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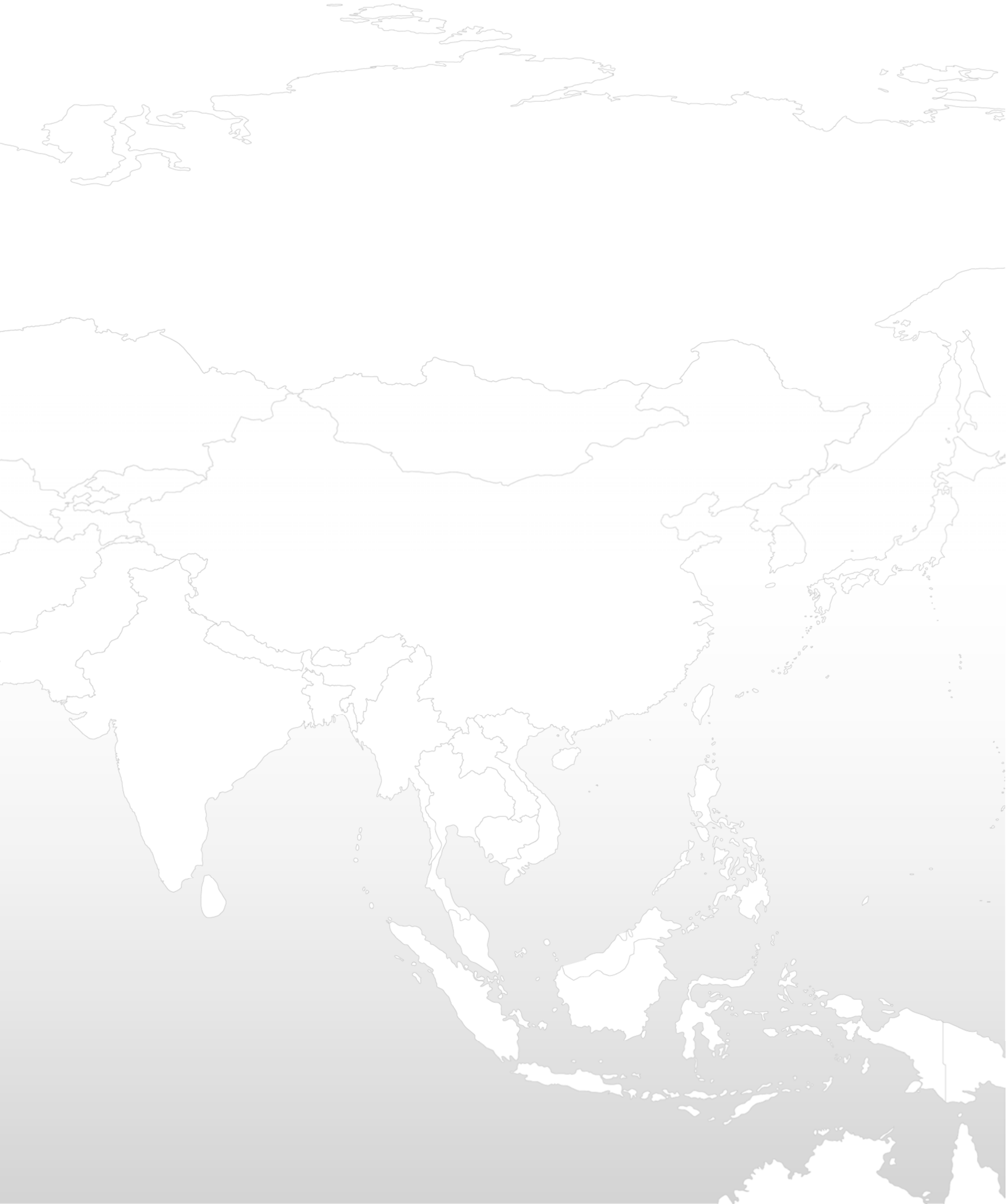
MILITARY AND SECURITY DEVELOPMENTS INVOLVING THE PEOPLE'S REPUBLIC OF CHINA

2023

ANNUAL REPORT TO CONGRESS



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Military and Security Developments Involving the People's Republic of China

A Report to Congress

Pursuant to the National Defense Authorization Act for

Fiscal Year 2000, as amended

Section 1202 of the National Defense Authorization Act for Fiscal Year 2000, Public Law 106-65, as amended, provides that the Secretary of Defense shall submit a report "in both classified and U form, on military and security developments involving the People's Republic of China. The report shall address the current and probable future course of military-technological development of the People's Liberation Army and the tenets and probable development of Chinese security strategy and military strategy, and of the military organizations and operational concepts supporting such development over the next 20 years. The report shall also address United States-China engagement and cooperation on security matters during the period covered by the report, including through United States-China military-to-military contacts, and the United States strategy for such engagement and cooperation in the future."

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PREFACE

The 2022 *National Security Strategy* states that the People's Republic of China (PRC) is the only competitor to the United States with the intent and, increasingly, the capacity to reshape the international order. As a result, the 2022 *National Defense Strategy* identifies the PRC as the "pacing challenge" for the Department of Defense. As the PRC seeks to achieve "national rejuvenation" by its centenary in 2049, Chinese Communist Party (CCP) leaders view a modern, capable, and "world class" military as essential to overcoming what Beijing sees as an increasingly turbulent international environment.

The DoD annual report on Military and Security Developments Involving the People's Republic of China charts the current course of the PRC's national, economic, and military strategy, and offers insight on the People's Liberation Army's (PLA) strategy, current capabilities and activities, as well as its future modernization goals.

In 2022, the PRC turned to the PLA as an increasingly capable instrument of statecraft. Throughout the year, the PLA adopted more coercive actions in the Indo-Pacific region, while accelerating its development of capabilities and concepts to strengthen the PRC's ability to "fight and win wars" against a "strong enemy," counter an intervention by a third party in a conflict along the PRC's periphery, and to project power globally. At the same time, the PRC largely denied, cancelled, and ignored recurring bilateral defense engagements, as well as DoD requests for military-to-military communication at multiple levels.

This report illustrates the importance of meeting the pacing challenge presented by the PRC's increasingly capable military.

Report Scope: This report covers security and military developments involving the PRC until the end of 2022.

EXECUTIVE SUMMARY

UNDERSTANDING CHINA'S STRATEGY

CHINA'S NATIONAL STRATEGY

- The PRC's national strategy is to achieve "the great rejuvenation of the Chinese nation" by 2049. The strategy is a determined pursuit of political, social, and military modernity to expand the PRC's national power, perfect its governance, and revise the international order in support of the PRC's system of governance and national interests. The PRC views the United States as deploying a whole-of-government effort meant to contain the PRC's rise, which presents obstacles to its national strategy.

- The PRC characterizes its view of strategic competition in terms of a rivalry among powerful nation states, as well as a clash of opposing ideological systems. PRC leaders believe that structural changes in the international system and a confrontational United States are the root causes of intensifying strategic competition between the PRC and the United States.

    - In March 2023, Xi Jinping told delegates to the Chinese People's Political Consultative Conference that "Western countries led by the United States have implemented comprehensive containment, encirclement and suppression against us, bringing unprecedented severe challenges to our country's development."

- The PRC's strategy entails deliberate and determined efforts to amass, improve, and harness the internal and external elements of national power that will place the PRC in a "leading position" in an enduring competition between systems.

- In the 20th Party Congress Political Work Report, the CCP expanded on its calls to prepare for an increasingly turbulent international climate, while reporting it had "enhanced" the PRC's security on all fronts and "withstood political, economic, ideological, and natural risks, challenges, and trials."

FOREIGN POLICY

- The PRC's foreign policy seeks to build a "community of common destiny" that supports its strategy to realize "the great rejuvenation of the Chinese nation." The PRC's ambition to

reshape the international order derives from the objectives of its national strategy and the Party's political and governing systems.

- Beginning late 2022 Beijing launched a diplomatic 'charm offensive' targeting European countries in an apparent effort to improve perceptions of Beijing following years of 'wolf warrior' diplomacy and COVID isolation.

- In April 2022, Xi Jinping announced the Global Security Initiative (GSI). Echoing the previous year's rollout of the Global Development Initiative (GDI), Beijing has promoted GSI extensively and attempted to insert GSI language into multilateral forums and documents.

- Russia's war on Ukraine in February 2022 represented a major, unexpected challenge for the PRC as it sought to react to the largest military conflict in Europe since the end of World War II. As Beijing deliberates the scale and scope of materiel commitments to Russia's war on Ukraine, it probably will seek to balance its strategic partnership with Russia while avoiding reputational or economic costs that could result from its assistance.

ECONOMIC POLICY

- At the end of 2022, China abruptly reversed its zero-COVID policy. The decision to implement China's reopening took most by surprise and was probably triggered by country-wide protests against the PRC's zero-COVID policies, economic pressures, and fiscal difficulties for local governments.

- The 20th Party Congress emphasized the importance of quality growth rather than the speed of growth. General Secretary Xi also highlighted "common prosperity," more equitable access to basic public services, a better multi-tiered social security system, and cultural and green developments as a few of the PRC's economic initiatives.

- The PRC's ongoing military modernization objectives are commensurate with and part of China's broader national development aspirations.

CHINA'S BELT AND ROAD INITIATIVE (BRI)

- The PRC uses BRI to support its strategy of national rejuvenation by seeking to expand global transportation and trade linkages to support its development and deepen its economic integration with nations along its periphery and beyond.

- In 2022, BRI projects saw mixed economic outcomes, experiencing both growth and decline. However, overall spending on BRI projects remained consistent with the previous year and Beijing continued to prioritize public health, digital infrastructure, and green energy opportunities.

- Overseas development and security interests under BRI will drive the PRC towards expanding its overseas security relationships and presence to protect those interests.

MILITARY-CIVIL FUSION (MCF) DEVELOPMENT STRATEGY

- The PRC pursues its Military-Civil Fusion (MCF) (军民融合) Development Strategy to "fuse" its security and development strategies into its Integrated National Strategic System and Capabilities in support of China's national rejuvenation goals.

- The PRC's MCF strategy includes objectives to develop and acquire advanced dual-use technology for military purposes and deepen reform of the national defense science and technology industries and serves a broader purpose to strengthen all of the PRC's instruments of national power.

- Since early 2022, the CCP appears to have been deemphasizing the term "Military Civil Fusion" in public, in favor of "integrated national strategic systems and capabilities."

DEFENSE POLICY AND MILITARY STRATEGY

- In 2022, the PRC's stated defense policy remained oriented toward safeguarding its sovereignty, security, and development interests, while emphasizing a greater global role for itself. The PRC's military strategy remains based on the concept of "active defense" (积极防御).

- PRC leaders stress the imperative of strengthening the PLA into a "world-class" military by the end of 2049 as an essential element of its strategy to rejuvenate the PRC into a "great modern socialist country."

- In October 2022, Xi secured his third term as the general secretary of CCP at the Party Congress and his appointment of loyalists to top positions in the CMC probably will enable Xi to expand upon military modernization and operational goals during his next 5-year term.

- During his October 2022 speech at the opening ceremony of the 20th Party Congress, Xi reaffirmed his commitment to the PLA's 2027 milestone for modernization to accelerate the integrated development of mechanization, informatization, and intelligentization of the PRC's armed forces. If realized, this capability milestone could give the PLA the capacity to be a more credible military tool for the CCP's Taiwan unification efforts.

- In 2022, the PLA continued discussing a new "core operational concept," called "Multi-Domain Precision Warfare (多域精确战)" (MDPW). MDPW is intended to leverage a C4ISR network that incorporates advances in big data and artificial intelligence to rapidly identify key vulnerabilities in the U.S. operational system and then combine joint forces across domains to launch precision strikes against those vulnerabilities.

- COVID-19 mitigation measures and multiple outbreaks throughout 2022 probably did not significantly impact PLA combat readiness.

FORCES, CAPABILITIES, AND POWER PROJECTION

- The PLA has sought to modernize its capabilities and improve its proficiencies across all warfare domains so that, as a joint force, it can conduct the full range of land, air, and maritime as well as nuclear, space, counterspace, electronic warfare (EW), and cyberspace operations.

- The PLA's evolving capabilities and concepts continue to strengthen the PRC's ability to "fight and win wars" against a "strong enemy (强敌)" (a likely euphemism for the United States), counter an intervention by a third party in a conflict along the PRC's periphery, and project power globally.

- **People's Liberation Army Army (PLAA).** The PLAA continues to modernize equipment and focus on combined arms and joint training in effort to meet the goal of becoming a world class military. The PLAA demonstrated a new long-range fire capability in the PLA military response to the August 2022 U.S. Congressional Delegation (CODEL) visit to Taiwan. The PLAA continues to incorporate a twice a year conscript intake. The long-term effects of the policy are not clear.

- **People's Liberation Army Navy (PLAN).** The PRC has numerically the largest navy in the world with an overall battle force of over 370 ships and submarines, including more than 140 major surface combatants. The PLAN is largely composed of modern multi-mission ships and submarines. In 2022, the PLAN launched its third aircraft carrier, CV-18 *Fujian*.

    - It also commissioned its third YUSHEN class Amphibious Assault Ships (LHA) and has likely begun construction on a fourth as of early 2023. In the near-term, the PLAN will have the ability to conduct long-range precision strikes against land targets from its submarine and surface combatants using land-attack cruise missiles, notably enhancing the PRC's power projection capability.

    - The PRC continues to challenge foreign military activities in its *exclusive economic zone* (EEZ) in a manner that is inconsistent with the rules of customary international law as reflected in the United Nations Convention on the Law of the Sea. At the same time, the PLAN conducts activities in the EEZs of other countries, including the United States, Australia, Philippines, Vietnam, and Malaysia.

- **People's Liberation Army Air Force (PLAAF) and PLAN Aviation.** The PLAAF and PLAN aviation together constitute the largest aviation force in the Indo-Pacific region. The PLAAF is rapidly catching up to western air forces. The PLAAF continues to modernize with the delivery of domestically built aircraft and a wide range of UASs. In October 2019, the PLAAF signaled the return of the airborne leg of its nuclear triad after the PLAAF publicly revealed the H-6N as its first nuclear-capable air-to-air refuelable bomber.

- **People's Liberation Army Rocket Force (PLARF).** The PLARF is advancing its long-term modernization plans to enhance its "strategic deterrence" capabilities. The PRC is developing new ICBMs that will significantly improve its nuclear-capable missile forces and will require increased nuclear warhead production, partially due to the introduction of multiple independently targetable reentry vehicle (MIRV) capabilities.
    - The PRC may be exploring development of conventionally-armed intercontinental range missile systems. If developed and fielded, such capabilities would allow the PRC to threaten conventional strikes against targets in the continental United States, Hawaii, and Alaska.
- **Strategic Support Force (SSF).** The SSF is a theater command-level organization established to centralize the PLA's strategic space, cyberspace, electronic, information, communications, and psychological warfare missions and capabilities. The SSF's Network Systems Department (NSD), sometimes referred to as the Cyberspace Force (CSF; 网络空间部队), is responsible for information warfare with an integrated mission set that includes cyberspace warfare, technical reconnaissance, electronic warfare, and psychological warfare. The PLA SSF's Space Systems Department (SSD), sometimes referred to as the Aerospace Force (ASF; 航天部队), is responsible for military space operations. The PRC continues to develop counterspace capabilities—including direct-ascent anti-satellite missiles, co-orbital satellites, electronic warfare, and directed-energy systems—that can contest or deny an adversary's access to and operations in the space domain.
- **Joint Logistic Support Force.** The JLSF is concentrating its efforts on improving joint strategic and campaign-level logistic efficiencies through training and integrating civilian products and services. The JLSF supports multimodal transportation methods to facilitate the movement of PLA forces and equipment for training.
- Special Operations Forces (SOF). Despite unilateral and multilateral training, all of China's SOF units lack real-world combat experience. China's SOF does not have a national-level special operations command to oversee all of China's SOF activities. Despite an emphasis to conduct joint training, theater commanders have no authority over PAP units, making it difficult to incorporate PAP SOF into PLA training exercises.

JOINT CAPABILITIES IN DEVELOPMENT

- The PLA is aggressively developing capabilities to provide options for the PRC to dissuade, deter, or, if ordered, defeat third-party intervention in the Indo-Pacific region, and to conduct military operations deeper into the Indo-Pacific region and globally.
- The PLA has undertaken important structural reforms and introduced new military doctrine to strengthen joint operations and is testing joint capabilities in and beyond the First Island Chain (FIC).

JOINT CAPABILITIES FOR COUNTERINTERVENTION

- The PRC's counter-intervention strategy aims to restrict the United States from having a presence in the East and South China Sea regions—within the FIC—and increasingly to hold at risk U.S. access in the broader Indo-Pacific region.

- **Long-Range Precision Strike and Supporting ISR.** PLA texts state that precision attack in all warfare domains is critical in modern war. PLA writings state that precision weapons are not only force multipliers, but also a means of "war control" to prevent escalation.

- **Integrated Air Defense System (IADS).** The PRC has a robust and redundant IADS architecture over land areas and within 300 nm (556 km) of its coast that relies on an extensive early warning radar network, fighter aircraft, and a variety of SAM systems. The PRC has also placed radars and air defense weapons on outposts in the SCS, further extending the range of its IADS.

- **Hypersonic Weapons.** The PRC's deployment of the DF-17 HGV-armed MRBM will continue to transform the PLA's missile force. The system is possibly intended to replace some older SRBM units and is intended to strike foreign military bases and fleets in the Western Pacific, according to a PRC-based military expert.

ADVANCING TOWARDS AN INFORMATIZED MILITARY

- The PLA considers information operations (IO) as a means of achieving information dominance early in a conflict and continues to expand the scope and frequency of IO in military exercises.

- The PLA is pursuing next-generation combat capabilities based on its vision of future conflict, which it calls "intelligentized warfare," defined by the expanded use of AI and other advanced technologies at every level of warfare.

- The PRC is advancing its cyberspace attack capabilities and has the ability to launch cyberspace attacks—such as disruption of a natural gas pipeline for days to weeks—in the United States.

SPACE AND COUNTERSPACE CAPABILITIES

- The PLA views space superiority, the ability to control the space-enabled information sphere and to deny adversaries their own space-based information gathering and communication capabilities, as critical components to conduct modern "informatized warfare."

- The PLA continues to invest in improving its capabilities in space-based intelligence, surveillance, and reconnaissance (ISR), satellite communication, satellite navigation, and meteorology, as well as human spaceflight and robotic space exploration.

- The PLA continues to acquire and develop a range of counterspace capabilities and related technologies, including kinetic-kill missiles, ground-based lasers, and orbiting space robots, as well as expanding space surveillance capabilities, which can monitor objects in space within their field of view and enable counterspace actions.

NUCLEAR CAPABILITIES

- Over the next decade, the PRC will continue to rapidly modernize, diversify, and expand its nuclear forces. Compared to the PLA's nuclear modernization efforts a decade ago, current efforts dwarf previous attempts in both scale and complexity.

- The PRC is expanding the number of its land-, sea-, and air-based nuclear delivery platforms while investing in and constructing the infrastructure necessary to support further expansion of its nuclear forces.

- In 2022, Beijing continued its rapid nuclear expansion, and DoD estimates that the PRC possessed more than 500 operational nuclear warheads as of May 2023—on track to exceed previous projections.

- DoD estimates that the PRC will probably have over 1,000 operational nuclear warheads by 2030, much of which will be deployed at higher readiness levels and will continue growing its force to 2035 in line with its goal of ensuring PLA modernization is "basically complete" that year, which serves as an important milestone on the road to Xi's goal of a "world class" military by 2049.

- The PRC probably will use its new fast breeder reactors and reprocessing facilities to produce plutonium for its nuclear weapons program, despite publicly maintaining these technologies are intended for peaceful purposes.

- The PRC probably completed the construction of its three new solid-propellant silo fields in 2022, which consists of at least 300 new ICBM silos, and has loaded at least some ICBMs into these silos. This project and the expansion of China's liquid-propellant silo force is meant to increase the peacetime readiness of its nuclear force by moving to a launch-on-warning (LOW) posture.

- The PRC is fielding the DF-5C, a silo-based liquid-fueled ICBM armed with a nuclear warhead with a multi-megaton yield. The PRC is fielding the longer-range JL-3 SLBMs on its current JIN class SSBN, rendering them capable of ranging the continental United States from PRC littoral waters.

CHEMICAL AND BIOLOGICAL RESEARCH

- The PRC continues to engage in biological activities with dual-use applications, which raise oncerns regarding its compliance with the Biological Weapons Convention (BWC). This includes studies at PRC military medical institutions on potent toxins with dual-use applications.
- The PRC likely possesses capabilities relevant to chemical and biological warfare that pose a threat to U.S., Allied, and partner forces, military operations, and civilian populations.
- The United States cannot certify that the PRC has met its obligations under the Chemical Weapons Convention (CWC) due to concerns regarding the PRC's research on pharmaceutical-based agents (PBAs) and toxins with potential dual-use applications.

OPERATIONAL STRUCTURE AND ACTIVITIES ON CHINA'S PERIPHERY

- The PRC continues to refine military reforms associated with the establishment of the Eastern, Southern, Western, Northern, and Central Theater Commands, which are organized based on the PRC's perception of peripheral threats.
- Under the direction of the CMC, each Theater Command has operational authority over the PLA conventional forces within the theater.
- In August 2022, the PLA carried out large-scale joint military exercises aimed at pressuring Taiwan. The exercises included firing ballistic missiles over Taiwan's main island, over a dozen naval patrols, and hundreds of flights into Taiwan's claimed ADIZ.

DEVELOPMENTS IN THE SECURITY SITUATION IN THE SCS

- The PRC states that international military presence within the SCS is a challenge to its sovereignty.
- Throughout 2022, the PRC deployed PLAN, CCG, and civilian ships to maintain a presence in disputed areas, such as near Scarborough Reef and Thitu Island, as well as in response to oil and gas exploration operations by rival claimants within the PRC's claimed "nine-dash line."
- During 2022, the PRC conducted multiple coercive actions against the Philippines in the SCS, including cutting the tow line of a Philippine Navy vessel, executing dangerous maneuvers in close proximity to Philippine vessels; and reportedly reclaiming several unoccupied land features in the SCS, which the Philippines noted contravenes the Declaration of Conduct on the South China Sea's undertaking on self-restraint and the 2016 Arbitral Award.

DEVELOPMENTS IN THE SECURITY SITUATION IN THE TAIWAN STRAIT

- In 2022, the PRC amplified diplomatic, political, and military pressure against Taiwan. The PLA's increased provocative and destabilizing actions in and around the Taiwan Strait included ballistic missile overflights of Taiwan, sharply increased flights into Taiwan's self-declared ADIZ and a series of major military exercises near Taiwan.

- At the 20th Party Congress in 2022, Xi Jinping repeated the CCP's longstanding public position that China seeks peaceful unification with Taiwan but would never renounce the use of force as an option.

- The PLA practiced elements of each of its military courses of action against Taiwan during its August 2022 large-scale military exercise aimed at pressuring Taiwan, and again in April 2023 in response to Taiwan president Tsai Ing-wen's transit of the United States.

PLA COERCIVE AND RISKY OPERATIONAL BEHAVIOR

- Between the fall of 2021 and fall of 2023, the United States has documented over 180 instances of PLA coercive and risky air intercepts against U.S. aircraft in the region – more in the past two years than in the previous decade. Over the same period, the PLA has conducted around 100 instances of coercive and risky operational behavior against U.S. Allies and partners, in an effort to deter both the United States and others from conducting lawful operations in the region.

- Examples of the PRC's coercive and risky operational behavior against U.S. and Allied aircraft have included lasing; reckless maneuvers; close approaches in the air or at sea; high rates of closure; discharging chaff or flares in front of, or in close proximity to, aircraft; and other actions.

- The PLA's behavior contravenes flight safety protocols and the international maritime rules of the road, and increases the risk of a major accident, incident, or crisis, including the potential for loss of life.

THE PLA'S GROWING GLOBAL PRESENCE

- CCP leaders view the PLA's growing global presence as an essential part of the PRC's international activities to create an international environment conducive to China's national rejuvenation.

- The CCP has tasked the PLA to develop the capability to project power outside China's borders and immediate periphery to secure the PRC's growing overseas interests and advance its foreign policy goals. This has led to the PRC's greater willingness to use military coercion—and inducements—to advance its global security and development interests.

- In 2022, the PLA continued to normalize its presence overseas through participation UN peacekeeping operations and anti-piracy escorts in the Gulf of Aden and waters off Somalia. The also PLA restarted in-person military diplomacy in 2022 that was suspended due to COVID-19.

PLA OVERSEAS BASING AND ACCESS

- The PRC is seeking to expand its overseas logistics and basing infrastructure to allow the PLA to project and sustain military power at greater distances. If realized, a global PLA military logistics network could disrupt U.S. military operations as the PRC's global military objectives evolve.

- Beyond the PLA support base in Djibouti, the PRC is very likely already considering and planning for additional military logistics facilities to support naval, air, and ground forces projection.

- In June 2022, a PRC official confirmed that the PLA would have access to parts of Cambodia's Ream Naval Base. The PRC probably also has considered other countries as locations for PLA military logistics facilities, including Burma, Thailand, Indonesia, Pakistan, Sri Lanka, United Arab Emirates, Kenya, Equatorial Guinea, Seychelles, Tanzania, Angola, Nigeria, Namibia, Mozambique, Bangladesh, Papua New Guinea, Solomon Islands, and Tajikistan.

- The SSF operates tracking, telemetry, and command stations in Namibia, Pakistan, Argentina, and Kenya. The SSF also has a handful of Yuan-wang space support ships to track satellite and ICBM launches.

LESSONS LEARNED FROM RUSSIA'S WAR ON UKRAINE

- The PRC almost certainly is learning lessons from the Russian war of aggression in Ukraine that are most applicable to the PRC's goal of strengthening its whole-of-government approach to countering a perceived U.S.-led containment strategy.

- Western sanctions against Russia almost certainly have amplified the PRC's push for defense and technological self-sufficiency and financial resilience.

RESOURCES AND TECHNOLOGY FOR FORCE MODERNIZATION

- The PRC's long-term goal is to create an entirely self-reliant defense-industrial sector—fused with a strong civilian industrial and technology sector—that can meet the PLA's needs for modern military capabilities.

- The PRC has mobilized vast resources in support of its defense modernization, including through its Military-Civil Fusion (MCF) Development Strategy, as well as espionage activities to acquire sensitive, dual-use, and military-grade equipment.

- In 2022, the PRC announced its official annual military budget would increase by 7.1 percent, continuing more than 20 years of annual defense spending increases and sustaining its position as the second-largest military spender in the world.

DEVELOPMENTS AND TRENDS IN ITS DEFENSE INDUSTRY

- China's hypersonic missile technologies have greatly advanced during the past 20 years and many of the PRC's missile programs are comparable to other international top-tier producers.
- China is developing beyond-visual-range air-to-air missiles and exploring missile capabilities that improve target-selection and make the missiles more resistant to countermeasures.
- In 2022, China launched its first domestically designed and manufactured aircraft carrier, featuring an electromagnetic catapult launch and arresting devices. The carrier will be able to deploy up to 70 aircraft, including J-15 fighters and Z-9C anti-submarine helicopters.

ESPIONAGE ACTIVITIES SUPPORTING CHINA'S MILITARY MODERNIZATION

- The PRC presents a sophisticated, persistent cyber-enabled espionage and attack threat to military and critical infrastructure systems through its efforts to develop, acquire, or gain access to information and advanced technologies.
- There have also been multiple U.S. criminal indictments since 2015 involving espionage by PRC nationals, naturalized U.S. citizens or permanent resident aliens from the PRC, as well as U.S. citizens, for their efforts to illegally acquire information and technology to advance PLA modernization.

DEFENSE CONTACTS AND EXCHANGES IN 2022

- In 2022, the PLA largely denied, cancelled, and ignored recurring bilateral engagements and DoD requests for communication. The PLA's refusal to engage with DoD has largely continued in 2023.
- The PLA's refusal to engage in military-to-military communications with the United States, combined with the PLA's increasingly coercive and risky operational behavior, raises the risk of an operational incident or miscalculation spiraling into crisis or conflict.
- DoD is committed to re-opening lines of communication with the PRC to ensure competition does not veer into conflict. DoD's objectives in opening lines of communication include ensuring crisis communications channels, reducing strategic and operational risk, and avoiding misperceptions.

CHAPTER ONE: UNDERSTANDING THE PRC'S STRATEGY

Understanding the tenets of the People's Republic of China's (PRC's) national strategy is essential to understanding the drivers of China's security and military strategy. This, in turn, offers insights on the current and future course of the People's Liberation Army's (PLA) reform and modernization in terms of its strength, technological advances, organization, and operational concepts —all of which could offer PRC leaders expanded military options to support its national goals.

