019, https://idsa.in/system/files/news/PacNet-Commentary-Beijing.pdf.

[26] Lan Jianxue and Lin Duo, "China-India Ties Can't Be Sacrificed for American Interests," *China Daily*, September 16, 2022, https://global.chinadaily.com.cn/a/202209/16/WS6323c21ba310fd2b29e77f14.html; and Qian Feng, "Alliance with U.S. Will Crush India's Great Power Fantasies," *Global Times*, November 1, 2022, https://www.globaltimes.cn/page/202111/1237838.shtml.

[27] Hu Xijin, "It's Not in India's Interest to Be a U.S. Outpost," *Global Times*, July 19, 2022, https://www.globaltimes.cn/page/202207/1270896.shtml.

[28] Hu Weijia, "Rosy India-U.S. Trade Data May Be a Danger to New Delhi," *Global Times*, May 30, 2022, https://www.globaltimes.cn/page/202205/1266944.shtml.

influence.[29] In this context, China's attitude toward middle powers is likely to possess an amalgamation of status quo and revisionist elements. Whereas the status quo attitude would have ensured a stable environment for China to rise peacefully, revisionist perceptions would lead China to expand its interests and respond assertively to secure its core strategic goals.[30]

Judging from recent events, particularly during the Covid-19 pandemic, China has been gradually adopting an assertive, revisionist outlook toward many middle powers. If anything, China is demonstrating its unyielding nature and employing more aggressive measures toward countries it does not view as being on par with its power. For instance, it has been using assertive diplomacy and a belligerent stance at the LAC, while mobilizing resources to achieve a decisive victory on the battlefield just like it did during the border conflict of 1962.

The 2017 Doklam standoff was a turning point in how China viewed India strategically. Neither country used force, but India's bold stance prompted Beijing to re-evaluate New Delhi's geopolitical mettle. This re-evaluation contested China's long-held bias against India as occupying a position of inferiority in the regional power hierarchy. Moreover, China's increased military and developmental spending in the border region, as well as Xi's carefully selected CCP appointments, has further confirmed this changing attitude toward India.

Exploring Drivers of LAC Escalation under Xi Jinping

The disputed territory between India and China spans several provinces and regions, from Ladakh (primarily per Chinese claim only) in the northwest to India's northeastern state of Arunachal Pradesh (again per

[29] The term "middle powers" is used to describe a broad coalition of similar, midsized countries that are traditionally considered U.S. democratic allies or partners, but that have strengthened their collaborations with one another and taken it upon themselves to advocate for multilateral solutions to various global and regional challenges in the absence of U.S. leadership. See Erik Brattberg, "Middle Power Diplomacy in an Age of U.S.-China Tensions," *Washington Quarterly* 44, no.1 (2021): 219–38; and Yuan Sha, "China's Dilemma toward Middle Powers in the Asia-Pacific Region" (paper presented at the 2019 U.S. Naval War College and East Asia Security Centre conference, July 2020), https://easc.scholasticahq.com/api/v1/articles/14476-china-s-dilemma-toward-middle-powers-in-the-asia-pacific-region.pdf.

[30] Dong Ryul Lee, "China's Perception of and Strategy for the Middle Powers," East Asia Institute, Middle Power Diplomacy Initiative, Working Paper, no. 10, December 2014, https://www.files.ethz.ch/isn/187156/08.12.2014.pdf.

Chinese claim only).[31] Any potential delineation will have to encompass three key verticals: clarification of the boundary, alignment of the LAC, and implementation of the processes. The last major China-India conflict before Doklam that tilted on the verge of war but was defused without bloodshed was in 1987 in the Sumdorong Chu Valley.[32] The other notable conflicts occurred in 1975, 1967, and 1962.[33] However, as soon as Xi Jinping came to power, the frequency of border clashes rose—Depsang in 2013, Chumar in 2014 during Xi's India visit, Doklam in 2017, and Galwan Valley in 2020—with the intensity (and length) growing with each conflict.[34] The media has reported a 75% increase in Chinese border crossings in Ladakh in 2022 over the contested boundary, and the conflict is exacerbated by the two countries' divergent views of the LAC.[35] China now argues that Indian action along the border is limited to 三板斧 ("three axes"): attempting to build military power, strengthening control over the area via legislation, and carrying out infrastructure construction.[36]

From a wider perspective, the PLA may receive the most attention from Indian military experts and strategists, but, as shown, the CCP holds the real power. Xi is effectively in charge of the entire party-state, including the military, through the secretariat. China's increased use of force along its borders must be viewed in light of his unwavering commitment to total

---

[31] China claims 90,000 square kilometers (km^2) of land in northeastern India, an area it refers to as "southern Tibet," which approximately coincides with the Indian state of Arunachal Pradesh. See "Foreign Ministry Spokesperson Hua Chunying's Regular Press Conference on January 21, 2021," *China Daily*, January 22, 2021, https://govt.chinadaily.com.cn/s/202101/21/WS602f6f9e498e7a02c6f6899e/foreign-ministry-spokesperson-hua-chunyings-regular-press-conference-on-january-21-2021.html. As for India, it claims Arunachal Pradesh and the entire Union Territories of Jammu and Kashmir and Ladakh as an integral part of India. Thus, India claims an additional 5,180 km^2 of territory that Pakistan occupied in 1947–48 and ceded to China in 1963, in addition to the 38,000 km^2 of Aksai Chin that it lost to China in the 1962 war. See "Information Sought under Right to Information Act, 2005," Ministry of External Affairs (India), December 14, 2020, https://www.mea.gov.in/Images/amb/RTI_15_12_03.pdf.

[32] In 1986, India granted statehood to the contested Arunachal Pradesh territory; the conflict ultimately led to the 1993 Agreement on the Maintenance of Peace and Tranquility along the LAC, though the crisis only ended in 1995. See Nayanima Basu and Srijan Shukla, "Sumdorong Chu, Ladakh-like India-China Face-off Which Took 9 Yrs to End but Without Violence," Print (India), June 30, 2020, https://theprint.in/past-forward/sumdorong-chu-ladakh-like-india-china-face-off-which-took-9-yrs-to-end-but-without-violence/451517.

[33] Xuanzun and Xin, "China Urges India to Restrain."

[34] Ashley J. Tellis, "Hustling in the Himalayas: The Sino-Indian Border Confrontation," Carnegie Endowment for International Peace, June 4, 2020, https://carnegieendowment.org/2020/06/04/hustling-in-himalayas-sino-indian-border-confrontation-pub-81979.

[35] Sushant Singh, "Explained: What Does the Increase in Chinese Transgressions Mean?" *Indian Express*, June 16, 2020, https://indianexpress.com/article/explained/chinese-transgressions-ladakh-line-of-actual-control-6421855.

[36] Zhang Zhaozhong, "印军越过中印边境挑衅 张召忠: 要报当年战败之仇?" [The Indian Army Crossed the Sino-Indian Border to Provoke Zhang Zhaozhong: Were They Trying to Avenge a Past Defeat?], Sina, May 22, 2020, https://mil.news.sina.com.cn/jssd/2020-05-22/doc-iircuyvi4432817.shtml.

obedience; constant battle preparedness (which means renouncing "leisure hours" even in times of peace); a smaller, more streamlined military; and a worldwide power-projection system.[37]

Further, the Chinese military strategy reflects the changes in China's national and global security environment in the domains of economics, technology, and security. The strategy has evolved from emphasizing the "immediate and potential threats of local wars" in 2015 to being combat ready for "Informationized Warfare, and [on-the-horizon] intelligent warfare" in 2019.[38] Traditionally, China has relied greatly on "preemptive military action," which it refers to as "defensive in nature"; however, no clear distinction exists between its defensive and offensive tactics.[39] Beijing's strategy toward India is naturally drawn from this overall trajectory of military and strategic outlook as a competing power.

For a long time, India neglected the roads along the LAC in an effort to block easy Chinese access into Indian territory and to delay large-scale invasion. This stance created hindrances in military transportation and mobilization for the Indian side amid smaller incursions and limited conflicts. However, as India sought to remedy its lack of border infrastructure, China grew uneasy, and its actions in the ensuing years have been tactical considerations undoubtedly approved by the top leadership.[40] Naturally, these decisions were not made in silos but supported the wider diplomatic and military goals that Xi has been espousing. Criticism of China for its role in the emergence and spread of Covid-19, as well as concerted Western efforts to decouple from China, left the country increasingly isolated. Comments by

---

[37] "Xi Focus: Top Commander's Call to Strengthen National Defense," Xinhua, March 8, 2022, https://english.news.cn/20220308/425ef488720c4a67bc9c0e9797cd7ce7/c.html; and "Xi Takes Charge: Implications of the 19th Party Congress for China's Future," UC San Diego, School of Global Policy and Strategy, October 2017, http://china.ucsd.edu/_files/2017_xi-briefing-web.pdf.

[38] State Council Information Office (PRC), *China's Military Strategy* (Beijing, May 2015), http://english.www.gov.cn/archive/white_paper/2015/05/27/content_281475115610833.htm; and State Council Information (PRC), *China's National Defense in the New Era* (Beijing, July 2019), http://english.www.gov.cn/archive/whitepaper/201907/24/content_WS5d3941ddc6d08408f502283d.html.

[39] Iskander Rehman, "A Himalayan Challenge: India's Conventional Deterrent and the Role of Special Operations Forces along the Sino-Indian Border," *Naval War College Review* 70, no. 1 (2017): 104–42.

[40] Anurag Kotoky and N.C. Bipindra, "After Decades of Neglect, India Builds Roads along China Border," *Economic Times*, July 12, 2018, https://economictimes.indiatimes.com/news/defence/after-decades-of-neglect-india-builds-roads-along-china-border/articleshow/58833597.cms; and Shiv Shankar Menon, "What China Hopes to Gain from the Present Border Standoff with India," Wire (India), December 3, 2020, https://thewire.in/external-affairs/what-changed-india-china-ties-2020-result-rising-tensions.

the editor-in-chief of the state-media outlet *Global Times* terming isolation as "misperception" were rather telling.[41]

Notwithstanding the wider politics, in the last ten years, several road and rail projects along the border have been announced by India and fast-tracked by the current Modi government, and multiple advanced landing grounds have been operationalized (and revived) near the LAC. One of the most important triggers has been the construction of the 255-kilometer-long, all-weather Darbuk-Shyok-DBO road, which played a key role in the Galwan Valley clash. The road took about twenty years to complete (2000–19) and gives military access to a section of the Tibet-Xinjiang region, inciting tensions since the conflict in nearby Depsang in 2013.[42] This region is important to China in order to separate Tibet from Xinjiang, where disquiet has been growing in recent years. It is also strategically significant for its airstrip. The road runs parallel to the LAC in the China-occupied Aksai Chin region; it is strategically important for the overall monitoring of the China-Pakistan Economic Corridor.[43] Further, the opening of the Bailey Bridge in Ladakh in 2019 has added to contention, as it might be seen as a boost to military planning.[44]

In addition, Indian policy has started shifting from a canvas of "deterrence denial" strategy to "deterrence to pressure and punishment" on China. Responding hard to the PLA's aggressive posture has emerged as a "new normal" strategy for the Indian military. This is primarily due to China's increasingly forward deployment, coupled with infrastructure development and rapid military modernization at the border and in the Indian Ocean, to gain a tactical advantage. Pangong Lake and the Galwan Valley region are old flashpoints that were reignited in 2020 for much of the same reasons influencing the broader regional and international dynamics. This has led India toward "expanding and escalating the conflict into new areas and avenues," as well as creating specialized mechanized brigades, such

---

[41] Christina Lin, "Coronavirus Solidifies U.S.-China Decoupling," *Asia Times*, February 15, 2020, https://asiatimes.com/2020/02/coronavirus-solidifies-us-china-decoupling; and Hu Xijin, "'China Isolation' Is a Seriously Wrong Impression," *Global Times*, September 6, 2020, https://www.globaltimes.cn/content/1200010.shtml.

[42] Prem Shankar Jha, "Are China and India Going Back to 1962?" Wire (India), May 29, 2020, https://thewire.in/diplomacy/china-india-border-tensions-1962; and Nirupama Subramanian, "The Strategic Road to DBO," *Indian Express*, June 16, 2020, https://indianexpress.com/article/explained/lac-stand-off-india-china-darbuk-shyok-daulat-beg-oldie-dsdbo-road-6452997.

[43] Subramanian, "The Strategic Road to DBO."

[44] "Border Road Organisation Rebuilds Bailey Bridge Near China Border," *Indian Express*, June 16, 2020, https://indianexpress.com/article/explained/lac-stand-off-india-china-darbuk-shyok-daulat-beg-oldie-dsdbo-road-6452997.

as the Mountain Strike Corps (envisaged in the 2000s and sanctioned in 2013), and raising two mountain divisions in 2010.[45]

Such decisions have invited criticism from the Chinese strategic community, which considered the Galwan Valley clash an "inevitable result of India's tough foreign policy featuring high-risk, high-yield [ventures] pursued by the Modi administration toward China."[46] According to an article by Hu Shisheng and Wang Jue, New Delhi's main objective through this tactic was to overtake Beijing by taking advantage of India's favorable external strategic environment.[47] These decisions together have possibly prompted the Chinese side to test India and showcase its superiority. Chinese policy experts had noted the Indian decisions and reiterated China's intention to strengthen its position in border areas (while emphasizing its self-defense and post-strike policies).[48] PRC leaders have long asserted the need to sidestep the unresolved border issue in favor of pursuing bilateral ties—a priority that China's state councilor and foreign minister Wang Yi has reiterated in the last couple of years.

Chinese experts have repeatedly referenced the 1962 war as evidence that India is unable to analyze the root cause of conflicts with China and uses these disputes to "curry favor" with the United States.[49] Such psychological games were especially important before the Doklam standoff, when China aimed to crush the Indian spirit. In addition, China has time and again criticized India's "frontier mentality," which is likely a reference to the "forward policy" that New Delhi adopted prior to the 1962 war.[50] India's plans to construct several new posts along the border (which China worried

---

[45] Yogesh Joshi and Anit Mukherjee, "From Denial to Punishment: The Security Dilemma and Changes in India's Military Strategy towards China," *Asian Security* 15, no. 1 (2019): 25–43; and Subir Bhaumik, "India to Deploy 36,000 Extra Troops on Chinese Border," BBC News, November 23, 2010, https://www.bbc.com/news/world-south-asia-11818840.

[46] Hu Sheuisheng and Wang Jue, "The Behavioral Logic behind India's Tough Foreign Policy toward China," *Contemporary International Relations*, September/October 2020, http://www.cicir.ac.cn/UpFiles/file/20201103/6373999766705249491072987.pdf.

[47] Ibid.

[48] Li Cong, "India Mulls Mountain Teams to Strengthen Border against China," *Global Times*, January 1, 2013, https://www.globaltimes.cn/content/755837.shtml.

[49] Yang Sheng, "India Will Pay Heavy Price If It 'Miscalculates China,'" *Global Times*, June 24, 2020, https://www.globaltimes.cn/content/1192631.shtml.

[50] Liu Zongyi, "India Still Conserves Frontier Mentality over 1962 Border War with China," *Global Times*, December 13, 2012, https://www.globaltimes.cn/content/749877.shtml; and Prem Shankar Jha, "Why It Is Imperative That Indians Come to Know What Happened in 1962," Wire (India), June 5, 2020, https://thewire.in/security/china-india-1962-war-henderson-brooks-bhagat-report.

would cross the LAC) and for the border police to step up security have thus awakened the ghost of the 1962 war, for which China still blames India.[51]

Similar fears were in play in 2017 and 2020. Chinese military and diplomatic circles put the blame for the Doklam and Galwan clashes on "provocative and planned" military operations by Indian troops and highlighted India's infrastructure buildup as a means to create new tensions.[52] Some have explicitly described India's construction of new roads as akin to inciting war, while delineating China's motive as being to create wealth, by stating that "roads can be the path to wealth or the way to war."[53] The Doklam standoff was unusual in two ways. First, it took place in the middle sector, the less contentious and only delimited sector, where maps have been exchanged. Second, it openly displayed China's intent to contain, or at the very least unsettle, India's hold on South Asia, which is perceived as India's historical bastion.

China has not denied that the building of the road was the cause, but instead has argued that the road was within Chinese territory (not Bhutanese, as claimed by India) and that India violated the 1890 treaty between China and Great Britain by entering.[54] Again in 2020, China's foreign and defense ministries blamed Indian border troops and the road and bridge construction at the LAC in the Galwan Valley for the altercation. According to China, the Indian side violated the June 5 corps commander–level agreement and again crossed into Chinese territory recognized by both countries, unilaterally provoking the Chinese side and then playing the blame game.[55] Additionally, Chinese strategic discourse pointed to India's need to divert attention from domestic inadequacies such as the worsening Covid-19 pandemic and the economic slump amid rising nationalism.[56]

However, one of the legitimate triggers for the clash in the Galwan Valley could be India changing the status of Ladakh into a union territory (and thus placing it under tighter central control) by amending

---

[51] Liu Zongyi, "Provocative Border Posts Add to Tension," *Global Times*, September 8, 2013, https://www.globaltimes.cn/content/809563.shtml.

[52] "Foreign Ministry Spokesperson Zhao Lijian's Regular Press Conference," Ministry of Foreign Affairs (PRC), Press Release, June 17, 2020, https://www.fmprc.gov.cn/ce/cgmb/eng/fyrth/t1789509.htm.

[53] Zhao Xiaozhuo, "Why Is India Sensitive to China's Road Building?" *China Daily*, July 26, 2017, https://www.chinadaily.com.cn/opinion/2017-07/26/content_30247528.htm; and Liu Lin, "India-China Doklam Standoff: A Chinese Perspective," *Diplomat*, July 27, 2017, https://thediplomat.com/2017/07/india-china-doklam-standoff-a-chinese-perspective.

[54] "Full Text of Facts and China's Position Concerning Indian Border Troops' Crossing of China-India Boundary," *China Daily*, August 3, 2017, https://www.chinadaily.com.cn/world/2017-08/03/content_30341027.htm.

[55] Sheng, "India Will Pay Heavy Price If It 'Miscalculates China.'"

[56] Xuanzun and Xin, "China Urges India to Restrain."

its constitution. Beijing called the act a unilateral attempt to undermine "China's territorial sovereignty."[57] Though this decision, from the Indian perspective, revolves around the Kashmir issue, China viewed the domestic administrative decision as an "unlawful and void" move affecting areas under its control. A closed-door meeting at the UN Security Council held at China's behest yielded no agreement.[58] China may have anticipated this outcome, using the UN Security Council merely as a psychological tool, or the lack of support may have been interpreted as a failure and added to the border tensions.