CHINA'S NATIONAL STRATEGY

KEY TAKEAWAYS

- The PRC's national strategy is to achieve "the great rejuvenation of the Chinese nation" by 2049. The strategy is a determined pursuit of political, social, and military modernity to expand the PRC's national power, perfect its governance, and revise the international order in support of the PRC's system of governance and national interests. The PRC views the United States as deploying a whole-of-government effort meant to contain the PRC's rise, which presents obstacles to its national strategy.

- The PRC characterizes its view of strategic competition in terms of a rivalry among powerful nation states as well as a clash of opposing ideological systems. PRC leaders believe that structural changes in the international system and confrontational United States are the root causes of intensifying strategic competition between the PRC and the United States.

- The PRC's strategy entails deliberate and determined efforts to amass, improve, and harness the internal and external elements of national power that will place the PRC in a "leading position" in an enduring competition between systems.

The PRC's strategy aims to realize "the great rejuvenation of the Chinese nation." This objective, which General Secretary Xi Jinping (also referred to as Chairman of the Central Military Commission or President of the PRC, depending on the context of his responsibilities) calls "the Chinese Dream," is a national aspiration to elevate the PRC to a position of strength, prosperity, and leadership on the world stage.

PRC leaders characterize their strategy to achieve political, social, and economic modernity—as defined by the Chinese Communist Party (CCP or Party)—as a grand national endeavor that is sweeping in scope and far-reaching in how it will transform the PRC and, in turn, the world. The

Party defines national rejuvenation as a state in which the PRC is "prosperous, strong, democratic, culturally advanced, harmonious, and beautiful." The PRC's strategy entails deliberate and determined efforts to amass, improve, and harness the internal and external elements of national power that will place the PRC in a "leading position." CCP leaders frequently refer to building the PRC's "comprehensive" national power in this manner. The PRC's strategy entails a long-term planning process to attain national rejuvenation that sets objectives, priorities, and milestones across virtually every aspect of governance and policy area including economics, political affairs, the rule of law, public order, national security, diplomacy, and defense as well as social affairs, education, science and technology, culture, the environment, and other matters. CCP officials have discussed achieving the unification of PRC and Taiwan as an element of national rejuvenation.

The PRC pursues its efforts to generate greater national power from the basis of defending and advancing its sovereignty, security, and development interests. Consequently, the PRC's national ambitions and statecraft rest on the foundation of the CCP-dominated political ideology of enhancing the path, theory, system, and culture of "Socialism with Chinese Characteristics." The objective of this Party-led strategy is perhaps best stated in what the Party calls its "basic line," a single sentence in the CCP's constitution that serves as the mission of the Party and as the cornerstone for its policymaking. Last amended at the 20th Party Congress in 2022, it states:

> *"The basic line of the Communist Party of China in the primary stage of socialism is to lead all the people of China together in a self-reliant and pioneering effort, making economic development the central task, upholding the Four Cardinal Principles, and remaining committed to reform and opening up, so as to see China becomes a great modern socialist country that is prosperous, strong, democratic, culturally advanced, harmonious, and beautiful."*

The 20th Party Congress also incorporated new developments since 2017 in "Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era," after the term was adopted into the CCP's constitution. Unanimously agreed upon by Party delegates to the 19th Party Congress, the inclusion of Xi Jinping's namesake ideology into the CCP constitution was hailed as a "guide to action for the entire Party and all the Chinese people to strive for the great rejuvenation of the Chinese nation."

External Conditions. Among the external elements of the PRC's national strategy are its deliberate efforts to create a "favorable" international environment that is conducive to the PRC's rise and national rejuvenation. In the 20th Party Congress Political Work Report, the CCP expanded on its calls to prepare for an increasingly turbulent international climate and prioritized securing and safeguarding its overseas interests. The Party stressed the need for strengthening the PRC's capacity to secure its overseas interests, including improving its control over grain, energy and other resources, and key industrial and supply chains. The report also stressed the CCP's need to prevent digital penetration, sabotage, subversion, and separatism activities from external actors. With regard to national security, the CCP reported it had "enhanced" the PRC's security on all fronts and "withstood political, economic, ideological, and natural risks, challenges, and trials." However, in 2021 and into 2022, PRC leadership contended with the ongoing effects of the

COVID-19 pandemic that brought challenges for the PRC's diplomatic, cultural, and economic influence abroad. PRC leadership also took diplomatic measures to manage increased global concern about PRC rhetorical and diplomatic alignment with Russia before, immediately following, and during the war on Ukraine, as well as concern for the PRC's growing assertive and coercive economic and military actions. PRC leaders continue to believe that global trends, especially perceived U.S. decline, are generally conducive to their long-term interests.

As PRC leadership views a divided China as a weak China, they argue that "full reunification"—including the resolution of the 'Taiwan question' by 2049 and solidifying the PRC's "overall jurisdiction" over Hong Kong — is one of the fundamental conditions of national rejuvenation. Beijing views as an imperative that China field a "world-class" military by 2049 that can "fight and win" and "resolutely safeguard" the country's sovereignty, security, and development interests. In support of this goal, on 26 December 2020 the National People's Congress passed revisions to the PRC's National Defense Law, which broadened the legal justification for PLA mobilization to include defense of China's "development interests." The codification of this language in PRC law is intended to add legitimacy to the use of military force to safeguard the PRC's overseas interests.

China's leaders claim national rejuvenation requires the PRC to "take an active part in leading the reform of the global governance system" as many rules and norms were established, in the PRC's view, during a time of PRC weakness and without the PRC's consultation and input. The Party views aspects of the prevailing international rules-based system as constraining the PRC's strategic ambitions and incompatible with its sovereignty, security, political preferences, and development interests. To the PRC's leaders, revisions are necessary to accommodate the PRC's development and should reflect the CCP's preferred transformation in the distribution of power to forge an external environment more favorable to the PRC's political governance system and national interests.

Key Objectives and Milestones. For decades, the PRC's leaders have framed their pursuit of modernity and power as advancing China along a specific trajectory, with the PRC's centenary in 2049 serving as the target for achieving national rejuvenation and becoming a "great modern socialist country." From the PRC's perspective, the PRC is a developing nation that must transition into a "fully developed and highly advanced" socialist society, and this trajectory involves the Party leadership shepherding the PRC through different stages of gradual but systematic modernization and development. The Party demarcates the stages of the PRC's strategy with milestones accompanied by objectives and priorities determined by the Party's long-term planning processes.

Reflecting on the PRC's progress at the 19th Party Congress in 2017, Xi declared that China had assumed "…a leading position in terms of economic and technological strength, defense capabilities, and comprehensive national strength" and, therefore, "crossed the threshold into a new era." Xi's declaration that the PRC had entered a "New Era" was not a change in strategic objectives, but an important signal of confidence that the PRC's progress was sufficient to tackle

the next set of challenges in its development. For the PRC's strategy in the "New Era," Xi laid out a broad plan to achieve national rejuvenation with a timeline linked to two symbolically important centenary milestones reached in 2021 (the CCP's centenary) and 2049 (the PRC's centenary). To bridge the lengthy gap between the two anniversaries, Xi added interim national objectives for 2035 and laid out a broad two-stage modernization plan to reach 2049. Further demonstrating the Party's confidence in the PRC's progress, Xi's objectives for 2035 moved up certain mid-century targets set by the Party going back to 1987.

At his centenary speech marking the 100th anniversary of the CCP on July 1st, 2021, Xi declared that China had "realized the first centenary goal of building a moderately prosperous society in all respects." Beyond 2021, the PRC will use the "moderately prosperous society" as the basis for Xi's "two-stage" plan to achieve national rejuvenation by the PRC's centenary in 2049. In the first stage, from 2021 to 2035, the Party aims for the PRC to "basically" meet its initial thresholds for becoming a "great modern socialist country." In this stage, the PRC will likely continue to prioritize economic development as "the central task," but rather than rapid economic growth, it will seek to address its uneven economic development and inequalities that Beijing recognized as the new "principal contradiction" in PRC society in the "New Era." By 2035, the PRC will also seek to increase its economic and technological strength to become a "global leader in innovation" and aim to "basically" complete its military modernization. The PRC will also seek to significantly strengthen its cultural "soft power" and improve its domestic rule of law and governance systems.

In the second stage from 2035 to 2049, the PRC aims to complete its development and attain national rejuvenation, realizing an international status that Xi describes as a "global leader in terms of comprehensive national strength and international influence." A renewed PRC will have attained—among the Party's many goals—its objectives to field a "world-class" military and assume a leading position within an international order revised in line with the PRC's overall foreign policy goal to establish what it refers to as a "community of common destiny (人类命运共同体)," or the PRC's preferred official English translation "community with a shared future for mankind."

Historic Continuity. Understanding the origins of the PRC's national rejuvenation is crucial to understanding how the PRC will likely shape and pursue this strategic objective. PRC leaders have consistently framed their efforts as seeking to "restore" China to a preeminent place in the world after enduring what the Party characterizes as China's "century of humiliation" beginning in the 19th century as the Qing Dynasty began to disintegrate and lasting until the founding of the PRC in 1949. Although the Party's exact articulation of this goal as "the great rejuvenation of the Chinese nation" first emerged in the late 1980s, the Party has championed the cause of rebuilding China since the 1920s. Xi frequently points to the CCP's steadfastness to the cause of national rejuvenation and describes it as the Party's "original aspiration."

The Party's narrative of national rejuvenation speaks to the deep impressions left on the PRC's political landscape over an era defined by the disintegration of China's polity, repeated violations of China's sovereignty by foreign powers, and the prolonged absence of physical and economic

security for many Chinese people. For a culture with a history stretching back thousands of years—much of it spent as one of the most powerful and advanced civilizations in the world—nationalist appeals to restore China's greatness are deeply rooted. The threads of national renewal can be traced to China's reformers and nationalist revolutionary leaders in the late Qing Dynasty and emerged as a common nationalist theme in the fractured politics of China's Republican Era. This resonance is crucial to understanding why the CCP portrays the PRC's rejuvenation as a nationalist project that the Party "shoulders" for the country.

The PRC's Strategy and the CCP. The Party's leaders frame "Socialism with Chinese Characteristics" and the CCP as indispensable to the PRC overcoming its historical circumstances and attaining national rejuvenation. Xi stated in a speech to the CCP Central Committee in 2013, "Which ideological system a country implements depends on one crucial issue: can this ideology resolve the historical problems facing the country?" From the Party's perspective, its leadership and systems are uniquely able to restore the PRC's strength, prosperity, and prestige—underscored with the implicit warning that any deviation from socialism's path would result in "chaos" and China falling behind on its "historic mission." As Xi stated, "…only socialism can save China—and only Socialism with Chinese Characteristics can develop China."

CCP leaders flatly reject the notion that the Party has abandoned its socialist ideology in recent decades with the introduction of market features into the PRC's economy or drifted towards a non-ideological form of governance. The Party asserts that the PRC remains on the path of "socialist modernization" but it seeks to advance the country gradually as a lesson painfully learned from the Mao-era catastrophes that aimed for rapid progress. Accordingly, the Party claims that to perform its decisive role in guiding the PRC's development into a "great modern socialist country," it must ensure that the country advances in line with "the Four Cardinal Principles (四项基本原则)." First stated by Deng Xiaoping and later written into the CCP Constitution, these principles mandate the Party "to keep to the path of socialism, to uphold the people's democratic dictatorship, to uphold the leadership of the CCP, and to uphold Marxism-Leninism and Mao Zedong Thought." The Four Cardinal Principles are the basis for political and governance reforms pursued by the Party and the outer boundaries of its efforts to "reform" and "open up" the country.

Xi told Party cadres in 2014, "promoting the modernization of the national governance system and capacity is definitely not Westernization or capitalism." In addition to cultivating ideological discipline and fighting corruption within the Party, Xi has sought to advance the PRC's strategy by strengthening the Party's primacy across China's governance systems and making the Party more effective at managing China's political, economic and social problems. Xi's emphasis on building the CCP's institutional capacity and promoting internal unity—which he views as the means for the Party to perform its strategic role—has become a prominent feature of his tenure.

Competition Between Systems. PRC leaders believe that structural changes in the international system and an increasingly confrontational United States are the root causes of intensifying strategic competition between China and the United States. The PRC's leadership has long viewed China as embroiled in a major international strategic competition with other states. Throughout

the post-Mao reform era and particularly after the end of the Cold War, the Party's leaders recognized their socialist system was—and would remain over the long-term—an underlying source of tension with the West. Given the Party's ambitions to "restore" the PRC's place in the world and their assessment of the PRC's relative weakness via-a-vis rival states, CCP leaders recognized the PRC's growing strength could threaten to aggravate tensions with others without careful management. Deng Xiaoping's reputed approach to this dilemma, as attributed by other Party leaders, was for China to, "hide our capacities and bide our time, be good at maintaining a low profile; and never claim leadership." Although the PRC's leaders have consistently pursued national rejuvenation as their goal, they have demonstrated a degree of strategic adaptability to seize opportunities and manage threats to their overall strategic objectives.

Over time, the PRC has characterized China's view of strategic competition in terms of a rivalry among powerful nation states, most importantly the United States, as well as a clash of opposing ideological systems. The PRC's leaders have indicated they view competition as entailing aspects of cooperation and conflict and that the Party would need to be adaptable, flexible, and above all patient. The PRC's leaders have also offered a view of competition based on relative levels of economic, technological, and military power. Speaking to the CCP Central Committee in 2013, Xi remarked that the Party needed to "appreciate" that "developed Western nations" would continue to possess "real, long-term advantages" over China in the economic, technological, and military domains. Xi argued that China would need to "prepare for a long period of cooperation and of conflict between these two social systems in each of these domains." Xi also alluded to the core elements of "national rejuvenation" as the PRC's approach to this competition. Xi stated, "Most importantly, we must concentrate our efforts on bettering our own affairs, continually broadening our comprehensive national power, improving the lives of our people, building a socialism that is superior to capitalism, and laying the foundation for a future where we will win the initiative and have the dominant position."

CCP Views of Geostrategic Shifts. In the past two years, General Secretary Xi has presented his thoughts on the PRC's strategic environment on numerous occasions. In 2020, CCP leaders, including Xi himself, convened several meetings on "growing risks" and, in the communique following the 5th Plenum in October 2020, stressed that the PRC is on the brink of "changes unseen in a century," but also that China would benefit from a "profound adjustment in the international balance of power." In his CCP 100th anniversary speech, Xi asserted that, as the world experienced "once-in-a-century changes," China had to adopt "a holistic approach to national security that balances development and security imperatives" and implement "the national rejuvenation." In his 2022 New Year's speech, Xi stated that China needed to "remain mindful of potential risks" while maintaining "strategic focus and determination."

Since just prior to the dissolution of the Soviet Union, PRC leaders have consistently characterized China's security environment as undergoing intense changes and viewed the international order as shifting toward a multipolar system more commensurate with the PRC's development. The Party views a shift toward a multipolar system as consistent with its perception of global power trends. This shift is vital for the PRC to advance its strategy, perceiving U.S. power as a constraint that

impedes many of the PRC's goals. The PRC's leaders have eagerly embraced narratives of the West's relative decline and the inevitability of China's rise as largely consistent with their strategy and evidence of China's progress.

The Party views core aspects of the current international system as incompatible with its vision for a revised order premised on its "community of common destiny." The PRC's leaders view U.S. security alliances and partnerships, especially those in the Indo-Pacific, as destabilizing and irreconcilable with the PRC's sovereignty, security, and development interests. Regionally, the PRC's 2019 defense white paper claims that "Asia-Pacific" countries are "increasingly aware that they are members" of the PRC's "community with a shared future for mankind" and that managing disputes through dialogue is its "preferred policy option."

Beijing has also expressed concerns over growing global instability and a mounting sense of insecurity that it views as instigated by the United States. The PRC's 2019 defense white paper criticized the United States as the "principal instigator" of global instability and driver of "international strategic competition." China's leadership views U.S. policy toward the PRC as a critical factor affecting the PRC's national objectives and increasingly views the United States as more willing to confront Beijing where U.S. and PRC interests are inimical.

Given the enduring suspicion among some in Beijing that the United States seeks to contain China, CCP leaders hold that the accrual of the PRC's comprehensive national power will set the conditions for the PRC's ability to confront or dissuade the United States and prevent containment. As China's leaders seek to translate the PRC's growing economic and military means into influence to advance their international aspirations, they must also carefully balance the PRC's expanding interests across their priorities and resources.

THE PRC'S NATIONAL SECURITY CONCEPT & MANAGEMENT

In recent years, the PRC has articulated its view of national security as a broad concept that spans the confluence of internal and external threats to the PRC's interests. Party leaders have identified national security as encompassing traditional and non-traditional domestic and foreign threats; the intersection of external influences on internal stability; and economic, cultural, societal and environmental threats. Additionally, Beijing has taken steps to define a concept for national security; improve the CCP's ability to develop and coordinate national security policy across party, military, and state organs; and raise domestic awareness of national security concerns. These efforts seek to address longstanding concerns of China's leadership that the country's legacy system of stove-piped party-state organizations was ill equipped to meet the growing national security challenges that the PRC faces.

National Security Concept. The CCP's "Overall National Security Concept" (总体国家安全观), first proposed by Xi in 2014, provides the framework for the PRC's national security system, the mission of the Central National Security Commission (CNSC), and the basis of the PRC's national security strategy. According to the Party, the premise of the concept is that "The people's security is the purpose of national security, political security is the root of national security, and priority in national interests is the norm of national security." China's leaders consider people's security, political security, and national interests as mutually reinforcing aspects of national security. Party outlets describe people's security as the purpose because national security fundamentally must serve the PRC people and nation. Similarly, the Party's view of political security as the foundation of national security is described in terms of the maintenance and "ruling status" of the Party and the system of "Socialism with Chinese Characteristics." This reflects the Party's certainty that its leadership and systems are indispensable to the PRC's national rejuvenation. Party leaders assess the supremacy of national interests as the criterion or standard by which the Party expects its stewardship of the PRC's national security will be judged: its ability to "resolutely safeguard" the PRC's sovereignty, security, and development interests. The PRC's concept also views development and security as mutually supporting aspects of national security in which "security guarantees development, and development is the goal of security."

Central National Security Commission (CNSC). To improve coordination on national security matters, the CCP created the CNSC (中央国家安全委员会) in 2013. The CNSC advises the Politburo; oversees the coordination of national security issues across the government; manages crises; fights terrorism, separatism, and religious extremism; and interacts with foreign counterparts. Embracing the Party's expansive concept of national security, the CNSC's purview covers both internal and external national security matters. The CNSC's mission, codification in law, sprawling definition of national security, and powerful leadership has led the CNSC to become an important party-state organ, and exemplified by its promulgating regulations in 2021 on the "National Security Work of the CCP" and outlining who, what, and how the CCP will lead national security in the PRC.

CNSC Membership. The PRC's top three leaders lead the CNSC: Xi who serves as the CNSC Chairman; Li Qiang (Premier of the State Council); and probably Zhao Leji (Chairman of the Standing Committee of the National People's Congress). CNSC membership may include Politburo members, senior government leaders, and senior PLA

leaders (including the two Vice Chairmen of the CMC). The CNSC General Office is responsible for the commission's daily work and is run by senior CCP officials serving in dual-hatted roles in other positions. As of March 2023, the Director of the CNSC General Office likely continued to be Ding Xuexiang, a longtime political aide to Xi. Ding also serves as the Director of the General Office of the Central Committee and is a member of the Politburo Standing Committee. Last October, Chen Wenqing was elevated to Secretary of the Central Politics and Law Commission at the 20th Party Congress and is unlikely to stay on at the CNSC where he has served as Deputy Director of the CNSC General Office since 2018.

National Security Strategy. By 2015, the CCP had adopted the PRC's first national security strategy outline following the CNSC's establishment. Official media noted the strategy intends to unify efforts by various departments under the central leadership's guidance. Since 2015, the PRC's leaders and media have indicated national security sub-strategies that cover a variety of issues including political security, homeland security, military security, economic security, cultural security, societal security, technology security, network security, nuclear safety, ecological security, resource security, and biosecurity. In November 2021, the Politburo deliberated and, soon thereafter, passed the PRC's National Security Strategy (2021-2025) (国家安全战略).

National Security Law. With the establishment of the CNSC and the Party's adoption of the national security strategy, in 2015 the National People's Congress (NPC) passed the *National Security Law* (国家安全法). This law encapsulated the Party's overall national security concept and swept a broad range of issues beneath a new legal framework of "national security," while strengthening the formal role of central authorities. In recent years, the NPC has also passed a series of laws intended to address more specific national security concerns including counterespionage (2014, updated in 2022), counterterrorism (2015), cybersecurity (2016), foreign non-governmental organizations in China (2016), intelligence (2017), cryptography (2019), and the coast guard (2021). While these laws address more specific national security concerns, they remain sweeping in scope and authorities.

In an effort to raise public awareness of the Party's national security concepts and emphasize national security as a civic responsibility, the 2015 *National Security Law* designated April 15th of each year as National Security Education Day. Indicating the reach and depth the Party desires its national security concepts to penetrate into the party-state, the 2015 *National Security Law* also made provincial, autonomous regions and municipalities responsible for national security work within their administrative areas. This has led to the creation of national security committees in the Party's provincial-level organizations, each headed by the province's party chief.

FOREIGN POLICY

Key Takeaways

- The PRC's foreign policy seeks to build a "community of common destiny" that supports its strategy to realize "the great rejuvenation of the Chinese nation." The PRC's ambition to reshape the international order derives from the objectives of its national strategy and the Party's political and governing systems.

- In 2022, the PRC employed multiple diplomatic tools in an attempt to erode U.S. and partner influence and sought to cultivate international support against intensifying U.S.-backed security partnerships such as the Quad and AUKUS.

- Russia's war on Ukraine in February 2022 represented a major, unexpected challenge for the PRC as it sought to react to the largest military conflict in Europe since the end of World War II. Beijing has increasingly sought to balance its strategic partnership with Russia while avoiding the reputational or economic costs that would result from providing non-deniable material offensive or "lethal" assistance to Russia.

- Beijing probably has taken a discreet, flexible, and cautious approach to providing material support to Russia to enable the PRC to maintain plausible deniability, control material transfers, create off-ramps to renege on agreements, and maximize the PRC's options to aid Russia.

The PRC has increasingly sought to use its growing diplomatic clout to promote a more prominent, global leadership role for Beijing in international affairs. China continued to advance a new diplomatic framework that it terms "Major Power Diplomacy with Chinese Characteristics," based on the foreign policy direction determined by the CCP Central Committee and reaffirmed at the 20th Party Congress. This framework seeks to advance the PRC's strategy of national rejuvenation by achieving the CCP's two centenary goals, improving the coordination of China's major domestic and international policies, reforming aspects of the international order, adhering to the CCP Central Committee's direction, and defending the PRC's major interests. At the same time, PRC leaders are increasingly aware that the PRC foreign security environment is becoming more unstable and dangerous, especially in the wake of Russia's war of aggression in Ukraine, which could disrupt the PRC's foreign policy objectives.

The CCP's theory of "Socialism with Chinese Characteristics" underpins the conduct of the PRC's foreign affairs. Since Xi assumed power at the 18th Party Congress in 2012, the CCP Central Committee has placed greater emphasis on the PRC's foreign policy advancing "the cause of Socialism with Chinese Characteristics." Yang Jiechi, a former top Party official for the PRC's foreign policy, has claimed that adherence to Socialism with Chinese Characteristics is "showing extremely bright prospects" and "reached a new historical starting point."

According to Party officials, the overall goal of the PRC's foreign policy is to build a "community of common destiny" that seeks to shift the international system towards an architecture based on the CCP's principles for how nations should interact. This goal is essential to how the PRC's foreign policy supports its broader strategy to achieve national rejuvenation. From the PRC's perspective, establishing this "community" is necessary to set the external security and economic conditions for the PRC's national rejuvenation by "safeguarding world peace" and "promoting common development" according to the Party's principles. The PRC recognizes it cannot achieve its goals in isolation and seeks "all countries" to adopt its diplomatic framework in order to "build a community with a shared future for mankind" and "actively control the new direction of China and the world." Lastly, PRC officials acknowledge that aspects of the international order are inconsistent with its objectives. The PRC's diplomatic framework seeks to remedy this by promoting changes in a more "just and reasonable direction."

The PRC's ambition to shape the international order derives from the objectives of its national strategy and the Party's political and governing systems. The PRC does not frame its efforts as simply opportunistic challenges to the status quo or a significant deviation from the past. Rather, Beijing is acting upon its longstanding desire to redesign the architecture of the international order to support the PRC's national rejuvenation, efforts that are married with growing resources and opportunities to do so. The PRC's foreign policy seeks to revise aspects of the international order on the Party's terms and in accordance with ideas and principles it views as essential to forging an external environment supportive of the PRC's national rejuvenation and strategic goals.

The PRC's foreign policy framework includes efforts to promote and accelerate the transformation in the distribution of power, revise the principles of interstate relations, and reform global governance structures. Within the context of "Major Power Diplomacy with Chinese Characteristics," PRC officials have described how the PRC differentiates its goals and relations according to the power relationships among four categories of actors: major powers, peripheral nations, developing nations, and international organizations. Among the major powers, Beijing contends that a new framework for relations is necessary to construct a "stable and balanced development" between the powers—in essence a multipolar system. With peripheral nations, the PRC seeks to strengthen its relationships to create a more favorable environment along its maritime and land borders in accordance with the PRC's view of justice and interests. For developing countries, the PRC emphasizes solidarity and cooperation as well as "actively" carrying out multilateral diplomatic work, to include continued "high-quality development" under its Belt and Road Initiative (BRI). This likely refers to the importance that the PRC places on attaining support from developing countries within international organizations.

Another tenet of "Major Power Diplomacy with Chinese Characteristics" is the PRC's ambition to construct "new types" of "omnidirectional" relations and bilateral partnerships among states. The PRC desires for its concepts of mutual respect, cooperation, and mutual benefit to provide the basis for these "new types" of relations. Politburo member Yang Jiechi describes China's "new type" relationships as strategic partnerships that follow a new path of "major power relations." Although distinct from alliance relationships, the PRC's notion of strategic partnerships is

indicative of a relationship that meets the PRC's criteria and is worthy of a higher level of bilateral cooperation. To improve its diplomatic support further, the PRC also seeks to create what it calls a "comprehensive global partnership network" of its strategic partners to form a global "circle of friends." Despite its encompassing rhetoric, the PRC uses nomenclature to implicitly rank its level of "partnership." For example, the PRC ranks Pakistan as its only "all-weather strategic partner," Russia as its only "comprehensive strategic partner with coordination relations," and other countries such as Brazil and various states in South and Southeast Asia holding "all-round strategic partnership relations."

The PRC also promotes reforms to the "global governance system" as part of its diplomatic framework in order to reflect the "profound evolution" of the international order. According to Yang Jiechi, "The global governance system is at an important stage of profound evolution, and global governance has increasingly become the frontier and key issue of China's foreign work." To "seize opportunities" for reform, the PRC actively participates in the construction of a new global governance system based upon the Party's principles. This may be achieved through the creation of new multinational organizations and forums to uphold the authority of the CCP and the PRC's national sovereignty, security, and development interests. For example, the PRC promotes BRI as an "important practical platform for the concept of the community of common destiny." BRI also serves to strengthen the PRC's strategic partnerships, enlarge its network of strategic partners, and advance reforms to the international order to support the PRC's strategy.

At the same time, PRC leaders probably increasingly seek to protect the PRC's interests amid an external security environment that is becoming more unstable and dangerous. At the 20th Party Congress in October 2022, Xi proclaimed that "the CCP Central Committee coordinated the overall strategic situation of the great rejuvenation of the Chinese nation and major changes in the world unseen in a century." He added that the "CCP led the entire party, the entire military, and the people of all ethnic groups across the country to effectively deal with the severe and complex international situation and the huge risks and challenges that came one after another." Although Xi did not mention specific challenges, Russia's ongoing war of aggression in Ukraine, the PRC's heightened threat perception of United States, and lingering economic and political consequences of the COVID-19 pandemic almost certainly inform the PRC's current foreign policy aimed at maximizing the PRC's ability to shape the international system and better protect PRC's interests.

MILITARY AND SECURITY IMPLICATIONS OF THE 20TH NATIONAL CONGRESS OF THE CCP

General Secretary Xi presided over the 20th National Congress of the Chinese Communist Party, known as the 20th Party Congress, from October 16th–22nd, 2022. Party Congresses, convened every five years, hold important military and security implications for the PRC's national and defense strategy. The military dimensions of the Report to 20th Party Congress focused on intensifying and accelerating the People's Liberation Army's modernization goals, to include deploying PLA forces on a "regular basis and in diversified ways."

In order to achieve the PLA's 2027 centenary goal, the 20th Party Congress set objectives to "provide new military strategic guidance, establish a strong system of strategic deterrence, increase the proportion of new-domain forces (most likely cyberspace and space) with new combat capabilities, speed up the development of unmanned, intelligence combat capabilities, and promote the development and application of the network information system." Reappointed as Chairman of the CMC for the third time, Xi selected a six-man CMC that offers political continuity, technical expertise on nuclear and space issues, and Taiwan-centric operational experience to lead the PLA toward achieving its centenary goals.