The historical angle is of particular significance. The Chinese narrative after the 2020 Galwan Valley conflict, which resurrected the debates over the 1962 war on both sides of the border, highlighted the following similarities.[59] First, the Chinese narrative accused India of taking advantage of China's global isolationism. In the present era, the theories about China's role in the origin and spread of Covid-19, the consequent decoupling actions by the rest of the world, and the damage to China's image thus constitute a powerful trigger.[60] Second, this narrative highlighted India's policy assertiveness and aggressive rhetoric in public speeches. A third similarity is China's confusion about what it regards as India's strategic obsession toward China as a strategic concern and threat due to its far superior military capability (then and now). In 2020, the confusion was all the more pronounced because China is now economically leaps and bounds ahead of India as well.[61]

Another point of contention for China is India's proactive approach regarding Bhutan's interests, as well as toward other South Asian states. Beijing has been trying to break into the traditional Indian sphere of influence in South Asia and the Indian Ocean through coercive and

---

[57] "Foreign Ministry Spokesperson Hua Chunying's Remarks on the Indian Government's Announcement of the Establishment of the Ladakh Union Territory Which Involves Chinese Territory," Ministry of Foreign Affairs (PRC), August 6, 2019, https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2535_665405/201908/t20190806_696969.html.

[58] "Foreign Ministry Spokesperson Geng Shuang's Regular Press Conference," Ministry of Foreign Affairs (PRC), Press Release, October 31, 2019, https://www.fmprc.gov.cn/ce/cgmb/eng/fyrth/t1712371.htm; and Hong Xiao, "China Says Kashmir Issue Should be Resolved Peacefully," *China Daily*, August 17, 2019, https://www.chinadaily.com.cn/a/201908/17/WS5d5713f6a310cf3e35566439.html.

[59] Zhang Sheng, "Unwise Choice for India to Replay 1962," *Global Times*, September 13, 2020, https://www.globaltimes.cn/content/1200748.shtml.

[60] During this period, China was heading for a split with the Soviet Union, and the United States supported the Indian government in the war, almost being on the brink of war itself. See Bruce Riedel, "As India and China Clash, JFK's 'Forgotten Crisis' Is Back," Brookings Institution, June 17, 2020, https://www.brookings.edu/blog/order-from-chaos/2020/06/17/as-india-and-china-clash-jfks-forgotten-crisis-is-back.

[61] During the 1962 war, China was just coming out of a drastic famine, but militarily it was still stronger than India.

cooperative tactics with other South Asian states.[62] The Doklam incident, as well as the consequent halting of the "Three-Step Roadmap for Expediting the China-Bhutan Boundary Negotiation" at a critical juncture, was also meant to highlight to Bhutan, which notably does not have diplomatic relations with China, the inadequacy of having India as a security provider.[63]

China's strategy toward South Asia begs deeper examination. In particular, under Xi Jinping, China's India policy has attempted to constrain New Delhi's growing influence by developing ties with smaller countries in the region. Thus, China's decision-making approach toward India, particularly along their border, has focused on expanding China's emerging influence in South Asia, underpinned by its periphery or neighborhood diplomacy.[64] Within this context, China has emphasized the Belt and Road Initiative to increase trade incentives and transport connectivity between itself and South Asian nations, expressed a desire to join the South Asian Association for Regional Cooperation, and maintained an "all-weather friendship" with Pakistan.

Chinese analysts have admitted that India "stands in the way" of China's outreach to Bhutan due to India's long-standing historical, cultural, diplomatic, and defense ties with the country.[65] In recent years, India's ties with its traditionally favorable Himalayan neighbor states (Nepal, Bangladesh, and Bhutan) have become strained as these countries have shown a tilt toward China.[66] At the same time, Chinese experts recognize that India's concerns about its vulnerable "chicken's neck," or the Siliguri Corridor—control of which would allow China to isolate northeast India from the rest of the country in the event of a war—were a prime motive for the escalated reaction.[67]

---

[62] Jagannath Panda, "China's Projection and Pursuit of Power in South Asia: Implications for India," testimony before the U.S.-China Economic and Security Review Commission, Washington, D.C., May 12, 2022, https://www.uscc.gov/sites/default/files/2022-05/Jagannath_Panda_Testimony.pdf.

[63] Negotiations were launched in 1984, and Bhutan and China ultimately signed a memorandum of understanding on the Three-Step Roadmap on October 14, 2021. See "China and Bhutan Sign MoU on a Three-Step Roadmap for Expediting the China-Bhutan Boundary Negotiation," Ministry of Foreign Affairs (PRC), Press Release, October 15, 2021, https://www.fmprc.gov.cn/mfa_eng/wjb_663304/zygy_663314/gyhd_663338/202110/t20211016_9550700.html; and Wang Qi, "China, Bhutan Agree to Maintain Border Peace and Stability," *Global Times*, April 9, 2021, https://www.globaltimes.cn/page/202104/1220652.shtml.

[64] Shen Dingli, "Diplomacy with Neighbors," *China Daily*, October 30, 2013, https://www.chinadaily.com.cn/opinion/2013-10/30/content_17067913.htm.

[65] Qi, "China, Bhutan Agree to Maintain Border Peace and Stability."

[66] Panda, "China's Projection and Pursuit of Power in South Asia."

[67] Lin, "India-China Doklam Standoff: A Chinese Perspective."

China's India Policy: A Shift in Perspective

Perhaps one of the most important geopolitical events in 2017–18 was the souring of ties between China and the United States, which deteriorated into a veritable trade war with massive global implications.[68] As the U.S.-China relationship worsened, Beijing saw shoring up its posture and establishing itself as the foremost power in Asia as essential. In other words, China was keen to ensure that India would not be a party to the U.S. Indo-Pacific strategy and would instead possibly prefer to emerge as an important strategic node in Xi Jinping's Belt and Road Initiative, as India partnered with China in the formation of the Asian Infrastructure Investment Bank.

However, India has continued to criticize the Belt and Road Initiative as being a threat to its national sovereignty and territorial integrity and has shown solidarity with Washington's Indo-Pacific strategy by agreeing to take part in the Quad talks alongside the United States, Japan, and Australia. During this time, China's strategy shifted to provoking India to push it into submission. Drawing on lessons learned from the 1962 war, China believed that the use of force could result in long-lasting peace. Considering the asymmetry in comprehensive national power, China also believed that the political cost of asserting its border claims and its dominant power would be negligible and that India would be unwilling to mount a major military operation in response to these provocations. To some extent, the standoff at Doklam reinforced these assumptions. Although India criticized the Belt and Road Initiative and adopted an Indo-Pacific focus in its foreign policy, it also refrained from explicitly calling out China on its encroachment and occupation of territory. This only gave Beijing further confidence to systematically carry out its "salami slicing" endeavors in Ladakh in a bid to achieve its tactical goals.[69] These aggressive tactics included the construction of outposts and other infrastructure close to areas that Beijing's interpretation of the LAC considers Chinese territory.

In sum, China's India policy seemingly shifted from a charm offensive (inducing cooperation through incentives and concessions) to one of incrementally aggressive military tactics aimed at convincing India to move away from the United States. A year after the Galwan Valley skirmishes, the Chinese state media pushed a narrative that India had "repaid the capital

---

[68] "A Quick Guide to the U.S.-China Trade War," BBC News, January 16, 2020, https://www.bbc.com/news/business-45899310.

[69] Brahma Chellaney, "China's Himalayan Salami Tactics," Project Syndicate, March 9, 2021, https://www.project-syndicate.org/commentary/xi-jinping-salami-tactics-himalayas-south-china-sea-by-brahma-chellaney-2021-03.

with interest" because New Delhi overestimated its own strategic virtue.[70] Ultimately, the PRC's objective vis-à-vis India aligned with its overall neighborhood strategy to secure "a China-centred regional order with Beijing as the sole leader or rule-maker in the region."[71]

Equally important is China's shift to a more belligerent attitude with respect to India, aimed at checking New Delhi's quickly expanding presence on the regional and international stages. The PRC wants to put a halt to India's rise by leveraging its greater economic and military strength. Beijing attests that India is looking to "force" China into settling the boundary dispute, with "China-U.S. strategic rivalry and Hindu nationalism" driving India's behavior. Furthermore, the Chinese strategic community has presented the 2017 Doklam standoff as a "peaceful resolution" that has "emboldened" India.[72]

Therefore, China views India concurrently through multiple lenses beyond merely their bilateral differences in the boundary dispute. Other factors include strategic competition between China and the United States, the broader geopolitical and security landscape in the Indo-Pacific (especially within South Asia), and China's objectives in the region as it rises. Hence, to understand the factors responsible for the ongoing standoff at the LAC, it is vital to recognize that for Beijing the dispute is about much more than the boundary line between the two countries and is a step toward achieving its larger political goals regionally and globally.

Conclusion: Outlook for the Border Dispute

The China-India border dispute must be seen as a corollary of the wider geopolitics at play. The stalemate in border negotiations has persisted, even over three years after the Galwan Valley incident. Negotiations seem unlikely to bear fruit in the future as well, as is highlighted by Chinese foreign minister Wang Yi's repeated appeals to sidestep the border issue and continue bilateral ties as they were before the 2020 standoff.[73] China is

---

[70] "胡锡进评加勒万河谷冲突一周年:印度可以说是'连本带息一起还了'" [Hu Xijin Commented on the First Anniversary of the Galwan Valley Conflict: India Has Supposedly "Repaid the Principle with Interest Together"], Sina, June 16, 2021, https://k.sina.com.cn/article_1887344341_707e96d5020013bkx.html.

[71] Singh, "China's Evolving Strategic Discourse on India."

[72] Zongyi Liu, "Boundary Standoff and China-India Relations: A Chinese Scholar's Perspective," *China Quarterly of International Strategic Studies* 6, no. 2 (2020): 223–48.

[73] "Wang Yi Holds Talks with Indian External Affairs Minister Subrahmanyam Jaishankar," Ministry of Foreign Affairs (PRC), Press Release, March 25, 2022, https://www.fmprc.gov.cn/mfa_eng/topics_665678/kjgzbdfyyq/202203/t20220326_10656097.html.

unlikely to move past what it views as India's reversal of a tacit consensus in the 1990s on confidence-building measures that prioritized strategic cooperation while simultaneously working on the border issues without letting them hinder progress in other areas.[74]

Moreover, despite a full-scale war having been averted, the current level of distrust between China and India is abysmal.[75] This is evidenced by the aforementioned increase in the number and intensity of conflicts in recent years, the military buildup along both sides of the border, and the lackluster progress toward a resolution of the dispute after several rounds of negotiations. The clash in Arunachal Pradesh in late 2022 is another testament to this growing mistrust, and the same can only be expected in the coming years, despite efforts to establish stabler ties. China's responses over the years have veered from invoking Asian solidarity and a sense of regional multilateral cooperation against what it regards as the U.S.-led Western fiefdom to warnings over India's "miscalculated" strategy.[76] However, China's apparent fickleness and persistent threat calculus have pushed India to pursue a pointed multi-alignment policy focused on the United States, various European countries, Australia, Vietnam, and Japan, among other partners. Such gambits have shown a paradoxical side to China-India ties: without trust, they are unable to bring peace to their boundary dispute, and yet to gain trust, peace along the boundary is needed first.

In the early years of his first term, Xi Jinping agreed to proactively resolve the border dispute "as early as possible."[77] Unfortunately, Xi's ascent has coincided with that of Indian strongman Narendra Modi. Since the beginning of his term, Modi has worked to rewrite India's diplomatic maneuvers by changing to a power-parity equation with China, rebuffing the Belt and Road Initiative, outlining the Security and Growth for All in the Region vision in an obvious tilt to the U.S.-led Indo-Pacific security architecture that endorses a "free and open Indo-Pacific," and, importantly, contributing to the resurgence of the Quad, which China views as a post–

---

[74] "China, India Agree on 'Strategic Partnership,'" Embassy of the PRC in India, April 2005, https://www.mfa.gov.cn/ce/cein//eng/ssygd/zygx/t191496.htm.

[75] Sun, "China's Strategic Assessment of India."

[76] "Wang Yi: China and India Should Stick to Long-term Perspective, Win-Win Mentality and Cooperative Posture," Ministry of Foreign Affairs (PRC), Press Release, March 25, 2022, https://www.fmprc.gov.cn/eng/zxxx_662805/202203/t20220326_10656095.html; and Long Xingchun, "India Flexing Its Muscles at the Border Shows Its Loser Mentality," *Global Times*, November 14, 2021, https://www.globaltimes.cn/page/202111/1238931.shtml.

[77] "Joint Statement between the People's Republic of China and the Republic of India."

Cold War U.S. containment tool.[78] Moreover, India joined the U.S.-initiated Indo-Pacific Economic Framework while opting out (due to various reasons beyond China) of the Regional Comprehensive Economic Partnership (RCEP), which rankled China enough for the country to reiterate its open invitation to the RCEP.[79]

Although the strategic discourse in China may diverge in some respects in its approach to India,[80] there is an overwhelming consensus that a rising, nationalistic, and assertive India is becoming central to the global and regional security architecture and a fear of the increasing cooperation between regional Indo-Pacific states (including India) and the United States, particularly now that South Korea has joined the U.S.-led security architecture by implementing its own Indo-Pacific strategy under President Yoon Suk-yeol. China has been referencing India's independent stance in the wake of the Ukraine war to highlight the need for the two countries to enhance cooperation based on common interests instead of undermining each other or letting border disputes overwhelm bilateral ties.[81]

In sum, China seems to be increasingly promoting tactical cooperation in the economic sphere and multilateral forums while employing intimidation tactics (both psychological and military) to prevent India from coalescing with the Western-led security architecture. This strategy is unlikely to change in the near future. The CCP, CMC, and by default the PLA are poised to remain focused on the China-India border in Xi's third term, especially as the centennial goal of building a modern military by 2027 steadily approaches. As the PRC's modernization of its defense forces continues, the border dispute with India is playing a key role in decision-making about the requirements for engaging in and defending contested regions. New Delhi must similarly speed up efforts to acquire new equipment and gain a tactical advantage in order to ably protect Indian sovereignty.

---

[78] Jagannath Panda, "Opinion: How the Quad Can Become More than an Anti-China Grouping," *Indian Express*, May 25, 2022, https://indianexpress.com/article/opinion/columns/how-the-quad-can-become-more-than-an-anti-china-grouping-7934017.

[79] Abhishek G. Bhaya, "Shangri-La Dialogue Sets Up Battle of Competing Security Visions for Asia-Pacific," China's Diplomacy in the New Era, http://en.chinadiplomacy.org.cn/2022-06/11/content_78265170.shtml.

[80] Singh, "China's Evolving Strategic Discourse on India."

[81] "FM Meets Indian Ambassador, Says China, India 'Should Speak for Developing Countries Together,'" *Global Times*, June 23, 2022, https://www.globaltimes.cn/page/202206/1268905.shtml.

EXECUTIVE SUMMARY

This chapter defines three types of cyber crisis that pose risks to China and assesses the agencies, authorities, and procedures that Chinese policymakers have developed to manage such crises.

MAIN ARGUMENT

China's increasing dependence on and presence in cyberspace raises the risk of three types of cyber crisis for Beijing. First, like all modern states, China must defend, detect, contain, and respond to a domestic cyberattack that could have widespread destructive or disruptive effects on its economy and society. Second, it must prepare and respond to a potential diplomatic and foreign policy crisis created by reactions to Chinese cyberoperations that fall below the threshold for the use of force or armed attack. Third, during any border or maritime crisis, Chinese cyberoperations will be conducted to collect intelligence and possibly to signal, coerce, and deter adversaries. Chinese policymakers must manage the use of cyber tools during any military or diplomatic crisis and ensure that they do not inadvertently lead to escalation or loss of control. China has been developing institutions, regulations, and processes that should improve its ability to manage these three types of crisis.

POLICY IMPLICATIONS

- While China has many new institutions and procedures to manage a domestic cyber crisis, the system's effectiveness during a cyber crisis remains unknown. Analogous experiences of crisis management suggest that China will struggle with the informal information flows and the public-private partnerships essential in the first stages of response.
- The worsening of the Sino-U.S. relationship makes the management of a political crisis provoked by Chinese cyberindustrial espionage significantly more difficult to control, but also less likely to happen. Both sides can be expected to accept cyberespionage as a constant in the relationship and are therefore less likely to react to the other's complaints or criticism of cyberoperations.
- China can be expected to conduct cyber intelligence operations during a crisis and may use more disruptive or destructive attacks for signaling, coercion, or deterrence. The nature of cyberspace and Chinese approaches to cyber complicate signaling and raise the risk that cyberoperations could exacerbate a crisis and provoke a kinetic response.

Chapter 7

China's Cyber Crisis Management

Adam Segal

Over the last decade, cyberspace and cybersecurity have become central to Chinese strategic, political, and economic interests. Chinese leaders at all levels describe cyberspace as a domain of ideological, political, and military conflict as well as a critical enabler of good governance, economic development, and technological innovation. General Secretary Xi Jinping has declared that "without cyberspace security, there is no national security," and signaled his desire to move China from being a "large internet country" to a "cyber power" (*wangluo qiangguo*).[1]

As China has made this transition, it has come into greater contact and conflict with the United States in cyberspace. Chinese operators have hacked U.S. military, government, and civilian networks since the 1990s in order to collect intelligence, conduct industrial espionage, and prepare for more disruptive and destructive cyberattacks. The issue, however, is not simply that Chinese cyber capabilities have improved over time, though they certainly have. It is that these operations are occurring as Beijing tries to exert greater influence over the global internet.[2] This behavior has led to tensions with Washington over technological competition and standards, the ability of governments to access data held by the private sector, and the norms of responsible state behavior in cyberspace.

The combination of greater contact and bilateral political mistrust raises the risk of three types of cyber crisis for Beijing. First, like all modern states,

---

Adam Segal is a Senior Advisor in the Bureau of Cyberspace and Digital Policy at the U.S. Department of State.

The views expressed do not represent the U.S. Department of State or its policies, or those of the U.S. government.

[1] Rogier Creemers et al., "Lexicon: 网络强国 Wangluò Qiángguó: Understanding and Translating a Crucial Slogan and 'Cyber Superpower' Ambition," New America, DigiChina, May 31, 2018, https://www.newamerica.org/cybersecurity-initiative/digichina/blog/lexicon-wangluo-qiangguo.

[2] Adam Segal, "China's Vision for Cyber Sovereignty and the Global Governance of Cyberspace," in "An Emerging China-Centric Order," NBR Special Report, no. 87, August 2020, 85–110.

China must defend, detect, contain, and respond to a cyberattack that could have widespread destructive or disruptive effects on its economy and society. Chinese leaders, at all levels of governance, are likely to see cyberattacks that severely damage the economy or prevent the provision of critical services as a threat to regime legitimacy and domestic stability. The risks of such an attack, by either state or nonstate actors, have risen considerably. Chinese policymakers are aiming for 10% of China's GDP to come from the digital economy by 2025, up from 7.8% in 2020.[3] Growth in the digital economy's share of GDP is expected to come from breakthroughs in big data, artificial intelligence, 5G, the Internet of Things, and other cutting-edge technologies. These economic and technological trends increase the target size and the potential for spillover. In addition, attacks from nonstate actors have become more disruptive. For example, a ransomware attack on Colonial Pipeline in May 2021 by a criminal group known as DarkSide resulted in the company shutting down its 5,500-mile pipeline and subsequent gas shortages on the U.S. eastern seaboard.