The 20th Party Congress offered new insight on the CCP's perception of the PRC's external security environment. Notably, the Party Congress report did not reference a "strategic window of opportunity for development," but rather that the PRC is facing "drastic changes in the international landscape," and thus must be more mindful of "potential dangers and be prepared to deal with worse-case scenarios."

The PRC employed a wide range of diplomatic tools throughout 2022 to erode U.S. influence globally and subvert U.S.-backed security partnerships such as the Quad and AUKUS, which Beijing perceives as avenues to constrain its rise. The CCP is increasingly frustrated by Washington's perceived use of an exaggerated threat picture of China to cultivate an international coalition willing subvert the PRC's foreign policy objectives. In response, PRC leaders and officials have increasingly sought to bolster the PRC's relations with developing countries in Africa, Southeast Asia, and the Middle East; co-opt regional multilateral organizations such as ASEAN; and assert its status as the self-appointed de facto leader of the "Global South." Similarly, beginning late 2022, Beijing launched a diplomatic "charm offensive" targeting European countries in an apparent effort to improve perceptions of Beijing following years of "wolf warrior" diplomacy and COVID-19 isolation. Through these engagements, Beijing aims to internationally isolate Washington and persuade countries that the United States is the sole party responsible for escalating U.S.-China tensions, primarily to deflect criticism of the PRC's efforts to reshape the international environment to protect its interests. PRC officials have also framed AUKUS as an

act of nuclear proliferation and threat to regional stability to stoke international concerns about the trilateral security partnership and press countries to limit engagement with U.S.-backed alliance.

In recent years, global public opinion of the PRC has fallen, particularly after the PRC's response to COVID and continued coercive foreign and domestic policies. Out of 24 countries across Europe, Asia, and the Americas surveyed by the Pew Research Center in spring 2023, 15 countries registered their most negative feelings towards the PRC in 2022 or 2023. Similarly, five of the eight middle-income countries polled saw the PRC in more negative light after the pandemic. In the 2022 Pew survey, only 18 percent of global respondents trusted Xi Jinping do the right thing regarding world affairs. These reports are only the most recent in a series of surveys showing an increasingly negative perception of the PRC across the U.S., Europe, and Asia.

Russia's War on Ukraine. The Russian war on Ukraine represented a major, unexpected challenge for Beijing as it sought to react to the largest military conflict in Europe since the end of World War II. Despite multiple warnings of Russia's intentions towards Kyiv, Beijing was caught completely off guard by the full scope and scale of Russia's war on Ukraine. For example, on the first day of the invasion and as Russian and Ukraine air forces battled over Kyiv, the PRC Ambassador to Ukraine publicly announced that PRC was organizing an aerial evacuation of Chinese citizens. Although the PRC eventually shifted to an overland evacuation of its citizens once the reality of the conflict became apparent to PRC officials, the PRC's initial reaction is indicative of the PRC's continued struggles to anticipate geopolitical risks and protect its overseas interests.

As Russia's war of aggression in Ukraine has continued, Beijing has increasingly sought to balance its strategic partnership with Russia while avoiding the reputational or economic costs that would result from providing undeniable offensive material or "lethal" assistance to Russia. PRC leaders and officials have parroted Russian narratives blaming the U.S. and NATO for causing the conflict. Beijing has also refrained from directly criticizing or condemning Russia for using military force to infringe on Ukraine's sovereignty despite Russia's actions in Ukraine violating the PRC's Five Principles of Peaceful Coexistence. Of note, Beijing has also become a willing buyer of Russian energy exports to buoy Russia's sanctioned-battered economy and has ensured Russia's continued diplomatic participation in multilateral organizations. At the same time, Beijing probably has taken a discreet, flexible, and cautious approach to providing material support to Russia to enable the PRC to maintain plausible deniability, control material transfers, create off-ramps to renege on agreements, and maximize the PRC's options to aid Russia. It remains to be seen whether/when Russia becomes more of a liability than an asset in the Chinese calculus.

- To date, Chinese officials have publicly denied providing any lethal assistance to Russia. However, as Beijing deliberates the scale and scope of materiel commitments, it probably will seek to balance its strategic partnership with Russia while avoiding reputational or economic costs that could result from its assistance. Russian customs data revealed that Chinese companies, including state-owned enterprises under the purview of Beijing, have sold civilian,

dual-use, and some minor military items to Russian military end users, such as small arms, spare parts, navigation equipment, and protective gear.

- China's expansive and unregulated commercial drone market has allowed Russian defense forces to routinely acquire small drones and dual-use unmanned aerial vehicles (UAVs) to support their war in Ukraine. Between March 2022 and 2023, Chinese firms exported more than $12 million worth of drones and drone components to Russia. Chinese-origin drones have been employed by Russian forces for targeting, surveillance, and strike missions in Ukraine. In August 2023, Beijing announced it would implement its first controls on the civilian and dual-use drone market, as well as the sale of civilian-use counter-UAV systems, in response to international speculation over Chinese drones' use in Russia's war of aggression in Ukraine.

PRC leaders and officials have sought to deflect international criticism over Sino-Russian relations and protect its international reputation by using high-level diplomatic engagements and messaging emphasizing the PRC's "neutral" role in the conflict. These efforts include Chinese officials meeting with Ukrainian officials, announcing token humanitarian assistance, and calling for peace talks without developing a specific, detailed plan to resolve the conflict. Similarly, the PRC's ambiguous public messaging about the potential use of nuclear weapons probably is also intended to portray China as a responsible and peaceful great power. In November 2022, during German Chancellor Olaf Scholz's visit to Beijing, Xi said that nuclear weapons must not be used, nuclear wars should not be fought, and the international community should come together to prevent a nuclear conflict in Eurasia. Xi's repetition of the PRC's stated stance on nuclear weapons as well as his unwillingness to specifically condemn Russian nuclear threats, suggest that Xi probably was focused on protecting China's reputation rather than applying strong pressure to prevent Russia from using a nuclear weapon in Ukraine.

Global Initiatives. Adding to this standard framework for talking points on Russia's war of aggression in Ukraine and other foreign policy issues, in April 2022, Xi announced the Global Security Initiative (GSI) at the Bo'ao Forum. Echoing the previous year's rollout of the Global Development Initiative (GDI), Beijing has promoted GSI extensively and attempted to insert GSI language into multilateral forums and documents. At the CCP's 20th Party Congress in October, Xi further promoted GSI and GDI, emphasizing that realizing the "great rejuvenation of the Chinese nation" required equal prioritization of both security and development. As of the end of 2022, however, Chinese officials had yet to clearly define how GSI would actually advance the vague security goals it espouses, such as safeguarding "comprehensive" security and protecting territorial integrity. International receptivity to GDI and GSI has been mixed so far; GDI's links to BRI has made the initiative more attractive to developing countries, while GSI's vagueness and implicit criticisms of the United States have made more countries hesitant to sign on to it.

PRC EFFORTS TO PROMOTE GSI ABROAD

PRC state-run media outlets publish multiple articles daily aimed at promoting the GSI abroad, including in English, Spanish, French, Russian, and other languages. These reports frequently quote local voices as well as current and former PRC and non-PRC government officials expressing support for GSI. Additionally, PRC diplomats publish "signed articles," promoting GSI in local newspapers all around the world. While some foreign-language PRC media reports and "signed articles" are tailored to local audiences, most reports emphasize four key themes: (1) GSI promotes world peace and shared prosperity; (2) the West's security framework is based on a hegemonic, Cold-War mindset that leads to crises; (3) The "International Community" supports GSI, especially in Africa, the Middle East, Latin America, parts of Asia; and (4) GSI represents "true multilateralism." Although these reports state that GSI "seeks concrete actions and tangible results" they do not articulate a framework, mechanisms, list of "signatories," or other specifics about how and what GSI would do.

Military Diplomacy. The PRC's willingness to engage in military diplomacy with other countries varies considerably based on its perception of a country's adherence to the PRC's diplomatic framework. For example, the PRC's "comprehensive strategic partnership of coordination" with Russia entails a relatively high degree of military cooperation. Sino-Russian military cooperation occurs in practical forms through exchanges of training, equipment, technology, high-level visits, and other coordination mechanisms. For other strategic partnership countries, the PRC seeks to leverage those relationships to reinforce the PRC's systemic preferences and maintain stability in Beijing's favor. For countries with whom the PRC has not established strategic partnerships, such as the United States, the PRC shapes its military cooperation along more minimalist principles of conflict avoidance that emphasize "non-conflict" and "mutual respect." From the PRC's perspective, these curtailed relationships at least serve its foreign policy objective by ensuring stable relations with major powers.

Although the COVID-19 pandemic continued to constrain PRC's military diplomacy in 2022, the PLA increased its external, in-person high-level military visits compared to 2021 and maintained close contact with the military leadership of neighboring countries. The PLA also relied on high-level virtual bilateral meetings and multilateral engagements to supplement cancelled engagements and maintain contacts with foreign militaries.

PRC Policy Towards the Pacific Islands. Since 2015, the PRC probably has viewed economic, political, and policing engagement with the Pacific Island Countries (PICs) as an opportunity to expand the PRC's regional influence, press countries to switch diplomatic recognition to Beijing, deepen security cooperation, and advance the PRC's responsible great power narrative. Of note, in late May and early June 2022, then PRC Foreign Minister Wang Yi traveled to seven PICs, including Fiji and the Solomon Islands, and sought to promote the expansion of Sino-PICs relations. During his visits, Wang emphasized that the PRC would continue to pursue a "four-

pronged adherence' towards relations with the PICs that linked the PRC's efforts to improve relations with PICS with foreign policy principals.

Wang's visit came on the heels of the April 2022 announcement that the PRC and the Solomon Islands had signed a security cooperation agreement. According to a draft copy of the China-Solomon Islands Security Agreement, China would be permitted to send armed policy and military personnel to the Solomon Islands to help maintain order, though Honiara denied this would lead to a PRC military base. Beijing probably seeks to use security agreements with the PICs to justify the expansion of PLA security activities in the region.

PRC Relationship with Iranian Proxies. The PRC almost certainly does not have extensive relations with Iranian proxies such as Hezbollah in Lebanon, the Houthis in Yemen, or Iranian-backed militia groups in Iraq. PRC officials, including the PRC's Special Envoy to Syria, have publicly met with Hezbollah officials to discuss the Syrian civil war, but such engagements almost certainly are perfunctory and focused on advancing the PRC's responsible great power narrative rather than the PRC seeking to expand ties with these groups. PRC officials probably calculate that expanding relations with Iranian proxies, especially Iranian-backed militia groups in Iraq, would alienate regional governments and disrupt the PRC's regional objectives such as promoting the expansion of BRI projects in the Middle East.

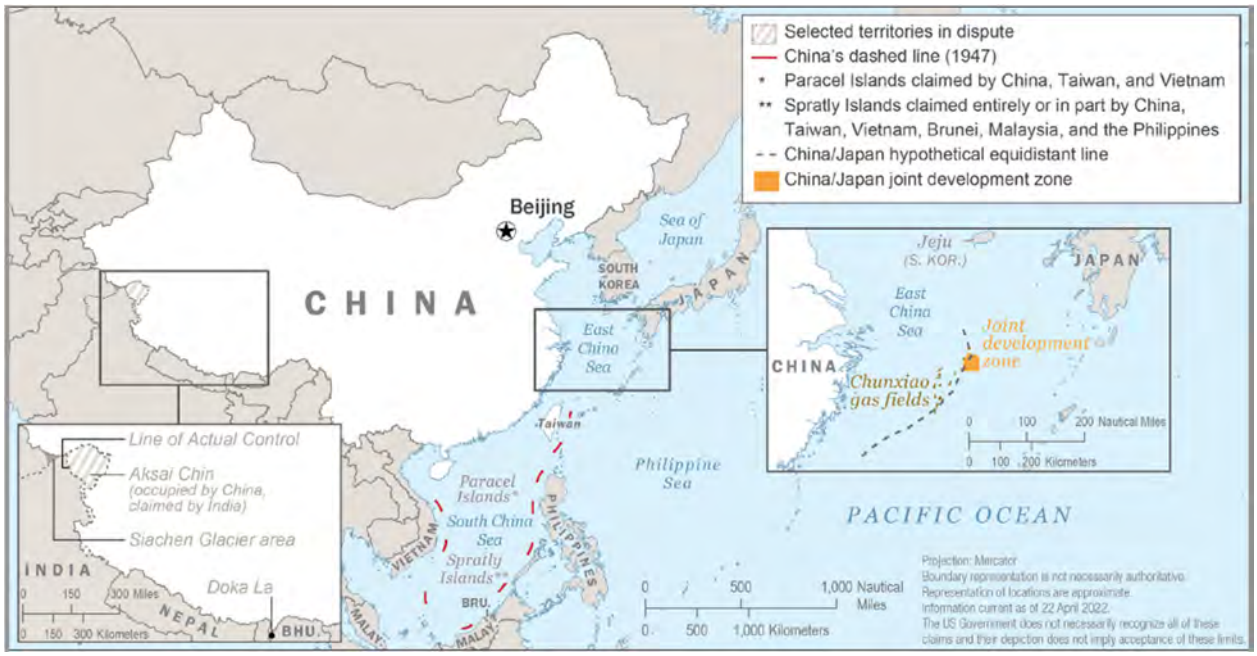
The PRC has also maintained diplomatic, economic, and some security ties with the Assad Regime Syria.Since 2016, the PRC's special envoy to Syria has focused the PRC's efforts on political support to the Assad regime, facilitating a political resolution to the civil war, humanitarian assistance, reconstruction, and counterterrorism. In 2022, the PRC reached an agreement with Syria to join the BRI, demonstrating the PRC's efforts to promoted economic relations with Syria.

CHINA'S TERRITORIAL DISPUTES IN CONTEXT

The PRC's use of force in territorial disputes has varied widely since 1949. Some disputes led to war, as in border conflicts with India in 1962 and Vietnam in 1979. China's contested border with the Soviet Union during the 1960s raised the possibility of nuclear war. In recent cases involving land border disputes, China has sometimes been willing to compromise with and even offer concessions to its neighbors. Since 1998, China has settled 11 land-based territorial disputes with six of its neighbors. However, within the last decade China has employed a more coercive approach to deal with several disputes over maritime features, ownership of potentially rich offshore oil and gas deposits, and border areas.

Tensions with ***India*** along the Line of Actual Control (LAC) sparked a standoff between Chinese and Indian forces in mid-May 2020, which persisted into the winter. The standoff escalated on 15 June 2020 after a skirmish ensued in the Galwan Valley between Indian Army and PLA forces that ended with 20 Indian soldiers and four PRC soldiers dead. In late 2022, Chinese and Indian forces engaged in an unarmed clash near Tawang along the Eastern Sector of the LAC separating Tibet and the Indian state of Arunachal Pradesh. This was the first such clash since the 2020 Galwan

skirmish, although local commanders quickly diffused the clash and the overall standoff did not substantively escalate.



Select Chinese Territorial Claims

The PRC and Japan have overlapping claims to both the continental shelf and the exclusive economic zones (EEZs) in the ***East China Sea*** (ECS). The ECS contains natural gas and oil, although hydrocarbon reserves are difficult to estimate. Japan maintains that an equidistant line from each country involved should separate the EEZs, while China claims an extended continental shelf beyond the equidistant line to the Okinawa Trench. The PRC continues to assert sovereignty over the Japan-administered Senkaku Islands and reiterate the importance of abiding by the four-point consensus signed in 2014, which states both sides will acknowledge divergent positions over the ECS dispute but also prevent escalation through dialogue, consultation, and crisis management mechanisms. Japan remains concerned with the persistent deployment of PRC coast guard ships and fishing vessels in disputed ECS waters and contests the PRC's claim of sovereignty.

The ***South China Sea (SCS)*** plays an important role in security considerations across East Asia because Northeast Asia relies heavily on the flow of oil and commerce through SCS shipping lanes, including more than 80 percent of the crude oil to Japan, South Korea, and Taiwan. China claims sovereignty over the Spratly and Paracel Islands and other land features within its ambiguous self-proclaimed "nine-dash line" claims disputed in whole or part by Brunei, the Philippines, Malaysia, and Vietnam. Taiwan, which occupies Itu Aba Island in the Spratly Islands, makes the same territorial assertions as the PRC. The PRC continued to employ the PLA Navy (PLAN), China Coast Guard, and maritime militia to patrol the region throughout 2022. In response to China's continued assertive actions, Indonesia, Malaysia, the Philippines and Vietnam

have publicly rejected the PRC's nine-dash line claims and invoked international law in support of their maritime sovereign rights.

The PRC has long challenged foreign military activities in its claimed ***exclusive economic zone* (EEZ)** in a manner that is inconsistent with the rules of customary international law as reflected in the United Nations Convention on the Law of the Sea. However, in recent years, the PLA has begun conducting the same types of military activities inside and outside the First Island Chain (FIC) in the EEZs of other countries, including the United States. This activity highlights China's double standard in the application of its interpretation of international law. Examples include sending intelligence collection ships to collect on military exercises such as the Rim of the Pacific (RIMPAC) exercise off Hawaii in 2014 and 2018, TALISMAN SABER off Australia in 2017, 2019, and 2021, and operating near Alaska in 2017 and 2021. PRC survey ships are also extremely active in the SCS and frequently operate in the claimed EEZs of other nations in the region such as the Philippines, Vietnam, and Malaysia.

ECONOMIC POLICY

Key Takeaways

- At the end of 2022, China abruptly reversed its zero-COVID-19 policy. The decision to implement China's reopening took most by surprise and was probably triggered by country-wide protests against the PRC's zero-COVID-19 policies, economic pressures, and fiscal difficulties for local governments.

- The 20th Party Congress emphasized the importance of quality growth rather than the speed of growth. General Secretary Xi also highlighted common prosperity, more equitable access to basic public services, a better multi-tiered social security system, and cultural and green developments as a few of China's economic initiatives.

- The PRC's ongoing military modernization objectives are commensurate with and part of China's broader national development aspirations. China's economic, political, social, and security development efforts are mutually reinforcing and support China's strategy of national rejuvenation.

- China's tools of economic statecraft include inducements such as infrastructure investments under BRI; industrial and technology policies such as *Made in China 2025* that seek foreign technology transfers in exchange for market access; protectionist policies and legal barriers for foreign firms to compete in China's domestic market; selective observance of trade commitments; and economic coercion against other states.

The PRC's military modernization objectives are commensurate with and part of China's broader national development aspirations and work in coordination with China's economic policies and systems. PRC's leaders directly link the pace and scale of the PLA's modernization with the country's overall development. The PRC's economic, political, social, and military development

efforts are mutually reinforcing and support its strategy of national rejuvenation. The Party gives priority to China's economic development as the "central task" and frames its economic system as the means of advancing the nation's overall political and social modernity. In particular, China's economic targets abroad focus intensely on advancing what the Party calls the country's "productive forces" (e.g., industry, technology, infrastructure, and human capital) which it views as the means to achieve the country's political and social modernity—including building a "world-class" military. The party-state's relentless efforts to grow China's national industrial and technological base has significant implications for China's military modernization, as well as for China's global economic partners.

CCP leaders have cast China's partial adoption of market features–which were implemented as part of its "reform and opening up" that began in the late 1970s, and subsequently led to an economic transformation–as evidence that their strategy to modernize China has been succeeding rather than viewing the market feature adoption as a repudiation of the Party's fundamental economic ideals. Party leaders since Deng Xiaoping have consistently rationalized China's market-oriented economic reforms as a necessary regression from socialism needed to account properly for China's historical circumstances, which left it significantly underdeveloped. According to the Party, contemporary China remains at the beginning stage or the "primary stage of socialism" with a long process of socialist modernization ahead.

Basic Economic System. The Party conceives of China's economy as constituting the "basic economic system" in which public ownership is dominant and state, collective, and private forms of ownership develop side by side. The basic economic system comprises China's public ownership economy and the multi-ownership economy.

Economic Development Goals. Despite slowing economic growth just prior to and during the COVID-19 outbreak, China will continue to pursue the economic policy objectives determined by the CCP Central Committee and set forth in the 14th Five-Year Plan (FYP). China's economic goals are (1) furthering supply-side structural reform, (2) making China a country of innovators, (3) pursuing a rural vitalization strategy, (4) implementing the coordinated regional development strategy, (5) accelerating efforts to improve the socialist market economy, and (6) making new ground in pursuing "opening up on all fronts." The PRC is currently executing the 14th FYP that will cover 2021-2025. The priorities and goals in the FYPs not only apply to the government and the public ownership economy, but also serve as implicit guidance from the Party to the multi-ownership economy.

Economic Conditions. Prior to COVID-19, China's economic growth had slowed because of demographic challenges, declining returns from state-led infrastructure investment, and slowing urbanization. China's efforts in early 2020 to contain the COVID-19 outbreak with government lockdowns and strict control measures exacerbated this slowdown in China's economy. In March 2022, China announced an annual growth target of around 5.5 percent, but fell well short and only achieved 3 percent growth for 2022, the second lowest growth on record since 1976.

Multiple challenges affected China's economy in 2022, including a COVID-19 resurgence in the fall, a weak property sector due to a correction in the housing market, high youth unemployment, and sluggish consumption recovery. China abruptly reversed its zero-COVID-19 policy at the end of 2022, a decision probably based on CCP leader's recognition that the lock downs were failing to prevent infections and concerns about the fluffing economy and country-wide protests against the policy in early December. China is also facing adverse demographics, slowing external demand amid global inflationary pressures, and a debt problem. Although global supply chain relocation has been discussed for years, multinational corporations may be thinking more seriously about supply chain diversification after facing serious disruptions during China's zero-COVID-19 policy.

China's government is also concerned about economic risks associated with prolonged housing market corrections and may be more inclined to deliver funding support for developers and further easing measures on the demand side (e.g., lower down payments required and the removal of home purchase restrictions). China's property market may have reached a trough in 2022 and could improve in 2023.

Economic Policies and Practices. The 20th Party Congress unveiled a new economic leadership team to advance Xi's goal of rejuvenation of the Chinese nation on all fronts. Economic growth is a necessary condition for China to realize this goal, with more emphasis on quality and inclusive growth, as well as security requirements. The Party Congress vowed to grow China's per capita GDP to be on par with that of a mid-level developed country, which it defined as income of $20,000 per capita. This would imply average growth of approximately 3.5 percent during 2022 to 2035. Xi's new economic team has broad technocratic qualifications. Of note, Xi elevated Vice Premier Zhang Guoqing to be in charge of science, technology, and industry. Zhang has a doctorate in economics, which suggests a national security-oriented economic focus in Xi's third term to supports his stated goal of national strength through increasing economic strength and scientific technological capabilities.

The PRC's introduction of market economy features within the "basic economic system" without a full transition to free and open markets has resulted in laws, regulations, and policies that generally disadvantage foreign firms vis- à-vis their Chinese counterparts in terms of tradable goods, services sectors, market access, and foreign direct investment. Examples of China's economic policies and trade practices include its support to domestic industries at the expense of foreign counterparts, commercial joint venture requirements, technology transfer requirements, subsidies to lower the cost of inputs, sustaining excess capacity in multiple industries, sector-specific limits on foreign direct investment, including partnership requirements and other barriers to investment, discriminatory cybersecurity and data transfer rules, insufficient intellectual property rights enforcement, inadequate transparency, and lack of market access—particularly in the information and communications technology (ICT), agriculture, and service sectors. Market access remains difficult for some foreign firms because China restricts certain inbound investment, resulting in persistent underperformance in other countries' services exports, particularly in the banking, insurance, Internet-related, professional, and retail services sectors.

A large portion of China's economic output results from government and policy-directed investments rather than market-based forces. China pursues state-directed investment overseas and encourages mergers and acquisitions. Along with heavy investments in infrastructure and commodities to support its strategic firms, increase economic engagement, and improve economic security, China is investing in technologies that will be foundational for future innovations with both commercial and military applications.

The PRC seeks and obtains foreign technology through the following means: foreign direct investment, overseas acquisitions, legal technology imports, the establishment of foreign research and development (R&D) centers, joint ventures, research and academic partnerships, talent recruitment, industrial, and cyberspace espionage and theft. Investors may be concerned about intensified pressure of technology restrictions on China, which has forced the Chinese government to double down on its efforts to promote innovation and self-sufficiency in key technologies.

Recent legal proceedings highlight numerous cases of China's efforts to obtain technology and knowledge through theft of trade secrets and economic espionage. In April 2022, a jury in United States federal court sentenced a PRC national to 29 months in prison for conspiring to commit economic espionage. The PRC national had worked as an imaging scientist for a Monsanto subsidiary and was found to have stolen proprietary algorithms, which he brought to the Chinese Academy of Sciences Institute of Soil Science. In November 2021, a federal jury convicted a PRC intelligence officer of attempting to steal industry-leading aviation trade secrets. Court documents show that the PRC officer attempted to steal technology related to GE Aviation's exclusive composite aircraft engine fan to benefit the PRC state.

The PRC's recent economic policies have promoted innovation focused on strengthening domestic industry, while placing additional restrictions on foreign firms. Recognizing that some of its initiatives such as Military Civil Fusion (MCF), "Made in China 2025," and BRI have sparked concerns about China's intentions, PRC leaders have adopted lower profile rhetoric when promoting these initiatives without altering their fundamental strategic goals.

- *Made in China 2025*: First announced by the PRC in May 2015, the "Made in China 2025" plan seeks to increase China's domestic innovation by setting higher targets for domestic manufacturing in strategic industries such as robotics, power equipment, and next-generation information technology by 2020 and 2025. This plan seeks to strengthen China's domestic enterprises through awarding subsidies and other incentives while increasing pressure on foreign firms to transfer technology to have market access in China. "Made in China 2025" came under criticism from advanced countries for unfairly favoring China's domestic enterprises at the expense of foreign participants in China's markets. Increasingly aware and sensitive to these concerns, by June 2018, China began avoiding references to "Made in China 2025" in major policy papers. The PRC government ordered its media outlets to downplay use of the term in June 2018. Key events that PRC leaders use to set strategic directives have also avoided references to "Made in China," including the 2019 Central Economic Work

Conference and the NPC. Despite the adjustments in its narrative, China has largely continued implementing the policies behind "Made in China 2025."

- *Dual Circulation:* In 2020, Xi articulated the economic policy of dual circulation, which aims for a largely self-sufficient China that could innovate, manufacture, and consume within its own economy, while still drawing on the international economy through exports, critical supply chains, and limited imports of capital. Dual circulation seeks to enable the internal markets and external markets to reinforce each other, with a focus on establishing the domestic market as the primary driver of economic growth.

Legal Framework. In recent years, the PRC has implemented new laws placing further restrictions on foreign firms while creating or strengthening the legal framework for the Party's national security concepts and, in some cases, furthering its MCF Development Strategy (discussed in the next section):

- *National Defense Law:* Adopted in March 1997, the law provides legal justification to mobilize the military and civilian resources in defense of a broad range of national interests.

- *National Security Law*: Adopted in July 2015, the law limits foreign access to provide a broad framework for safeguarding the PRC's security interests. It calls for review and monitoring of foreign participation in the ICT market in China on national security grounds.

- *Counterterrorism Law*: Adopted in December 2015, among its provisions, the law requires telecommunications operators and Internet service providers to provide information, decryption, and other technical support to public and state security organizations "conducting prevention and investigation of terrorist activities."

- *National Defense Transportation Law*: Coming into effect in 2016, the National Defense Transportation Law advances the PRC MCF development strategy by laying the groundwork for the PLA Navy to mobilize civilian maritime transportation resources and facilities to support power projection missions.

- *Cyber Security Law*: The law, which went into effect in June 2017, promotes development of indigenous technologies and restricts sales of foreign ICT in China. The law also requires foreign companies to submit ICT for government-administered national security reviews, store data in China, and seek government approval before transferring data outside of China.

- *Intelligence Law*: Adopted in June 2017, the law allows authorities to monitor and investigate foreign and domestic individuals and organizations to protect national security. Specifically, it allows authorities to use or seize vehicles, communication devices, and buildings to support intelligence collection efforts.

- *Cryptography Law*: Adopted in October 2019 and coming into effect in 2020, this law requires entities working on cryptography to have management systems in place to ensure sufficient

security for their encryption. Although the law encourages development of commercial encryption technology, its use cannot harm national security or the public good. It provides for the State Cryptography Administration and its local agencies to have complete access to cryptography systems and the data protected by those systems.