Second, Beijing must prepare and respond to a potential diplomatic and foreign policy crisis created by reactions to Chinese cyberoperations that fall below the threshold for the use of force or armed attack. Over the last decade, Washington, along with its friends and partners, has called out Chinese cyberindustrial espionage and sanctioned entities and individuals deemed responsible for the attacks. The most sustained pressure resulted in a joint statement in 2015 from China and the United States that neither side "will conduct or knowingly support cyber-enabled theft of intellectual property, including trade secrets or other confidential business information" for commercial advantage.[4] Chinese hacking, however, has returned as a point of contention, and Beijing faces renewed pressure from the United States and its allies. As Xu Manshu and Lu Chuanying, researchers in the Center for International Cyberspace Governance at the Shanghai Institutes for International Studies, argue, Beijing's goal is "managing the cyberspace differences and reducing the cyber risk that could trigger a deterioration of bilateral relations, or even a full-scale confrontation between the two countries."[5]

---

[3] Brian Liu and Raquel Leslie, "China Sharpens Its Vision for the Digital Economy," Lawfare, January 21, 2022.

[4] "Fact Sheet: President Xi Jinping's State Visit to the United States," White House, Press Release, September 25, 2015, https://obamawhitehouse.archives.gov/the-press-office/2015/09/25/fact-sheet-president-xi-jinpings-state-visit-united-states.

[5] Manshu Xu and Chuanying Lu, "China-U.S. Cyber-Crisis Management," *China International Strategy Review* 3, no. 1 (2021): 97–114.

Third, during any border or maritime crisis, Chinese cyberoperations will be conducted to collect intelligence and possibly to signal, coerce, and deter adversaries. In addition, Beijing will conduct information operations in support of its narrative of the crisis. Chinese leaders will need to manage the use of cyber tools during any military or diplomatic crisis and ensure that they do not inadvertently lead to escalation or loss of control.

China has been developing institutions, regulations, and processes that should improve its ability to manage these three types of crisis. Over the last decade, an amazing flurry of activity has led to new institutions, laws, and guidelines for the regulation, development, defense, control, and exploitation of cyberspace. On the civilian side, Xi assumed the chair of a central leading group on internet security and informatization, now known as the Central Cyberspace Affairs Commission. A new agency, the Cyberspace Administration of China (CAC), was also established with a mandate that includes controlling online content, bolstering cybersecurity, and developing the digital economy. China has rolled out overlapping and interlinked laws, regulations, and standards focused on critical infrastructure, data storage, security reviews, and the protection of personal data, including the Cybersecurity Law (2017), the Data Security Law (2021), and the Personal Information Protection Law (2021).

On the military side, in 2015 China created the Strategic Support Force (SSF), which integrated space, cyber, electronic, and psychological warfare capabilities into a single force. The SSF's Network Systems Department is expected to conduct strategic, operational, and tactical cyberoperations in order to establish information dominance, support decision-making during joint operations, and defend national network security.

While all these developments should give the central leadership more information and control in cyberspace, Beijing's ability to manage a cyber crisis remains deeply uncertain. A national response to widespread disruptive and destructive cyberattacks demands clear authorities, a high degree of bureaucratic coordination, and close cooperation with the private sector. Resolving an extended diplomatic crisis requires attention from the highest levels of leadership and a willingness to subsume cyber issues under the pursuit of larger shared interests in diplomatic relationships. Moreover, the nature of cyberspace and differing understandings of the use of cyberattacks make it likely that the use of cyberoperations as part of a border or maritime dispute will escalate any crisis.

The rest of this chapter introduces the risks to China of a major cyberattack and describes the institutions, regulations, and procedures developed in order to manage and contain a domestic cyber crisis.

It also describes the diplomatic crisis that was created by the United States' response to China's widespread and persistent cyberindustrial espionage campaign. The chapter concludes with a description of how China has used cyberoperations during border and maritime disputes and how these operations could be escalatory. It also presents options for Washington and Beijing to reduce the potential for escalation and cyberattacks spilling over into kinetic conflict.

Managing a Domestic Cyber Crisis

Chinese leaders may have initially believed that their country's model of internet governance and low levels of dependence on digital technologies made China relatively immune from cyberattacks, but that confidence had evaporated by the mid-2010s. The disclosures by the National Security Agency (NSA) contractor Edward Snowden of U.S. intelligence collection activities highlighted not only U.S. capabilities in penetrating networks and gaining access to data but also the perceived risks of dependence on U.S. technology. Chinese analysts argued that the dominance of "core technologies" by U.S. companies gave the United States superior offensive cyber capabilities.

In addition, China suffered from low levels of cybersecurity awareness and underinvestment in cyberdefenses.[6] WannaCry, a 2017 North Korean ransomware attack, spread to more than 30,000 organizations, including the China Securities Regulatory Commission, the China Banking Regulatory Commission, PetroChina, Tsinghua University, China Telecom, and Hainan Airlines.[7] The spread of the malware, which exploited a tool called EternalBlue that was originally developed by the NSA, was helped in part by the large number of companies, universities, and local governments running pirated versions of Microsoft.[8]

In order to address these vulnerabilities, Beijing has pushed to replace foreign software and hardware suppliers with domestic competitors. It also began developing the institutional and legal resources necessary for the management of cyberspace. Cyber policy had been highly fragmented among

---

[6] Greg Austin, *Cybersecurity in China: The Next Wave* (Cham: Springer, 2018).

[7] Frank Hersey, "Here's What We Know about How WannaCry Has Affected China," TechNode, May 15, 2017, https://technode.com/2017/05/15/how-hard-did-wannacry-virus-hit-china.

[8] Paul Mozur, "China, Addicted to Bootleg Software, Reels from Ransomware Attack," *New York Times*, May 15, 2017, https://www.nytimes.com/2017/05/15/business/china-ransomware-wannacry-hacking.html.

the Ministry of Public Security (MPS), the State Encryption Bureau, the State Secrets Bureau, the Ministry of State Security (MSS), the Ministry of Industry and Information Technology, and the People's Liberation Army (PLA). Xi Jinping made cyber policy one of his political priorities, consolidated bureaucratic control, and drove change from the top. As mentioned previously, he led the central leading group now known as the Central Commission for Cybersecurity and Informatization and established the CAC.

Policymakers quickly rolled out a robust set of laws, measures, regulations, and standards focused on critical infrastructure, data storage, security reviews, and the protection of personal data as well as cyber crisis management. Chapter 5 of the 2017 Cyber Security Law calls for the creation of "Monitoring, Early Warning, and Emergency Response" and authorizes security and informatization departments to complete mechanisms for cybersecurity risk assessment and emergency response efforts and to formulate emergency response plans for cybersecurity incidents. "Departments responsible for critical information infrastructure security protection" were to do the same for their industries and sectors.[9]

In 2017, China published its National Cyber Incident Response Plan.[10] Under the plan, "cybersecurity incidents" refer to events that (1) are caused by human-made reasons, or defects or malfunctions of hardware and software, (2) cause damage to networks, information systems, or the data involved therein, and (3) cause negative effects on society. There are four levels of incidents—extraordinarily significant, significant, relatively significant, and general—which are determined by the damages caused to critical networks and information systems and the level of threats posed to national security and the stability of society. The CAC is expected to coordinate with other relevant government authorities, including the Ministry of Industry and Information Technology, the MPS, the National Administration for the Protection of State Secrets, and the government authorities in charge of each specific sector or industry, as well as their relevant local branches, to handle cybersecurity incidents.

Also in 2017, the State Council issued draft regulations on critical information infrastructure (CII) protections. The regulations guided the establishment of an "early warning system" across a range of sectors to

---

[9] Rogier Creemers, Graham Webster, and Paul Triolo, "Translation: Cybersecurity Law of the People's Republic of China (Effective June 1, 2017)," DigiChina, June 29, 2018, https://digichina.stanford.edu/work/translation-cybersecurity-law-of-the-peoples-republic-of-china-effective-june-1-2017.

[10] Cyberspace Administration of China, "中央网信办关于印发《国家网络安全事件应急预案》的通知" [Notice of the Central Cyberspace Administration of China on Distributing the "National Network Security Incident Emergency Plan"], June 27, 2017, http://www.cac.gov.cn/2017-06/27/c_1121220113.htm.

help operators anticipate threats. The draft was in part an effort by the CAC to assert authority over critical infrastructure, but it failed to resolve uncertainty about how the new regulations related to an earlier effort to protect critical infrastructure known as the Multi-Level Protection Scheme, which was administered by the MPS. After several years of bureaucratic infighting, by 2020 the MPS seemed to have wrested control back from the CAC. New guidelines appeared to place the Multi-Level Protection Scheme and CII protection rules under the MPS and Chinese Communist Party (CCP) leadership. As Rogier Creemers and his colleagues argue, the move suggests that the MPS displaced the CAC and "primarily owns" the CII protection issues.[11] The CAC is supposed to continue playing a coordinating role between different agencies and ministries, overseeing an information-sharing mechanism.

How the system will actually work during a national cyber crisis remains unknown. Many countries, including the United States, have struggled over the decision about whether to anchor cyberdefense in the intelligence or defense agencies where significant capacities already exist or to build new capacities in civilian cyberdefense agencies. The emergence and growth of the CAC at first suggested that China was following the latter route. The MPS, however, still retains significant authorities and capacity, and it is unlikely that the most recent guidelines completely resolved the conflict between the CAC and the MPS. In addition, the responsibility for designating a cyber event as a crisis and implementing the response is divided across levels of government and agencies. As an attack unfolds, bureaucracies and agencies may demonstrate a high degree of autonomy in decision-making.

Moreover, the Chinese system may lack the flexibility and information flows necessary to quickly contain and respond to a cyber crisis. Case studies on how other states have responded to a cyber crisis stress the importance of public-private partnerships and networks for horizontal and vertical information flows. When Estonia faced a significant cyberattack campaign in 2007, for example, trusted contacts across agencies and sectors, informal information flows, and the ability to mobilize the private sector proved critical to responding to the crisis.[12]

---

[11] Rogier Creemers et al., "Chinese Government Clarifies Cybersecurity Authorities [Translation]," DigiChina, September 25, 2020, https://www.newamerica.org/cybersecurity-initiative/digichina/blog/chinese-government-clarifies-cybersecurity-authorities-translation.

[12] Jamie Collier, "Strategies of Cyber Crisis Management: Lessons from the Approaches of Estonia and the United Kingdom," in *Ethics and Policies for Cyber Operations: A NATO Cooperative Cyber Defence Centre of Excellence Initiative*, ed. Mariarosaria Taddeo and Ludovica Glorioso (Cham: Springer International, 2017); and Sarah Backman, "Conceptualizing Cyber Crises," *Journal of Contingencies and Crisis Management* 29, no. 4 (2021): 429–38.

China has been building a cybersecurity ecosystem over the last three years that tightly links state and commercial actors. Cyber ranges host joint exercises among the PLA, civilian cybersecurity firms, and critical infrastructure operators that allow organizations to practice defense (and hackers to plan offense). The Guancheng City cyber range in Chengdu, for example, is the locale of an annual exercise developed by a state-owned enterprise (SOE) and the provincial branch of the CAC, where 30 teams compete for control over critical infrastructure industries such as electricity, transportation, water conservancy, and e-government.[13]

Yet it is difficult for outsiders to know how informal information flows and ad hoc groups will coexist with formal institutions and procedures. Analogous incidents of crisis management in China, however, suggest the prioritization of local politics, information control, and the suppression of bad news. During the early stages of the 2002–3 SARS outbreak, media gags were imposed, journalists were removed from their jobs, and local governments hid information from the central government. Despite reforms intended to prevent a repeat of these actions, China's experience with the first stage of Covid-19 was characterized by bureaucratic decision-making that often prized political criteria over expert-based information and by the suppression of unauthorized communications.[14] While a cyberattack that disrupts critical infrastructure is likely to attract the type of central government attention that would overcome local obstructionism, the early stages of a crisis could still replicate many of these pathologies, despite institutions and procedures meant to foster flexibility and information sharing.

Managing a Diplomatic Crisis

The second type of cyber crisis Beijing needs to manage is diplomatic and likely to be caused by Chinese cyberoperations below the threshold for the use of force or armed attack. These crises tend to be slow-moving. The risk is not widespread disruption or destruction but rather the undermining

---

[13] Dakota Cary, "Downrange: A Survey of China's Cyber Ranges," Center for Security and Emerging Technology, Issue Brief, September 2022, https://cset.georgetown.edu/publication/downrange-a-survey-of-chinas-cyber-ranges.

[14] Yongnian Zheng and Liang Fook Lye, "SARS and China's Political System," in *The SARS Epidemic: Challenges to China's Crisis Management*, ed. John Wong and Yongnian Zheng (Singapore: World Scientific, 2004); and Michael Swaine, "Chinese Crisis Decision Making—Managing the COVID-19 Pandemic: Part One: The Domestic Component," *China Leadership Monitor*, June 1, 2020, https://www.prcleader.org/swaine.

of China's international positions amid significant pressure from the United States and its partners. In part, these events can only become a crisis if the highest level of leadership interprets them as one and reacts accordingly.

The clearest example of this type of crisis was the U.S. effort to blunt Chinese cyberindustrial espionage through a campaign that combined public naming and shaming, indictments of Chinese hackers, and the threat of more targeted sanctions. China has long conducted cyberespionage operations against U.S. military and political networks in order to steal secrets to accelerate the modernization of the PLA and to gather political information on agencies, institutions, and individuals who might undermine Beijing's foreign policy or threaten domestic stability.[15] Chinese hackers, for example, took information from over two dozen U.S. Department of Defense programs, including the Patriot missile defense system and the F-35 fighter jet, and a Chinese group was also allegedly behind a cyberoperation targeting the presidential campaigns of John McCain and Barack Obama.[16]

The Obama administration, however, argued that hacking companies to steal business secrets or intellectual property was an illegitimate form of hacking, in contrast to political-military espionage, which should be expected from all states. In order to enforce this distinction, Obama officials began calling out Chinese actors. In February 2013, the cybersecurity firm Mandiant released a report claiming that Unit 61398 of the PLA was behind cyberattacks on 141 companies, including 115 in the United States. Around the same time, the U.S. Department of Homeland Security released the internet addresses of hacking groups in China, including Unit 61398.[17] In response to the Mandiant report, a statement on the Chinese Ministry of National Defense's website questioned the evidence presented, noted that there was no universally accepted definition of what constitutes hacking, and claimed that China itself was in fact one of the world's biggest victims of hacking. A Ministry of Foreign Affairs spokesperson echoed the uncertainty of attribution, arguing that "hacking

---

[15] Adam Segal, "China's Pursuit of Cyberpower," *Asia Policy* 15, no. 2 (2020): 60–66.

[16] Matthew Pennington, "Intel Chief Warns U.S. Tech Threatened by China Cyber Theft," *Military Times*, February 3, 2015, http://www.militarytimes.com/story/military/tech/2015/02/03/intel-chief-warns-us-tech-threatened-by-china-cyber-theft/22810269; and Michael Isikoff, "Chinese Hacked Obama, McCain Campaigns, Took Internal Documents, Officials Say," NBC News, June 7, 2013, https://www.nbcnews.com/id/wbna52133016.

[17] "APT1: Exposing One of China's Cyber Espionage Units," Mandiant, February 1, 2013, https://www.mandiant.com/sites/default/files/2021-09/mandiant-apt1-report.pdf; and Danny Yadron and Siobhan Gorman, "U.S., Firms Draw a Bead on Chinese Cyber Spies," *Wall Street Journal*, July 12, 2013, https://www.wsj.com/articles/SB10001424127887324694904578600041603746114.

attacks are transnational and anonymous" and that "determining their origins is extremely difficult."[18]

The following month, Tom Donilon, President Obama's national security adviser, spoke of the "serious concerns about sophisticated, targeted theft of confidential business information and proprietary technologies through cyber intrusions emanating from China on an unprecedented scale."[19] Two months later, the U.S. Department of Defense, in a sharp break from the past, ascribed blame for cyberattacks to the Chinese government and military, stating that "numerous computer systems around the world, including those owned by the U.S. government, continued to be targeted for intrusions, some of which appear to be attributable directly to the Chinese government and military."[20]

When President Obama and President Xi Jinping met for a two-day summit in California in June 2013, Obama reportedly warned Xi that the hacking could severely damage the bilateral relationship. Soon after the summit, Snowden revealed himself in Hong Kong as the source of leaks on the NSA's digital surveillance program and told the local press that the NSA had hacked mainland Chinese targets, including universities and telecommunications companies. The Chinese press and government officials quickly jumped on the allegations, highlighting the perceived hypocrisy of the U.S. government's claims about China.

The public campaign against Beijing lost steam as the Obama administration responded to the Snowden disclosures. In May 2014, however, the U.S. Department of Justice charged five hackers from Unit 61398 with stealing the business plans, internal deliberations, and other intellectual property of Westinghouse Electric and the U.S. Steel Corporation. This watershed event, the first instance of charges against an alleged state cyber actor, provoked a more direct response from Beijing. In addition to the usual rhetorical responses of denying, diverting, and claiming victimhood, which were amplified by a slew of articles in the press, Chinese officials suspended

---

[18] Ed Flanagan, "'Not Based in Fact': China Angrily Denies Being Behind Widespread U.S. Hacking," NBC News, February 20, 2013, https://www.nbcnews.com/news/china/not-based-fact-china-angrily-denies-being-behind-widespread-us-flna1c8445707; and "国防部:中国军方继续批驳'网络攻击'不实指责" [Ministry of National Defense: The Chinese Military Continues to Refute False Accusations of "Cyber Attacks"], *People's Daily*, February 20, 2013, http://politics.people.com.cn/n/2013/0220/c70731-20543078.html.

[19] "Remarks by Tom Donilon, National Security Advisor to the President: 'The United States and the Asia-Pacific in 2013,'" White House, Press Release, March 11, 2013, https://obamawhitehouse.archives.gov/the-press-office/2013/03/11/remarks-tom-donilon-national-security-advisor-president-united-states-an.

[20] U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2013* (Washington, D.C., May 2013), https://apps.dtic.mil/sti/pdfs/ADA585151.pdf.

the activities of the China-U.S. Cyber Working Group led by the U.S. State Department and China's Ministry of Foreign Affairs. Chinese officials also summoned the U.S. ambassador to China, Max Baucus, and protested to the U.S. deputy assistant secretary for East Asian and Pacific affairs, Kin Moy, during a visit. The National Computer Network Emergency Response Technical Team/Coordination Center of China released data that it claimed indicated that the United States was the "number one aggressor against Chinese networks." In what may have also been retribution for the charges, China banned Microsoft's Windows 8 operating system from government computers.[21]

Collectively, the indictments, the U.S. threats to sanction high-level CCP officials or SOEs that benefited from cyberindustrial espionage, and the immediate need to ensure that Xi's September 2015 state visit to Washington was not overshadowed by the cyber issue appeared to get China's attention. A month before the summit, a Politburo member was sent to Washington to reach a resolution, and during his state visit, Xi dampened the diplomatic crisis by agreeing to the joint statement.