- *Foreign Investment Law*: In March 2019, the PRC's NPC adopted a new Foreign Investment law with the stated objective of improving the business environment for foreign investors and leveling the playing field between foreign businesses and Chinese private firms and state-owned enterprises (SOEs). The law passed in just three months, which reflects an unusually fast turnaround in China where the same level of legislation usually takes years. PRC officials have indicated that swift passage of the law was to facilitate U.S.-China trade talks, and the law appears to respond to a number of issues raised by the U.S. Trade Representative's Section 301 report that highlighted unfair Chinese trade practices related to intellectual property, technology transfer, and innovation. Despite the law's stated objective, its wording is vague and the most substantial provisions are not new.

- *Anti-Foreign Sanctions Law:* Adopted at the 29th meeting of the Standing Committee of the 13th National People's Congress on June 10th, 2021, the law was enacted to "safeguard national sovereignty, security, and development interests, and to protect the legitimate rights and interests of Chinese citizens and organizations." According to PRC media sources, the law is intended to "counter, fight, and oppose" unilateral sanctions on the PRC imposed by foreign countries. The law was likely adopted in response to sanctions on PRC officials in connection with serious human rights abuse in Xinjiang.

- *Data Security Law:* This law went into effect on September 1st 2021, and subjects almost all data-related activities to government oversight, as PRC officials grew concerned about the transfer of potentially sensitive data overseas. Companies in the PRC have become more reluctant to share data, as authorities are ambiguous as to what is considered sensitive information, increasing difficulties for international firms trying to do business in the PRC. In early November 2021, local providers of ship tracking data stopped sharing details of ship locations, citing the data security law.

- *Personal Information Protection Law:* Effective November 1st, 2021 and adopted by the Standing Committee of the National People's Congress, the law is purposed to protect the rights and interests on personal information, regulate personal information processing activities, and promote reasonable use of personal information. PRC media sources note that activities such as "collection, application, processing, and trading of personal information will be strictly monitored" with infringements punishable according to the law. The law exemplifies a more complete system of regulation in tandem with the PRC's existing Cybersecurity Law and Data Security Law.

- *Counter-espionage law:* On April 26th, 2021, the PRC adopted a counter-espionage law permitting the Ministry of State Security (MSS) authority to identify companies and organizations deemed susceptible to foreign infiltration or influence and require these institutes

to implement measures to prevent foreign infiltration. In July 2023, the PRC adopted an amended counter-espionage with a broader scope. The amended law expanded the definition of espionage from covering state secrets and intelligence to any documents, data, materials, or items related to national security, without defining these terms.

CHINA'S BELT AND ROAD INITIATIVE (BRI)

Key Takeaways

- The PRC uses BRI to support its strategy of national rejuvenation by seeking to expand global transportation and trade linkages to support its development and deepen its economic integration with nations along its periphery and beyond.
- In 2022, BRI projects saw mixed economic outcomes, experiencing both growth and decline. However, overall spending on BRI projects remained consistent with the previous year and Beijing continued to prioritize public health, digital infrastructure, and green energy opportunities.
- Overseas development and security interests under BRI will drive the PRC towards expanding its overseas security relationships and presence to protect those interests.

First announced in 2013, the PRC's BRI initiative is the signature foreign and economic policy advanced by Xi that rebranded and further expanded China's global outreach. Beijing uses BRI to support its strategy of national rejuvenation by seeking to expand global transportation and trade links to support its development and deepen its economic integration with nations along its periphery and beyond. The PRC implements BRI by financing, constructing, and developing transportation infrastructure, natural gas pipelines, hydropower projects, digital connectivity, and technology and industrial parks worldwide. As of 2022, at least 147 countries had signed BRI cooperation documents, up from 146 in 2021, 138 in 2020, and 125 in 2019.

In support of its national strategy, Beijing leverages BRI to strengthen its territorial integrity, energy security, and international influence. The PRC aims to improve stability and diminish threats, for example, by investing in projects along its western and southern periphery. Similarly, through BRI projects associated with pipelines and port construction in Pakistan, it seeks to become less reliant on transporting energy resources through strategic choke points, such as the Strait of Malacca. It also attempts to exploit the relationships it builds through BRI to pursue additional economic cooperation with participating countries.

Since 2022, two distinct trends have developed relative to BRI. First, the share of PRC financial investment relative to construction increased to its highest levels, with investments almost doubling. Beijing experienced strong growth in their East Asian and the Middle Eastern investments but a decline in their Sub-Saharan Africa efforts. Conversely, spiraling construction costs over the past three years have resulted in $78 billion in bad loans which needed to be written off or renegotiated in 2022. Second, Beijing began to replace previous BRI rhetoric with language

highlighting cooperation and partnership, which likely is designed to make BRI more appealing to foreign partners. The official name of "Belt and Road Initiative" was removed from the English version of many of Xi's speeches in 2022 and replaced with phrases such as "Belt and Road cooperation." After launching the GDI in September 2021, Xi mentioned Belt and Road Cooperation eight times while referring to GDI more than 16 times.

China has continued to prioritize public health, digital infrastructure, and green energy opportunities through its "Health Silk Road (健康丝绸之路)" (HSR), "Digital Silk Road (数字丝绸之路)" (DSR), and "Green Silk Road (绿色丝绸之路)" (GSR), respectively. Improving each of these "roads" offers Beijing benefits beyond economic integration.

- HSR is the PRC's World Health Organization-supported initiative for providing medical assistance through BRI transportation networks. In the future, it may help the PRC expand the international market share of PRC medical products, strengthen its bid for a role as a global public health leader, and identify the need for – and justify – new BRI projects.

- GSR aims to support low-carbon infrastructure, energy, and finance projects; this initiative aligns with the PRC's own goal of achieving carbon neutrality before 2060 and presents Beijing as a responsible party in working toward the 2030 Agenda for Sustainable Development Goals established by the United Nations General Assembly.

- DSR is one of the primary ways Beijing seeks to facilitate transfer of PRC technology to partner countries, which the PRC leverages to propagate its own technology standards as it seeks to set global standards for next-generation technology. Announced in 2015 as a digital subset of BRI, the PRC's Digital Silk Road initiative, seeks to build a PRC-centric digital infrastructure, export industrial overcapacity, facilitate expansion of the PRC's technology corporations, and access large repositories of data. As of 2016, 16 countries had signed memorandums of understanding with Beijing to participate in the DSR. The PRC hopes the DSR will increase international e-commerce by reducing cross-border trade barriers and establishing regional logistics centers by promoting e-commerce through digital free trade zones. Another goal of the DSR is to reduce PRC dependence on foreign tech leaders by providing markets for Chinese goods, thereby creating production opportunities for PRC tech firms. The PRC is investing in digital infrastructure abroad, including next-generation cellular networks—such as fifth-generation (5G) networks—fiber optic cables, undersea cables, and data centers. The initiative also includes developing advanced technologies including satellite navigation systems, artificial intelligence (AI), and quantum computing for domestic use and export. International opponents of China's DSR fear that Beijing will encourage recipient countries to use this technology as a tool of repression modeled on China's authoritarian-style government. Likewise, host country political elites would probably risk their sovereignty by becoming vulnerable to espionage and political blackmail.

Since BRI's inception, its long-term viability has faced challenges from international concerns over corruption, debt sustainability, and environmental effects, coupled with suspicion of the PRC's motives and the risk inherent in operating in politically unstable areas. China has applied military, intelligence, diplomatic, and economic tools to counter perceived threats, but the party-state leaders lack the expertise to assess comprehensive risks in most participating countries.

As the PRC's overseas development and security interests expanded under BRI, the CCP has signaled that its overseas security footprint will increase accordingly to protect those interests, which Beijing recognizes may provoke pushback from other states. Some of BRI's planned or active economic corridors transit regions prone to violence, separatism, armed conflict, and instability, putting BRI-related projects and PRC citizens working overseas at risk. In 2022, for example, five PRC citizens were injured when ISIS-K terrorists attacked a hotel in Kabul where Chinese nationals were known to stay.

China has therefore sought to extend its ability to safeguard its overseas interests, including BRI, by developing closer regional and bilateral counterterrorism cooperation and supporting host-nation security forces through military aid, including military equipment donations. In an October 2022 speech to the National Party Congress, Xi spoke of the need to become more adept at deploying the PLA to protect China's national security interests. Xi also said, "We will better coordinate strategies and plans, align policies and systems, and share resources and production factors between the military and civilian sectors."

The PRC has adopted new security legislation establishing a legal basis to violate people's data privacy and includes the aforementioned National Intelligence and Cybersecurity Laws of the People's Republic of China. Under the auspices of national security, the PRC and its security services have the authority to compel any private Chinese company to turn over all data collected by their systems, if desired. GSR aims to support low-carbon infrastructure, energy, and finance projects – an initiative that aligns with the PRC's own goal of achieving carbon neutrality before 2060 and presents Beijing as a responsible party in working toward the 2030 Agenda for Sustainable Development Goals established by the United Nations General Assembly.

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MILITARY-CIVIL FUSION (MCF) DEVELOPMENT STRATEGY

Key Takeaways

- The PRC pursues its MCF (军民融合) Development Strategy to "fuse" its security and development strategies into its Integrated National Strategic System and Capabilities in support of China's national rejuvenation goals.
- The PRC's MCF strategy includes objectives to develop and acquire advanced dual-use technology for military purposes and deepen reform of the national defense science and technology industries and serves a broader purpose to strengthen all the PRC's instruments of national power.
- The PRC's MCF development strategy encompasses six interrelated efforts: (1) fusing China's defense industrial base to its civilian technology and industrial base, (2) integrating and leveraging science and technology innovations across military and civilian sectors, (3) cultivating talent and blending military and civilian expertise and knowledge, (4) building military requirements into civilian infrastructure and leveraging civilian construction for military purposes, (5) leveraging civilian service and logistics capabilities for military purposes, and (6) expanding and deepening China's national defense mobilization system to include all relevant aspects of its society and economy for use in competition and war.
- Since early 2022, the Party appears to have been deemphasizing the term MCF in public, in favor of "integrated national strategic systems and capabilities." Xi's work report to the 20th Party Congress in October 2022 omitted any mention of MCF, only calling for "consolidating and enhancing integrated national security strategies and capabilities," and then addressing many of the components traditionally associated with MCF.

The PRC pursues its MCF strategy as a nationwide endeavor that seeks to meld its economic and social development strategies with its security strategies to build an integrated national strategic system and capabilities in support of China's national rejuvenation goals. The Party's leaders view MCF as a critical element of their strategy for the PRC to become a "great modern socialist country" which includes becoming a world leader in science and technology (S&T) and developing a "world-class" military.

Although the PRC's MCF strategy includes objectives to develop and acquire advanced dual-use technology for military purposes and deepen reform of the national defense S&T industries, its broader purpose is to strengthen all of the PRC's instruments of national power by melding aspects of its economic, military, and social governance. MCF strives to establish an infrastructure that connects the military and civilian sectors in a way that serves as a catalyst for innovation and economic development, yields an effective unity of effort in advancing dual-use technologies, especially those suited for "intelligentized" warfare, and facilitates effective industrial mobilization during wartime.

Development and Significance. The Party has explored the concept of leveraging or integrating the combined contributions of the military and civilian sectors since the PRC's founding. The current MCF concept initially took root in the early 2000s as the Party sought methods to enhance the PRC's overall development. This led Party leaders to call for improving "military-civilian integration" that echoed the collaboration between the defense and civilian sectors that China observed in the United States and other developed countries. Implementation of these efforts stalled due to a lack of centralized government control and the organizational barriers that exist across the party-state. Coinciding with the 11th FYP (2006-2010), the PRC began replacing "military-civilian integration" with "military-civilian fusion." In 2007, Party officials publicly noted the change from "integration" to "fusion" was not merely cosmetic but broadened the scope to include all available economic resources in the promotion of the defense industry.

Since that time, MCF's ambitions have grown in scope and scale as the Party has come to view it as a means to bridge the PRC's economic and social development with its security development in support of the PRC's national strategy to renew China. As such, the Party has continued to elevate MCF's importance. In 2015, the CCP Central Committee elevated the MCF Development Strategy to a national-level strategy to serve as a bridge between the PRC's national development strategy and its national security strategy, later also adding building "integrated national strategic systems and capabilities" (一体化的国家战略体系和能力), both of which support the PRC's goal of national rejuvenation.

Since early 2022, the Party appears to have been deemphasizing the term MCF in public, in favor of "integrated national strategic systems and capabilities." This term appears to have originated in June 2017 when Xi addressed the first meeting of the Central Committee's Central Commission for Military-Civil Fusion Development and charged them with gradually building up "China's integrated national strategic systems and capabilities." Xi used "integrated national strategic systems and capabilities" in conjunction with "military-civilian fusion" in his 2017 speech to the 19th Party Congress, suggesting that completion of major projects, achievements in defense research, and improved MCF would contribute to building the PRC's overarching integrated national strategic systems and capabilities. In December 2017, three PLA National Defense University (NDU) scholars published a study expanding on that concept, asserting that MCF was part of a near-term goal to establish basic "deep development patterns." The NDU academics maintained that once that was accomplished, the PRC could move on to its ultimate goal of building "integrated national strategic systems and capabilities." Notably, the language in the study closely mirrored that of national policies, making it possible that the authors played a significant role in helping draft the strategy. Their interpretation of Xi's speech was supported by numerous other writings that came out following the 19th Party Congress in 2017.

Xi's work report to the 20th Party Congress in October 2022 omitted any mention of MCF, only calling for "consolidating and enhancing integrated national security strategies and capabilities," and then addressing many of the components traditionally associated with MCF. This same formulation was used in March 2023 by Xi and CMC Vice Chairman Zhang Youxia in their separate addresses to PLA and People's Armed Police delegates to the 14th National People's

Congress. Provincial party officials responsible for MCF were already publicly using the phrase "integrated national strategic systems and capabilities" and avoiding the term MCF in the months leading up to the 20th Party Congress. It is not clear whether Party leadership believes that China has met all the conditions to move beyond MCF. However, an article published in the PLA Daily in December 2022 stated that the process of enhancing integrated national strategic systems and capabilities will "quicken the pace of national defense and armed forces building" and "greatly enhance the strategic confrontation capability of the national system."

Management and Implementation. The overall management and implementation of the MCF Development Strategy involves the most powerful organs in the party-state: the Politburo, the State Council (notably the National Development and Reform Commission), and the CMC. In addition to signifying its importance, the CCP Central Committee's elevation of the MCF Development Strategy to a national-level strategy also was intended to overcome obstacles to implementation across the party-state.

This elevation led to the establishment of the Central Commission for Military Civilian Fusion Development (中央军民融合发展委员会) (CCMCFD) in 2017, chaired by General Secretary Xi Jinping, Premier Li Qiang, several other members of the Politburo Standing Committee, two State Councilors, both CMC Vice Chairmen, 12 Ministry-level leaders, and others. The stated objective of the CCMCFD is to build the PRC's "national strategic system and capabilities." This commission works to improve the "top-level design" of MCF and overcome impediments to implementation. The elevation of the MCF Development Strategy and the creation of the CCMCFD signals the importance that Party leaders place on MCF and the scope and scale of the strategy's ambitions.

The PRC pursues MCF through six interrelated efforts. Each effort overlaps with the others and has both domestic and international components. The Party seeks to implement the MCF Development Strategy across every level of the PRC from the highest national-level organs down to provinces and townships and creates top-down financing and regulatory mechanisms that incentivize civilian and military stakeholders – such as local governments, academia, research institutions, private investors, and military organizations – to combine efforts on dual-use technologies. The PRC refers to these six aspects as "systems," which may also be understood as mutually supporting lines of effort or components. The six systems in the MCF Development Strategy are as follows:

The Advanced Defense Science, Technology, and Industrial System. This system focuses on fusing the PRC's defense industrial base and its civilian technology and industrial base. This includes expanding the private sector's participation in the PRC's defense industrial base and supply chains as well as improving the efficiency, capacity, and flexibility of defense and civilian industrial and manufacturing processes. This broader participation seeks to transfer mature technologies both ways across military and civilian sectors, with the goal to produce outsized benefits for both. This also aims to increase the competitiveness within the PRC's defense industrial base in which one or two defense SOEs dominate an entire sector. This MCF system

also seeks to advance the PRC's self-reliance in manufacturing key industrial technologies, equipment, and materials to reduce its dependence on imports, including those with dual-uses. The PRC's MCF-influenced industrial and technology endeavors include *Made in China 2025,* which sets targets for the PRC to achieve greater self-sufficiency in key industrial areas such as aerospace, communications, and transportation.

The Military-Civil Coordinated Technology Innovation System. This MCF system seeks to maximize the full benefits and potential of the country's S&T development. Consistent with the CCP leadership's view that high technology and innovation are critical to strengthening China's comprehensive national power, this system develops and integrates advanced technologies across civilian and military entities, projects, and initiatives—with benefits flowing in both directions. This includes using cutting-edge civilian technology for military applications or to more broadly advance military S&T as well as using military advancements to push civilian economic development. Although related to the Advanced Defense Science, Technology, and Industrial System, this system largely focuses on fusing innovations and advances in basic and applied research. Specific efforts in this MCF system include strengthening and promoting civilian and military R&D in advanced dual-use technologies and cross-pollinating military and civilian basic research. Additional efforts include promoting the sharing of scientific resources, expanding the institutions involved in defense research, and fostering greater collaboration across defense and civilian research communities. This system also seeks to foster "new-type" research institutions with mixed funding sources and lean management structures that are more dynamic, efficient, and effective than the PRC's wholly state-owned research bodies. Examples of MCF-influenced dual-use S&T endeavors include the PRC's Innovation Driven Development Strategy and Artificial Intelligence National Project.

The Fundamental Domain Resource Sharing System. This system includes building military requirements into the construction of civilian infrastructure from the ground up as well as leveraging China's civilian construction and logistics capacities and capabilities for military purposes. This includes factoring military requirements and dual-use purposes into building civilian private and public transportation infrastructure such as airports, port facilities, railways, roads, and communications networks. This also extends to infrastructure projects in dual-use domains such as space and undersea as well as mobile communications networks and topographical and meteorological systems. Another element seeks to set common military and civilian standards to make infrastructure easier to use in emergencies and wartime. This aspect of MCF has arguably the greatest reach into the PRC's local governance systems as military requirements inform infrastructure construction at the province, county, and township levels. The influence of this aspect of MCF is visible in the PRC's major land reclamations and military construction activities in the SCS, which brought together numerous government entities, the PLA, law enforcement, construction companies, and commercial entities. It may also have important implications for the PRC's overseas infrastructure projects and investments under BRI as the PRC seeks to establish a more robust overseas logistics and basing infrastructure to allow the PLA to project and sustain military power.

The Military Personnel (Talent) Cultivation System. This MCF system seeks to blend and cultivate military and civilian S&T expertise through education programs, personnel exchanges, and knowledge sharing. The purpose of this effort is to improve the utilization of experts able to participate in S&T projects irrespective of whether they are military or civilian (or even foreign) experts and allow expertise to flow more freely across sectors. This aspect of MCF also seeks to reform the PRC's talent cultivation system, which encompasses hundreds of talent recruitment plans, in order to improve China's human capital, build a highly skilled workforce, and recruit foreign experts to provide access to know-how, expertise, and foreign technology. It takes into account all levels of education from the Party's nationwide "patriotic education" programs for children to the matriculation of post-doctorate researchers within China and at institutions abroad. Many of the PRC's named talents programs are likely influenced by MCF planning, as are reforms in its military academies, national universities, and research institutes.

The Socialized Support and Sustainment System for the PLA. This system entails two major efforts that seeks to shift the PLA away from its inefficient self-contained logistics and sustainment systems and towards modern streamlined logistics and support services. First, it seeks to harness civilian public sector and private sector resources to improve the PLA's basic services and support functions—ranging from food, housing, and healthcare services. The concept is to gain efficiencies in costs and personnel by outsourcing non-military services previously performed by the PLA while also improving the quality of life for military personnel. Second, it seeks to further the construction of a modern military logistics system that is able to support and sustain the PLA in joint operations and for overseas operations. This system seeks to fuse the PLA Joint Logistic Support Force's (JLSF's) efforts to integrate the military's joint logistics functions with the PRC's advanced civilian logistics, infrastructure, and delivery service companies and networks. These arrangements seek to provide the PLA with modern transportation and distribution, warehousing, information sharing, and other types of support in peacetime and wartime. This fusion also seeks to provide the PLA with a logistics system that is more efficient, higher capacity, higher quality, and global in reach.

The National Defense Mobilization System. This MCF system binds the other systems as it seeks to mobilize the PRC's military, economic, and social resources to defend or advance China's sovereignty, security and development interests. The Party views China's growing strength as only useful to the extent that the party-state can mobilize it. China characterizes mobilization as the ability to precisely use the instrument, capability, or resource needed, when needed, for the duration needed. Within the PLA, 2015-16 reforms elevated defense mobilization to a department called the National Defense Mobilization Department (NDMD), which reports directly to the CMC. The NDMD plays an important role in this system by organizing and overseeing the PLA's reserve forces, militia, and provincial military districts and below. This system also seeks to integrate the state emergency management system into the national defense mobilization system in order to achieve a coordinated military-civilian response during a crisis. Consistent with the Party's view of international competition, many MCF mobilization initiatives not only seek to reform how the PRC mobilizes for war and responds to emergencies, but how the economy and society can be leveraged to support the PRC's strategic needs for international competition.

MCF Linkages. Each MCF system entails linkages between dozens of organizations and government entities, including:

- *Ministry-level organizations from the State Council:* Examples include the National Development and Reform Commission, Ministry of Foreign Affairs, Ministry of Industry and Information Technology, Ministry of Education, and key state entities such as the State Administration of Science and Technology in National Defense and others.

- *Lead military organs subordinate to the Central Military Commission*: CMC Strategic Planning Office, Joint Political, Logistics, and Equipment Development Departments, as well as operational units and the regional military structure at the Military District and Sub-District levels; military universities and academies such as National Defense University, Academy of Military Science, National University of Defense Technology, and service institutions.

- *State-sponsored educational institutions, research centers, and key laboratories*: Prominent examples include the "Seven Sons of National Defense" (Harbin Institute of Technology, Nanjing University of Science and Technology, Northwestern Polytechnical Institute, Beijing Institute of Technology, Harbin Engineering University, Beihang University, Nanjing University of Aeronautics and Astronautics), as well as certain PLA-affiliated laboratories of Tsinghua University, Beijing University, and Shanghai Jiaotong University, North University of China, and others.

- *Defense industry*: The ten major defense SOEs continue to fill their traditional roles providing weapons and equipment to the military services. Many defense SOEs consist of dozens of subsidiaries, sub-contractors, and subordinate research institutes.

- *Other SOEs and quasi-private companies*: High profile examples include PRC high-tech corporations and important SOEs like COSCO, China National Offshore Oil Company, and major construction companies that have roles in BRI projects as well as helping the PRC build out occupied terrain features in the SCS.

- *Private companies:* MCF efforts also seek to increase the proportion of private companies that contribute to military projects and procurements. These enterprises include technology companies that specialize in unmanned systems, robotics, artificial intelligence, cybersecurity, and big data.

- *Multi-stakeholder partnerships*: In practice, many MCF efforts involve partnerships between central, provincial, or city government entities with military district departments, PLA departments, academia, research entities, and companies. A majority of provincial and local governments have announced MCF industrial plans, and more than 35 national-level MCF industrial zones have been established across China. MCF-linked investments funds created by central and local governments and private investors total in the tens of billions of dollars.

DEFENSE POLICY AND MILITARY STRATEGY

Key Takeaways

- In 2022, the PRC's stated defense policy aims remained oriented toward safeguarding its sovereignty, security, and development interests, while emphasizing a greater global role for itself. The PRC's military strategy remains based on the concept of "active defense (积极防御)."

- PRC leaders stress the imperative of strengthening the PLA into a "world-class" military by the end of 2049 as an essential element of its strategy to rejuvenate the PRC into a "great modern socialist country." In response to perceived personnel deficiencies within the PLA, Xi approved and issued a new series of regulations in July 2022 on the management of PLA soldiers seeking to improve recruiting, training, promotions, benefits, and demobilization efforts for non-commissioned officers (NCOs).

- CCP leaders increasingly cast the armed forces as a practical instrument to defend the PRC's expanding global interests and to advance its foreign policy goals within the framework of "Great Power Diplomacy with Chinese Characteristics."

- Xi secured his third term as the general secretary of China's Communist Party at the Party Congress in October 2022 and his appointment of loyalists to top positions in the CMC probably will enable Xi to expand upon military modernization and operational goals during his next 5-year term. In his speech at the 20th Party Congress, Xi detailed PLA goals of enhancing party loyalty in the military, while simultaneously strengthening the military through reform, science and technology, personnel training, mechanization, informatization, and modernized military strategies.

- In 2020, the PLA added a new milestone for modernization in 2027, to accelerate the integrated development of mechanization, informatization, and intelligentization of the PRC's armed forces, which, if realized, could give the PLA capabilities to be a more credible military tool for the CCP's Taiwan unification efforts. During his October 2022 speech at the opening ceremony of the 20th Party Congress, Xi stated that China intends to complete the plan to modernize the PLA by 2027.

- In 2021, the PLA began discussing a new "core operational concept," called "Multi-Domain Precision Warfare (多域精确战)" (MDPW). MDPW is intended to leverage a C4ISR network that incorporates advances in big data and artificial intelligence, what the PLA calls the "network information system-of-systems," to rapidly identify key vulnerabilities in the U.S. operational system and then combine joint forces across domains to launch precision strikes against those vulnerabilities. The PLA's official newspaper continued to emphasize the importance developing MDPW in 2022, citing "several informatized local wars" as evidence for the need for MDPW capabilities.

- COVID-19 mitigation measures and multiple outbreaks throughout 2022 probably did not significantly impact PLA combat readiness, judging from the PLA's December 2022 skirmishes with Indian forces near Tawang along the LAC and other deployments. While some non-combat programs like the PLA's annual spring recruitment program were delayed, the PLA's mitigation efforts probably were successful in limiting COVID-19 outbreaks within China's military.

The PRC has stated its defense policy aims to safeguard its national sovereignty, security, and development interests. CCP leaders view these interests as foundational to their national strategy. The modernization of the armed forces is an indispensable element of the Party's national strategy to modernize the country. At the Fifth Plenum in October 2020, the CCP declared the PRC's ambitions for becoming a rich country are closely integrated with its ambitions to develop a powerful military. The PRC's defense policy and military strategy primarily orients the PLA toward "safeguarding" its perceived "sovereignty and security" interests in the region while countering to the United States. At the same time, CCP leaders increasingly cast the armed forces as a practical instrument to defend the PRC's expanding global interests and to advance its foreign policy goals within the framework of "Great Power Diplomacy with Chinese Characteristics."

Xi's work report to the 20th Party Congress in October 2022 said that the People's Liberation Army must move quicker with troop training and new strategies to reach its target of becoming a world-class military. The PRC's military strategy is based on "active defense," a concept that adopts the principles of strategic defense in combination with offensive action at the operational and tactical levels. To adapt the PRC's armed forces to long-term trends in global military affairs and meet the country's evolving national security needs, PRC leaders stress the imperative of meeting key military transformation targets set for 2027 and 2035. These milestones seek to align the PLA's transformation with the PRC's overall national modernization so that by the end of 2049, the PRC will field a "world-class" military.

Strategic Assessment. A key driver of the PRC's defense policy is how the CCP leaders perceive the relative threats and opportunities facing the country's comprehensive national development. During Chairman Xi's CCP centenary speech, he called for the full implementation of the Party's idea of strengthening the army in the new era. The last defense white paper, *China's National Defense in the New Era*, published in 2019, reaffirmed that China's armed forces are aligned with and contribute to the strategies of the CCP, stating that ongoing military reforms "ensure absolute leadership of the CCP over the military." According to the paper, Beijing views the international environment as undergoing "profound changes unseen in a century." The CCP concludes that "international strategic competition is on the rise" and expresses deep concerns at what it sees as growing sources of instability in the near-term. Beijing offers no introspection on its role in stirring geopolitical tensions through its economic practices, military activities and modernization, excessive maritime territorial claims, assertive diplomacy, or efforts to revise aspects of global governance. Rather, the PRC describes the international system as being "…undermined by growing hegemonism, power politics, unilateralism and constant regional conflicts and wars." Similarly, the PRC contends that global military competition is intensifying and that "major

countries" are adjusting their security and military strategies, reorganizing their militaries, and are developing new types of combat forces to "seize the strategic commanding heights in military competition."

Defense Policy. The PRC's stated defense policy is to "resolutely safeguard" its sovereignty, security, and development interests, according to its 2019 defense white paper, which provides continuity with past statements by PRC senior leaders and other official documents. Xi's work report to the 20th Party Congress reiterated this policy, saying that fast modernization of the PLA's organization, personnel, and military technology standards, under the absolute leadership of the party, would be key not only to defending China's sovereignty but also its security and developmental interests. In practice, the PRC's military power is increasingly a central feature of the CCP's regional and global ambitions. The 2019 defense white paper also identifies the PRC's national defense aims that support these interests, in likely order of importance:

- to deter and resist aggression;
- to safeguard national political security, the people's security, and social stability;
- to oppose and contain "Taiwan independence;"
- to crack down on proponents of separatist movements such as "Tibet independence" and the creation of "East Turkistan;"
- to safeguard national sovereignty, unity, territorial integrity, and security;
- to safeguard the PRC's maritime rights and interests;
- to safeguard the PRC's security interests in outer space, the electromagnetic spectrum, and cyberspace;
- to safeguard the PRC's overseas interests; and
- to support the sustainable development of the country.