The diplomatic crisis was resolved for at least three reasons. First, there were strong pressures within the system to reorganize and restructure China's cyber capabilities, which led to a temporary downturn in Chinese activities. Before the indictments, it is possible that PLA operators had reassured central leaders that attribution was difficult. It is highly likely that the central leadership had little visibility into or control over the industrial espionage activities of PLA operators, many of whom were also conducting freelance hacking in pursuit of personal gain or at the behest of local governments or SOEs.[22] The creation of the SSF and the transfer of cyberindustrial espionage operations to MSS operators brought PLA cyberoperations under greater civilian control and allowed the PLA to focus on the use of cyber tools in joint operations. It also reduced the number of unsophisticated, "noisy" attacks that were drawing the attention of Washington. According to the analysis of several cybersecurity firms, the tradecraft of MSS hacking groups is significantly better than that displayed by the PLA. Hackers within the MSS have made more use of encryption, deployed more zero-day attacks,

---

[21] Sui-Lee Wee, "China Confronts U.S. Envoy over Cyber-Spying Accusations," Reuters, May 19, 2014, https://www.reuters.com/article/us-china-usa-espionage/china-confronts-u-s-envoy-over-cyber-spying-accusations-idUSBREA4J03D20140520; and "国家互联网信息办公室公布美国攻击中国网络最新数据" [Cyberspace Administration of China Releases Latest Data on U.S. Attacks on Chinese Networks], Xinhua, March 20, 2014, https://www.chinanews.com.cn/gn/2014/05-20/6187964.shtml.

[22] Elsa Kania and John Costello, "Seizing the Commanding Heights: The PLA Strategic Support Force in Chinese Military Power," *Journal of Strategic Studies* 44, no. 2 (2021): 218–64.

and targeted cloud providers and other information technology services that would provide access to numerous victims.[23]

In short, Beijing saw an opportunity to gain diplomatic advantage in implementing changes it already planned to make.[24] The pause in operations that occurred as hacking infrastructure was reoriented and responsibilities shifted from the PLA to the MSS would convince the United States that China intended to honor the agreement and reduce the threat of sanctions and other pressure. Moreover, James Mulvenon argues that Chinese policymakers may have believed they could reach a new equilibrium on cyberespionage operations with the United States. Deploying a higher level of tradecraft would create an equivalent of the hacking conducted by the NSA. Eliminating the relatively "noisy," scattershot operations by the PLA and bringing the hacking more in line with what it believes the NSA conducts—a smaller number of operations that nevertheless give the United States large-scale access to Chinese assets—would, in Beijing's view, resolve the issue.[25]

Second, Xi and Obama were involved in resolving the issue. Both leaders devoted significant attention to the problem and directed the diplomatic and security bureaucracies to reach an agreement. Third, and reflective of the high level of concern, both sides saw other issues in the bilateral relationship as having higher priority than cyberespionage. Neither Washington nor Beijing was willing to sacrifice the potential for cooperation on addressing climate change, the global economy, or regional hotspots like North Korea to further press their disagreements in cyberspace.

None of these conditions exist today. Chinese cyberindustrial espionage has returned as a source of conflict in the bilateral relationship. The United States indicted hackers associated with the MSS in 2017, 2018, 2020, and 2021, and in 2019 the U.S. Department of Justice charged four PLA hackers

---

[23] Robert Abel, "APT 10's Cloud Hopper Campaign Exposed," SC Media, April 6, 2017, https://www.scmagazine.com/news/cybercrime/apt-10s-cloud-hopper-campaign-exposed; and Chris Bing, "Research Claims CCleaner Attack Carried Out by Chinese-linked Group," CyberScoop, October 2, 2017, https://cyberscoop.com/ccleaner-attack-china-intezer-labs-piriform-apt17.

[24] Lorand Laskai and Adam Segal, "A New Old Threat: Countering the Return of Chinese Industrial Cyber Espionage," Council on Foreign Relations, December 6, 2018, https://www.cfr.org/report/threat-chinese-espionage.

[25] Adam Segal et al., "Hacking for Cash: Is China Still Stealing Western IP?" Australian Strategic Policy Institute, September 25, 2018, https://www.aspi.org.au/report/hacking-cash.

with the 2017 hack of Equifax.[26] Moreover, the United States has mobilized friends and allies to participate in the joint attribution of Chinese operations. In July 2021, Australia, Canada, the European Union, Japan, NATO, and the United Kingdom attributed the hacks of Microsoft Exchange Server to the MSS and criticized China's "malicious cyber activity."[27]

These actions have provoked denials and counterclaims from China, but they do not represent a crisis. The broad and deep technology competition between China and the United States and the entrenched ideological differences about the legitimate uses of cyberspace mean that cyberoperations are now a constant in the bilateral relationship. Xu and Lu argue, "To some degree, the ICT conflict between China and the United States is a crisis that is unlikely to be managed, because one side is determined to escalate the conflict."[28] Yet cyberoperations below the threshold are now regarded less as individual events that tip the bilateral relationship toward a crisis event and more as continual background noise.

The United States and China will not reach future agreements on cyberespionage or other operations below the threshold for the use of force or armed attack. The growing vulnerability of both countries to destructive cyberoperations does create, however, a shared interest in defining some norms of responsible state behavior in cyberspace and preventing cyberoperations from spilling over into kinetic conflict. These discussions, held between the PLA and the Pentagon, would include exchanges about cyber doctrine as well as identify points of contact for communication during

---

[26] "U.S. Charges Three Chinese Hackers Who Work at Internet Security Firm for Hacking Three Corporations for Commercial Advantage," U.S. Department of Justice, Press Release, November 27, 2017, https://www.justice.gov/opa/pr/us-charges-three-chinese-hackers-who-work-internet-security-firm-hacking-three-corporations; "Two Chinese Hackers Associated with the Ministry of State Security Charged with Global Computer Intrusion Campaigns Targeting Intellectual Property and Confidential Business Information," U.S. Department of Justice, Press Release, December 20, 2018, https://www.justice.gov/opa/pr/two-chinese-hackers-associated-ministry-state-security-charged-global-computer-intrusion; "Two Chinese Hackers Working with the Ministry of State Security Charged with Global Computer Intrusion Campaign Targeting Intellectual Property and Confidential Business Information, Including COVID-19 Research," U.S. Department of Justice, Press Release, July 21, 2020, https://www.justice.gov/opa/pr/two-chinese-hackers-working-ministry-state-security-charged-global-computer-intrusion; and Katie Benner, "U.S. Charges Chinese Military Officers in 2017 Equifax Hacking," *New York Times*, February 10, 2020, https://www.nytimes.com/2020/02/10/us/politics/equifax-hack-china.html.

[27] "The United States, Joined by Allies and Partners, Attributes Malicious Cyber Activity and Irresponsible State Behavior to the People's Republic of China," White House, Press Release, July 19, 2021, https://www.whitehouse.gov/briefing-room/statements-releases/2021/07/19/the-united-states-joined-by-allies-and-partners-attributes-malicious-cyber-activity-and-irresponsible-state-behavior-to-the-peoples-republic-of-china.

[28] Xu and Lu, "China-U.S. Cyber-Crisis Management."

a crisis.[29] The absence of the second and third reasons listed above—high-level attention and a commitment from both sides to stability in the bilateral relationship—makes progress on these discussions difficult. Although the Trump administration held a dialogue between the U.S. Departments of Justice and Homeland Security and China's MPS on cybercrime and law enforcement, and there were several Track 1.5 and 2 discussions on cybersecurity, the militaries of the two sides have not discussed these issues for years.

Using Cyberoperations during a Regional Crisis

Cyberoperations will play a role in any regional or maritime crisis. As the crisis develops, Chinese operators will target political and military networks to collect intelligence. The cybersecurity firm FireEye, for example, tracked a Chinese cyber group that targeted organizations in Bangladesh, India, Nepal, and Pakistan, seeking information on border disputes as well as general diplomatic intelligence. Cyberespionage operations against research organizations, militaries, governments, and shipping companies in the Philippines and Vietnam closely followed sovereignty disputes in the South China Sea. During the Russian invasion of Ukraine, Chinese hackers targeted both Moscow and Kyiv in order to learn more about the war.[30]

The Chinese leadership may also use cyberoperations to signal, coerce, or deter during a crisis. Chinese hackers have a long history of disruptive nuisance attacks during times of political crisis and tension. In June 2011, after Hanoi accused a Chinese patrol of cutting the cables of a Vietnamese ship conducting seismic research, hackers from both countries defaced government websites.[31] In 2012, Chinese hackers responded to the Japanese government's purchase of three uninhabited islands in the Senkaku Islands by defacing the websites of at least nineteen Japanese entities, including the Ministry of Defense and the Ministry of Internal

---

[29] Adam Segal, "Strategic Stability in Cyberspace: U.S. Perspective," in "Enhancing U.S.-China Strategic Stability in an Era of Strategic Competition," ed. Patricia M. Kim, United States Institute of Peace, Peaceworks, no. 172, April 2021, 43–46, https://www.usip.org/publications/2021/04/enhancing-us-china-strategic-stability-era-strategic-competition.

[30] John Leyden, "China Using Cyberspies in Border Disputes with India and Neighbors," Register, August 21, 2015, https://www.theregister.com/2015/08/21/china_india_apt.

[31] "Vietnam and China Hackers Escalate Spratly Islands Row," BBC, June 9, 2021, https://www.bbc.com/news/world-asia-pacific-13707921.

Affairs and Communications, as well as banking and utilities systems.[32] After the Permanent Court of Arbitration found that China's expansive claims of sovereignty in the South China Sea had no legal basis, hackers knocked local government websites offline in the Philippines and took over screens and sound systems at the Hanoi and Ho Chi Minh City airports to broadcast anti-Vietnamese and anti-Philippine slogans.[33]

There was also a cyber component to Chinese pressure in the wake of Speaker of the House Nancy Pelosi's August 2022 visit to Taiwan. Hackers launched distributed denial-of-service (DDoS) attacks against Taiwan government websites, including the Ministry of National Defense, the Office of the President, and the Ministry of Foreign Affairs, as well as the Taoyuan International Airport, though it was unclear if all the attackers were state-backed.[34] Hackers also posted messages such as "Warmonger Pelosi, get out of Taiwan!" on websites and display screens.[35]

These nuisance attacks are a relatively nonescalatory method to signal Beijing's displeasure with an adversary's actions while providing the Chinese leadership plausible deniability. They may create anxiety in the victim country's populace, undermining confidence that the government can defend important networks. While such attacks produce little to no tactical or strategic advantage, they distract defenders by consuming resources and time and perhaps allow attackers to spend more effort on exploiting more sensitive networks if necessary.

Chinese hackers may also make their presence known on critical networks in order to signal that China is willing to escalate if the other side does not back down or continues a particular course of action. According to the cybersecurity firm Recorded Future, in the wake of the 2020 conflict in the Galwan Valley, Chinese operators placed malware on a "dozen critical nodes across the Indian power generation and transmission infrastructure." Claims about the malware causing a power outage in Mumbai remain unsubstantiated, but as an Indian military analyst said, "I think the signaling

---

[32] Bill Gertz, "Cyber Blitz: U.S. Officials Say China Behind Cyber Attacks on Japan," Washington Free Beacon, September 25, 2012, https://freebeacon.com/politics/cyber-blitz.

[33] "South China Sea: Vietnam Airport Screens Hacked," BBC, July 29, 2016, https://www.bbc.com/news/world-asia-36927674.

[34] "Taiwan Defence Ministry: Website Hit by Cyber Attacks amid China Tensions," Reuters, August 3, 2022, https://www.reuters.com/world/asia-pacific/taiwan-defence-ministry-website-hit-by-cyber-attacks-amid-china-tensions-2022-08-04.

[35] Sarah Wu and Eduardo Baptista, "From 7-11s to Train Stations, Cyber Attacks Plague Taiwan over Pelosi Visit," Reuters, August 4, 2022, https://www.reuters.com/technology/7-11s-train-stations-cyber-attacks-plague-taiwan-over-pelosi-visit-2022-08-04.

is being done that we [China] can and we have the capability to do this in times of a crisis."[36]

The creation of the SSF was designed to overcome bureaucratic and organizational barriers in network forces to fielding integrated capabilities and generating steady cyberactivity. The SSF unifies multiple operational units and organizations from the PLA's former four "general departments"—the General Staff Department, the General Armaments Department, the General Political Department, and, in particular, cyberespionage forces previously contained within the General Staff Department's technical reconnaissance-focused Third Department.[37]

The consolidation of forces in the SSF should increase the central leadership's control over cyberoperations. According to John Chen, Joe McReynolds, and Kieran Green, strategic cyberoperations designed to affect an adversary's politics, economics, and foreign relations will require approval from the highest levels of the CCP leadership.[38] Planning and guidance during peacetime rests with the CCP Central Committee's Cybersecurity and Informatization Commission and the Central Military Command (CMC). During wartime, the CMC Joint Operations Command Center is responsible for planning and guidance. Operational-level activities meant to seize information dominance, support decision-making, and gain control over facilities and information will require control by the CMC and the theater command. In addition, the SSF's closeness to the party center could improve coordination between the SSF and other cyber agencies within China.[39]

There is, however, still a great deal of uncertainty about the relationship between SSF network forces and civilian and military authorities, on the one hand, and regional and central military commands, on the other. The SSF can augment its capabilities by mobilizing network forces located in the MSS, the MPS, and other departments, as well as cyber militias in civilian

---

[36] David Sanger and Emily Schmall, "China Appears to Warn India: Push Too Hard and the Lights Could Go Out," *New York Times*, September 27, 2021, https://www.nytimes.com/2021/02/28/us/politics/china-india-hacking-electricity.html; and "China-Linked Group RedEcho Targets the Indian Power Sector amid Heightened Border Tensions," Recorded Future, February 28, 2021, https://www.recordedfuture.com/redecho-targeting-indian-power-sector.

[37] John Costello and Joe McReynolds, *China's Strategic Support Force: A Force for a New Era* (Washington, D.C.: National Defense University Press, 2018), https://ndupress.ndu.edu/Portals/68/Documents/stratperspective/china/china-perspectives_13.pdf.

[38] John Chen, Joe McReynolds, and Kieran Green, "The Strategic Support Force: A 'Joint' Force for Information Operations," in *The PLA Beyond Borders*, ed. Joel Wuthnow et al. (Washington, D.C.: National Defense University Press, 2021), 151–79.

[39] John Chen, "China's Cyber Capabilities: Warfare, Espionage, and Implications for the United States," testimony before the U.S.-China Economic and Security Review Commission, Washington, D.C., February 17, 2022, https://www.uscc.gov/sites/default/files/2022-02/John_Chen_Testimony.pdf.

government agencies, private entities, and institutions. MSS hackers conduct their own operations and are likely to be on many of the same networks as the SSF. How the two will coordinate operations is unclear.

There is also a high degree of likelihood that civilian hacking groups will conduct operations, complicating signaling and escalation control. Regional conflicts are now almost always accompanied by some form of "patriotic hacking"—individuals or groups engaged mainly in website defacement, the compromise of personal data, and DDoS attacks. During the Russian invasion of Ukraine, Kyiv stood up an "IT Army" that consists of both a global call to action that mobilizes anyone willing to participate in coordinated DDoS activity against Russian infrastructure and an "in house" team of Ukrainian intelligence and cyber groups that attack specific Russian targets.[40] There is a long history of patriotic hacking in the U.S.-China relationship. When a U.S. EP-3E reconnaissance aircraft collided in midair with a Chinese fighter jet 70 miles off the southern coast of China on April 1, 2001, Chinese hackers from a group known as the Honkers Union launched a campaign to deface more than 1,000 U.S. websites, with U.S. hackers responding in kind.[41]

At the operational level, some SSF forces may report to the CMC, and others to the five theater commands. Chen, McReynolds, and Green conclude that the command-and-control mechanisms for the SSF are still being worked out, but that the party leadership intends to hold overall responsibility for cyberspace operations through the Central Cybersecurity and Informatization Commission and the CMC: "This arrangement ensures that top leaders will have final authority over the actual employment of the SSF and reduces its autonomy in carrying out cyberspace operations during both peacetime and wartime."[42] Still, given that the reforms are still a work in progress, visibility into operations is extremely limited, information must flow to central decision-makers from multiple levels from multiple operators, and technical details must be translated for decision-makers into strategic and policy implications, cyberoperations will likely retain a fair degree of autonomy.

The nature of cyberspace makes it challenging to ensure that a cyberoperation during a crisis meets its objectives and does not inadvertently

---

[40] Stefan Soesanto, "The IT Army of Ukraine: Structure, Tasking, and Ecosystem," Center for Security Studies at ETH Zürich, June 2022, https://css.ethz.ch/content/dam/ethz/special-interest/gess/cis/center-for-securities-studies/pdfs/Cyber-Reports-2022-06-IT-Army-of-Ukraine.pdf.

[41] Rose Tang, "China-U.S. Cyber War Escalates," CNN, May 1, 2001, http://edition.cnn.com/2001/WORLD/asiapcf/east/04/27/china.hackers.

[42] Chen, McReynolds, and Green, "The Strategic Support Force," 172.

escalate the crisis. It is difficult, if not impossible, for the defender to know the attacker's motives. An attack meant to collect intelligence will look similar to "prepping the battlefield" for a more destructive attack.[43] Moreover, PLA writings see cyberspace as offensive dominant, advantaging a first strike (as do U.S. writings). As John Costello and Joe McReynolds note, Chinese writing emphasizes that a combination of cyber and kinetic strikes "can create a self-reinforcing cycle that paralyzes an adversary at the outset of conflict, cementing one's own information dominance and quickly securing the adversary's compliance."[44] Cyberattacks are likely to precede conventional strikes by hours or days. If both sides believe that the other will try to gain information dominance at the beginning of a conflict, computer-network operations in a crisis might be interpreted by the target as a more aggressive act than intended.[45]

Moreover, the net effect of a successful attack on command-and-control infrastructure is the reduction of information available to the other side. This is a positive in the effort to limit conventional capabilities, but it also makes defense and civilian officials suspicious of their own information. This is likely to result in degraded control over operators, and thus weaken the ability of policymakers to limit conflict if they so choose.[46]

In addition, Chinese views of the deterrent value of cyberoperations could be escalatory. Yuan Yi, a researcher at the Academy of Military Sciences, describes "deterrence by combat operations."[47] When one side believes the other is on the verge of initiating war, it may launch cyberattacks on critical defensive networks, thus conducting "preventive, restraining deterrence." According to Yuan, a successful deterrence strategy requires preparation. Cyber forces must conduct comprehensive network reconnaissance and install backdoors and logic bombs to launch future attacks. Dean Cheng argues that Chinese writings about offensive cyberoperations stress the need "to remind an adversary of one's ability to plant viruses or otherwise undertake information attacks (*xinxi jingong*) in order to warn them to cease

---

[43] Ben Buchanan, *The Cybersecurity Dilemma: Hacking, Trust and Fear Between Nations* (New York: Oxford University Press, 2017).

[44] John Costello and Joe McReynolds, "China's Strategic Support Force: A Force for a New Era," in *Chairman Xi Remakes the PLA: Assessing Chinese Military Reform*, ed. Phillip C. Saunders et al. (Washington, D.C.: National Defense University Press, 2019), 437–515.

[45] Adam Segal, "U.S. Offensive Cyber Operations in a China-U.S. Military Confrontation," in *Bytes, Bombs, and Spies: The Strategic Dimensions of Offensive Cyber Operations*, ed. Herbert Lin and Amy Zegart (Washington, D.C.: Brookings Institution, 2019), 319–42.

[46] Ibid.

[47] Ibid.

their policies or otherwise coerce them."[48] While China might view certain types of cyberattacks as the highest rung of a deterrence ladder, the defender might see them as crossing a threshold, signaling the possible beginning of a kinetic conflict.

In order to prevent these misperceptions from exacerbating a crisis, the two sides should, as argued above, discuss cyber doctrine and engage in confidence-building measures. Ideological differences on the legitimate uses of cyberspace, however, will make progress difficult. The United States, as it has in arms control negotiations, has tended to argue that mutual trust can be built on smaller, more technical measures such as sharing points of contact. In contrast, Chinese negotiators have often insisted that these more practical measures can only be addressed once there is agreement on larger, shared principles. The result is discussions where the two sides speak past each other.

Conclusion

In less than a decade, Beijing has made significant progress in developing civilian and military institutions and procedures to better manage cyber risks. Cyber policy is now overseen by Xi Jinping, and new institutions, such as the Central Cyberspace Affairs Commission and the CAC, have been created to direct cyber strategy. Policymakers have developed a sweeping set of laws, regulations, and standards protecting critical infrastructure and personal data, as well as measures for managing cyber crises. High-level attention, overlapping regulation, and a high degree of oversight of critical infrastructure may make it more likely that a cyber crisis is quickly controlled. The central, provincial, and local governments have held emergency exercises that bring government agencies, private cybersecurity firms, and critical infrastructure operators together to practice responding to wide-scale disruptive attacks.

Still, Beijing's ability to detect, contain, and respond to a significant cyber event is uncertain. Oversight of critical infrastructure appears to be contested between the MPS and the CAC, and bureaucratic infighting could hamper information sharing and slow an effective response. Moreover, analogous experiences with crisis management in China suggest systemic

[48] Dean Cheng, "Prospects for Extended Deterrence in Space and Cyber: The Case of the PRC," Heritage Foundation, January 21, 2016, http://www.heritage.org/research/reports/2016/01/prospects-for-extended-deterrence-in-space-and-cyber-the-case-of-the-prc.

issues with informal information flows, bureaucratic inflexibility, and the ability to mobilize and coordinate with the private sector.

Paradoxically, the worsening of the Sino-U.S. bilateral relationship makes the management of a political crisis provoked by Chinese cyberindustrial espionage significantly more difficult to control but also much less likely to happen. The political tensions that occurred in 2014–15 reflected U.S. policymakers' willingness to destabilize the bilateral relationship and put other interests at stake, as well as a sense that they had some leverage ahead of Xi's planned visit to Washington. Chinese leaders considered the episode a crisis only because they had other interests at stake. In the end, they appear to have gone along with the agreement because they did not want the issue of cyberindustrial espionage to overshadow Xi's first official summit with President Obama. Chinese leaders also expected a pause in operations as they redistributed cyberindustrial espionage from the PLA to MSS operators.

These conditions no longer exist. The broad downturn in U.S.-China relations means that both sides have higher expectations of competition in cyberspace, and policymakers may now view cyberespionage as nearly constant but essentially manageable. It is highly likely that Chinese policymakers believe the more sophisticated, "less noisy" cyberespionage that the MSS is now conducting is equivalent to NSA operations and that they are unwilling to accept that U.S. attribution of Chinese activity rises to the level of a diplomatic crisis.

The biggest risk for China, its neighbors, and the United States is the use of cyberattacks during a regional crisis. China can be expected to conduct cyber intelligence operations during a crisis and may use more disruptive or destructive attacks for signaling, coercion, or deterrence. It is highly likely that the creation of the SSF has strengthened central control over cyberoperations; yet the relationship between SSF forces and other military and civilian hacking groups remains opaque. Moreover, the nature of cyberspace and Chinese approaches to it complicate signaling and raise the risk that cyberoperations could cross a threshold, worsen a crisis, and provoke a kinetic response.

Yet, even though strategic competition and political mistrust make cyberspace an especially contested arena, Beijing and Washington still have a shared interest in ensuring that cyberoperations do not inadvertently exacerbate a crisis situation. It is important for the two sides to engage in official dialogue that could improve mutual understanding of each other's cyberoperations and doctrine. Discussions could help clarify escalation

risks.[49] The two sides will also want to discuss their command-and-control structures for cyber forces, since tight political control may keep cyberattacks more precisely targeted and the risks of collateral effects lower.

One significant obstacle is that Washington and Beijing lack a crisis communication mechanism specific to cyberspace. There was a hotline established between the Department of Homeland Security and the MPS, but it was focused on cybercrime and appears to have consisted only of a dedicated email address. The United States and Russia have a direct line in place for crisis communication as well as a mechanism for non-crisis information exchange between their nuclear risk reduction centers. A dedicated communication line with China could prove essential during a crisis in preventing miscalculation and escalation.[50]

---

[49] Adam Segal and Tang Lan, "Can the United States and China De-Conflict in Cyberspace?" War on the Rocks, April 27, 2016, https://warontherocks.com/2016/04/can-the-united-states-and-china-de-conflict-in-cyberspace.

[50] Ben Buchanan and Fiona Cunningham, "Preparing the Cyber Battlefield: Assessing a Novel Escalation Risk in a Sino-American Crisis," *Texas National Security Review* 3, no. 4 (2020): 54–81, https://tnsr.org/2020/10/preparing-the-cyber-battlefield-assessing-a-novel-escalation-risk-in-a-sino-american-crisis.

EXECUTIVE SUMMARY

This chapter assesses the potential drivers of China's nuclear expansion and modernization, examines Chinese views of nuclear weapons and their utility in peacetime and crises, and explores the role of non-nuclear strategic capabilities.

MAIN ARGUMENT

China is undergoing the most significant nuclear weapons expansion in its history. Chinese leaders have not publicly articulated a rationale or an end state, but these efforts appear to be driven by a perceived need to maintain a secure second-strike capability and bolster the country's great-power status. A China with a larger and more secure nuclear deterrent will likely be less susceptible to U.S. nuclear threats and intimidation and more willing to initiate conventional conflict due to the perceived reduced risk of nuclear escalation. Deterring conflict will therefore be more influenced by the conventional balance of power at the local level. China may use its expanded nuclear arsenal to bolster its prestige, challenge U.S. extended deterrence commitments, and dissuade U.S. intervention in a crisis or conflict. China's growing space and cyber capabilities, which are viewed as more usable weapons in a conflict, may interact with its nuclear capabilities in ways that create escalation risks.

POLICY IMPLICATIONS

- If U.S. decision-makers conclude that maintaining nuclear superiority is both valuable and achievable, then the U.S. might forgo strategic nuclear arms control in pursuit of a nuclear advantage.
- If U.S. policymakers conclude that China's quest for a robust second-strike capability cannot be stopped and that mutual assured destruction would maintain strategic stability, then the U.S. should work to manage nuclear competition with China instead of attempting to offset its buildup.
- Given that China's nuclear buildup lowers the escalation risks of conventional military conflict and increases the importance of the local conventional balance, the U.S. may need to invest more in regional conventional forces.
- U.S. recognition of mutual nuclear vulnerability with China might decrease the risks of nuclear escalation in a crisis or conventional conflict as well as the incentives for a nuclear arms race. However, it could also reduce allied confidence in U.S. security guarantees and might encourage Chinese military action at lower levels of violence.

Chapter 8

The Implications of the PLA's Nuclear Expansion and Modernization for China's Crisis Behavior

Phillip C. Saunders and David C. Logan

For decades, China had a relatively small nuclear arsenal consisting of about two hundred warheads deliverable by intercontinental ballistic missiles (ICBMs), mobile intermediate-range and medium-range ballistic missiles, and a nascent nuclear submarine force. This modest arsenal was matched with a restrained nuclear doctrine consisting of an unconditional no-first-use policy, negative security assurances to non–nuclear weapon states, and a pledge not to engage in arms races.[1] China is now in the midst of the most significant nuclear weapons expansion in its history. Recent revelations about the construction of more than three hundred new ICBM silos come amid the ongoing modernization of Chinese nuclear forces and efforts to develop a credible nuclear triad. Chinese leaders have not publicly articulated a rationale or an end state, but these efforts promise to transform China's nuclear forces and the U.S.-China nuclear relationship. This chapter discusses the implications of China's nuclear force development for its peacetime, crisis, and conflict behavior.

We begin with an overview of the changes to China's nuclear and strategic forces. These include the expansion and modernization of the

Phillip C. Saunders is Director of the Center for the Study of Chinese Military Affairs at the Institute for National Strategic Studies at the U.S. National Defense University.

David C. Logan is Assistant Professor of Security Studies at the Fletcher School of Law and Diplomacy at Tufts University.

The views expressed are those of the authors and do not necessarily represent those of the National Defense University, U.S. Indo-Pacific Command, the Department of Defense, or the U.S. government.

[1] For an overview of the evolution of China's nuclear forces, policy, and doctrine, see James M. Smith and Paul J. Bolt, eds., *China's Strategic Arsenal: Worldview, Doctrine, and Systems* (Washington, D.C.: Georgetown University Press, 2021); and Phillip C. Saunders, "China" in *Arms Control in an Era of Strategic Competition*, ed. Jeffrey A. Larsen and M. Shane Smith (Boulder: Lynn Reiner, forthcoming).

force, the development of a mature nuclear triad, and investment in other strategic capabilities such as ballistic missile defense, hypersonic boost-glide systems, anti-satellite weapons, and cyberattack capabilities. We briefly discuss several possible drivers for these changes, including the pursuit of a secure second-strike capability, a desire for great-power status, shifts in Chinese thinking about nuclear warfighting, personal intervention by Xi Jinping, and bureaucratic politics. Next, we identify assumptions about China's nuclear expansion and modernization that ground our analysis and explore several ways in which China's nuclear expansion may influence the country's crisis and conflict behavior, including bolstering Chinese resistance to potential U.S. nuclear threats, increasing the likelihood of China initiating conflict, and strengthening the role of the local conventional balance in driving Chinese conflict decisions. We then examine the potential impact of China's nuclear shifts on its behavior in the space and cyber domains and consider whether recent shifts in nuclear forces might indicate a greater willingness by China to be the first to use nuclear weapons in a conflict. Finally, we conclude with an overview, policy implications, and outstanding questions.

China's Nuclear Expansion and Modernization

China's nuclear expansion and modernization consist of both quantitative and qualitative enhancements to the force. China's nuclear forces are becoming larger, more diversified, and more technologically sophisticated. These quantitative and qualitative changes so far do not appear to have been matched by policy, strategy, or operational doctrinal shifts in how China approaches nuclear weapons and their use. Some changes represent the continuation of ongoing trends, while others are new developments.

The most significant recent shift in China's nuclear forces is the construction of more than three hundred new ICBM silos across three silo fields.[2] These silos, which China began constructing sometime in 2020 or

[2] Joby Warrick, "China Is Building More than 100 New Missile Silos in Its Western Desert, Analysts Say," *Washington Post*, June 30, 2021, https://www.washingtonpost.com/national-security/china-nuclear-missile-silos/2021/06/30/0fa8debc-d9c2-11eb-bb9e-70fda8c37057_story.html; William J. Broad and David E. Sanger, "A 2nd New Nuclear Missile Base for China, and Many Questions about Strategy," *New York Times*, July 26, 2021, https://www.nytimes.com/2021/07/26/us/politics/china-nuclear-weapons.html; and Rod Lee, "PLA Likely Begins Construction of an Intercontinental Ballistic Missile Silo Site Near Hanggin Banner," China Aerospace Studies Institute, August 12, 2021, https://www.airuniversity.af.edu/CASI/Display/Article/2729781/pla-likely-begins-construction-of-an-intercontinental-ballistic-missile-silo-si.

2021, can house DF-31 and DF-41 ICBMs.[3] If filled, they would represent the largest expansion of China's nuclear forces in history. The silo construction has been accompanied by the publication of scholarly articles assessing the operational choices involving silo-based missiles and the issuance of new patents for missile silo equipment, potentially indicating increased interest and investment in silo-based missiles.[4] The new silos represent a significant shift in China's nuclear behavior and provide Beijing with a significantly larger strategic nuclear infrastructure.

In addition to expanding its strategic nuclear forces, China is also developing and deploying new nuclear-capable theater missile systems. These include the dual-capable DF-26 intermediate-range ballistic missile (IRBM), the nuclear DF-21E medium-range ballistic missile (MRBM), and the DF-17 hypersonic boost-glide MRBM, which some U.S. government sources have described as potentially being nuclear-capable.[5] Despite this investment in theater nuclear systems, growth in the conventional theater force has outpaced that of the nuclear force, and the overall number of deployed theater nuclear systems appears to have even stagnated in the past decade.[6] According to the U.S. Department of Defense, the "accelerating pace of the PRC's nuclear expansion may enable the PRC to have up to 700 deliverable nuclear warheads by 2027. The PRC likely intends to have at least 1,000 warheads by 2030."[7]

---

[3] U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2022* (Washington, D.C., November 2022), 100–101, https://media.defense.gov/2022/Nov/29/2003122279/-1/-1/1/2022-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF.

[4] Liu Fang, Wang Yu, and Ren Jun, "美国陆基洲际弹道导弹部署方案的研究" [Study on the Deployment Schedule of the U.S. Intercontinental Ballistic Missile], Proceedings of the Eighth China Conference on Command and Control, September 2020; Yao Guangchun, "一种抗爆防穿导弹发射井轻质井盖" [A Type of Explosion-Proof and Anti-Penetrating Lightweight Missile Launch Silo Manhole Cover], China Patent CN 213631788 U, November 12, 2020; and Liu Fangning et al., "一种新型UHPC导弹发射井井盖" [A New Type of UHPC (Ultra High-Performance Concrete) Missile Silo Cover], China Patent CN 216592980 U, October 14, 2021.

[5] The DF-26 and DF-21E were first fielded in 2016. See Charles A. Richard, "Statement of Charles A. Richard, Commander, United States Strategic Command," statement before the U.S. Senate Committee on Armed Services, Washington, D.C., February 13, 2020, 4; and Kristin Huang, "China's Hypersonic DF-17 Missile Threatens Regional Stability, Analyst Warns," *South China Morning Post*, August 23, 2019, https://www.scmp.com/news/china/military/article/3023972/chinas-hypersonic-df-17-missile-threatens-regional-stability.

[6] For data and analysis, see David C. Logan and Phillip C. Saunders, *Discerning the Drivers of China's Nuclear Force Development: Models, Indicators, and Data*, China Strategic Perspectives 18 (Washington, D.C.: National Defense University Press, 2023), 73–75.

[7] U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2021* (Washington, D.C., November 2021), 90, https://media.defense.gov/2021/Nov/03/2002885874/-1/-1/0/2021-CMPR-FINAL.PDF. We also note that past analyses have consistently overestimated future Chinese warhead growth. See Hans Kristensen, "DIA Estimates for Chinese Nuclear Warheads," Federation of American Scientists, Strategic Security, May 31, 2019, https://fas.org/blogs/security/2019/05/chinese-nuclear-stockpile.

Alongside the growth in size, China is diversifying its nuclear forces by developing a nuclear triad consisting of ground-, sea-, and air-based systems. For decades, China's only reliable nuclear delivery systems consisted of ground-based missiles. Today, China fields six nuclear-powered ballistic missile submarines (SSBN), has reassigned the air force a nuclear role, and is developing a next-generation nuclear-capable strategic bomber.[8]

China's nuclear forces are also becoming more sophisticated. In the last decade, China has deployed a suite of advanced nuclear technologies, including multiple independently targetable reentry vehicles (MIRVs), advanced precision-strike systems, hot-swappable dual-capable missiles, mobile missile launchers with improved off-road capability, and hypersonic boost-glide systems. China is also working to develop and deploy the supporting command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) infrastructure necessary to support a larger, more diversified, and more advanced nuclear arsenal. This includes ground-based large phased array radars, geostationary satellites for detecting missile launches, extremely low-frequency radio communications, and an airborne communications system for SSBNs.[9]

In addition to changes in its nuclear forces, China has expanded and developed new non-nuclear strategic systems, including advanced conventional ballistic missiles, anti-satellite weapons, offensive cyberattack capabilities, and ballistic missile defense systems.[10] Although these systems are not nuclear, they can still generate strategic effects by deterring potential adversaries; forcing them to make significant changes to their doctrine, war plans, or force structure; producing decisive battlefield effects; or altering the nature of a conflict. For instance, China's advanced conventional ballistic missiles, including its anti-ship ballistic missiles and those armed with hypersonic boost-glide vehicles, may enhance its strategic position in a Taiwan contingency by allowing it to impose significant costs on Taiwan through a blockade or joint fire-strike campaign, deterring or slowing U.S. intervention through anti-access/area denial strategies, or by attacking U.S.

---

[8] U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2021*, 90–92; Michael S. Chase, "Nuclear Bomber Could Boost PLAAF Strategic Role, Create Credible Triad," Jamestown Foundation, China Brief, July 6, 2017, https://jamestown.org/program/nuclear-bomber-boost-plaaf-strategic-role-create-credible-triad; and Tong Zhao, "Tides of Change: China's Nuclear Ballistic Missile Submarines and Strategic Stability," Carnegie Endowment for International Peace, October 24, 2018, https://carnegieendowment.org/2018/10/24/tides-of-change-china-s-nuclear-ballistic-missile-submarines-and-strategic-stability-pub-77490.

[9] U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2021*, 93–94; and Zhao, "Tides of Change," 37.

[10] Phillip C. Saunders and David C. Logan, "China's Regional Nuclear Capability, Nonnuclear Strategic Systems, and Integration of Concepts and Operations," in Smith and Bolt, *China's Strategic Arsenal*, 125–58.

strategic assets such as aircraft carriers. Similarly, counterspace and offensive cyber weapons might undermine strategic nuclear deterrence by degrading important U.S. enabling capabilities such as early-warning satellites or nuclear command-and-control systems.

There are several possible drivers of China's nuclear modernization and expansion, and these explanations are not mutually exclusive. First, and most likely, is the desire to enhance the nuclear force's survivability and reliability in the face of perceived threats from new and emerging U.S. strategic capabilities and doctrine. The strongest form of this driver would focus on building a second-strike capability so secure that the United States would not even contemplate a first strike.

Second, China may be using its nuclear force as a means of bolstering its status as a great power. Military and popular reporting increasingly cites China's nuclear and strategic military capabilities as evidence of growing national prestige, with articles regularly boasting of the country's technological achievements in the nuclear domain and lauding scientists and organizations that have contributed to those achievements.[11] China might attempt to distinguish itself from second-tier nuclear powers like India, Pakistan, and France by developing a nuclear force that clearly surpasses their nuclear arsenals in quantity and technological sophistication, thereby inviting comparisons with the U.S. and Russian nuclear forces.