Key changes in defense policy for the "New Era" include efforts to improve coordination across the party-state to leverage all organs of national power in a unified approach to support the CCP's ambitions of a global military capability. Unlike previous defense white papers, *China's National Defense in the New Era* explicitly stressed the PRC's armed forces' alignment and support to the Party's broader societal and foreign policy objectives. For example, the white paper states that the PRC's armed forces must be ready to "provide strong strategic support for the realization of the Chinese Dream of national rejuvenation, and to make new and greater contributions to the building of a shared future for mankind." Also notable is the explicit alignment between the PRC's defense and foreign policies, particularly in the armed forces' role in protecting the PRC's overseas interests and furthering the CCP's concept of "strategic partnerships" with other countries.

Military Strategic Guidelines (军事战略方针). The Chairman of the CMC issues military strategic guidelines to the PLA that provide the foundation of the PRC's military strategy. The military strategic guidelines set the general principles and concepts for the use of force in support of the CCP's strategic objectives, provide guidance on the threats and conditions the armed forces should be prepared to face, and set priorities for planning, modernization, force structure, and readiness. The CCP leadership issues new military strategic guidelines, or adjusts existing guidelines, whenever they perceive it necessary to shift the PLA's priorities based on the Party's perceptions of China's security environment or changes in the character of warfare.

Since 2019, trends indicate the PRC has reviewed and adjusted its military strategic guidelines. In early 2019, PRC state media indicated that Beijing held senior-level meetings to "establish the military strategy of the 'New Era.'" The PRC's 2019 defense white paper states that the PLA is implementing guidelines for the "New Era" that, "…actively adapt to the new landscape of strategic competition, the new demands of national security, and new developments in modern warfare…" PRC official media in the latter half of 2019 echoed these themes and described the guidelines as constituting a notable change. The PRC's defense white paper may reflect changes in the guidelines given its emphasis on the intensification of global military competition, the increase in the pace of technological change, and the military modernization themes introduced by General Secretary Xi at the 19th Party Congress. Documents released following the Fifth Plenum of the 19th Central Committee in October 2020 hailed progress in the "comprehensive and in-depth" implementation of the "New Era military strategic guidelines."

These developments are notable because the CCP leadership has issued new military strategic guidelines or adjusted its guidelines only a few times since the end of the Cold War. In 1993, the CMC under Jiang Zemin directed the PLA to prepare to win "local wars" under "high-tech conditions" after observing U.S. military operations in the Gulf War. In 2004, the CMC under Hu Jintao ordered the military to focus on winning "local wars under informationized conditions." In 2014, the CMC placed greater focus on conflicts in the maritime domain and fighting "informatized local wars."

Military Strategy—Active Defense. The PRC's military strategy is based on what it describes as "active defense," a concept that adopts the principles of strategic defense in combination with offensive action at the operational and tactical levels. Active defense is neither a purely defensive strategy nor limited to territorial defense. Active defense encompasses offensive and preemptive aspects. It can apply to the PRC acting externally to defend its interests. Active defense is rooted on the principle of avoiding initiating armed conflict but responding forcefully if challenged. The PRC's 2019 defense white paper reaffirmed active defense as the basis for its military strategy. Minister of National Defense General Wei Fenghe reiterated this principle of active defense in his speech at the Ninth Beijing Xiangshan Forum in 2019, stating that the PRC "will not attack unless we are attacked, but will surely counterattack if attacked."

First adopted by the CCP in the 1930s, active defense has served as the basis for the PRC's military strategy since its founding in 1949. Although the PRC has adjusted and tailored the specifics of

active defense over time based on changes in strategic circumstances, its general principles have remained consistent. Contemporary PRC writings describe the tenets of active defense as:

- *Adhere to a position of self-defense and stay with striking back*. This describes the basic principle for the use of military force under active defense. The PRC's 2019 defense white paper describes this principle as, "We will not attack unless we are attacked, but we will surely counterattack if attacked." Active defense may entail defensive counterattacks in response to an attack or preemptively striking an adversary that the PRC judges is preparing to attack.

- *Combine strategic defense with operational and tactical offense*. This aspect offers two approaches to warfare influenced by Mao Zedong's notion of using defense and offense in turns. First, active defense may involve offensive campaigns, operations, and tactical actions in support of the strategic defense. These may occur rapidly and along "external lines." Second, it uses strategic defense to weaken the enemy and set the conditions to transition into strategic offense in order to secure victory. Strategic defense is not equivalent to deterrence but includes deterrence. Strategic defense also includes actions taken after deterrence has failed, such as conducting conventional strikes against an adversary.

- *Taking the operational initiative*. This aspect emphasizes the effective use of offensives at the operational and tactical levels, avoiding enemy strengths, and concentrating on building asymmetric advantages against enemy weaknesses to "change what is inferior into what is superior."

- *Strive for the best possibilities*. This calls for thorough peacetime military preparations and planning based on fighting the most challenging threat under the most complicated circumstances "in order to get the best results." This aspect stresses the importance of setting conditions in advance and suggests it is preferable to be prepared and not fight, than to fight unprepared.

- *The dialectical unity of restraining war and winning war*. This tenet seeks to resolve the dilemma that using too little force may protract a war instead of stopping it while the unconstrained use of force may worsen a war and make it harder to stop. Calling for the "effective restraint of warfare," this tenet seeks to avoid war first through sufficient military preparations and powerful conventional and strategic forces that act in concert with political and diplomatic efforts to "subdue the enemy's troops without fighting." If war is unavoidable, however, this aspect calls for restraining war by taking the "opening move" and "using war to stop war."

- *Soldiers and the people are the source of victory*. This integrates the concept of active defense with the concept of "people's war." People's war comprises subordinate military strategies, "guerrilla war" and "protracted war" that Mao saw as a means to harness the capacity of China's populace as a source of political legitimacy and mobilization to generate military power. Contemporary PRC writings link "people's war" to national mobilization and participation in wartime as a whole-of-nation concept of warfare.

Military Missions and Tasks. The CMC directs the PLA to be ready and able to perform specific missions and tasks to support the Party's strategy and defend the PRC's sovereignty, security, and development interests. The PLA's missions and tasks in the "New Era" include safeguarding China's territorial sovereignty and maritime rights and interests, maintaining combat readiness, conducting military training under real combat conditions, safeguarding China's nuclear weapons and its interests in the space and cyberspace domains, countering terrorism and maintaining stability, protecting the PRC's overseas interests, and participating in emergency response and disaster relief.

Modernization Objectives and Targets. In his speech at the 20th Party Congress, Xi detailed PLA goals of enhancing party loyalty in the military, while simultaneously strengthening the military through reform, science and technology, personnel training, mechanization, informatization, and modernized military strategies.

In 2020, the PLA added a new milestone for modernization in 2027, to accelerate the integrated development of mechanization, informatization, and intelligentization of the PRC's armed forces, which if realized could give the PLA capabilities to be a more credible military tool for the CCP's Taiwan unification efforts. The PLA's 2027 modernization goal aligns with the 100th anniversary of the PLA's founding. During his October 2022 speech at the opening ceremony of the 20th Party Congress, Xi said that China intends to complete the plan to modernize the PLA by 2027. In a March 2021 speech, Xi detailed that the 2027 modernization goal is the first step in a broader modernization effort. PLA writings note the "three-step" modernization plan connects "near-, medium-, and long-term goals in 2027, 2035, and 2049" respectively.

The PRC's goals for modernizing its armed forces in the "New Era" are as follows:

- **By 2027**: "Accelerate the integrated development of mechanization, informatization, and intelligentization," while boosting the speed of modernization in military theories, organizations, personnel, and weapons and equipment.
- **By 2035**: "To comprehensively advance the modernization of military theory, organizational structure, military personnel, and weaponry and equipment in step with the modernization of the country and basically complete the modernization of national defense and the military…"
- **By 2049**: "To fully transform the people's armed forces into world-class forces."

The 5th Plenum communique holds that the 2027 goal means that the Chinese military should comprehensively push forward the modernization of military theories, military organizational form, military personnel, and weapons and equipment. PRC media, citing a military source, connected the PLA's 2027 goals to developing the capabilities to counter the U.S. military in the Indo-Pacific region, and compel Taiwan's leadership to the negotiation table on the PRC's terms.

Although China's leaders view building military strength as a strategic imperative, they also place important caveats on these objectives. For example, Chairman Xi's direction to the PLA to

"basically complete" modernization by 2035 should also occur "in step with the modernization of the country." These qualifications serve several purposes that highlight the interlocking nature of the Party's strategic planning. First, as the PRC's interests continue to expand, the Party expects the PLA to keep pace with the country's evolving interests and be ready and able to defend its progress. Second, linking the PLA's transformation to the country's transformation allows Party leaders to signal the scope and scale of the internal changes they expect the PLA to implement, particularly given its historic resistance to reforms that challenge its risk-adverse organizational culture or threaten vested bureaucratic interests. Finally, these qualifications provide flexibility to the Party's leaders to calibrate military resources and defense objectives based on the conditions of the country's overall development. This offers PRC leaders the ability to adapt to changing economic or international conditions and ensure military investments support—rather than compromise—the strategy.

Military Ambitions. The CCP has not defined what it means by its ambition to have a "world-class" military by the end of 2049. Within the context of China's national strategy, however, it is likely that the PRC will seek to develop a military by mid-century that is equal to—or, in some cases, superior to—the U.S. military, and that of any other great power that Beijing views as a threat to its sovereignty, security, and development interests. Given the far-reaching ambitions the CCP has for a rejuvenated China, it is unlikely that the Party would aim for an end state in which the PRC would remain in a position of military inferiority vis-à-vis the United States or any other potential rival. For the PRC to aim lower or otherwise willingly accept a permanent condition of military inferiority would seem anathema to the fundamental purpose of becoming a "great modern socialist country." However, this does not mean that the PRC will aim for the PLA to mirror the U.S. military in terms of capacity, capability, or readiness. The PRC will likely seek to develop its "world-class" military in a manner that it believes best suits the needs of its armed forces to defend and advance the country's interests and how the PLA—guided by the Party—adapts to the changing character of warfare.

Way of War. The PLA increasingly views warfare as a confrontation between opposing operational systems, rather than a war of annihilation between opposing mechanized military forces. Following this logic, PLA writings refer to systems destruction warfare (体系破击战) as the next way of war, transforming from mechanized warfare to an informatized and intelligentized style warfare. Although not a new PLA approach, systems destruction warfare likely continues to be the principal theory guiding its way of war.

In November 2020, the CMC announced that it had issued the "Chinese People's Liberation Army Joint Operations Outline (Trial)." The Outline establishes a system for the PLA's joint operations and focuses on clarifying basic issues regarding the organization and implementation of joint operations, command rights and responsibilities, and the principles, requirements, and procedures for joint operations, combat support, national defense mobilization, and political work. According to PLA writings, the Outline describes how the future combat style of the PLA will be integrated joint operations under the unified command of a joint operations command system. PLA writers emphasized that winning future wars would require a high degree of joint integration of various

combat forces and combat elements from across the PLA services and other arms and across all domains, with jointness deepened at the operational and tactical levels. PLA writings highlight the multi-domain component of integrated joint operations and the need to coordinate the development of "mechanization, informatization, and intelligentization integration." The PLA's "operational regulations" were last updated in 1999 and PLA leaders and PLA-affiliated academics have pointed to the lack of updated doctrine, which is out of step with the 2015-era structural command and organizational reforms, and an obstacle to advancing the next steps in building a unified joint PLA.

Since the CMC issued the Outline, the PLA has launched a force-wide effort to study and implement it, including through joint operations undertaken during exercises. The PLA is working to turn the Outline's vision of joint operations into reality by breaking down institutional barriers and standardizing command systems in practice. Along the way, the PLA seeks to identify shortcoming develop solutions and facilitate the adoption of modern operational concepts.

Core Operational Concept. In 2021, the PLA began discussing a new "core operational concept," called "Multi-Domain Precision Warfare (多域精确战)" (MDPW). MDPW is intended to leverage a C4ISR network that incorporates advances in big data and artificial intelligence, what the PLA calls the "network information system-of-systems," to rapidly identify key vulnerabilities in the U.S. operational system and then combine joint forces across domains to launch precision strikes against those vulnerabilities. MDPW is meant to sit atop an "operational conceptual system-of-systems," suggesting the PLA will develop additional subordinate operational concepts and use simulations, war games, and exercises to test, evaluate, and improve these future-oriented operational concepts. The timing of MDPW's appearance vis-à-vis China's updated doctrine and military strategic guidelines suggests that MDPW serves as a connection between them, likely amplifying themes and guidance in both while focusing on the contours of what the PLA must be able to do to win future wars.

Joint Firepower Strike. PLA writings have long emphasized the importance of joint firepower strikes as a component of large-scale operations. Joint firepower strikes include multiple services combining to utilize their firepower capabilities to create substantial effect and have been explicitly tied to a Taiwan invasion in PLA writings. During the August 2022 Congressional Delegation (CODEL) visit to Taiwan, the PLA Rocket Force fired multiple ballistic missiles into impact zones in waters around Taiwan; this included at least four missiles that overflew Taiwan, which was unprecedented. The military drills afforded the PLA an opportunity to train simulated joint firepower strike operations.

Readiness. Alongside modernizing the PLA's capabilities and organizational reform, PRC's leaders have identified enhancing the combat readiness of the armed forces as an important element in developing the PRC's military strength. In recent years, Xi and senior military leaders have continued to emphasize the need to build the PLA's combat readiness so it can "fight and win wars." This emphasis has not only entailed the PLA conducting more training but making its training more rigorous and realistic as well as addressing issues in the PLA's training and

education systems relating to conducting complex joint operations and adapting to other aspects of modern warfare. It probably has also led to a standardization of a combat readiness system across the PLA to enable the PRC to quickly transition to a wartime footing.

Along with the CCP leadership's focus on improving the PLA's combat readiness, in recent years PLA media outlets have noted shortcomings in the military's training and education systems that reportedly left some commanders—particularly at the operational level—inadequately prepared for modern warfare. In response to perceived personnel deficiencies within the PLA, Xi approved and issued a new series of regulations in July 2022 regarding the management of PLA soldiers seeking to improve recruiting, training, promotions, benefits, and demobilization efforts for NCOs. In recent years, PLA media outlets have identified the need for the military to address the "Five Incapables" problem: that some commanders cannot (1) judge situations, (2) understand higher authorities' intentions, (3) make operational decisions, (4) deploy forces, and (5) manage unexpected situations. Although PLA writings do not specify how widespread the "Five Incapables" are, PLA media outlets have consistently raised them. One outside expert has noted this may indicate the PLA lacks confidence in its proficiency to execute its own operational concepts. Additionally, senior Party and PLA leaders are keenly aware that the military has not experienced combat in decades nor fought with its current suite of capabilities and organizational structures. PLA leaders and state media frequently call on the force to remedy the "peacetime disease" that manifests in the form of what it characterizes as lax training attitudes and practices that are viewed as hindering combat readiness.

COVID-19 mitigation measures and multiple outbreaks throughout 2022 probably did not significantly undermine PLA combat readiness, judging from the PLA's December 2022 skirmishes with Indian forces near Tawang along the LAC, and other deployments. Although some non-combat programs like the PLA's annual spring recruitment program were delayed, the PLA's mitigation efforts probably were successful in limiting COVID-19 outbreaks within China's military.

Anti-Corruption Campaign. Anticorruption investigations in the PLA are a component of a Party-wide effort that General Secretary Xi strengthened and accelerated shortly after taking office. The stated goal of these campaigns is to safeguard the legitimacy of the CCP, root out corruption, improve governance, and centralize Xi and the Party's authority. Military discipline inspectors led by the CMC Discipline Inspection Commission have targeted individual power networks and occupational specialties historically prone to corruption, such as officers connected to disgraced former CMC Vice Chairmen Xu Caihou and Guo Boxiong and, former Chief of Joint Staff General Fang Fenghui. In 2022, General Secretary Xi delivered a speech to the CCP Central Commission for Discipline Inspection in which he stated that although serious potential dangers of corruption within the Party and the military have been rooted out, the fight against corruption is still raging in the PRC. In mid-2023, PRC media announced that PLA Rocket Force leadership was being replaced and the PLA launched an inquiry into corruption linked to the procurement of military equipment, indicating that the PLA's anti-corruption campaign remains incomplete. Emblematic of Xi's sustained focus on anti-corruption efforts in 2022, PRC authorities continued

frequent arrests of high-ranking officials and business elites for allegations of taking bribes and abusing power, especially in the financial sector. In November 2022 alone, PRC authorities arrested the Vice Governor of the People's Bank of China and former CEO of a major PRC telecommunications firm as a result of investigations by CCP anti-corruption bodies.

Effects of COVID-19 on PLA Modernization and Reform Goals. In 2022, the COVID-19 pandemic likely had little effect on the PLA's modernization and reform goals. At the 20th Party Congress in October, Xi continued to emphasize promoting the modernization of China's national defense and armed forces. A few months later, in his annual new year's address, Xi highlighted military and strategic achievements from 2022 including the PLA's 95th anniversary, the launching of the PLAN's third aircraft carrier, and the completion of China's space station. In 2022, the PLA continued to play a role in COVID-19 response activity, such as mobilizing approximately 2,000 medical personnel to Shanghai during an outbreak in April. The PRC's recent Government Work Report referenced PLA activities through the last year, including COVID-19 response that boosted China's national defense mobilization capability.

Party-Army Relations. The PLA is the principal armed wing of the CCP and, as a Party-army, does not directly serve the state but rather is under the direct control of the Party. The CCP CMC, currently chaired by Xi, is the highest military decision-making body in the PRC. As a Party-army, the PLA is a political actor. As a constituency within the Party, it participates in the PRC's political and governance systems. As the ultimate guarantor of the Party's rule and the PRC's government system, the PLA's missions include formal and informal domestic security missions in addition to its national defense missions. Since becoming CMC Chairman, Xi has implemented multiple reforms which reduced PLA autonomy and greatly strengthened Party control over the military. Party leaders and official statements continue to emphasize the principles of the Party's absolute control over the PLA and the PLA's loyalty to the Party.

CHINA'S MILITARY LEADERSHIP

As the military's highest decision-making body, the CMC is technically also a department of the CCP Central Committee. The CMC Chairman is a civilian, usually serving concurrently as the General Secretary of the CCP and President of the PRC. CMC members are appointed at Party Congresses every five years. In the fall of 2022 at the 20th Party Congress, General Zhang Youxia ascended to the first Vice Chairman position, joined by General He Weidong as the second Vice Chairman. Other CMC members include General Li Shangfu, General Liu Zhenli, and returning members Admiral Miao Hua and General Zhang Shengmin. In 2022, the CMC consisted of two vice chairs, the Minister of National Defense, the chiefs of the Joint Staff and Political Work Departments, and the head of the Discipline Inspection Commission.

Chairman Xi Jinping concurrently serves as the CCP General Secretary, CMC Chairman, and President of the PRC. Xi was first appointed as Party General Secretary and CMC Chairman in 2012 and as President in the spring of 2013. Xi was reappointed to all of his positions for an unprecedented third term at 2022's 20th Party Congress and the 2023 National People's Congress.

In 2016, Xi was announced as the commander-in-chief of the CMC's Joint Operations Command Center (JOCC) and was named "core" leader of the CCP Central Committee. Prior to becoming CMC Chairman, Xi served as the CMC's only civilian Vice Chairman under Hu Jintao. Xi's father was an important military figure during China's communist revolution and was a Politburo member in the 1980s. Xi also served as an aide to a defense minister early in his career and had regular interactions with the PLA as a provincial Party official.

Vice Chairman General Zhang Youxia is China's top uniformed official and former junior vice chairman. Zhang was first appointed to the CMC in 2012 as the head of the General Armaments Department – now the Equipment Development Department (EDD) – where he oversaw the PLA's manned space program, as well as MCF and military modernization efforts. Zhang gained rare experience as a combat commander during China's brief war with Vietnam in 1979. Zhang formerly commanded the Shenyang Military Region, which shares a border with North Korea and Russia. Zhang is one of the PLA's "princelings." His father, a well-known military figure in China, served with Xi's father at the close of Chinese Civil War in 1949. Zhang, at age 72 in 2022, was expected to retire due to previously followed age norms within the PLA. However, Zhang's retention on the CMC for a third term probably reflects Xi's desire to keep a close and experienced ally as his top military advisor.

Vice Chairman General He Weidong is China's second-most senior officer and a former commander of the PLA's Eastern Theater. His ascent to a vice chairman position absent prior CMC membership is unusual and probably a testament to his extensive operational experience focused on Taiwan. Before his selection as vice chairman, He served a brief stint in the CMC JOCC where he played a key role in planning live-fire drills in the Taiwan Strait as part of the PLA response to the then-U.S. House Speaker Pelosi's August 2022 visit to Taipei. He may have close ties to Xi due to their overlapping service in Fujian and Zhejiang provinces in the late 1990s and early 2000s.

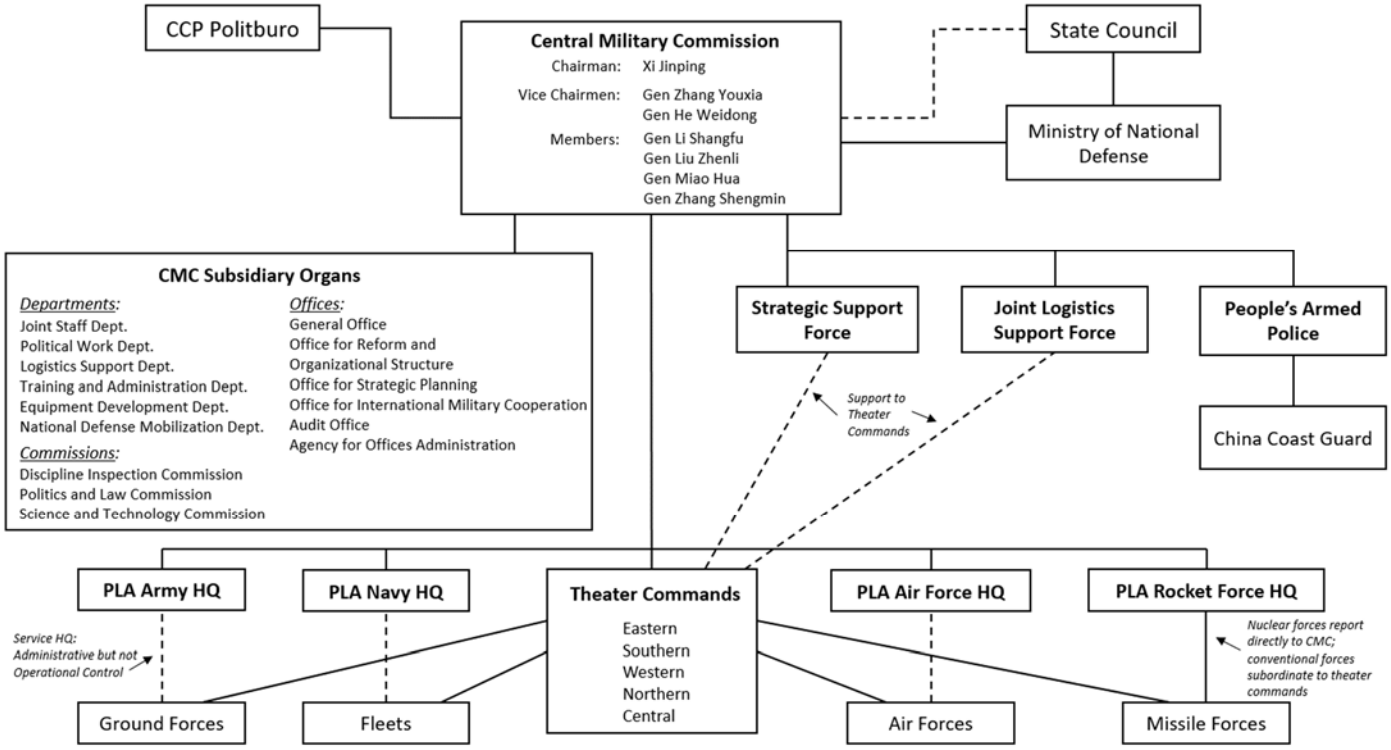
Minister of National Defense General Li Shangfu was appointed to the CMC at the 20th Party Congress in October 2022, and as the Minister of National Defense at the NPC in March 2023. Li is the PLA's third-most senior officer and manages its relationship with state bureaucracies and foreign militaries. Unlike the U.S. Secretary of Defense, he is not part of the chain of command and his primary policy influence is derived from membership on the CMC and State Council, where he serves as a direct liaison for civil-military integration, defense mobilization, and budgeting. Li previously headed the EDD where he managed the PLA's weapons development and acquisition efforts and China's manned space program. In 2018, Li was sanctioned by the United States for his role as EDD director overseeing the purchase of Russian fighter jets and surface-to-air missile systems.

Joint Staff Department Chief General Liu Zhenli oversees PLA joint operations, a narrowing of the wider responsibilities held by the former General Staff Department prior to reforms initiated in 2015. Liu is one of few remaining active-duty PLA officers with combat experience and is recognized as a combat hero for his service in China's border war with Vietnam. Like his

predecessor Li Zuocheng, Liu rose through the ranks of the PLA Army HQ, assuming command of the service in 2021. Beginning in 2015 as Army chief of staff, Liu guided the service through a major period of reform which saw the ground force downgraded to an equal standing with the other branches. Liu, at age 58 in 2022, is the youngest CMC member and is eligible to remain on the CMC for at least an additional term.

Political Work Department Director Admiral Miao Hua oversees the PLA's political work, including propaganda, organization, and education. Miao is a former Army officer who switched services to the Navy in December 2014 when he became political commissar of the PLAN. Miao may have ties to Xi from his time serving in the 31st Group Army in Fujian Province, when his career overlapped with Xi's. Miao participated as the PLAN political commissar during the Navy's BRIcruise conducted in mid-2017. Miao Hua, at age 66 in 2022, remained on the CMC in his current position following the 20th Party Congress.

Secretary of the Discipline Inspection Commission General Zhang Shengmin oversees the highest-level organization responsible for investigating military violations of Party discipline, including corrupt practices. Zhang is also a deputy secretary and third-ranking member on the standing committee of the Party's Discipline Inspection Commission. Zhang's reappointment reflects the Party's continued commitment to the anticorruption campaign within the military. Zhang, at age 65 in 2022, remained on the CMC in his current position following the 20th Party Congress.



China's Military Leadership Organizational Chart

CHAPTER TWO: PLA FORCES, CAPABILITIES, AND POWER PROJECTION

KEY TAKEAWAYS

- The PLA has sought to modernize its capabilities and improve its proficiencies across all warfare domains so that, as a joint force, it can conduct the full range of land, air, and maritime as well as nuclear, space, counterspace, electronic warfare (EW), and cyberspace operations.
- The PLA's evolving capabilities and concepts continue to strengthen the PRC's ability to "fight and win wars" against a "strong enemy (强敌)" (a likely euphemism for the United States), counter an intervention by a third party in a conflict along the PRC's periphery, and project power globally.
- In 2022, the PLA continued to make progress implementing major structural reforms, fielding modern indigenous systems, building readiness, and strengthening its competency to conduct joint operations.

The PLA is the world's largest active-duty military force and comprised of approximately 2.185 million active, 1.17 million reserve, and 660,000 paramilitary personnel for a total force of 4 million. In efforts to create a leaner, more mobile force, the PLA Army (PLAA) has steadily reduced active-duty personnel in the last three decades but still outnumbers other services with roughly 1 million soldiers in 2022. The PLAN and PLA Air Force (PLAAF) have grown in size since 2015, indicating their increasing importance. By 2022, the PLAN Marine Corps expanded from two to six combined arms brigades and was supplemented with aviation and special forces units, with the intent of becoming increasingly capable of protecting China's overseas interests. The PLA Rocket Force (PLARF), formerly the Second Artillery, manages the PRC's land-based nuclear and conventional missile units. The Strategic Support Force (SSF) centralizes the PLA's strategic space, cyberspace, electronic warfare, information, communications, and psychological warfare missions and capabilities. Lastly, the JLSF handles quartermaster, transportation, medical services, and other logistic functions to enhance PLA's joint capabilities during peace and war.

DEVELOPMENTS IN THE PLA'S MODERNIZATION AND REFORM

The PRC maintains its goal to achieve a fully modernized national defense and military force by 2035 and for the PLA to become a world-class military by 2049. The force also progresses toward its 2027 benchmark of military modernization that aligns with the 100th anniversary of the PLA's founding on August 1, 1927. The 2027 benchmark, introduced during the 14th Five Year Plan

(2021-2025), represents the start of the new three-step development strategy that continues Xi's approach of military reform to transform the PLA. The original three-step modernization strategy sought to achieve mechanization by 2020; modernization of military theory, organization, personnel, and equipment by 2035; and to become a world-class force by mid-century. With basic mechanization considered achieved in 2020, the 2027 goal is a short-term marker and represents a modification, not a compression in timeline, for China's ambition to achieve complete military modernization of the PLA by 2035. The PLA centenary goal set by the CCP accelerates the integrated development of mechanization, informatization, and intelligentization and to field a combat-ready force with improved strategic capabilities to defend national sovereignty, security, and development interests by 2027.

PLA modernization in training includes realistic simulation and use of virtual reality and enhancing the military's strategic capacity. The PLA has a minimal reliance on imports and has the ability to independently manufacture and develop equipment comparable to the most advanced U.S. and Russian equipment, accelerating their ability to modernize. The CCP continues to prioritize modernizing PLA activities in near and distant battlefields by integrating system-vs-system operations featuring information dominance, precision strikes, and joint operations.

PEOPLE'S LIBERATION ARMY ARMY (PLAA)

Key Takeaways

- The PLAA continues to modernize equipment and focus on combined arms and joint training in effort to meet the goal of becoming a world-class military.
- The PLAA demonstrated a new long-range fire capability in the PLA military response to the August 2022 U.S. CODEL visit to Taiwan.
- The PLAA continues to incorporate a twice-a-year conscript intake. The long-term effects of the policy are not clear.

The PLAA has approximately 970,000 active-duty personnel in combat units and is the primary ground fighting force in the PLA. The 2020 National Defense University's Science of Military Strategy described the PLAA's development as a transition from a regional defense to a global combat force.

Force Structure and Organization. The PLAA continues to replace legacy equipment with newer systems. The major force restructuring required by the 2016 and 2017 PLA reforms is complete, but many units are still in the process of upgrading equipment.

The PLAA is organized into five Theater Army Commands, the Xinjiang Military District, and the Tibet Military District. The PLAA has 13 group armies, which are comprised of multiple combined-arms brigades that serve as the PLAA's primary maneuver force. The brigades vary in size and composition. The PLAA delineates its combined-arms brigades into three types: light

(high-mobility, mountain, air assault, and motorized), medium (wheeled armored vehicles), and heavy (tracked armored vehicles), with sizes ranging from approximately 4,500 to 5,000 personnel. Each group army controls six additional brigades responsible for operational element functions: an artillery brigade, an air defense brigade, an army aviation (or air assault) brigade, a special operations forces (SOF) brigade, an engineer and chemical defense brigade, and a sustainment brigade; however, some variations exist with at least one group army per theater separating their engineering and chemical defense brigades into separate units. Although the PLAA has standardized its group armies, it does retain a number of nonstandard divisions and brigades that exist outside of the group armies. These units are typically located in areas the CCP considers sensitive including Xinjiang, Tibet, Hong Kong, and Beijing. The PLAA also commands several border and coastal defense brigades under the Theater Army Commands and regiments under the Xinjiang and Tibet Military Districts.

Capabilities and Modernization. To meet the stated ambitions to become a world-class military, the PLAA continues systems modernization and combined arms and joint training. However, they still employ a mix of modern and legacy military equipment. The PLAA continues focusing training on fighting as combined arms formations while adapting to the twice-a-year conscript induction change.

The PLAA's 15 SOF brigades provide group army commanders with an organic unit capable of executing special operations. Typical PLAA SOF brigade missions include raids, harassment operations, target seizure and control, special reconnaissance, precision strike guidance, and rescue operations. The PLA continues to prioritize SOF for modernization with the fielding of the new QBZ-191 military service rifle and the CSK-series of vehicles. Observed SOF training in 2022 included airborne parachuting, small unit tactics and maritime operations.

PLAA Aviation and Air Assault units remained a focus of development in 2022. PLAA training events and reports in PRC media show that support to amphibious operations, multi-dimensional assaults, developing close air support tactics, and manned-unmanned teaming (MUM-T) are now a standard part of training. Training in 2022 also included numerous examples of helicopters executing nighttime flight operations, over water maneuver, and ultra-low altitude flying. PLAA Aviation works directly with ground units to enhance its ability to support air assault operations and conduct air strikes. Highlights from PLAA Aviation joint training in 2022 included army aviation helicopters continuing to train for operations with PLAN landing ships. 2022 saw the first observed evidence of PLAA helicopters being able to rearm and refuel onboard PLAN vessels along with continued progress towards maritime operations. The two PLAA Air Assault brigades continued extensive training on helicopter insertion, area security, and aerial reconnaissance. The PLAA envisions its Aviation and Air Assault units employing their three-dimensional maneuver, firepower, and assault capabilities to act as a main combat force, support a greater joint operation, or conduct non-war military operations outside China.

PLAA air defense units in 2022 concentrated on improving their tactical air defense against low and slow threats like Uncrewed Aerial Systems (UAS) and loitering munitions to meet evolving

air defense requirements. Hybrid self-propelled air defense artillery systems (SPADA), gun air defense artillery, small focused electronic warfare systems, and Man-Portable Air Defense Systems (MANPADS) form the core of the PRC's evolving solution to countering tactical UAS. One of the systems with high counter UAS potential being fielded to light combined arms brigades is armed with a six barreled 25mm rotary cannon, which possibly uses Programmable Timed Fuse Pre-Fragmented (PTFP) rounds, and also mounts four FN-16 MANPADS on its turret.

During 2022, the PLAA continued to emphasize the fielding and application of modern EW capabilities that are designed to maximize a unit's combat effectiveness by detecting and degrading/disrupting adversary command and control communications as well as complicating an adversary's use of tactical intelligence, surveillance, and reconnaissance (ISR) systems. Similar to the combined arms brigade's fielding of EW capabilities, the PLAA's air defense forces have rapidly fielded new counter-air electronic attack capabilities that will complement traditional air defense and support the PLA-wide anti-access, area-denial (A2AD) mission.

Readiness. In 2022, the PLAA continued to improve its methods and standards of training combined arms units. Training encompassed individual to collective soldier events integrating reconnaissance, infantry, artillery, armor, engineers, and signal units. In addition to continued PLAA deployments to the LAC on the Indian border, the PLAA conducted multiple "around the clock" large-scale exercises in training areas throughout the country to include joint operations in response to the U.S. and Taiwan actions in 2022.The PLAA used its new PCH191 long-range rocket artillery system during live fire events along China's east coast as a response to the U.S. CODEL in August 2022. The new long-range MRL is capable of striking Taiwan from mainland China.

In an effort to help develop a more professional military, adjustments were made to the recruitment and promotion of PLAA enlisted personnel. The changes aimed to accelerate the integrated development of mechanization, informatization, and intelligentization. To expand the pool of educated and technically proficient personnel for conscription, the recruitment age for university graduates increased from 24 to 26. The "4+X" service policy was also implemented for the NCO Corps, creating flexibility for intermediate- and senior-level NCOs by helping avoid unwanted demobilization if an NCO fails to meet promotion criteria after their 4-year contract.



Major Ground Units

PEOPLE'S LIBERATION ARMY NAVY (PLAN)

Key Takeaways

- The PRC has numerically the largest navy in the world with an overall battle force of over 370 ships and submarines, including more than 140 major surface combatants. The PLAN is largely composed of modern multi-mission ships and submarines.
- The PLAN commissioned its eighth RENHAI class cruiser in late 2022 and is continuing construction of the RENHAI Guided Missile Cruiser (CG), the LUYANG III MOD Guided Missile Destroyer (DDG), and the JIANGKAI II Guided Missile Frigate (FFG), as well as beginning production on a new class of frigate, the JIANGKAI III.
- In 2022, the PLAN commissioned its third YUSHEN-class Amphibious Assault Ships (LHA) and has likely begun construction on a fourth as of early 2023.
- In 2022, the PLAN launched its third aircraft carrier, CV-18 *Fujian*.
- In the near-term, the PLAN will have the ability to conduct long-range precision strikes against land targets from its submarine and surface combatants using land-attack cruise missiles, notably enhancing the PRC's power projection capability.
- The PRC continues to challenge foreign military activities in its EEZ in a manner that is inconsistent with the rules of customary international law as reflected in the United Nations Convention on the Law of the Sea. At the same time, the PLAN conducts activities in the EEZs of other countries, including the United States, Australia, Philippines, Vietnam, and Malaysia.

The PRC has numerically the largest navy in the world with an overall battle force of over 370 ships and submarines, including over 140 major surface combatants. The PLAN is largely composed of modern multi-mission ships and submarines. The PLAN commissioned its eighth RENHAI-class cruiser in late 2022 and continued construction of the RENHAI cruiser, LUYANG III MOD destroyer and the JIANGKAI II-class frigate as well as beginning production of the JIANGKAI III-class frigate. The PLAN commissioned its second YUSHEN-class amphibious assault ship (TYPE 075 LHA) in December 2021 and the third in October 2022 with the first ship in the class achieving initial operating capability (IOC) in March 2022. Construction on a fourth YUSHEN-class LHA likely began in early 2023. In June 2022, the PLAN launched its third aircraft carrier, CV-18 *Fujian*.

The PRC has long challenged foreign military activities in its EEZ in a manner that is inconsistent with the rules of customary international law as reflected in the United Nations Convention on the Law of the Sea. However, in recent years, the PLA has begun conducting the same types of military activities inside and outside the FIC in the EEZs of other countries, including the United States. This activity highlights the PRC's double standard in the application of its interpretation of international law. Examples include sending intelligence collection ships to collect on military

exercises such as the RIMPAC exercise off Hawaii in 2014, 2018, and 2022, TALISMAN SABER off Australia in 2017, 2019, and 2021, and operating near Alaska in 2017 and 2021. Chinese intelligence collection ships also operated near sensitivity defense facilities off Australia's west coast in May 2022 and near Japan in July 2022. PRC survey ships are also extremely active in the SCS and they frequently operate in the claimed EEZs of other nations in the region such as the Philippines, Vietnam, and Malaysia.

The PRC's 2019 defense white paper described the PLAN as adjusting to changes in the strategic requirements of near seas defense and far seas protection, noting that it was "speeding up the transition of its tasks from defense on the near seas to protection missions on the far seas..." Towards the PRC's goal of building a "strong and modernized navy force," the PLAN has replaced or updated its previous generations of platforms that had limited capabilities in favor of larger, modern multi-mission combatants. Today, the PLAN is largely composed of modern multi-role platforms featuring advanced anti-ship, anti-air, and anti-submarine weapons and sensors. The PLAN is also emphasizing maritime joint operations and joint integration with the other branches of the PLA. This modernization aligns with the PRC's growing emphasis on the maritime domain and increasing demands for the PLAN to operate at greater distances from mainland China.

The PLAN organizes, mans, trains, and equips the PLA's naval and naval aviation forces, as well as the PLA Marine Corps (PLAMC), which is subordinate to the PLAN. The PLAN continues to implement structural reforms that began in late 2015 and early 2016. The PLA-wide reforms removed the PLAN headquarters from conducting operations, which became the purview of the PLA's joint theater commands, and focused it on organizing, manning, training, and equipping naval forces.

Missions. The PLAN continues to develop into a global force, gradually extending its operational reach beyond East Asia into a sustained ability to operate at increasingly longer ranges, including a continuous presence in the Gulf of Aden. The PLAN's latest surface and subsurface platforms enable combat operations beyond the reach of the PRC's land-based defenses. In particular, the PRC's growing force of aircraft carriers extend air defense coverage of deployed task groups beyond the range of land-based defenses, enabling operations farther from China's shore. The PLAN's emerging requirement for sea-based land-attack systems will also enhance the PRC's ability to project power. Furthermore, the PLAN now has a sizable force of highly capable logistical replenishment ships to support long-distance, long-duration deployments, including two new FUYU-class fast combat support ships (AOEs) built specifically to support aircraft carrier and large-deck amphibious ship operations. The PLAN's expanding fleet of large modern amphibious warships will enable it to conduct in a wide range of expeditionary operations wherever PRC interests are threatened or in support of PRC participation in internationally sanctioned operations. The expansion of naval operations beyond China's immediate region will also facilitate its non-war military activities and further legitimize the PRC's growing global military posture, including at its base in Djibouti.

The PRC is in the beginning stages of operating what the PLA calls its "multi-carrier force." The PRC continues to learn lessons from operating its first aircraft carrier, *Liaoning*. Its first domestically-built aircraft carrier, CV-17 *Shandong*, was launched in 2017 and commissioned in December 2019. The PRC's next generation of carriers, the new FUJIAN-class – the first of which it is currently outfitting – will have greater endurance and an electromagnetic catapult launch system making it capable of launching various types of specialized fixed-wing aircraft for missions such as airborne early warning and EW. This will increase the striking power of a potential PLAN carrier battle group when deployed to areas beyond China's immediate periphery. CV-18 *Fujian* launched in June 2022 and is expected to commission in 2024.

The PLAN's newest amphibious ships, the YUSHEN LHA and YUZHAO amphibious transport docks (LPD), are modern platforms capable of regional and global expeditionary missions in support of both wartime and non-war contingency operations either singly or as part of capable and flexible task groups composed of multiple amphibious ships and surface combatants.

The PLAN continues to build multiple new, large auxiliary ships that can support force projection operations, including large logistic ships such as the FUYU fast combat support ship (AOE) and specialized platforms for intelligence collection ships (AGI) and ocean surveillance ships (AGOS).

The PLAN's ability to perform missions beyond the FIC is modest but growing as it gains more experience operating in distant waters and acquires larger and more advanced platforms. The PRC's experience in extended range operations primarily comes from extended task group deployments and its ongoing counterpiracy mission in the Gulf of Aden. Other recent extended range PLAN operations include the following:

- In September 2022, a PLAN task group that included a RENHAI class cruiser operated with four Russian combatants near the Aleutian Islands and was shadowed by U.S. Coast Guard ships and aircraft.
- In December 2022 and January 2023, a PLAN task force including a LUYANG III DDG operated in the South Pacific near French Polynesia.
- In December 2022, CV-16 *Liaoning* with escorts including two RENHAI-class cruisers operated in the Philippine Sea near Japan's Daito Islands in an area similar to where *Liaoning* deployed to in December 2021.
- In February 2023, a PLAN task group, that included YUSHEN-class LHA-31, conducted training in the SCS and Western Pacific. This was the first extended range deployment for the newly commissioned LHA.
- The PLAN sustained its counter-piracy task groups in the Gulf of Aden through 2022, a 14-year effort that is the PRC's first enduring naval operation beyond the Indo-Pacific region. In January 2022, the 39th Naval Escort Task Force conducted a three-day escort of Chinese fishing vessels in the Gulf of Aden. Overall, according to Chinese state media, the PLAN has expanded

its original mission of escorting Chinese-flagged vessels and vessels from the World Food Program to escorting merchant ships from other countries as well.

Force Structure. The PLAN is the largest navy in the world with a battle force of over 370 platforms, including major surface combatants, submarines, ocean-going amphibious ships, mine warfare ships, aircraft carriers, and fleet auxiliaries. Notably, this figure does not include approximately 60 HOUBEI-class patrol combatants that carry anti-ship cruise missiles (ASCM). The PLAN's overall battle force is expected to grow to 395 ships by 2025 and 435 ships by 2030. Much of this growth will be in major surface combatants. The PLAN's force structure consists of three fleets with subordinate submarine flotillas, surface ship flotillas, aviation brigades, and naval bases. The PLAN's Northern Theater Navy is subordinate to the Northern Theater Command, the Eastern Theater Navy is subordinate to the Eastern Theater Command, and the Southern Theater Navy is subordinate to the Southern Theater Command.

Submarines. The PLAN has placed a high priority on modernizing its submarine force, but its force structure continues to grow modestly as it works to mature its force, integrate new technologies, and expand its shipyards. The PLAN currently operates six nuclear-powered ballistic missile submarines (SSBN), six nuclear-powered attack submarines (SSN), and 48 diesel-powered/air-independent powered attack submarines (SS). The PLAN's submarine force is expected to grow to 65 units by 2025 and 80 units by 2035 despite the ongoing retirement of older hulls due to an expansion of submarine construction capacity.

The PRC continues to increase its inventory of conventional submarines capable of firing advanced anti-ship cruise missiles (ASCM). Between the mid-1990s and mid-2000s, the PLAN purchased 12 Russian-built KILO-class SS units, eight of which are capable of launching ASCMs. China's shipyards have delivered 13 SONG-class SS units (Type 039) and 21 YUAN-class diesel-electric air-independent propulsion attack submarine (SSP) (Type 039A/B). The PRC is expected to produce a total of 25 or more YUAN-class submarines by 2025. In late 2021, the PLAN retired the first two KILO-class submarines (both non-ASCM capable) purchased from Russia in the 1990s.

Over the past 15 years, the PLAN has constructed 12 nuclear submarines – two SHANG I-class SSNs (TYPE 093), four SHANG II-class SSNs (TYPE 093A), and six JIN-class SSBNs (TYPE 094). Equipped with the CSS-N-14 (JL-2) submarine-launched ballistic missile (SLBM) (3,900NM) or the CSS-N-20 (JL-3) SLBM (5,400NM), the PLAN's six operational JIN-class SSBNs represent the PRC's first credible sea-based nuclear deterrent. Each JIN-class SSBN can carry up to 12 missiles. In 2019, Beijing displayed these missiles at the PRC's 70th founding anniversary parade. The PRC's next-generation TYPE 096 SSBN will reportedly be armed with follow-on longer range SLBM. The TYPE 096 will likely begin construction in the near future. Based on the projected 30-plus-year service life of the platforms, the PRC will operate its JIN and TYPE 096 SSBN fleets concurrently in the 2030s. This would align with Xi's 2018 directive for the SSBN force to achieve "stronger growth."

The PRC launched two SHANG III (TYPE 093B)-class guided-missile nuclear attack submarines (SSGN) between May 2022 and January 2023 and could have three hulls of this class operational hulls by 2025. This new SHANG-class variant will enhance the PLAN's anti-surface warfare capability and could provide a clandestine land-attack option if equipped with land-attack cruise missiles (LACM). The PLAN is also improving its anti-submarine warfare capabilities through the development of its surface combatants and special mission aircraft, but it continues to lack a robust deep-water anti-submarine warfare (ASW) capability.

Surface Combatants. The PLAN remains engaged in a robust shipbuilding program for surface combatants. As of late 2022, the PLAN was building an aircraft carrier, a new batch of guided-missile cruisers, guided-missile destroyers, and a new batch of guided missile frigates, including a new 054 variant designated JIANGKAI III. These assets will significantly upgrade the PLAN's air defense, anti-ship, and anti-submarine capabilities and will be critical as the PLAN expands its operations beyond the range of the PLA's shore-based air defense systems. By the end of 2019, the PLAN had commissioned its 30th JIANGKAI II-class FFG, reportedly completing the production run. However, in 2021 PRC media reported production had restarted with at least three additional hulls commissioned by the end of 2022 with a total possible end production run of more than 40 hulls. The PLAN augmented its littoral warfare capabilities, especially for operations in the ECS and SCS, with the high-rate production of the JIANGDAO-class Corvettes (FFLs) (TYPE 056 and TYPE 056A). The PLAN commissioned the 72nd JIANGDAO in February 2021, completing the production run. The PLAN subsequently transferred the early flight TYPE 056 variants, likely 22 ships total, to the China Coast Guard in 2021, probably due to the early models' lack of towed-array sonar. The remaining JIANGDAOs (056A) are equipped with a towed-array sonar and are, thus, capable of contributing to ASW operations.

The PLAN has expanded its force of large surface combatants with two programs, the LUYANG III DDG and the RENHAI CG. By the end of 2022, the PRC had commissioned 25 LUYANG III DDGs—including 12 lengthened LUYANG III MOD DDGs – with additional hulls under construction. Both the standard LUYANG III and the LUYANG III MOD have a 64-cell multipurpose vertical launch system (VLS) capable of launching cruise missiles, surface to air missiles, and anti-submarine missiles, and the MOD variants will be capable of carrying the new Z-20 anti-submarine helicopter by late 2022, eight RENHAI-class CG's were in commission in the PLAN with additional hulls under construction. The RENHAI has 112 VLS cells and can carry a large load out of weapons including ASCMs, surface-to-air missiles (SAMs), torpedoes, and anti-submarine weapons along with likely LACMs and anti-ship ballistic missiles (ASBM) when those become operational. In early 2022, the PLAN released a video of RENHAI CG test launching an anti-ship ballistic missile with a reported/estimated range of 540NM. The new ship launched anti-ship ballistic missile can possibly be launched by the LUYANG III and LUYANG III MOD DDGs.

The PLAN continues to emphasize anti-surface warfare capabilities in its force development. The PLAN's frigates and corvettes, as well as modernized older combatants, carry variants of the YJ-83/YJ-83J ASCM (135NM), while newer surface combatants such as the LUYANG II-class

DDGs are fitted with the YJ-62 (270NM). The LUYANG III-class DDGs and the RENHAI-class CGs are fitted with a variant of the PRC's newest ASCM, the YJ-18A (290NM). A few modernized destroyers have been retrofitted with the supersonic YJ-12A ASCM (270NM), and the next-generation frigates may also receive this missile. Eight of the PLAN's 12 KILO-class SSs are equipped with the Russian built SS-N-27b ASCM (120NM). The PRC's SONG-class SS, YUAN-class SSP, and SHANG-class SSN field the PLAN's newest domestic submarine-launched ASCM, the YJ-18 which constitutes an improvement over the SS-N-27b ASCM. It is possible the PRC is developing a launcher that can fit inside a standard commercial shipping container for covert employment of the YJ-18 aboard merchant ships.

The PLAN recognizes that long-range ASCMs require a robust, over-the-horizon (OTH) targeting capability to realize their full potential. To fill this capability gap, the PLA is investing in joint reconnaissance, surveillance, command, control, and communications systems at the strategic, operational, and tactical levels to provide high-fidelity targeting information to surface and subsurface launch platforms.

As the PLAN continues to transition into a global multi-mission force, the addition of land-attack capabilities to its modern array of anti-surface and anti-air capabilities is a logical next step. In the coming years, the PLAN will probably field LACMs on its newer cruisers and destroyers and the developmental SHANG III SSGN. The PLAN could also retrofit its older surface combatants and submarines with land-attack capabilities as well. The addition of land-attack capabilities to the PLAN's surface combatants and submarines would provide the PLA with flexible long-range strike options. This would allow the PRC to hold land targets at risk beyond the Indo-Pacific region.

Amphibious Warfare Ships. The PRC's investment in LHA ships signals its intent to continue to develop its expeditionary warfare capabilities. In April 2021, the PRC commissioned the first YUSHEN-class LHA (TYPE 075) followed by the commissioning of the second hull in December 2021. A third YUSHEN-class LHA was commissioned in October 2022 while the first hull achieved IOC in March 2022, and there are indications of a probable fourth hull under construction in early 2023.The YUSHEN class are highly capable large-deck amphibious ships that will provide the PLAN with an all-aspect expeditionary capability including the ability to carry a large number of landing craft, troops, armored vehicles, and helicopters. In addition, the PLAN has eight large YUZHAO-class amphibious transport docks (LPD) (TYPE 071) in service. The YUZHAO-class LPDs and YUSHEN-class LHAs provide the PLA with greater capacity, endurance, and more flexibility for long-range operations than the PLAN's older landing ships, which it has reduced in number over the last decade with obsolete units being decommissioned. The YUSHEN and YUZHAO can each carry several of the new YUYI class air-cushion medium landing craft and/or the conventional YUBU-class utility landing craft, and a variety of helicopters, tanks, armored vehicles and PLAN marines for long-distance expeditionary deployments.

Aircraft Carriers. In December 2019, the PRC commissioned its first domestically built aircraft carrier, *Shandong*, which launched in 2017 and completed multiple sea trials during 2018-2019.

Shandong was photographed at a base on Hainan Island in the Southern Theater Navy in late 2020 and should now be considered to be operational. It is a modified version of the *Liaoning* (Soviet KUZNETSOV-class) design and likewise uses a ski-jump takeoff method for its aircraft. China launched its third domestically built aircraft carrier, CV-18 *Fujian* in June 2022 and continued outfitting work early 2023. CV-18 is larger than CV-16 and CV-17 and fitted with an electromagnetic catapult launch system. This design will enable it to support additional fighter aircraft, fixed-wing early-warning aircraft, and more rapid flight operations and thus extend the reach and effectiveness of its carrier-based strike aircraft. CV-18 is expected to be operational by 2024, with additional carriers to follow.

Ship Based Aircraft. The PLAN operates and is developing several aircraft to operate from its carriers and combatants. In addition to the standard J-15 fighter that currently operates from PLAN carriers, there is a catapult-capable J-15 variant in development. The aircraft is currently testing from land-based steam and electromagnetic catapults. Two other J-15 variants are in development – the J-15S tandem-seat variant and the J-15D electronic warfare variant, which is equipped with wingtip electronic support measures/electronic intelligence gathering pods as well as several conformal antennas. The PRC is also developing a carrier capable variant of the fifth-generation J-31 fighter, known as the J-35, which conducted its first flight in 2021. Beyond fighter aircraft, the PRC is refining the design of a carrier-borne airborne early warning (AEW) aircraft, known as the KJ-600. A mockup of the aircraft, which appears externally similar to the E-2C/D Hawkeye, has existed for many years, and prototypes of the KJ-600 have been in flight testing since 2020. Beijing is also developing the Z-20F helicopter for the PLAN, intended for the RENHAI cruisers and LUYANG III MOD destroyers and possibly the YUSHEN LHAs. The Z-20F is similar to the U.S. Navy's SH-60 and will provide significant improvements in ASW capabilities over the smaller Z-9 and Ka-28 helicopters the PLAN currently operates. The Z-20F will also complement the larger Z-18Fs that operate from the PLAN's aircraft carriers.

Accompanying the manned fixed-wing and rotary aircraft will be UAVs. The PLAN have conducted sea trials on multiple surface combatants with vertical take-off and landing (VTOL) UAVs ranging in wingspan between 3.5 and 4 meters. These UAVs can include the SD-40, CSC-005, S-100 CAMCOPTER, and AV-500 UAV systems. These UAVs are used for ISR purposes.

Land Based Aircraft. The PLAN is in the process of replacing its older variant H-6 bombers with the H-6J, a naval variant of the H-6K operated by the PLAAF. This new and larger advanced maritime strike bomber has six weapons pylons instead of four, advanced avionics, upgraded engines, and can employ the supersonic YJ-12 ASCM (270NM). In 2020, PLAAF H-6Ks were also photographed carrying YJ-12s, significantly increasing the number of bombers available to the PLA for long-range maritime strike missions.

The PLAN operates a diverse inventory of fixed-wing special mission aircraft for maritime patrol, airborne early warning aircraft including many of the same variants operated by the PLAAF. However, the PLAN also operates a variant of the Y-9 for anti-submarine warfare and maritime patrol. This aircraft is equipped with a magnetic anomaly detector boom, similar to that of the U.S.

Navy's P-3. This Y-9 ASW variant is equipped with surface-search radar mounted under the nose as well as multiple-blade antennas on the fuselage, probably for electronic surveillance. A small electro-optical (EO)/infrared turret is located just behind the nose wheel, and this variant is equipped with an internal weapons bay in front of the main landing gear.

The PRC also operates a fixed-wing medium to large size UAVs from land bases. These UAVs specialize in ISR and include EO/infrared imaging, signals intelligence (SIGINT) capabilities, and synthetic aperture radar (SAR). Many of these UAVs can be operated in satellite communications (SATCOM) mode, extending the datalink and operational ranges well past traditional line-of-sight (LOS) communications. Fixed-wing UAVs include the XIANGLONG high altitude, long endurance UAV; the BZK-005 medium altitude, long endurance UAV; and the ASN-209 medium altitude, medium endurance UAV.

Auxiliary Ships. The PLAN continues to build a large number of seagoing auxiliary and support ships, including AGIs, AGOs, fleet replenishment oilers, hospital ships, submarine salvage and rescue ships, and various other large auxiliaries for specialized missions. Additionally, the PRC's first domestically built polar icebreaker, XUELONG 2, became operational in 2019. The ship is operated by the Polar Research Institute of the State Oceanic Administration. In October 2022, XUELONG 2 departed for the PRC's 39th research mission to Antarctica and was followed one week later by XUELONG 1, marking the third occasion both research vessels have conducted a joint mission in Antarctica.