Third, China might be expanding and modernizing its nuclear capabilities to support new theater deterrence or nuclear warfighting missions. Enhanced nuclear capabilities could be useful for either deterring possible U.S. nuclear first use or deterring U.S. or allied conventional intervention in a regional conflict. Chinese strategists have historically eschewed these types of theater and tactical nuclear capabilities, believing that nuclear weapons have limited military and political utility on the battlefield due to the difficulty of controlling escalation. We see relatively little evidence that these dynamics are driving Chinese nuclear force development, though analysts should continue to monitor for evidence

[11] For examples, see Wang Yangzong, "'两弹一星'从保密到家喻户晓" ["Two Bombs and One Satellite": From Secret to Household Name], *China Science Daily*, September 2, 2021, https://www.cas.cn/kx/kpwz/202109/t20210902_4804283.shtml; and "先导中心党支部开展国家博物馆'两弹一星'精神学习活动" [The Party Branch of the Pilot Center Carried Out "Two Bombs and One Satellite" Spiritual Learning Activities at the National Museum], Chinese Academy of Sciences, September 27, 2021, http://www.ime.cas.cn/djycxwh/dwgk/202109/t20210927_6216149.html. For discussion and analysis, see Nicola Leveringhaus, "The Politics of Nuclear Commemoration in Asia: The China Case" (webinar presentation for the Women in Asia-Pacific Security Research Seminar Series, August 5, 2021), available at https://www.youtube. com/watch?v=B6o-TM-exUM.

of moves in this direction.[12] China could also be attempting to bolster its nuclear deterrence and warfighting capabilities against nuclear neighbors such as India and Russia.

Fourth, China's nuclear buildup could represent a significant shift in the country's nuclear strategy, particularly the desire to compete directly with the two leading nuclear powers, Russia and the United States. One possible reason is that Chinese nuclear thinking could now believe that nuclear weapons provide significant operational military benefits, though we find relatively little evidence of this view in Chinese sources.

Finally, recent changes to the country's nuclear forces might be driven either by Xi Jinping's individual views about the value of nuclear weapons or by shifts in the bureaucratic politics of nuclear weapons policy. These two factors are particularly opaque. The timing of recent developments suggests that shifts in China's approach to nuclear weapons are, at best, weakly correlated with the start of Xi's tenure as chair of the Central Military Commission. Similarly, public reporting on the country's nuclear and strategic missile programs has not frequently linked them to Xi.[13]

The Impact of Nuclear Expansion and Modernization on China's Crisis and Conflict Behavior

The impact of the nuclear expansion and modernization on China's crisis and conflict behavior depends in part on assumptions about the trajectory and rationale of those changes. The analysis in this section is based on several assumptions. First, we assume that Chinese leaders rationally evaluate the costs and risks of using military force against the potential benefits and will seek to maintain control of a crisis or conflict.[14]

Second, we assume that Chinese leaders are particularly concerned about the costs and risks of nuclear use. Previous analysis of Chinese

---

[12] Logan and Saunders, *Discerning the Drivers of China's Nuclear Force Development*, 43–47; and Fiona S. Cunningham and M. Taylor Fravel, "Assuring Assured Retaliation: China's Nuclear Posture and U.S.-China Strategic Stability," *International Security* 40, no. 2 (2015): 7–50.

[13] There are limited connections between Xi and the nuclear forces in the media, such as Xi's calls for strengthening China's nuclear capabilities. For data and analysis, see Logan and Saunders, *Discerning the Drivers of China's Nuclear Force Development*, 82–84.

[14] Conversations with Chinese civilian analysts and military officers in 2013–14 indicate that Xi requested competing analyses and recommendations about U.S.-China military-to-military relations and potential military communications and confidence-building measures from several Chinese civilian and military research institutes. He subsequently ordered the People's Liberation Army to engage in the negotiations that produced the 2014 Memorandum of Understanding on Rules of Behavior for Safety of Air and Maritime Encounters.

thinking about escalation has found a strong desire to carefully control the scope and intensity of conflicts as well as to avoid the use of nuclear weapons.[15] Xi's November 2022 remarks that "nuclear weapons cannot be used" and "nuclear wars must not be fought" reinforce this point.[16]

Third, we assume that China's quantitative and qualitative nuclear expansion will generate important new political and military effects. Regardless of whether China seeks or achieves nuclear parity with the United States, ongoing changes promise that China will no longer be a "lesser included case" alongside Russia.

Fourth, we assume that China's nuclear expansion and modernization will not be met, at least in the short term, by significant shifts in the U.S. nuclear posture. Under the New START Treaty, the United States is limited until early 2026 to deploying 1,550 nuclear warheads on ICBMs, SSBNs, and heavy bombers. The United States does not currently have any permanently deployed tactical nuclear weapons in the Asia-Pacific, and there would be significant political and operational challenges in changing this posture.[17] Given U.S. Department of Defense estimates that China will have roughly 700 deliverable nuclear warheads by 2026, we assume that U.S. quantitative nuclear superiority over China will decrease.

Finally, we assume that China's nuclear expansion and modernization are not accompanied by major shifts in policy, strategy, or doctrine about when and how it would use nuclear weapons. Chinese leaders and strategists have historically perceived a sharp division between the conventional and nuclear domains and set a high threshold that envisions using nuclear weapons only under limited, extreme situations. There are ongoing debates in China about nuclear use, including the viability of its no-first-use policy, the conditions under which China might use nuclear weapons, and the definition of nuclear use.[18] However, there is little compelling evidence

---

[15] Alison A. Kaufman and Daniel M. Hartnett, "Managing Conflict: Examining Recent PLA Writings on Escalation Control," CNA, February 11, 2016, https://www.cna.org/reports/2016/examining-recent-pla-writings; and Fiona S. Cunningham and M. Taylor Fravel, "Dangerous Confidence? Chinese Views on Nuclear Escalation," *International Security* 44, no. 2 (2019): 61–109.

[16] "Update: Xi Meets German Chancellor Olaf Scholz," Xinhua, November 5, 2022, https://english.news.cn/20221105/bdffa606c7924d1aa9134c7dc700cfca/c.html.

[17] Jacob L. Heim, "Missiles for Asia? The Need for Operational Analysis of U.S. Theater Ballistic Missiles in the Pacific," RAND Corporation, 2016.

[18] For related analysis, see David C. Logan, "The Dangerous Myths about China's Nuclear Weapons," War on the Rocks, September 18, 2020, https://warontherocks.com/2020/09/the-dangerous-myths-about-chinas-nuclear-weapons; Austin Long, "Myths or Moving Targets? Continuity and Change in China's Nuclear Forces," War on the Rocks, December 4, 2020, https://warontherocks.com/2020/12/myths-or-moving-targets-continuity-and-change-in-chinas-nuclear-forces; and Christopher P. Twomey, "China's Nuclear Doctrine and Deterrence Concept," in Smith and Bolt, *China's Strategic Arsenal*, 53–57.

that Chinese views about nuclear use have fundamentally shifted.[19] At the end of the chapter, we relax this assumption by exploring how nuclear force modernization and expansion could either indicate or drive a shift in China's approach to nuclear use and present hypotheses about how these second-order effects might influence Chinese military strategy and crisis and conflict behavior.

Based on these assumptions, we identify several implications of China's nuclear expansion and modernization for its crisis and conflict behavior. The first implication is that a larger and more diversified nuclear force will make Chinese leaders more confident in their secure second-strike capability and, therefore, less susceptible to potential U.S. nuclear threats and intimidation. Chinese leaders have reportedly expressed concerns that the United States might resort to limited nuclear use against China to offset its own conventional inferiority in the western Pacific.[20] However, a larger and more diversified Chinese arsenal would be more survivable, enhancing deterrence against a U.S. first strike and decreasing the feasibility of U.S. damage limitation strategies. Such a force could also enable China to increasingly match U.S. threats of limited nuclear strikes with its own theater nuclear forces (though Chinese nuclear forces would likely require significant shifts in doctrine, command and control, operational practices, and infrastructure to perform such missions).[21]

Second, as the nuclear balance becomes increasingly stable, the likelihood of conflict at lower levels of intensity may increase. Scholars have long recognized an interaction between the probability of conflict at different rungs of the escalation ladder. The "stability-instability paradox" predicts that the greater the stability (or parity) at the strategic nuclear level, the lower the stability at the conventional level, or other lower levels, of conflict. If China's current nuclear inferiority relative to the United States helps restrain Chinese conventional aggression, then a larger and more survivable arsenal that produces a nuclear balance perceived to be more favorable to China could serve as a nuclear shield that reduces the perceived escalation risks of a conflict. Scholars have shown how the mutual possession of nuclear

---

[19] Marcus Clay and Roderick Lee, "Unmasking the Devil in the Chinese Details: A Study Note on the Science of Military Strategy 2020," China Aerospace Studies Institute, January 24, 2022, 4–6, https://www.airuniversity.af.edu/Portals/10/CASI/documents/Research/Other-Topics/2022-01-24%20SMS%202020%20in%20Perspective.pdf.

[20] U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2021*, 93.

[21] As scholars have noted, China's nuclear arsenal is not currently postured or trained for limited nuclear strikes.

weapons may lead to an increase in lower-level conflicts, including both direct conventional conflicts and indirect proxy conflicts.[22]

Third, as the nuclear balance becomes more equal, the conventional balance may become more important.[23] If Chinese and U.S. leaders perceive themselves as locked into a nuclear stalemate, then nuclear escalation will become an impractical tool for compensating for conventional weakness. This would help insulate the conventional balance from nuclear dynamics, increasing the likelihood that the conventional balance would influence the outbreak and course of conflict. This outcome depends in part on U.S. and Chinese beliefs about whether the two sides are locked in a stalemate at the nuclear level, how easily a conventional conflict could escalate to the nuclear level, and what kinds of risks leaders would be willing to take. The increasing prominence of the conventional balance may also raise the likelihood of conflict, given that the balance in the western Pacific has increasingly tilted toward China's advantage, especially near the Taiwan Strait.[24] Chinese nuclear thinking has traditionally viewed escalation to the nuclear level as unlikely due to the difficulty of controlling nuclear escalation and beliefs that limited nuclear use would escalate to widespread nuclear use.[25]

Significantly, these dynamics depend on Chinese and U.S. beliefs about the nuclear balance and its meaning, as well as about how the other side views the balance.[26] Chinese analysts have expressed concerns about the vulnerability of their country's nuclear deterrent to a potential disarming first strike by the United States, especially when coupled with U.S. ballistic

---

[22] Bryan R. Early and Victor Asal, "Nuclear Weapons, Existential Threats, and the Stability-Instability Paradox," *Nonproliferation Review* 25, no. 3–4 (2018): 223–47; Kyle Atwell and David C. Logan, "Shadow Conflicts in the Shadow of the Bomb: The Link between Nuclear Weapons and Indirect Conflict," Working Paper, August 2023; and Dominic Tierney, "The Future of Sino-U.S. Proxy War," *Texas National Security Review* 4, no. 2 (2021): 50–73.

[23] For a review of similar arguments, see Abraham Denmark and Caitlin Talmadge, "Why China Wants More and Better Nukes," *Foreign Affairs*, November 19, 2021, https://www.foreignaffairs.com/articles/china/2021-11-19/why-china-wants-more-and-better-nukes.

[24] Eric Heginbotham et al., *The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power, 1996–2017* (Santa Monica: RAND Corporation, 2015); Phillip C. Saunders and Kevin McGuiness, "The Changing Balance of Military Power in the Indo-Pacific Region," Hoover Institution, May 2021, https://www.hoover.org/research/changing-balance-military-power-indo-pacific-region; and Eric Heginbotham, "China Maritime Report No. 14: Chinese Views of the Military Balance in the Western Pacific," U.S. Naval War College, China Maritime Studies Institute, June 11, 2021, https://digital-commons.usnwc.edu/cmsi-maritime-reports/14.

[25] Cunningham and Fravel, "Dangerous Confidence?"

[26] David C. Logan, "The Nuclear Balance Is What States Make of It," *International Security* 46, no. 4 (2022): 172–215.

missile defense capabilities.[27] If Chinese leaders believe that their nuclear expansion and modernization is simply maintaining the status quo in the face of advancing U.S. capabilities, then the effects of China's nuclear evolution will be relatively modest. However, if Chinese leaders believe that a larger and more capable nuclear arsenal provides a qualitatively different nuclear deterrent, then they may be more likely to pursue more assertive policies. Similarly, the impact of the stability-instability paradox on the U.S.-China crisis and conflict behavior depends on how each side perceives the likelihood of nuclear escalation. If Chinese strategists continue to believe that nuclear escalation is unlikely, then China will perceive lower risks and costs in a conventional conflict.[28] Conversely, U.S. beliefs that nuclear escalation is possible may increase the perceived risks and costs of U.S. intervention—and Chinese knowledge of these beliefs could, in turn, further embolden Beijing.

China's Employment of Nuclear Weapons in Peacetime and Crises

In addition to influencing China's crisis and conflict behavior, nuclear expansion and modernization may affect how the country uses its nuclear weapons in several ways. First, China is increasingly likely to use its nuclear arsenal as a tool for bolstering its prestige. As discussed above, there is already evidence of Chinese media and officials highlighting the technological achievements and military capabilities of China's nuclear and strategic forces as a marker of its enhanced status.[29] Chinese leaders may believe that larger and more capable nuclear forces improve China's status, particularly if they compare more favorably with those of Russia and the United States.

Second, China could use its nuclear forces during peacetime and crises to challenge U.S. extended deterrence commitments and reduce the likelihood of U.S. allies intervening in a regional crisis or conflict or allowing

---

[27] Wu Riqiang, "Living with Uncertainty: Modeling China's Nuclear Survivability," *International Security* 44, no. 4 (2020): 84–118.

[28] Liu Chong, "The Relationship between Nuclear Weapons and Conventional Military Conflicts," in "Understanding Chinese Nuclear Thinking," ed. Li Bin and Tong Zhao, Carnegie Endowment for International Peace, October 2016, 149–169; and Wu Riqiang, "Assessing China-U.S. Inadvertent Nuclear Escalation," *International Security* 46, no. 3 (2022): 128–62.

[29] For an early version of this argument, see Evan Feigenbaum, *China's Techno-Warriors: National Security and Strategic Competition from the Nuclear to the Information Age* (Stanford: Stanford University Press, 2003).

U.S. forces to operate from bases within their territory. U.S. observers have highlighted the need for U.S.-Japan military cooperation for the success of any effort to deter or defeat aggression against Taiwan.[30] Recently, Japanese officials have explicitly and strongly advocated for Japan intervening to defend Taiwan in the event of a conflict across the Taiwan Strait.[31] Chinese officials have strongly criticized suggestions of Japanese support for Taiwan and the suggestion by some Japanese officials that Japan could host U.S. nuclear weapons.[32] If China is able to erode U.S. nuclear superiority and undermine U.S. damage limitation options, this might make U.S. extended deterrence commitments to Japan less credible.[33] Chinese officials could increase the pressure by suggesting either that Japan could be the target of Chinese nuclear weapons or that the shifting strategic nuclear balance might reduce U.S. willingness to intervene in regional conflicts and fulfill its alliance commitments. China could bolster these threats by shifting its nuclear posture to one that is more supportive of theater deterrence or nuclear warfighting missions, though this would represent a significant shift in its nuclear strategy. Uncertainty about U.S. extended deterrence commitments could, in turn, encourage regional nuclear proliferation if U.S. allies view independent nuclear capabilities as a more attractive alternative.

Third, nuclear expansion and modernization could change China's nuclear signaling options and incentives. With a mature nuclear triad, China will enjoy new options such as shifting to a launch-on-warning posture, increasing nuclear alert status, and deploying forces to the field

---

[30] Jeffrey W. Hornung, "What the United States Wants from Japan in Taiwan," *Foreign Policy*, May 10, 2021, https://foreignpolicy.com/2021/05/10/what-the-united-states-wants-from-japan-in-taiwan; and David Sacks, "Enhancing U.S.-Japan Coordination for a Taiwan Conflict," Council on Foreign Relations, Center for Preventative Action, January 18, 2022, https://www.cfr.org/report/enhancing-us-japan-coordination-taiwan-conflict.

[31] Anthony Kuhn, "After Being Silent for Decades, Japan Now Speaks Up about Taiwan—and Angers China," National Public Radio, August 2, 2021, https://www.npr.org/2021/07/26/1020866539/japans-position-on-defending-taiwan-has-taken-a-remarkable-shift; and Ryan Ashley, "Japan's Revolution on Taiwan Affairs," War on the Rocks, November 23, 2021, https://warontherocks.com/2021/11/japans-revolution-on-taiwan-affairs. For an argument that these statements do not yet represent a fundamental shift in Japan's Taiwan policy, see Adam P. Liff, "Has Japan's Policy toward the Taiwan Strait Changed?" *Washington Post*, Monkey Cage, August 18, 2021, https://www.washingtonpost.com/politics/2021/08/18/has-japans-policy-toward-taiwan-strait-changed.

[32] "China Lashes Out at Japan's Former PM Abe over Taiwan Warning," *Diplomat*, December 2, 2021, https://thediplomat.com/2021/12/china-lashes-out-at-japans-former-pm-abe-over-taiwan-warning; Vincent Ni, "China Blasts Japanese Minister's 'Sinister' Remarks about Taiwan," *Guardian*, June 29, 2021, https://www.theguardian.com/world/2021/jun/29/china-blasts-japanese-ministers-sinister-remarks-about-taiwan; and Justin McCurry, "China Rattled by Calls for Japan to Host U.S. Nuclear Weapons," *Guardian*, March 1, 2022, https://www.theguardian.com/world/2022/mar/01/china-rattled-by-calls-for-japan-to-host-us-nuclear-weapons.

[33] Clark A. Murdock et al., *Exploring the Nuclear Posture Implications of Extended Deterrence and Assurance: Workshop Proceedings and Key Takeaways* (Washington, D.C.: Center for Strategic and International Studies, 2009), 52.

by dispersing mobile missiles, flushing SSBNs from ports, and redeploying nuclear-capable bombers. A more survivable nuclear force would allow China to be more deliberate and strategic with its nuclear signaling, rather than using all available means to protect a vulnerable nuclear deterrent. Greater confidence in the survivability of China's nuclear deterrent may also decrease the incentives to employ robust nuclear signaling to compensate for limited capabilities, reducing the risk of inadvertent escalation. Chinese military writings outline a range of nuclear signaling options, such as "raising the alert status of missile systems, dispersing road-mobile missiles toward preestablished launch sites, and conducting test launches of medium and long-range strategic missiles armed with conventional warheads for focused live fire intimidation" and "arm[ing] an ICBM with a conventional warhead and launch[ing] it at the adversary's homeland," all of which could be highly escalatory.[34] China's attempts to use its nuclear arsenal as a source of prestige could influence signaling dynamics. If nuclear forces are connected to notions of national identity, sovereignty, and status, the Chinese public and elites may be more likely to call on their leaders to brandish nuclear capabilities in a crisis.