Current Nuclear Sea-Based Capabilities. For the PLAN and CCP, the possession of SSBNs has long been seen as an important symbol in achieving great power status. The PRC has six operational TYPE 094 JIN-class SSBNs, and these submarines are conducting at sea deterrent patrols. The PLAN's JIN SSBNs are equipped to carry up to 12 sea launched ballistic missiles (SLBMs); JL-2 (CSS-N-14) and JL-3 (CSS-N-20) representing the PRC's first viable sea-based nuclear deterrent. With six operational SSBNs, the PLAN has the capacity to maintain a constant at sea deterrent presence. With a range of approximately 3,900NM, a JIN equipped with the JL-2 would have to operate in the mid-Pacific Ocean in order to threaten targets in the western half of the Continental United States (as well as Hawaii and Alaska) or east of Hawaii in order to threaten targets on the East Coast of the United States. PRC sources claim the JL-3 has a range of over 5,400NM which would allow a JIN armed with this missile to target portions of CONUS from Chinese littoral waters. The PLAN's next generation SSBN, the TYPE 096 is expected to enter service the late 2020s or early 2030s. Based on the 30-plus-year service life of the PRC's first-generation SSNs, the PRC will operate the TYPE 094 and TYPE 096 SSBNs concurrently.

PLAN MARINE CORPS (PLANMC)

The PLANMC maintains a presence at the PRC's first overseas military base in Djibouti that extends The PRC's military reach and strategic influence in Africa and the Middle East. In 2020, China highlighted a PLANMC SOF unit that had joined the previously assigned PLANMC unit in Djibouti. The PLANMC's presence in Djibouti provides the PRC with the ability to support a

military response to contingencies affecting China's investments and infrastructure in the region and the approximately 1 million PRC citizens in Africa and 500,000 in the Middle East, although we have not observed the PLANMC in Djibouti assist in evacuation efforts to date. The PLANMC also embarks a contingent of marines with the PLAN's Gulf of Aden counterpiracy-focused naval escort task force that supports the PRC's trade interests. Additionally, the PLANMC supports the PRC's military diplomacy. For example, the PLANMC at Djibouti have trained with Thai, Pakistani, Saudi, South African, and Djiboutian forces.

The PLANMC's roles and missions principally include defending PLA bases in mainland China, the SCS and abroad, conducting amphibious operations to seize and defend small reef and island outposts, and conducting non-war military activities (NWMA). Although the PLANMC has traditionally focused on its task to assault and defense of small islands in the SCS, more recently its focus has grown to include expeditionary operations beyond FIC. The PLANMC's roles under NWMA support the PRC's efforts to protect its overseas interests including resources, infrastructure, and citizens abroad.

The PLANMC emphasized artillery training throughout 2022 which included training with the PCL-181 vehicle-mounted artillery pieces at various training ranges. The training also incorporated a reconnaissance variant of the Type-05, and it concluded with a multi-brigade culminating event in southern Guangdong. The inclusion of this artillery piece greatly increases the range of their artillery compared to what the PLANMC was previously fielding. Additionally, the PLANMC increased its overall aviation capability in 2022. The PLANMC's Z-8C helicopter inventory increased to at least 28, bolstering their air assault capability. The PLANMC aviation brigade participated in three-dimensional amphibious assault training during the year which included air assault components, amphibious assault vehicles, and a combination of Landing Craft Air Cushion (LCAC) and assault boats. This training was conducted in conjunction with a commercial roll-on/roll-off vessel as the PLANMC continues to increase their integration with civilian vessels and expanding their sealift means.



Major Naval Units

PEOPLE'S LIBERATION ARMY AIR FORCE (PLAAF) AND PLAN AVIATION

Key Takeaways

- The PLAAF and PLAN Aviation together constitute the largest aviation force in the Indo-Pacific region.
- The PLAAF is rapidly catching up to Western air forces. The PLAAF continues to modernize with the delivery of domestically built aircraft and a wide range of UASs.
- In October 2019, the PRC signaled the return of the airborne leg of its nuclear triad after the PLAAF publicly revealed the H-6N as its first nuclear-capable air-to-air refuelable bomber.

The People's Liberation Army Air Force (PLAAF) and PLAN Aviation together constitute the largest aviation forces in the region and the third largest in the world, with over 3,150 total aircraft (not including trainer variants or UASs) of which approximately 2,400 are combat aircraft (including fighters, strategic bombers, tactical bombers, multi-mission tactical, and attack aircraft). The PLAAF's role is to serve as a comprehensive strategic air force capable of long-range airpower projection. The PRC's 2019 defense white paper described the PLAAF's missions and tasks as transitioning from territorial air defense to "offensive and defensive operations." In 2021, General Chang Dingqiu assumed the post of PLAAF commander and continued to enact PLAAF reforms to improve the force's ability to accomplish joint warfighting tasks. The PLAAF is rapidly catching up to Western air forces. This trend is gradually eroding longstanding and significant U.S. military technical advantages vis-à-vis the PRC in the air domain.

The CMC's intent is to transform the PLAAF into a more effective and capable force that is proficient at conducting joint operations. The PLAAF is comprised of aviation, airborne, air defense, radar, electronic countermeasure, and communications forces. Amid the wide-ranging reorganization of the PLA, the PLAAF has reorganized into five Theater Command Air Forces, established at least six new air bases, and restructured previously subordinate regiments into brigades under the new bases by disbanding its fighter and fighter-bomber divisions.

Fighters. The PLAAF and PLAN Aviation continue to field greater numbers of fourth-generation aircraft (now more than 1,300 of 1,900 total fighters, not including trainers) and probably will become a majority fourth-generation force within the next several years. For fifth-generation fighters, the PLAAF has operationally fielded its new J-20 fifth-generation stealth fighter, and PRC social media revealed a new 2-seat variant of the J-20 in October 2021. The PLAAF is preparing upgrades for the J-20, which may include increasing the number of air-to-air missiles (AAM) the fighter can carry in its low-observable configuration, installing thrust-vectoring engine nozzles, and adding super cruise capability by installing higher-thrust indigenous WS-15 engines. Development continues on the smaller FC-31/J-31 for export or as a future naval fighter for the PLAN's next class of aircraft carriers.

Bombers. The PRC's bomber force is currently composed of H-6 Badger variants, which are domestically produced versions of the Soviet Tupolev Tu-16 (Badger) bomber. Despite the relative age of its bomber force, the PLAAF has worked to maintain and enhance the operational effectiveness of these aircraft. In recent years, the PRC has fielded greater numbers of the H-6K, a modernized H-6 variant that integrates standoff weapons and features more-efficient turbofan engines for extended-range. The H-6K can carry six LACMs, giving the PLA a long-range standoff precision strike capability that can range targets in the Second Island Chain from home airfields in mainland China. PLAN Aviation has traditionally fielded the H-6G to support maritime missions. More recently, PLAN Aviation has begun operating the H-6J, a maritime strike version of the H-6K with six weapons pylons for ASCMs. This aircraft carries six supersonic long-range YJ-12 ASCMs and can attack warships out to the Second Island Chain.

During the PRC's 70th anniversary parade in 2019, the PLAAF publicly revealed the H-6N, a derivative of the H-6K optimized for long-range strikes. The H-6N features a modified fuselage that allows it to carry externally an air-launched ballistic missile (ALBM) that may be nuclear capable. In October 2020, an H-6N was observed carrying an air-launched ballistic missile. The H-6N's air-to-air refueling capability also provides it greater reach over other H-6 variants that are not refuelable in air. In 2020, the PLAAF operationally fielded the H-6N bomber, providing a platform for the air component of the PRC's nascent nuclear triad. The H-6N-equipped unit very likely is developing tactics and procedures to conduct the PLAAF nuclear mission. In addition, the PLAAF is seeking to extend its power projection capability with the development of a new H-20 stealth strategic bomber, with official PRC state media stating that this new stealth bomber will have a nuclear mission in addition to filling conventional roles. The PLAAF is also developing new medium- and long-range stealth bombers to strike regional and global targets. PLAAF leaders publicly announced the program in 2016; however, it may take more than a decade to develop this type of advanced bomber.

Special Mission Aircraft. In 2019, the PLAAF publicly debuted its new Y-9 communications jamming/electronic countermeasures aircraft (known as the GX-11). This aircraft is designed to disrupt an adversary's battlespace awareness at long ranges. The PLA can conduct air-to-air refueling operations to extend the ranges of its fighter and bomber aircraft equipped with refueling probes using the H-6U, a modified tanker variant of the H-6 bomber, as well as a small number of larger IL-78 Midas. In addition, the PRC is developing a tanker variant of its Y-20 heavy-lift transport, which will enable the PLAAF to expand its tanker fleet and improve the PLAAF's ability to operate beyond the FIC from bases in mainland China.

Production and deliveries of the KJ-500—the PRC's most advanced airborne early warning and control (AEW&C) aircraft—continued at a rapid pace, joining earlier KJ-2000 Mainring and KJ-200 Moth variants. These aircraft amplify PLAAF's ability to detect, track, and target threats in varying conditions, in larger volumes, and at greater distances, It also extends the range of the PLA's integrated air defense system (IADS) network. Furthermore, the PRC has produced at least one KJ-500 with an aerial refueling probe, which will improve the aircraft's ability to provide persistent AEW&C coverage.

The PRC's aviation industry continues to advance with deliveries of its domestic Y-20 large transport aircraft and completion of the world's largest seaplane, the AG600. These transports will supplement and eventually replace the PRC's small fleet of strategic airlift assets, which to date, consists of a limited number of Russian-made IL-76 aircraft. These large transports are intended to support airborne C2, logistics, paradrop, aerial refueling, and strategic reconnaissance operations as well as humanitarian assistance and disaster relief (HA/DR) missions.

Unmanned Aerial Systems (UASs). The PRC continues its comprehensive UAS modernization efforts, highlighted by the routine appearance of increasingly sophisticated systems across theater and echelon levels. The last three years have seen several key milestones. These include the airshow display and operational appearance of the Xianglong jet-powered UAS, as well as the unveiling of both the supersonic WZ-8 UAS and a redesigned version of the GJ-11 stealth Unmanned Combat Air Vehicle (UCAV). The PLA also continues the maritime use of ISR UASs, featuring both the venerable BZK-005 and the newer TW-328/TB001. The PRC is also expanding the applications of large UASs by demonstrating uses including disaster communications, anti-submarine roles, firefighting, and weather modification. Advanced small UASs are increasingly appearing in both military and civilian applications, with Chinese industry remaining a key exporter of UASs and components of all sizes.

In addition to maturing their current capabilities, the PRC is also signaling its efforts in next generation capabilities. Air and trade shows are displaying growing numbers of autonomous and teaming systems, including for combat applications. In these concepts, Chinese developers are demonstrating an interest in additional growth beyond ISR and EW into both air-to-air and air-to-ground combat, with a substantial amount of development displaying efforts to produce swarming capability for operational applications.

Air and Missile Defense. The PLAAF possesses one of the largest forces of advanced long-range SAM systems in the world, composed of Russian-sourced SA-20 (S-300) battalions and domestically produced CSA-9 (HQ-9) and follow-on HQ-9b battalions. To improve its strategic long-range air defenses, in 2019 the PRC acquired the SA-21 (S-400) SAM system from Russia. The PRC is also developing its indigenous CH-AB-X-02 (HQ-19), which will likely have a ballistic missile defense (BMD) capability. The PRC is also developing kinetic-kill vehicle technology to field a mid-course interceptor, which will form the upper layer of a multi-tiered missile defense. The PLA conducted a test of a land-based mid-course interceptor on February 4th, 2021.

PLAAF AIRBORNE CORPS

The PLAAF Airborne Corps commands six airborne combined arms brigades, a SOF brigade, an operational support brigade, an aviation transport brigade, a training base, and a new training brigade. The six combined arms brigades consist of three airborne infantry, one air assault, one wheeled airborne mechanized (wheeled air droppable armored vehicles), and one tracked airborne mechanized (tracked air droppable armored vehicles).

Each airborne combined arms brigade typically commands four combined arms battalions, an artillery battalion, a reconnaissance and pathfinder battalion, an operations support battalion, and a service support battalion, and possibly a transportation battalion.



Major Aviation Units

PEOPLE'S LIBERATION ARMY ROCKET FORCE (PLARF)

Key Takeaways

- The PLARF is advancing its long-term modernization plans to enhance its "strategic deterrence" capabilities.
- The PRC probably completed the construction of its three new solid-propellant silo fields in 2022, which will cumulatively contain at least 300 new ICBM silos and has loaded at least some intercontinental ballistic missiles (ICBMs) into these silos.
- The PRC is developing new ICBMs that will significantly improve its nuclear-capable missile forces and will require increased nuclear warhead production, partially due to the introduction of multiple independently targetable reentry vehicle (MIRV) capabilities.
- The PRC may be exploring development of conventionally-armed intercontinental range missile systems. If developed and fielded, such capabilities would allow the PRC to threaten conventional strikes against targets in the continental United States, Hawaii, and Alaska. Conventionally-armed ICBMs would present significant risks to strategic stability.

The PLARF organizes, mans, trains, and equips the PRC's strategic land-based nuclear and conventional missile forces and associated support forces and missile bases. The PLARF is a critical component of the PRC's nuclear deterrence strategy and its strategy to deter and counter third-party intervention in regional conflicts. According to the PRC's 2019 defense white paper, the PLARF is working towards "enhancing its credible and reliable capabilities of nuclear deterrence and counterattack, strengthening intermediate and long-range precision strike forces, and enhancing strategic counter-balance capability, so as to build a strong and modernized rocket force."

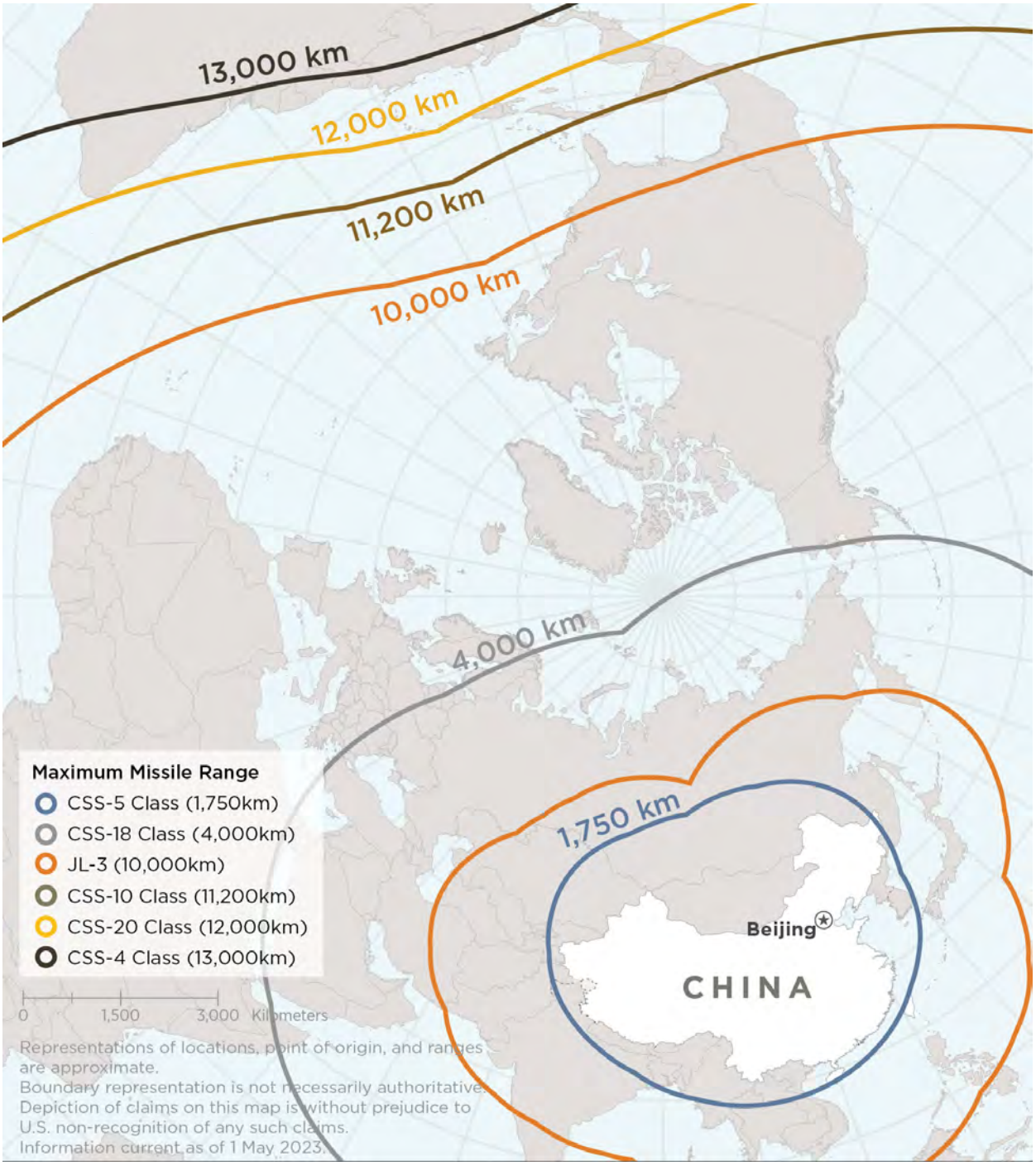
The PLARF fields a variety of conventional mobile ground-launched short-, medium-, and intermediate-range ballistic missiles and ground-launched cruise missiles. The PLARF's ground-based missile forces complement the air and sea-based precision strike capabilities of the PLAAF and PLAN. The PLARF's conventional missile forces include the CSS-6 (DF-15) short-range ballistic missile (SRBM) (range 725-850 km), the CSS-7 (DF-11) SRBM (600 km), the CSS-11 (DF-16) SRBM (more than 700 km), land-attack and anti-ship variants of the CSS-5 (DF-21) medium-range ballistic missile (MRBM) (approximately 1,500 km), the hypersonic glide vehicle capable DF-17 MRBM, the DF-26 Intermediate-range ballistic missile (IRBM) (3,000 km-4,000km), the CJ-10 (DH-10) ground-launched cruise missile (GLCM) (approximately 1,500 km), and the CJ-100 (DF-100) GLCM (approximately 2,000 km). The PLARF's conventionally-armed CSS-5 Mod 5 (DF-21D) ASBM variant gives the PLA the capability to conduct long-range precision strikes against ships, including aircraft carriers, out to the Western Pacific from mainland China. The DF-21D has a range exceeding 1,500 km, is fitted with a maneuverable reentry vehicle (MaRV) and is reportedly capable of rapidly reloading in the field. The PLARF continues to grow its inventory of DF-26 IRBMs, which it first revealed in 2015 and fielded in 2016. The multi-role

DF-26 is designed to rapidly swap conventional and nuclear warheads and is capable of conducting precision land-attack and anti-ship strikes in the Western Pacific, the Indian Ocean, and the SCS from mainland China. In 2020, the PRC fired anti-ship ballistic missiles against a moving target in the SCS. The PLARF is developing and testing several new variants of theater-range missiles and developing capabilities and methods to counter adversary BMD systems. The DF-17 passed several tests successfully and is deployed operationally. In 2020, a PRC-based military expert described the primary purpose of the DF-17 as striking foreign military bases and fleets in the Western Pacific. The PRC may be exploring development of conventionally-armed intercontinental range missile systems. If developed and fielded, such capabilities would allow the PRC to threaten conventional strikes against targets in the continental United States, Hawaii, and Alaska. Conventionally-armed ICBMs would present significant risks to strategic stability.

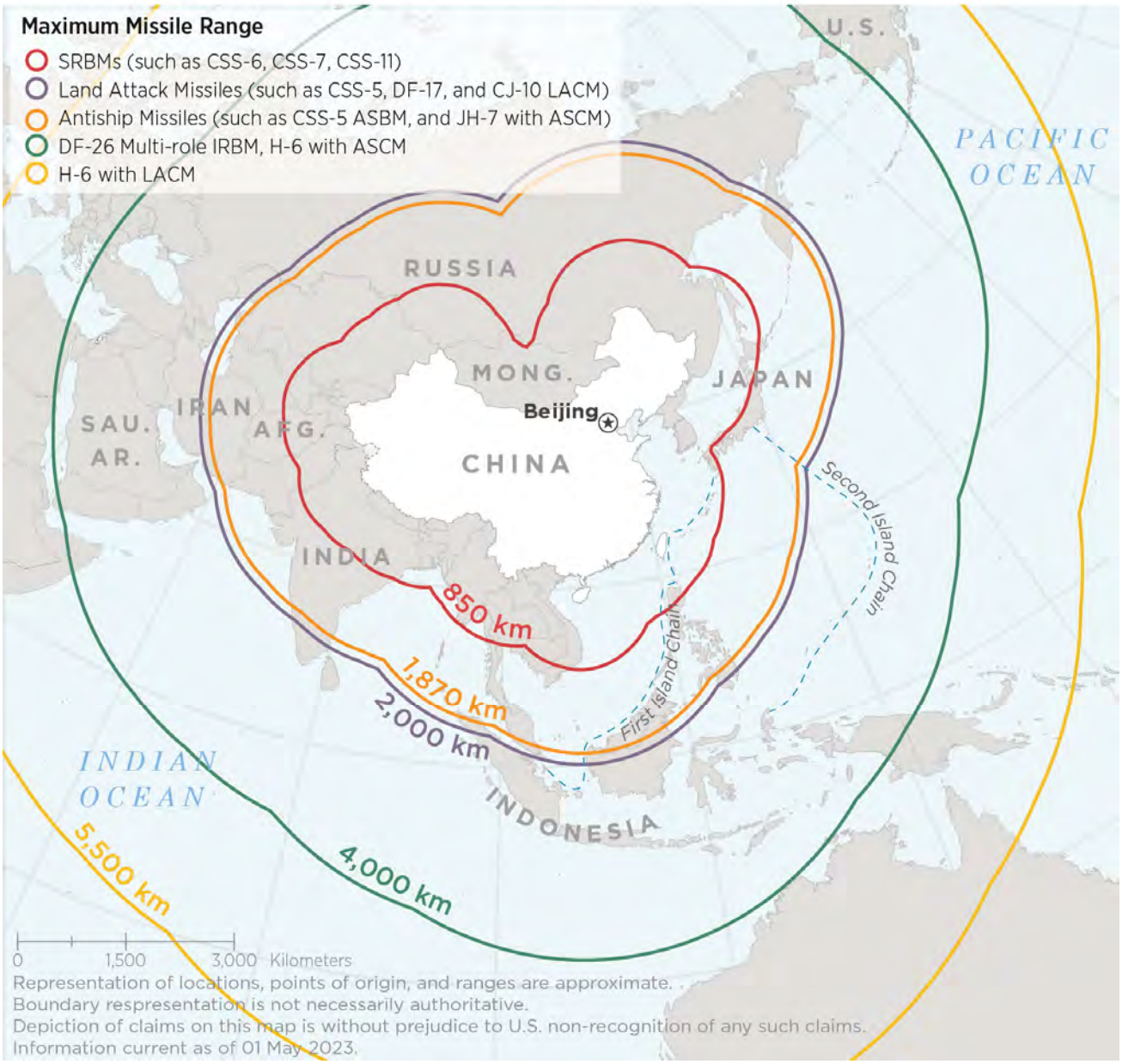
The PLARF is developing ICBMs that will significantly improve its nuclear-capable missile forces with more survivable delivery systems. The PRC has doubled and continues to grow the number of launchers at most ICBM units. The PRC's ICBM arsenal consists of approximately 350 ICBMs, including fixed and mobile launchers capable of launching unitary and multiple reentry vehicles. The PRC's fixed ICBMs consist of the multiple CSS-4 (DF-5)-class missiles, one of which is capable of carrying up to five (Multiple independently targetable reentry vehicle) MIRV's and a silo-based CSS-10-class missile. The solid-fueled, road-mobile CSS-10 (DF-31)-class and CSS-20 (DF-41) ICBMs complement this force. The CSS-10 Mod 2 (DF-31A), with a range in excess of 11,000 km, can reach most locations within the continental United States. The DF-41 ICBM has been operationally deployed with commentary during the 2019 parade noting that two brigades existed for the system. Additionally, sources indicate a "long-range" DF-27 ballistic missile is in development. Official PRC military writings indicate this range-class spans 5,000-8,000 km, which means the DF-27 could be a new IRBM or ICBM. The PRC probably is developing advanced nuclear delivery systems such as a strategic hypersonic glide vehicle and a fractional orbital bombardment (FOB) system.

CHINA'S ROCKET FORCE

System	Launchers	Missiles	Estimated Range
ICBM	500	350	>5,500 km
IRBM	250	500	3,000-5,500 km
MRBM	300	1,000	1,000-3,000 km
SRBM	200	1,000	300-1,000 km
GLCM	150	300	>1,500 km



Fielded Nuclear Ballistic Missiles



Fielded Conventional Strike

STRATEGIC SUPPORT FORCE (SSF)

Key Takeaways

- The SSF is a theater command-level organization established to centralize the PLA's strategic space, cyberspace, electronic, information, communications, and psychological warfare missions and capabilities.
- The SSF's Network Systems Department (NSD), sometimes referred to as the Cyberspace Force (CSF; 网络空间部队) is responsible for information warfare with an integrated mission set that includes cyberspace warfare, technical reconnaissance, electronic warfare, and psychological warfare. The PLA SSF's Space Systems Department (SSD), sometimes referred to as the Aerospace Force (ASF; 航天部队), is responsible for military space operations.
- The PRC continues to develop counterspace capabilities—including direct-ascent anti-satellite missiles, co-orbital satellites, electronic warfare, and directed-energy systems—that can contest or deny an adversary's access to and operations in the space domain during a crisis or conflict.
- The PRC's space enterprise continues to mature rapidly and Beijing has devoted significant resources to growing all aspects of its space program, from military space applications to civil applications such as profit-generating launches, scientific endeavors, and space exploration. SSF works with civilian organizations, such as universities and research organization, to integrate civilian support to military efforts.

The SSF was established in 2015 to centralize the PLA's strategic space, cyberspace, electronic, and psychological warfare missions and capabilities. The SSF reports directly to the CMC and supports the entire PLA with its capabilities. The PRC's 2019 defense white paper described the SSF's modernization goals as "seeking to achieve big development strides in key areas and accelerate the integrated development of new-type combat forces, so as to build a strong and modernized strategic support force."

The SSF oversees two deputy theater command-level departments: the SSD, sometimes referred to as the ASF, is responsible for military space operations, and the NSD, sometimes referred to as the CSF, responsible for information operations (IO), which includes technical reconnaissance, EW, cyberspace warfare, and psychological operations. At the headquarters level, the SSF has a four-department administrative structure that includes the Staff, Equipment, Political Work, and Logistics Departments. As a strategic organization, the SSF is directly subordinate to the CMC, but some of its subordinate units may report to the theater commands in wartime. The SSF provides information support derived from space-, cyber-, and terrestrial-based means to all PLA services and the five joint theater commands. Civilian reserve and militia units – typically comprised of personnel from the Ministry of Information and Industry Technology, Ministry of Public Security, Ministry of State Security, and academic institutions – augment SSF cyberspace operations during

peacetime and are organized into specialized units during wartime to support network defense operations.

General Ju Qiansheng has served as SSF commander since 2021. He previously served as commander of the NSD. Lt. Gen. Shang Hong recently served as commander of the SSD, until leaving that position sometime in 2023, but a replacement has not been identified. The leader of the NSD is unknown.

Network Systems Department. The SSF NSD, also referred to as the CSF, is responsible for information warfare with a mission set that includes cyberspace warfare, technical reconnaissance, EW, and psychological warfare. By placing the SSF NSD missions under the same organizational umbrella, the PRC seeks to remedy the operational coordination challenges that hindered information sharing under the PLA's pre-reform organizational structure. The incorporation of cyberspace and EW elements under one organization was a crucial step towards realizing the operational concept of integrated network and electronic warfare that the PLA has envisioned since the early 2000s. The NSD operates five theater–aligned technical reconnaissance bases, a number of signals intelligence bureaus, and several research institutes. The NSD provides intelligence support to the theater commands by leveraging a diverse suite of ground-based technical collection assets to provide a common operating picture to geographically dispersed operational units.

> ***The SSF and the "Three Warfares" Concept:*** The SSF NSD, or CSF, performs missions and tasks associated with the PLA's concept of "Three Warfares," which comprises psychological warfare, public opinion warfare, and legal warfare. This department is the only publicly known organization in the PLA that performs psychological warfare operations. See 2022 CMPR "Special Topic: PRC Views of Information and Information Dominance" for more on PLA views on information warfare, including psychological warfare.

SSF SPACE SYSTEMS DEPARTMENT

The SSD, sometimes referred to as the ASF, is responsible for nearly all PLA space operations, including space launch and support; space surveillance; space information support; space telemetry, tracking, and control; and space warfare. The PRC seeks to enhance the PLA's command and control C2 for joint operations and establish a real-time surveillance, reconnaissance, and warning system, and it is increasing the number and capabilities of its space systems, including communications and intelligence satellites, as well as the BeiDou navigation satellite system.