Finally, as China's nuclear force becomes larger, more sophisticated, and more prominent, the country may pay increasing political costs in the areas of nonproliferation, arms control, and disarmament. Chinese leaders have long attempted to portray their country as a responsible stakeholder on nuclear weapons by emphasizing a "lean" nuclear posture, highlighting the country's participation in disarmament forums, claiming to never engage in arms races, and criticizing other nuclear weapon states for not adopting a no-first-use policy.[35] However, China's rapidly increasing nuclear arsenal and celebrations of its nuclear forces will make it harder for Beijing to portray itself as a more responsible nuclear power than the United States and Russia. Officials from Europe to Japan have already criticized China's nuclear buildup.[36] Non–nuclear weapon states may be more critical of China's nuclear

---

[34] David C. Logan, "Are They Reading Schelling in Beijing? The Dimensions, Drivers, and Risks of Nuclear-Conventional Entanglement in China," *Journal of Strategic Studies* 46, no. 1 (2023): 42–44.

[35] Hua Han, "China, the Increasingly Responsible Nuclear Stakeholder," *Bulletin of Atomic Scientists*, October 25, 2016, https://thebulletin.org/roundtable_entry/china-the-increasingly-responsible-nuclear-stakeholder; Wang Jia, China's Views on the Road Map to Nuclear Disarmament," in "Understanding Chinese Nuclear Thinking," 103–25; and Fan Jishe, "Nuclear Nonproliferation: China's Thinking and Practices," in "Understanding Chinese Nuclear Thinking," 193–218.

[36] "NATO Must Pay Attention to China, Stoltenberg Says," Deutsche Welle, June 13, 2020, https://www.dw.com/en/natos-jens-stoltenberg-sounds-warning-on-chinas-rise/a-53795384; and Tim Kelly, "Japan's Defence Minister Slams Nuclear Neighbours Who 'Ignore Rules,'" Reuters, June 11, 2022, https://www.reuters.com/world/asia-pacific/japans-defence-minister-slams-nuclear-neighbours-who-ignore-rules-2022-06-11.

policies and less supportive of Chinese arms control initiatives, making it difficult for Beijing to rally support. Other nuclear weapon states are likely to respond by maintaining and even expanding the size, sophistication, and importance of their own nuclear arsenals.[37]

The Impact of Nuclear Expansion and Modernization on China's Behavior in the Space and Cyber Domains

This chapter has focused primarily on Chinese nuclear capabilities, with some attention to the relationship between the conventional and nuclear domains. The People's Liberation Army (PLA) has traditionally thought about nuclear weapons in terms of deterring adversary nuclear attacks and nuclear intimidation rather than as warfighting tools; conversely, Chinese leaders have considered conventional weapons as warfighting tools that can also be used as instruments of deterrence and compellence. In addition to its implications for the conventional domain, China's nuclear expansion may also affect dynamics in the space and cyber domains.

Research suggests that in recent years China has developed "a broad concept of strategic deterrence that encompasses a multidimensional set of military and nonmilitary capabilities that combine to constitute the 'integrated strategic deterrence' posture required to protect Chinese national security interests."[38] This approach includes nuclear, conventional, space, and cyber capabilities as essential components of a credible strategic deterrent.

The inclusion of space and cyber capabilities within integrated strategic deterrence raises important questions about their fungibility between support for conventional warfighting and contributions to strategic deterrence. Military space and cyber capabilities clearly can contribute to both areas. The key question is whether (or under what circumstances) they pose risks of escalation to unacceptable levels of destruction akin to those posed by nuclear weapons.[39]

---

[37] "Blinken's Warning on China's Nukes," *Wall Street Journal*, August 9, 2021, https://www.wsj.com/articles/antony-blinken-warning-on-china-nuclear-missiles-11628283652; Natasha Bertrand, "China's Latest Missile Test Raises the Stakes for Biden's Nuclear Weapons Review," CNN, November 3, 2021, https://www.cnn.com/2021/10/22/politics/china-hypersonic-missile-joe-biden-nuclear-policy/index.html; and Amelia Morgan and Heather Williams, "Implementing the Integrated Review's Nuclear Doctrine," King's College London, May 19, 2022, https://www.kcl.ac.uk/implementing-the-integrated-reviews-nuclear-doctrine.

[38] Michael S. Chase and Arthur Chan, *China's Evolving Approach to "Integrated Strategic Deterrence"* (Santa Monica: RAND Corporation, 2016), 3.

[39] Caitlin Talmadge, "Emerging Technology and Intra-War Escalation Risks: Evidence from the Cold War, Implications for Today," *Journal of Strategic Studies* 42, no. 6 (2019): 864–87.

In terms of conventional warfighting, the Chinese Communist Party (CCP) has tasked the PLA with training to fight and win "informationized local wars."[40] The PLA plans to do so by conducting "integrated joint operations," which involve close cooperation among all the PLA services at the strategic, operational, and tactical levels to produce success on the battlefield.[41] The space and cyber domains are viewed as crucial in the competition for information dominance and are therefore critical for the PLA's ability to conduct integrated joint operations and win informationized local wars. This high priority placed on the space and cyber domains is clearly set out in China's 2015 white paper on military strategy.[42] On space, the white paper states:

> Outer space has become a commanding height in international strategic competition. Countries concerned are developing their space forces and instruments, and the first signs of weaponization of outer space have appeared. China has all along advocated the peaceful use of outer space, opposed the weaponization of and arms race in outer space, and taken an active part in international space cooperation. China will keep abreast of the dynamics of outer space, deal with security threats and challenges in that domain, and secure its space assets to serve its national economic and social development, and maintain outer space security.[43]

The PLA views space as a critical domain for informationized warfighting. According to PLA writings, space capabilities are important for the surveillance of adversary forces and help locate and identify targets. Satellites provide timing and location information to improve the accuracy of precision-guided munitions. They also provide communications support for command-and-control systems, especially for mobile PLA units deployed out of reach of land-based systems.[44]

In terms of cyberspace, the white paper reads:

---

[40] M. Taylor Fravel, "Shifts in Warfare and Party Unity: Explaining Changes in China's Military Strategy," *International Security* 42, no. 3 (2018): 37–83.

[41] The concept of "integrated joint operations" as the main form of PLA operations was adopted in 2004, but authoritative explication of the concept and formal guidelines for how to implement it were delayed until the November 2020 "Guidelines on Joint Operations of the Chinese People's Liberation Army (Trial)." See Edmund J. Burke et al., "People's Liberation Army Operational Concepts," RAND Corporation, 2020, 6–8, https://www.rand.org/pubs/research_reports/RRA394-1.html; and David M. Finkelstein, "The PLA's New Joint Doctrine: The Capstone of the New Era Operations Regulations System," CNA, September 2021, https://www.cna.org/reports/2021/09/The-PLAs-New-Joint-Doctrine.pdf.

[42] State Council Information Office of the People's Republic of China (PRC), *China's Military Strategy* (Beijing, May 2015), available at https://china.usc.edu/prc-state-council-chinas-military-strategy-2015-may-26-2015.

[43] Ibid.

[44] See Dean Cheng, "Space and National Security: China's Great Leap Upward," in *The PLA Beyond Borders: Chinese Military Operations in Regional and Global Context*, ed. Joel Wuthnow et al. (Washington, D.C.: National Defense University Press, 2021), 311–37.

> Cyberspace has become a new pillar of economic and social development, and a new domain of national security. As international strategic competition in cyberspace has been turning increasingly fiercer, quite a few countries are developing their cyber military forces. Being one of the major victims of hacker attacks, China is confronted with grave security threats to its cyber infrastructure. As cyberspace weighs more in military security, China will expedite the development of a cyber force, and enhance its capabilities of cyberspace situation awareness, cyber defense, support for the country's endeavors in cyberspace and participation in international cyber cooperation, so as to stem major cyber crises, ensure national network and information security, and maintain national security and social stability.[45]

The PLA views cyberspace and networked command-and-control systems as crucial for conducting integrated joint operations because they facilitate the flow of information across services and various levels of command. The speed of information flow and rapid decision-making are critical to gaining the initiative on the battlefield.[46]

The PLA thus sees the space and cyber domains as the "new commanding heights in strategic competition."[47] It has focused on two core tasks to strengthen China's position in these domains. One is to prepare to conduct kinetic and nonkinetic attacks to degrade and deny an adversary's use of cyber networks and space systems. The other is to protect against adversary attack by improving resilience and defensive measures to maintain the PLA's own ability to employ space and cyber in support of joint operations.

Although offense and defense are important to the PLA in both domains, the emphasis between the two has shifted over time. In the late 1990s and early 2000s, the PLA emphasized offensive capabilities, especially the potential contributions of space and cyber to strategic deterrence. This flowed from the PLA's assessment that the U.S. military was heavily dependent on highly vulnerable space assets and computer networks and that counter-space and offensive cyber capabilities could exploit this vulnerability. PLA experts advocated for investing in offensive capabilities and argued that anti-satellite (ASAT) weapons and offensive cyber capabilities could contribute to the PLA's conventional capabilities and have independent strategic deterrent effects by threatening to destroy space and cyber capabilities critical to the U.S. military and economy. At a time when the PLA was seeking asymmetric means to overcome a superior U.S. military

---

[45] State Council Information Office (PRC), *China's Military Strategy*.

[46] See Jeffrey Engstrom, *Systems Confrontation and System Destruction Warfare: How the Chinese People's Liberation Army Seeks to Wage Modern Warfare* (Santa Monica: RAND Corporation, 2018).

[47] State Council Information Office (PRC), *China's Military Strategy*.

viewed as an increasingly dangerous threat, the potential contributions of counter-space and cyber capabilities to China's overall strategic deterrent were attractive to Chinese military and civilian leaders.[48]

Yet the PLA also sought to exploit opportunities to use space-based assets and networked C4ISR to improve the capabilities of its own military forces. PLA theorists emphasized the importance of information in advanced warfighting and sought to emulate U.S. "network-centric warfare." If accurate information about enemy forces could be passed quickly to commanders and field units, military forces could gain the initiative and reap operational synergies that would dramatically increase their effectiveness. The increasing emphasis on informationization in PLA doctrine was matched by efforts to develop advanced space-based satellites that could support PLA operations with intelligence and information support functions, as well as to develop networked command-and-control systems such as the Integrated Command Platform, which would allow PLA units to share information across service and organizational boundaries. These efforts culminated in 2016 with the PLA organizational reforms, which established true joint command-and-control structures and integrated space, cyber, electronic, and political warfare functions under the new Strategic Support Force.[49] This doctrinal change implied a shift from emphasizing asymmetric offensive means to give a weaker PLA a chance to prevail against a more capable U.S. military toward a more symmetric approach where the PLA would attempt to replicate aspects of U.S. military concepts, systems, and organization to beat the United States at its own game.

As the PLA gradually developed and deployed more advanced space assets and networked command-and-control systems, its own dependence on these systems grew, shifting the balance of dependence (and thus the balance of vulnerability) from U.S. asymmetrical vulnerability toward U.S.-China mutual vulnerability to each other's nuclear, ASAT, and offensive cyber weapons.[50] This vulnerability is aggravated by the offense-dominant nature of the space and cyber domains and the fact that ASAT and offensive cyber weapons do not have the same counter-force potential as nuclear

---

[48] Fiona S. Cunningham, "Strategic Substitution: China's Search for Coercive Leverage in the Information Age," *International Security* 47, no. 1 (2022): 46–92.

[49] See Joel Wuthnow and Phillip C. Saunders, *Chinese Military Reforms in the Age of Xi Jinping: Drivers, Challenges, and Implications* (Washington, D.C.: National Defense University Press, 2022); and John Costello and Joe McReynolds, *China's Strategic Support Force: A Force for a New Era* (Washington, D.C.: National Defense University Press, 2019).

[50] For an early analysis of this trend and its implications, see David C. Gompert and Phillip C. Saunders, *The Paradox of Power: Sino-American Strategic Restraint in an Age of Vulnerability* (Washington, D.C.: National Defense University Press, 2011).

and precision conventional missiles, constraining the potential for damage limitation strategies in these domains. For example, because kinetic ASAT attacks may generate extensive and persistent debris fields, attacks on adversary satellites can also damage one's own satellites. Beyond the military sphere, the broader Chinese government and economy have also become increasingly dependent on satellites and networks, creating additional vulnerabilities that are even more challenging to mitigate.

As the quotes from the 2015 defense white paper suggest, China is paying increasing attention to its vulnerabilities in space and cyberspace. It has made significant investments in redundant intelligence and communications systems that can substitute for satellites as well as in cyber defenses for critical military and government systems. Yet these investments cannot eliminate dependence on uniquely valuable space and cyber capabilities (such as China's new constellation of launch-detection satellites) and the vulnerability that accompanies them. Fiona Cunningham suggests that awareness of this mutual vulnerability has produced a shift in Chinese leadership thinking away from viewing destructive counter-space and offensive cyberattacks as a risk-free option and toward viewing likely U.S. retaliatory attacks and the resulting risk of escalation as a significant challenge to war control in a major conventional conflict. This has prompted the CCP leadership to tighten party control of ASAT and offensive cyber weapons, including through the creation of the Strategic Support Force.[51]

One way to think about the challenge of war control in the space and cyber domains is to consider whether Chinese views on the relationship between conventional and nuclear warfare can illuminate emerging Chinese thinking about using space and cyber weapons for both warfighting and strategic deterrence purposes. In the conventional-nuclear case, CCP awareness of China's vulnerability to nuclear attack produced strict political guidance on the legitimate uses of nuclear weapons (to deter nuclear attack and intimidate, and to retaliate if deterrence fails) that shaped PLA nuclear force development and operational doctrine. This produced a clear distinction between conventional and nuclear warfighting, with a high threshold for nuclear use in accordance with China's no-first-use policy. It also produced a reluctance to delegate decisions about nuclear use to military leaders, which may turn out to be a constraint on a potential Chinese shift to a launch-on-warning posture.

[51] Cunningham, "Strategic Substitution."

Are the potential damage and escalation risks associated with space and cyber warfare similar enough to those associated with nuclear warfare to make this comparison fruitful? Attacks on Chinese space assets are unlikely to produce mass casualties similar to a nuclear attack on a Chinese city, but they could have significant economic and military costs given China's increasing dependence on space for a wide range of military and civilian activities. Some aspects of cyber warfare are difficult to control, especially attacks on complex critical infrastructure where the precise impact of an attack may not be predictable. U.S. cyber experts tend to downplay the potential for cyberattacks to cause catastrophic damage, citing the ability to reconstitute cyber infrastructure, but Chinese experts appear to view these potential costs as higher.[52] It does seem clear that successful ASAT and offensive cyberattacks have some potential for decisive effects in the context of a U.S.-China conventional military conflict, and that attacks on some target sets, such as nuclear command, control, and communication (C3) systems, could be highly destabilizing.

Both the United States and China have information warfare doctrine that involves efforts to target adversary sensors and command-and-control networks to disorient an adversary and force it to fight with individual weapons and units rather than as an integrated, networked force. Both emphasize the importance of seizing the initiative in a conflict to achieve a decisive impact. Both are highly likely to use at least some form of counter-space and offensive cyberattacks against the other's military forces early in a conflict. The question is whether such attacks will remain limited to specific military targets or are likely to escalate into unconstrained space and cyberwarfare against a broader set of military and civilian targets. In the 1990s, PLA counter-space and offensive cyber advocates described attacks on civilian infrastructure as having potentially decisive deterrent effects, but this view has become less prevalent as China's own vulnerabilities have been recognized.[53] International reactions to Russian conventional and cyberattacks on Ukrainian civilian infrastructure may ultimately raise the political costs of broadening cyberattacks beyond military targets. The bottom line is that China's nuclear expansion makes a Sino-U.S. conventional conflict somewhat more likely. Such a conflict is likely to include counter-space and offensive cyberattacks, and there will be new escalation risks based on military actions in the space and cyber domains.

---

[52] See Cunningham, "Strategic Substitution," 50; and Jon R. Lindsay, "The Impact of China on Cybersecurity: Fiction and Friction," *International Security* 39, no. 3 (2015): 36–37.

[53] Ibid.

Can firebreaks be constructed that differentiate between legitimate military targets that are fair game in a conflict and other targets (e.g., critical infrastructure and nuclear C3) that should remain off limits? In the space domain, a common U.S. and Chinese interest in avoiding space debris could support a ban on kinetic ASAT weapons (while permitting ASAT weapons that rely on reversible means such as jamming or dazzling or that achieve "soft kill" of satellite functionality without generating debris). PLA writings suggest a preference for such measures, which are regarded as more usable than kinetic ASAT weapons.

Any such agreements would be difficult to negotiate and verify, especially given increasing strategic competition and mutual suspicion. A previous study suggested that such strategic restraint would have to rest on a foundation of deterrence based on each side's possession of offensive weapons that would hold the other's critical space and cyber assets at risk.[54] To date, there has been little U.S.-China discussion on where the limits to space and cyber warfare should lie or what firebreaks might look like. It is possible that a more symmetric pattern of U.S. and Chinese dependence on the space and cyber domains for critical functions, such as strategic warning and nuclear C3, may incentivize further discussion. The CCP's determination to preserve tight civilian control of PLA nuclear and non-nuclear strategic capabilities may also be a more positive factor than is generally appreciated.

Relaxing Assumptions about Chinese Views of Nuclear Weapons

In the preceding sections, we assessed the implications of a larger, more diversified, and more sophisticated Chinese nuclear force on China's peacetime, crisis, and conflict behavior, assuming there were no parallel shifts in China's views of nuclear use. In this section, however, we relax this assumption by exploring three potential ways that ongoing developments could influence how Chinese leaders perceive the threshold between the conventional and nuclear domains.

The first is conventional-nuclear entanglement. The geographic, operational, and technological overlap between China's conventional and nuclear forces threatens to blur the lines between these domains and increases the risk of inadvertent nuclear escalation.[55] Chinese entanglement

[54] Gompert and Saunders, *The Paradox of Power*.

[55] Logan, "Are They Reading Schelling in Beijing?"

can generate escalatory pressures in several ways. U.S. conventional strikes against entangled systems may inadvertently degrade China's nuclear forces and increase anxiety that the United States intends to erode China's deterrent. An adversary may also misperceive signaling attempts that use entangled forces. In the U.S.-China context, a more survivable Chinese strategic nuclear deterrent will likely reduce the escalation pressures on Beijing that may stem from nuclear-conventional entanglement. With a smaller, more vulnerable force, even a few inadvertent strikes against Chinese nuclear forces might raise concerns. With a larger, more survivable force, it would take significantly more inadvertent strikes to affect China's deterrent.

The second potential way is cross-domain interaction. This is distinct from conventional-nuclear entanglement and refers to how conventional and nuclear systems of opposing states interact in ways that may increase escalation risks. For instance, a state may pursue ballistic missile defense capabilities for defense against conventional missiles, but those same systems may influence strategic nuclear dynamics. In the U.S.-China context, Chinese strategists worry that U.S. regional ballistic missile defense systems could threaten China's nuclear deterrent, even though U.S. officials insist that the systems are intended only to address the nuclear threat from North Korea or to deal with conventional missile threats. Similarly, the United States and its regional allies have developed long-range precision-strike capabilities for purposes other than attacking China's nuclear weapons.[56] However, Chinese analysts have raised concerns that these capabilities might be used to threaten or attempt a disarming strike against China's nuclear deterrent.[57] As with entanglement risks, a larger and more survivable Chinese nuclear deterrent will likely decrease escalatory pressures by granting Chinese officials greater confidence in the survivability of their deterrent.

The third way is whether recent developments in China's nuclear forces might indicate or encourage a shift in Chinese thinking about nuclear use. Greater Chinese investment in nuclear forces could indicate that Chinese strategists view these capabilities as more relevant and valuable than they did in the past. Scholars have illustrated how China's relatively restrained nuclear posture stems from a belief that nuclear weapons have limited political and

---

[56] Tong Zhao, "Conventional Counterforce Strike: An Option for Damage Limitation in Conflicts with Nuclear-Armed Adversaries?" *Science and Global Security* 19, no. 3 (2011): 195–222; and Ian Bowers and Henrik Stålhane Hiim, "Conventional Counterforce Dilemmas: South Korea's Deterrence Strategy and Stability on the Korean Peninsula," *International Security* 45, no. 3 (2021): 7–39.

[57] Tong Zhao, "Conventional Long-Range Strike Weapons of U.S. Allies and China's Concerns of Strategic Instability," *Nonproliferation Review* 27, no. 1–3 (2020): 109–22.

military utility.[58] According to these views, mutual vulnerability is easily obtained and maintained, and there are rapidly diminishing returns to expanding the size of a nuclear arsenal. Indeed, there is evidence that China's missile forces have historically prioritized conventional over nuclear units.[59] Even today, authoritative PLA texts consistently emphasize the value and capabilities of conventional forces over nuclear ones.[60] However, the mere fact that China appears to be investing significantly more in its nuclear forces could be an indicator that its current leaders believe that nuclear weapons can do more than their predecessors believed. Chinese nuclear thinking could include a potential shift to theater deterrence or nuclear warfighting. As discussed above, China could develop the forces, policy, strategy, and doctrine to implement more flexible and limited theater nuclear threats and strikes to deter U.S. nuclear first use or to deter U.S. or allied conventional military actions. Even if the expansion and modernization are not driven by the Chinese leadership's views about the greater utility of nuclear weapons, changes to the nuclear forces may still foster these views by empowering nuclear constituencies, easing technical constraints, and generating new operational pressures.

Conclusion

China's ongoing nuclear expansion and modernization may significantly affect its crisis and conflict behavior. Assuming that these shifts make the country more confident in the survivability of its nuclear deterrent, Chinese leaders may be less susceptible to U.S. nuclear threats, perceive lower costs to conventional conflicts, focus more on the conventional balance of forces, and be less likely to escalate to nuclear use. Expanded nuclear forces will also give China new options during peacetime and crises, including brandishing nuclear weapons for great-power status, undermining U.S. extended deterrence commitments, shifting Chinese nuclear signaling behavior, and complicating efforts to gain support for Chinese arms control initiatives. In the space and cyber domains, both the U.S. and Chinese militaries are likely to employ counter-space and offensive cyberattacks against military

---

[58] M. Taylor Fravel and Evan S. Medeiros, "China's Search for Assured Retaliation: The Evolution of Chinese Nuclear Strategy and Force Structure," *International Security* 35, no. 2 (2010): 48–87.

[59] David C. Logan, "Rocket Force Personnel in the Age of Xi Jinping," in *The People of the PLA 2.0*, ed. Roy D. Kamphausen (Carlisle: U.S. Army War College Press, 2021), 84–88.

[60] Xiao Tianliang, ed., 战略学 [Science of Military Strategy] (Beijing: National Defence University Press, 2020), 129.

targets in a conflict. This may create new escalatory pressures, including the potential for attacks against strategic infrastructure, nuclear C3, and strategic warning systems.

There are several outstanding questions about how shifts in China's nuclear forces might affect the country's peacetime, crisis, and conflict behavior. First is the uncertainty over the drivers and aims of China's nuclear expansion and modernization. As some experts have rightly observed, the evidence on shifts in China's nuclear forces is consistent with both continuity and change in Chinese nuclear thinking.[61] Given China's lack of official information about its nuclear program and the silence of most Chinese nuclear experts on the country's nuclear buildup and modernization, outside observers must infer Beijing's ultimate goals.[62] Our research elsewhere indicates that the most likely drivers are a desire to maintain the survivability of the deterrent, efforts to use a nuclear shield to deter U.S. intervention, and an attempt to bolster China's great-power status.[63] However, more research should be done to identify the underlying drivers and what they imply about alternative Chinese nuclear futures.

Second, and related to the uncertainty about China's nuclear aims, is the uncertainty about whether shifts in the size, composition, and capabilities of China's nuclear forces will be matched by shifts in the strategy, doctrine, training, and operational practices that apply to them. Despite the significant shifts in China's nuclear forces, the most pressing nuclear risks in the U.S.-China relationship likely continue to stem not from greater quantitative parity but from inadvertent escalation in a crisis or conflict. The sources of these risks include conventional-nuclear entanglement, signaling and misperception, and the pressures of conventional military strategies. A key variable affecting these dynamics is how China views and postures its nuclear forces.

These findings have several implications for U.S. policy. First, U.S. policy responses to China's nuclear buildup will depend on the feasibility of maintaining U.S. nuclear superiority and the perceived benefits of doing so. If U.S. decision-makers conclude that maintaining nuclear superiority is both valuable and achievable, then the United States might forgo strategic

---

[61] James Cameron, "China's Silos: New Intelligence, Old Problems," War on the Rocks, August 12, 2021, https://warontherocks.com/2021/08/beijings-silos-new-intelligence-old-problems; and Brian Radzinsky, "Chinese Views of the Changing Nuclear Balance," War on the Rocks, October 22, 2021, https://warontherocks.com/2021/10/chinese-views-of-the-changing-nuclear-balance.

[62] Tong Zhao, "What's Driving China's Nuclear Buildup?" Carnegie Endowment for International Peace, August 5, 2021, https://carnegieendowment.org/2021/08/05/what-s-driving-china-s-nuclear-buildup-pub-85106.

[63] Logan and Saunders, *Discerning the Drivers of China's Nuclear Force Development*.

nuclear arms control in pursuit of nuclear advantage.[64] The perceived benefits of U.S. nuclear superiority will depend on how much China's nuclear buildup alters the nuclear dimension of the U.S.-China relationship. If U.S. officials believe that China, despite its nuclear inferiority, previously maintained a secure second-strike capability against the United States, then the consequences of a Chinese nuclear buildup may appear less severe. However, if U.S. policymakers believe that the United States had first-strike or damage limitation options, then the costs of losing nuclear superiority over China are higher.[65] If U.S. policymakers conclude that China's quest for a robust second-strike capability cannot be stopped and that mutual assured destruction would maintain strategic stability, then the United States should work to manage nuclear competition with China rather than attempt to offset China's buildup. The right choice also depends on beliefs about how other nuclear-armed states are likely to react and whether the United States can win an arms race involving both China and Russia. Even if the United States is successful in maintaining a quantitative lead over China, an open-ended nuclear arms race would undermine nonproliferation objectives and divert resources that could help enhance U.S. conventional capabilities.

Second, given that China's nuclear buildup lowers the perceived escalation risks of conventional military conflict and increases the importance of the local conventional balance, the United States may need to invest more in developing regional conventional forces. As the local conventional balance becomes a more important driver of potential crisis and conflict dynamics in the western Pacific, the United States may need to work harder to slow or reverse the shift in that balance in China's favor.

Third, China's nuclear modernization and expansion may soften the trade-offs involved in a potential U.S. recognition of mutual nuclear vulnerability with Beijing. Recognition of mutual vulnerability may decrease the risks of nuclear escalation in a crisis or conventional conflict by decreasing dangerous use-or-lose pressures on China (though these benefits may be limited if Chinese leaders are confident in the survivability of their nuclear

---

[64] Throughout much of the Cold War, U.S. officials often believed that the nuclear balance was delicate or uncertain, which spurred attempts to escape nuclear stalemate or hedge against attempts by adversaries to do so. See Austin Long and Brendan Rittenhouse Green, "Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy," *Journal of Strategic Studies* 38, no. 1–2 (2015): 38–73; and Brendan Rittenhouse Green, *The Revolution that Failed: Nuclear Competition, Arms Control, and the Cold War* (New York: Cambridge University Press, 2020).

[65] For competing views on both the feasibility and value of a U.S. damage limitation strategy against China, see Charles L. Glaser and Steve Fetter, "Should the United States Reject MAD? Damage Limitation and U.S. Nuclear Strategy toward China," *International Security* 41, no. 1 (2016): 49–98; and Brendan Rittenhouse Green et al., "The Limits of Damage Limitation," *International Security* 42, no. 1 (2017): 193–207.

deterrent). Recognition of mutual vulnerability may also reduce incentives for nuclear arms racing. If China's nuclear expansion is driven mainly by a desire for a secure second-strike capability and to bolster its international status, acknowledging mutual vulnerability could reduce incentives for further nuclear investments. On the other hand, acknowledging mutual vulnerability would reduce allied confidence in U.S. security guarantees and might also encourage Chinese military action at lower levels of violence by reducing China's concerns about nuclear escalation and decreasing the effectiveness of U.S. nuclear coercion. To date, U.S. policy has emphasized the need to reassure allies about the credibility of the U.S. nuclear umbrella over efforts to forestall a Chinese nuclear buildup by assuring China that its nuclear deterrent is secure.

About the Contributors

Drew T. Holliday is a Senior Advisor in the U.S. Defense Attaché Office at the U.S. Embassy Beijing, People's Republic of China. Previously, he was chief of intelligence for the Directorate for Operations in the Defense Intelligence Agency and was twice division chief in the Department of Defense. He served in each of these capacities supporting military and civilian defense policymakers. Mr. Holliday earned an MS in strategic intelligence at the National Intelligence University and a BA in government and politics at the University of Maryland Global Campus.

David C. Logan is Assistant Professor of Security Studies at the Fletcher School of Law and Diplomacy at Tufts University. His principal research areas include nuclear strategy, arms control and nonproliferation, strategic stability, extended deterrence, and the U.S.-China security relationship. His research has been published in *International Security*, the *Journal of Strategic Studies*, *Asian Security*, and the *Nonproliferation Review*. He has also written for *Foreign Affairs*, the *Los Angeles Times*, *Joint Force Quarterly*, the *Bulletin of the Atomic Scientists*, War on the Rocks, and the *National Interest*. Dr. Logan was previously an assistant professor in national security affairs at the U.S. Naval War College and a Stanton Nuclear Security Fellow at the Massachusetts Institute for Technology's Security Studies Program. He earned his PhD in security studies at Princeton University's School of Public and International Affairs, where he was a fellow and director of the Strategic Education Initiative in the Center for International Security Studies. He holds an MPA and MA in public affairs from Princeton University and a BA in political science from Grinnell College.

Shuxian Luo is an Assistant Professor in Asian Studies at the University of Hawaii, Mānoa, and a nonresident China Fellow at the Wilson Center. She was formerly an assistant professor at the U.S. Naval War College, postdoctoral research fellow at the Brookings Institution, and adjunct lecturer at Johns Hopkins University. Her research focuses on Chinese foreign policy, especially crisis behavior and decision-making; maritime security in the Indo-Pacific; and the United States' relations with Asia. Dr. Luo holds a PhD in international relations from the Johns Hopkins University School of Advanced International Studies (SAIS), an MA in China

studies and international economics with a minor in Japan studies from SAIS, an MA in political science from Columbia University, and a BA in English from Peking University. Before embarking on her doctoral study, she worked as a journalist in Los Angeles. Her work has appeared in *Asian Security*, *Journal of Contemporary China*, War on the Rocks, and China Brief, among other publications.

Jagannath Panda is the Head of the Stockholm Centre for South Asian and Indo-Pacific Affairs at the Institute for Security and Development Policy in Sweden. In addition, he is the Director for Europe-Asia Research Cooperation at the Yokosuka Council on Asia-Pacific Studies and a Senior Fellow at The Hague Centre for Strategic Studies. He also is an international research fellow at the Cannon Institute for Global Studies in Japan, a senior research fellow at the United Services Institution of India in New Delhi, a senior fellow at the East Asian Security Centre at Bond University in Australia, and a senior research fellow at the Japan Forum for Strategic Studies in Tokyo. As a senior expert on China, East Asia, and Indo-Pacific affairs, Dr. Panda focuses on India's relations with Indo-Pacific powers, China-India relations, Chinese foreign policy, and the European Union's infrastructure, connectivity, and maritime initiatives in its growing engagement in the Indo-Pacific. He has written for the *National Interest*, China Brief, the *Diplomat*, *Nikkei Asia*, *Japan Times*, and 38 North, among many other international forums. He is also the author of the books *India-China Relations* (2017) and *China's Path to Power: Party, Military and the Politics of State Transition* (2010).

David Santoro is President and CEO of the Honolulu-based Pacific Forum, where he specializes in strategic deterrence, nonproliferation, and the geopolitics of Asia and Europe. His latest work focuses on China's changed and changing role in an era of nuclear multipolarity. Prior to his work at the Pacific Forum, Dr. Santoro engaged in nuclear policy issues in France, Australia, Canada, and the United Kingdom. He performed research as a Stanton Nuclear Security Fellow at the International Institute for Strategic Studies in London and as a postdoctoral fellow for the University of British Columbia. He is the author of *U.S.-China Nuclear Relations: The Impact of Strategic Triangles* (2021) and *Treating Weapons Proliferation* (2010) and the coeditor of *Slaying the Nuclear Dragon: Disarmament Dynamics in the Twenty-First Century* (2012). His essays have been featured in the

Nonproliferation Review, the *Bulletin of the Atomic Scientists*, the *Japan Times*, and the *Wall Street Journal*.

Phillip C. Saunders is Director of the Center for the Study of Chinese Military Affairs at the Institute for National Strategic Studies at the U.S. National Defense University (NDU). He has been a distinguished research fellow at the Institute for National Strategic Studies since 2004. Dr. Saunders served as director of studies for the Center for Strategic Research from 2010 to 2012 and previously worked at the Monterey Institute of International Studies from 1999 to 2003. He has conducted research and consulted on East Asian security issues for Princeton University and the Council on Foreign Relations and previously worked on Asia policy issues as an officer in the U.S. Air Force. Dr. Saunders is co-author with David Gompert of *The Paradox of Power: Sino-American Strategic Restraint in an Era of Vulnerability* (2011) and co-editor with Andrew Scobell of *PLA Influence on China's National Security Policymaking* (2015). He has also edited NDU Press books on Chinese contingency planning, China-Taiwan relations, the Chinese Navy, and the Chinese Air Force. He has published numerous articles and book chapters on China and Asian security issues in journals such as *International Security*, *China Quarterly*, *Survival*, *Asian Survey*, *International Studies Quarterly*, and *Asia Policy*, among others.

Adam Segal is a Senior Advisor in the Bureau of Cyberspace and Digital Policy at the U.S. Department of State. Previously, he was the Ira A. Lipman Chair in Emerging Technologies and National Security and Director of the Digital and Cyberspace Policy Program at the Council on Foreign Relations (CFR). An expert on security issues, technology development, and Chinese domestic and foreign policy, he was the project director for the CFR-sponsored Independent Task Force reports *Innovation and National Security: Keeping Our Edge* (2019) and *Defending an Open, Global, Secure, and Resilient Internet* (2013). His books include *The Hacked World Order: How Nations Fight, Trade, Maneuver, and Manipulate in the Digital Age* (2016) and *Advantage: How American Innovation Can Overcome the Asian Challenge* (2011). His work has appeared in the *Financial Times*, the *New York Times*, and *Foreign Affairs*, among other places. Dr. Segal was previously an arms control analyst for the China Project at the Union of Concerned Scientists, as well as a visiting scholar at the Hoover Institution at Stanford University, the Massachusetts Institute of Technology's Center

for International Studies, the Shanghai Academy of Social Sciences, and Tsinghua University in Beijing. He has a BA and PhD in government from Cornell University and master's degrees in international relations from the Fletcher School of Law and in diplomacy from the Fletcher School at Tufts University.

Balazs Szanto is a Lecturer in the Faculty of Political Science at Chulalongkorn University. He previously was a lecturer on international relations at Webster University Thailand. He holds a BA in international affairs management from Universiti Utara Malaysia, an MA in critical geopolitics from Newcastle University, and a PhD in international and security studies from University of Malaya. His research focuses on regional security in the Asia-Pacific involving China, Japan, and the Association of Southeast Asian Nations. Dr. Szanto has published articles on territorial disputes and conflict management in the region, predominantly between China and Japan. He is the author of *China and the Senkaku/Diaoyu Islands Dispute: Escalation and De-Escalation* (2019) and *War and International Relations: A Critical Analysis* (2021).

Zi Yang is a PhD candidate in the S. Rajaratnam School of International Studies (RSIS) at Nanyang Technological University in Singapore. His research interests include civil-military relations, China's security issues, and Chinese intelligence history. Mr. Yang's most recent academic publication is the *Comparative Strategy* article "The Bingyun Strategy: How Subverting Armed Forces Aided the Chinese Communist Party's Rise to Power" (2023). His academic works have been featured in *Intelligence and National Security*, *Small Wars and Insurgencies*, the *International Journal of Intelligence and Counterintelligence*, and *Asia Policy*. He has an MA in Asian studies from Georgetown University's School of Foreign Service and a BA in global affairs and history from George Mason University.

China's Military Decision-making in Times of Crisis and Conflict features papers from the 2022 People's Liberation Army Conference convened by the National Bureau of Asian Research, U.S. Indo-Pacific Command's China Strategic Focus Group, and the Department of Foreign Languages at the U.S. Military Academy at West Point. As competition between the United States and the People's Republic of China intensifies and unplanned encounters between their militaries become more frequent, what impact has Xi Jinping had on China's crisis decision-making and behavior? In what domains and against which actors may China be inclined to escalate or de-escalate a crisis? Leading experts address these questions and more in this volume and find that fundamentally different understandings and approaches to crisis management and response could make it more difficult to swiftly resolve crises.

Editor Roy D. Kamphausen is President at The National Bureau of Asian Research.

Contributors Drew T. Holliday, David C. Logan, Shuxian Luo, Jagannath Panda, David Santoro, Phillip C. Saunders, Adam Segal, Balazs Szanto, and Zi Yang

Past volumes in the People's Liberation Army Conference series include:

Modernizing Deterrence: How China Coerces, Compels, and Deters
Enabling a More Externally Focused and Operational PLA
The People of the PLA 2.0
Securing the China Dream: The PLA's Role in a Time of Reform and Change
The Chinese People's Liberation Army in 2025

NBR THE NATIONAL BUREAU *of* ASIAN RESEARCH

ONE UNION SQUARE
600 UNIVERSITY STREET, SUITE 1012
SEATTLE, WASHINGTON 98101
NBR@NBR.ORG, WWW.NBR.ORG