The SSD operates at least eight bases, including those whose core missions are the launch, tracking, R&D, and operation of the satellites vital to the PRC's overhead C4ISR architecture. The SSD operates tracking, telemetry, and command (TT&C) stations in multiple locations worldwide to guide space missions around the Earth as well as in cislunar and deep space. The SSD also operates Yuanwang space support ships that track satellite and ICBM launches.

China has five launch sites, including four land-based and one sea-based. The SSD's China Launch and Tracking Control (CLTC) operates all four fixed launch sites in China, in addition to Yuanwang space support ships (SESS), two major satellite control centers—Xian Satellite Control Center (XSCC) and the Beijing Aerospace Control Center (BACC)—and the PLA TT&C system for all Chinese satellites.

Other Space and Counterspace Organizations. The PRC's space program comprises organizations in the military, civil, defense-industrial, and commercial sectors. The PLA historically has managed the PRC's space program and continues to support both civilian and military interests. This includes strengthening and investing in its science and technology sector, growing international partnerships, and improving the PRC's capabilities in space-based ISR, SATCOM, satellite navigation, human spaceflight, and robotic space exploration. Although state-owned enterprises are China's primary space contractors, the PRC is placing greater emphasis on decentralizing and diversifying its space industry to increase competition.

The State Council's State Administration for Science, Technology, and Industry for National Defense (SASTIND) is the primary civilian organization that coordinates and manages the PRC's space activities, including allocating space research and development funds. It also maintains a working relationship with the PLA organization that oversees the PRC's military acquisitions. SASTIND guides and establishes policies for state-owned entities conducting the PRC's space activities.

The China National Space Administration (CNSA), subordinate to SASTIND, conducts China's civilian space efforts, including human spaceflight at the Chinese space station, lunar missions, and interplanetary missions. The PRC is increasingly using CNSA efforts to bolster relationships with countries around the world, particularly with the BRI Partners, providing opportunities to cooperate on space issues.

Many space technologies can serve a civilian and military purpose and the PRC emphasizes "military-civil fusion"—a phrase used, in part, to refer to the use of dual-use technologies, policies, and organizations for military benefit. The SSF works with civilian organizations like universities and research organizations to incorporate civilian support to military efforts since there is an already high demand for aerospace talent and competition for finite human resources. China also has a growing commercial space sector that supports government objectives, including remote sensing, launch, and communication services.

International Cooperation. The PRC has extensive civil space cooperation agreements around the world and is an exporter of satellites and space technology. It has more than a hundred cooperative space-related agreements with more than three dozen countries and four international organizations. The PRC is inviting countries to participate on the Chinese space station or International Lunar Research Station, which is jointly led by China and Russia, and has sold satellite launching services and ground stations to countries around the world.

China leads the Asia-Pacific Space Cooperation Organization (APSCO), a multilateral organization with rotating leadership whose members include Bangladesh, Iran, Mongolia, Pakistan, Peru, Thailand, and Turkey with Egypt, Indonesia, and Mexico as associate members. APSCO oversees a network of space surveillance telescopes and tasking information, and the observation data it collects is funneled through the Chinese Academy of Science's National Astronomical Observatory of China. The organization is planning to improve optical system capabilities, coverage, and redundancy as well as data sharing networks.



Major SSF Installations

JOINT LOGISTIC SUPPORT FORCE (JLSF)

Key Takeaways

- The JLSF is concentrating its efforts on improving joint strategic and campaign-level logistic efficiencies through training and integrating civilian products and services.
- The JLSF supports multimodal transportation methods to facilitate the movement of PLA forces and equipment for training.

The PLA JLSF, established in 2016, provides integrated joint logistics support for the PLA. The JLSF commander is Lt. Gen. Wang Liyan. The JLSF is directly subordinate to the CMC and is central to China's efforts to build a joint, efficient "combat-oriented modern logistics system," which Beijing views as essential for modern warfare. The JLSF modernizes PLA strategic- and campaign-level logistics by overseeing theater wide supply operations, establishing and coordinating support relationships among PLA service logistics elements conducting joint logistics exercises with the PLA services, and integrating civilian logistics resources into military operations. The JLSF conducts exercises to improve the PLA's ability to conduct joint logistics operations.

The JLSF is headquartered at Wuhan Joint Logistics Support Base. It operates five joint logistics support centers (JLSCs) aligned with each of the theater commands that are intended to streamline logistics support to the PLA. Under the JLSCs' control are units that provide materiel support to the PLA and joint logistics support brigades (JLSBs), who focus exclusively on providing mobile logistics support during combat operations.

The JLSF provides the PLA with joint strategic- and campaign-level logistics, enabling the PLA to conduct large-scale operations. Elements of the JLSF who provide direct wartime support to the PLA fighting force are categorized as weapons and ammunition storage, warehousing, medical services, transport, fuel, engineering and construction management, reserve equipment, and procurement support. During peacetime, the JLSF has authority over the JLSCs' operations and activities; during wartime, theater commands possibly would assume control of their designated JLSC.

The JLSF integrates civilian resources and equipment into military operations and exercises, leveraging China's civilian products, services and transportation, to improve resupply and move military personnel and equipment more rapidly. It does so primarily through the use of military representative offices (MROs) comprised of JLSF personnel who embed with civilian transportation companies (air, rail, road, and sea) to plan and manage military transportation. MRO personnel are vital to the JLSF's military-civilian integration efforts because they understand the technical loading procedures for various modes of transportation, can draft load plans, and provide expertise to reduce load times at points of embarkation. JLSF theater dispatch centers are the headquarters of regional MROs, coordinate PLA mobilization, and are tasked with improving the efficiency of transferring materials and forces between transportation modes.

PLA Training to Improve Readiness. The CMC sought to improve PLA combat readiness, interoperability, and training through the 14th Five-Year Plan and reinforced these priorities through military training mobilization orders and senior leadership guidance. In 2022, Xi emphasized the need for the PLA to adopt the latest technologies in its training and to focus on integrating training with combat operations The PLA conducted multiple large-scale joint exercises and incorporated advanced weapons and equipment, such as during the exercises around Taiwan in August.

Throughout 2022, the PLA sustained the frequency, scale, and duration of joint exercises. The COVID-19 pandemic likely did not significantly impact the PLA's ability to conduct joint exercises. The PLA successfully completed at least eight bilateral and multinational exercises, conducting naval drills, maritime and aerial patrols, and humanitarian assistance and disaster relief efforts. Although the PLA has improved some combat deficiencies, the force, as a whole, probably continues to work through challenges with joint operations, command and control, and tactical and small-unit leadership.

The largest unplanned event of the year occurred in August 2022, when the PLA conducted live-fire drills—including firing ballistic missiles over Taiwan—in response to the CODEL visit to Taipei in August 2022. During the visit, Taiwan's defense ministry reported that 27 PLA aircraft entered Taiwan's air defense identification zone, including 22 that crossed the median of the Taiwan Strait. The PLA's centerline crossings have continued since August as the PLA maintains a heightened readiness level. Such activity reflects ongoing PLA attempts to normalize median line crossings.

INCREASING OPERABILITY WITH PLA RESERVES, PARAMILITARY & MILITIA

Key Takeaways

- Interoperability and integration between the PLA, its reserve components, and the PRC's paramilitary forces continue to grow in scale and sophistication, including the coordination between the PLAN, the China Coast Guard (CCG), and the China Maritime Militia (CMM).
- The PRC primarily uses paramilitary maritime organizations in maritime disputes, selectively using the PLAN to provide overwatch in case of escalation.

THE PRC'S INTERNAL SECURITY FORCES

The PRC's internal security forces consist primarily of the Ministry of Public Security (MPS), the Ministry of State Security (MSS), the People's Armed Police (PAP), the People's Liberation Army (PLA), and the militia. The CCP relies on these forces to address challenges ranging from protests over political, social, environmental, or economic problems, to terrorism and natural disasters. In 2022, the PRC deployed thousands of PLA, PAP, and militia personnel for disaster relief in response to multiple events such as an airplane crash, earthquakes, fires, and floods.

Ministry of Public Security (MPS). The MPS leads the PRC's civilian national police, which serves as the front force for public order. The key mission of the MPS is domestic law enforcement and the "maintenance of social security and order" with duties including anti-rioting and anti-terrorism.

Ministry of State Security (MSS). The MSS is the PRC's main civilian intelligence and counterintelligence service. MSS operations include but are not limited to: protect the PRC's national security; conduct counterintelligence; combating foreign espionage; and investigate organizations or individuals inside the PRC who carry out or direct, support, or aid other people perceived to threaten national security. On April 26th, 2021, the PRC enacted a new counter-espionage law permitting the MSS authority to identify companies and organizations deemed susceptible to foreign infiltration or influence and require these institutes to implement measures to prevent foreign infiltration.

People's Armed Police (PAP). The PAP is a paramilitary component of the PRC's armed forces. Its primary missions include internal security, maritime security, and augmentation to the PLA during conflict. As part of a security structures reorganization in 2018, the CMC centralized control of the PAP. The same reform also subordinated the CCG to the PAP.

People's Liberation Army (PLA). In addition to its national defense mission, the PLA has formal and informal roles in the PRC's internal security. As the principal armed wing of the CCP, the PLA is the ultimate guarantor of the CCP's survival and supports other internal security forces as necessary. The 2020 National Defense Law recognizes this role in assigning the PLA the mission to "consolidate the leadership of the Communist Party of China and the socialist system" in addition to external defense tasks.

Militia. The PRC's militia is a force that can be mobilized for a variety of peace- and war-time missions and is distinct from the PLA's Reserve Force. The militia is organized by townships, administrative villages, urban sub-districts, and enterprises and institutions, and the missions may vary widely. In wartime, militia units assist the PLA with its military operations, conduct independent security operations, and provide support and manpower replacement to the PLA. During peacetime, the militia assists in humanitarian aid and disaster relief, supports military training, and maintains internal security. The PRC's Military Service Law requires male citizens between 18 to 35 years of age who are fit for military service, excluding those already in active service, be enrolled into the militia. The

militia is divided into two categories. The primary militia consists of former soldiers, personnel that have received military training, and personnel selected for military training that are under the age of 28, in good health, and politically reliable. The remainder of male citizens between 18 and 35 years of age are considered ordinary militia. The primary militia may recruit female citizens when necessary and the age limits can be waived under special circumstance. Local maritime militia forces, referred to by many western analysts as the Chinese Maritime Militia, perform tasks including safeguarding maritime claims, protecting fisheries, providing logistic support, search and rescue, and surveillance and reconnaissance, often in conjunction or coordination with the PLAN and the CCG.

People's Liberation Army Reserve Force. The People's Liberation Army Reserve Force was founded in 1983 and professionalized throughout the 1990s and 2000s. On July 1st, 2020, the PRC amended laws, regulations, and policies to bring the Reserve Force under the command of the Central Committee of the CCP and the CMC. The previous arrangement split control of the Reserve Force between the PLA and local Party committees. Motivations for the change include improving combat capability, facilitating cooperation with active-duty units, and upholding the CCP's absolute leadership over the military. Chinese sources often stated specifically that the reform would enhance reserve performance in Tibet and Xinjiang. Additionally, the PLA appears to have begun making a partial restructure towards using a PLAA reserve base system to continue to improve facilitation and support for active-duty units.

The PLA Reserve Force is comprised of approximately 510,000 personnel subordinate to the Army Reserve, Navy Reserve, Air Force Reserve, and Rocket Force Reserve. According to PLA documents, active-duty personnel are the backbone of the Reserve Force, but reserve-duty officers and soldiers are its foundation. 2020 National Defense University's Science of Military Strategy states the building of the reserve force is an important part of national defense construction and is the basic and strategic project to consolidate national defense. The primary mission of the reserves is to reinforce active-duty forces for national defense, with a secondary mission to aid in national disasters or maintaining social order. The Reserve Force should be prepared to effectively respond to a variety of emergencies and military threats, safeguard national sovereignty, security and development interests, and the core security of the country.

Although originally founded to support the ground forces, reforms in recent years seek to reduce PLAA reserves and increase those for the PLAN, PLAAF, and the PLARF. However, PRC writings suggest that, as of 2018, the Reserve Force was still predominately ground force-centric, with less than 10 percent of reservists serving specialized technical functions in the PLAN, PLAAF, PLARF, or PLA SSF.

Reserve officers are selected from veteran PLA officers, local officials, PAP or militia officers, and other technical personnel. Reserve soldiers are selected from eligible PLA veterans, trained grass-roots militias, and other local or military specialty personnel. Some reserve soldiers also

failed to meet active-duty entry requirements and conduct remedial training in the reserves until they are able to join the active-duty force.

The PLA is working to improve reserve mobilization, which anecdotal evidence suggests is hindered by unclear processes. In March 2023, during the PRC's annual "Two Sessions," PLA deputies suggested that the PRC should study and prioritize wartime legislation, including the introduction of laws such as the mobilization of reserve forces. Chinese documents also suggest that Reserve Force equipment is old; one report in 2018 stated that more than 70 percent of air defense artillery and artillery equipment is at or beyond its maximum service life. Some of the equipment is no longer manufactured and repair requires cannibalization.

The PLA Reserve Force does not include militias, the Civil Air Defense, or myriad other groups (e.g., the People's Armed Police or the Xinjiang Production and Construction Corps (XPCC)).

PEOPLE'S ARMED POLICE (PAP)

The PAP is a component of the PRC's armed forces and an armed wing of the CCP with an estimated 660,000 personnel. In the 2020 National Defense University's Science of Military Strategy, the primary responsibilities of the PAP include maintaining political, institutional and regime security, handling emergency rescue, counter-terrorism, air support, maritime rights protection, administrative law enforcement, and defense operations. The PAP is organized into three main parts: the Internal Security Corps, the Mobile Corps, and the CCG. The Internal Security Corps covers each of the PRC's provinces, provincial-level cities, and "autonomous" regions. There is not yet a reported permanent presence of the PAP in the Special Administrative Regions (SARs) of Hong Kong or Macao. The Mobile Corps is comprised of myriad PAP units placed to reinforce the Internal Security Corps and provide flexibility in responding to internal security issues. Mobile Corps units are concentrated around non-Han ethnic regions in the West and South (Xinjiang, Tibet, Sichuan, Yunnan, and Qinghai) as well as the major cities of Beijing and Shanghai. Xinjiang is a particular focus of the PAP due to alleged separatist activity, as well as its proximity to areas of unrest in Central Asia.

On July 1st, 2020, the standing committee of the PRC's legislature, the National People's Congress, approved a revision to the *Law on the People's Armed Police Force* which officially recognized the CMC singular command of the PAP, identified the PAP as an important part of the armed forces that fall under the leadership of the CCP, as well as affirming its primary mission set of handling security emergencies, maintaining stability, conducting counter-terrorism operations, and executing maritime law enforcement and rescue. This legal amendment codified and deepened the substantial reforms of 2018, when command of the PAP was centralized under the Central Party Committee and the CMC after decades of dual-leadership under the CMC and State Council (a PRC government body); the China Coast Guard was subordinated to the PAP; and myriad auxiliary duties (e.g., protecting gold mines, firefighting, etc.) were removed from the PAP's purview to focus its mission on PRC domestic and international security. Chinese media noted that the 2020

PAP reforms included an article that permitted the PAP to conduct certain operations, including counter-terrorism training, outside of the PRC.

Xi and the CCP leadership tasked the PAP with integrating themselves into the PLA's joint operation system. The PAP is increasingly focused on internal security and joint operations with the PLA and is developing capabilities for rapid response, mobility, and counterterrorism operations. The PAP also conducts training with foreign partners, including at least Uzbekistan, Kyrgyzstan, and Russia. Since at least 2016, PAP forces have likely operated in Tajikistan, patrolling the tri-border region connecting Tajikistan, Afghanistan, and the PRC.

In 2022, PAP forces performed rescue operations in Xining following major flooding in August and in Sichuan after a September 5th earthquake and acquired new helicopters to support in counter-terrorism and disaster relief tasks. An emphasis was also placed on PAP SOF training throughout the year, including a maritime tactical joint exercise in June with PLANMC. Additionally, a PAP officer was named as the commander of the PLA Garrison in the Hong Kong Special Administrative Region, showing a PRC focus of maintaining social stability based on the new commander's counter-terrorism experience in the Xinjiang Uygur Autonomous Region.

CHINA COAST GUARD (CCG)

The CCG is subordinate to the PAP and is responsible for a wide range of maritime security missions, including defending the PRC's sovereignty claims; combating smuggling, terrorism, and environmental crimes; as well as supporting international cooperation. In 2021, the Standing Committee of China's National People's Congress passed the Coast Guard Law which took effect on 1 February 2021. The legislation regulates the duties of the CCG, to include the use of force, and applies those duties to seas under the jurisdiction of the PRC. The law was met with concern by other regional countries that may perceive the law as an implicit threat to use force, especially as territorial disputes in the region continue.

Since the law, CCG activity has continued to prompt regional concern. In March 2022, the Philippines lodged a diplomatic protest against the PRC after a CCG vessel reportedly engaged in "close distance maneuvering" near a Filipino vessel in the disputed Scarborough Shoal. In December 2022, Japan reported that CCG vessels stayed in its territorial waters for over 72 hours, the longest continuous intrusion since 2012.

The CCG's continued expansion and modernization makes it the largest maritime law enforcement fleet in the world. Newer CCG vessels are larger and more capable than older vessels, allowing them to operate further offshore and remain on station longer. While exact numbers are unavailable, open-source reporting and commercial imagery counts indicate the CCG has over 150 regional and oceangoing patrol vessels (more than 1,000 tons). These larger vessels include over 20 corvettes transferred from the PLAN, which were modified for CCG operations.[7] The newer, larger CCG vessels are equipped with helicopter facilities, high-capacity water cannons, multiple interceptor boats and guns ranging from 20 to 76 millimeters.[8] Revised estimates indicate the CCG

operates more than 50 regional patrol combatants (more than 500 tons), which can be used for limited offshore operations, and an additional 300 coastal patrol craft (100 to 499 tons).

CHINA'S MARITIME MILITIA

China's Maritime Militia (CMM) is a subset of the PRC's national militia, an armed reserve force of civilians available for mobilization that is ultimately subordinate to the CMC through the National Defense Mobilization Department. Throughout China, militia units organize around towns, villages, urban sub-districts, and enterprises and vary widely in composition and mission.

CMM vessels train with and assist the People's Liberation Army Navy (PLAN) and the China Coast Guard (CCG) in tasks such as safeguarding maritime claims, surveillance and reconnaissance, fisheries protection, logistics support, and search and rescue. These operations traditionally take place within the FIC along China's coast and near disputed features in the SCS such as the Second Thomas Shoal, Scarborough Reed, and Luconia Shoal. However, the presence of possible CMM vessels mixed in with Chinese fishing vessels near Indonesia's Natuna Island outside of the "nine-dashed line" on Chinese maps indicated a possible ambition to expand CMM operations within the region. The PRC employs the CMM in gray zone operations, or "low-intensity maritime rights protection struggles," at a level designed to frustrate effective response by the other parties involved. The PRC employs CMM vessels to advance its disputed sovereignty claims, often amassing them in disputed areas throughout the SCS and ECS. In this manner, the CMM plays a major role in coercive activities to achieve the PRC's political goals without fighting and these operations are part of broader Chinese military theory that sees confrontational operations short of war as an effective means of accomplishing strategic objectives.

CMM units have been active for decades in incidents and combat operations throughout China's near seas and in these incidents CMM vessels are often used to supplement CCG cutters at the forefront of the incident, giving the Chinese the capacity to outweigh and outlast rival claimants. From September 2021 to September 2022, maritime militia vessels were a constant presence near Iroquois Reef in the Spratly Islands within the Philippines EEZ. Other notable examples include standoffs with the Malaysia drill ship *West Capella* (2020), defense of China's HYSY-981 drill rig in waters disputed with Vietnam (2014), occupation of Scarborough Reef (2012), and harassment of USNS *Impeccable* and *Howard O. Lorenzen* (2009 and 2014). Historically, the maritime militia also participated in China's offshore island campaigns in the 1950s, the 1974 seizure of the Paracel Islands from South Vietnam, the occupation of Mischief Reef in the Spratly Islands in 1994.

The CMM also protects and facilitates Chinese fishing vessels operating in disputed waters. From late December 2019 to mid-January 2020, a large fleet of over 50 Chinese fishing vessels operated under the escort of multiple China Coast Guard patrol ships in Indonesian claimed waters northeast of the Natuna Islands. At least a portion of the Chinese ships in this fishing fleet were affiliated with known traditional maritime militia units, including a maritime militia unit based out of Beihai City in Guangxi province. While most traditional maritime militia units operating in the SCS

continue to originate from townships and ports on Hainan Island, Beihai is one of a number of increasingly prominent maritime militia units based out of provinces in mainland China. These mainland based maritime militia units routinely operate in the Spratly Islands and in the southern SCS, and their operations in these areas are enabled by increased funding from the Chinese government to improve their maritime capabilities and grow their ranks of personnel.

CMM AND LAND RECLAMATION IN THE SOUTH CHINA SEA

Since at least 2014, CMM vessels have engaged in covert small scale reclamation activity and likely caused physical changes observed at multiple unoccupied features in the Spratly Islands, including Lankiam Cay, Eldad Reef, Sandy Cay, and Whitsun Reef. Beijing likely is attempting to covertly alter these features so that it can portray them as naturally formed high tide elevations capable of supporting PRC maritime claims out to the farthest extent of the nine-nash line. In contrast to the PRC large-scale reclamation program, which was overt and where the original status of occupied features is well documented, the less well-known historical record about many of the unoccupied features makes them more susceptible to PRC efforts to shape international opinion regarding the status of the features.

Through the National Defense Mobilization Department, Beijing subsidizes various local and provincial commercial organizations to operate CMM vessels to perform "official" missions on an ad hoc basis outside of their regular civilian commercial activities. CMM units employ marine industry workers, usually fishermen, as a supplement to the PLAN and the CCG. While retaining their day jobs, these mariners are organized and trained, often by the PLAN and the CCG, and can be activated on demand.

Since 2014, China has built a new Spratly backbone fleet comprising at least 235 large steel-hulled fishing vessels, many longer than 50 meters and displacing more than 500 tons. These vessels were built under central direction from the PRC government to operate in disputed areas south of 12 degrees latitude that China typically refers to as the "Spratly Waters," including the Spratly Islands and southern SCS. Spratly backbone vessels were built for prominent CMM units in Guangdong, Guangxi, and Hainan Provinces. For vessel owners not already affiliated with CMM units, joining the militia was a precondition for receiving government funding to build new Spratly backbone boats. As with the CCG and PLAN, new facilities in the Paracel and Spratly Islands enhance the CMM's ability to sustain operations in the SCS.

Starting in 2015, the Sansha City Maritime Militia in the Paracel Islands has been developed into a salaried full-time maritime militia force with its own command center and equipped with at least 84 purpose-built vessels armed with mast-mounted water cannons for spraying and reinforced steel hulls for ramming. Freed from their normal fishing responsibilities, Sansha City Maritime Militia personnel – many of whom are former PLAN and CCG sailors – train for peacetime and wartime

contingencies, often with light arms, and patrol regularly around disputed South China Sea features even during fishing moratoriums.

The Tanmen Maritime Militia is another prominent CMM unit. Homeported in Tanmen township on Hainan Island, the formation was described by Xi as a "model maritime militia unit" during a visit to Tanmen harbor in 2013. During the visit, Xi encouraged Tanmen to support "island and reef development" in the SCS. Between 1989 and 1995, the Tanmen Maritime Militia, under the authority of the PLAN Southern Theater Navy (then the South Sea Fleet), was involved in the occupation and reclamation of PRC outposts in the Spratly Islands, including Subi Reef, Fiery Cross Reef, and Mischief Reef.

SPECIAL OPERATIONS FORCES

Key Takeaways

- Despite unilateral and multilateral training, all of China's SOF units lack real-world combat experience.
- China's SOF does not have a national-level special operations command to oversee all of China's SOF activities.
- Despite an emphasis to conduct joint training, theater commanders have no authority over PAP units, making it difficult to incorporate PAP SOF into PLA training exercises.
- The PRC categorizes its non-traditional security threats as terrorism (domestic and international), separatism (entities looking to break away from China such Taiwan, Tibet, and the Uyghur minority population in western China), and extremism (primarily religious).

In late 2015, the PRC's SOF were impacted by a series of reforms that aimed to "reorganize troops and rebuild new-type combat forces. New types of combat forces have been enhanced to conduct special operations, all-dimensional offense and defense, amphibious operations, far seas protection, and strategic projection, aiming to make the force composition complete, combined, multi-functional, and flexible." In 2016, additional changes to Chinese law were made authorizing the PRC's SOF to conduct operations outside of China's borders.

Mission. The PRC's SOF are tasked to conduct three primary missions; direct action, special reconnaissance, and counterterrorism. The goal of the PRC's SOF operations are to prepare the battlefield for their conventional force counterparts by attacking critical areas, degrading enemy operational systems and capabilities, and delaying or disrupting enemy operational activities. In conventional warfare, the PRC's SOF missions include, but are not limited to, disrupting rear echelon formations and activities, destroying or securing key targets, decapitation, and targeting for fire support. The PRC's SOF can also conduct humanitarian aid and disaster relief (HADR) missions, noncombatant evacuation operations (NEO), and personal security assignments. While PLA SOF can conduct counterterrorism missions, PAP SOF are specifically tasked with this

mission. The PRC categorizes its non-traditional security threats as terrorism (domestic and international), separatism (entities looking to break away from China such Taiwan, Tibet, and the Uyghur minority population in western China), and extremism (primarily religious).

- **PLA Army SOF.** PLAA SOF train to clear obstacles, operate behind enemy lines, land navigation, reconnaissance, targeting, blocking maneuvers, and first aid. PLAA SOF units from the Eastern Theater Command train for maritime missions by swimming, maneuvering small rubber boats, marksmanship from moving boats, and scuba diving. In a 2016 exercise, forces from a Southern Theater Command Army SOF Brigade (BDE) conducted an air assault mission off the coast then traveled 5 km to the shoreline.

- In September 2020, attack and transport helicopters from the 73rd Army Group (GA) conducted air assault training with elements from a 73rd GA SOF BDE.

- That same month, elements from a Southern Theater Command SOF BDE deployed to a new training area and conducted a command post exercise and force-on-force exercise.

- **PLA Navy Marine Corps SOF.** PLANMC SOF are trained to conduct ground-based special operations, as well as coastal and maritime missions, including maritime counterterrorism, HADR, NEO and visit, board, search and seizure operations. They train for more than a year learning airborne, rappelling, reconnaissance, secure communication, navigation, driving, search and seizure, demolition, and hand-to-hand combat skills. They also practice deploying rubber boats and fast-roping from helicopters into the water. In December 2020, PLANMC SOF participated in a combined arms island seizure exercise with mechanized infantry units where the SOF used mine-clearing line charges to destroy obstacles with sniper teams in overwatch.

- **PLA Air Force Airborne Corps SOF.** The PLAAF Airborne Corps, created in 2011, train to conduct high-altitude, high-opening and high-altitude, low-opening airborne missions for critical target seizure, combat search and rescue, and fire support coordination during extraction.

- **PLA Rocket Force Reconnaissance Regiment.** The PLARF Reconnaissance Regiment which is based in Qinghai, can conduct air, land, and sea missions including counter-ISR, strategic asset protection, special reconnaissance, and target acquisition.

- **People's Armed Police SOF.** The PAP has three main SOF units assigned to the two mobile contingents and the Xinjiang Military District. The Mountain Eagle Commando Unit created in 2019 and based in Xinjiang is trained to conduct counterterrorism missions within the province. The other two PAP SOF units, the Snow Leopards Commando Unit and the Falcon Commando Unit, are large rapid reaction forces with mixed capabilities that can be deployed in major contingencies on a national level. These units are also trained to conduct counterterrorism missions along with hostage rescue, and include assault, reconnaissance, explosive ordnance disposal, and sniper teams. The Snow Leopards have strict selection

standards with a 40-50 percent of recruits failing the initial screening. The Snow Leopards' annual "Devil Week" training simulates counterterrorism missions in multiple combat environments including desert, jungle, urban terrain, air, and sea.

Personnel. The PRC's SOF currently has between 20,000 and 30,000 personnel. The PRC's SOF units are comprised of experienced officers and non-commissioned officers but are also assigned new conscripts and officers that recently graduated from basic training or military academy, including the Special Operations Academy in Guangzhou. SOF conscripts are selected from volunteers suggesting they are among the most qualified that commit to a two-year term of service. After their two-year commitment, the conscripts are offered to continue service as noncommissioned officers.

Structure and Organization. Beginning in January 2016, the PLA underwent several reforms that impacted the PLA SOF. The seven military regions were reorganized into five theater commands (TC) and five of the 18 GA were deactivated. The PLA SOF were also reorganized assigning a SOF BDE to each GA along with a SOF BDE for the Xinjiang and Tibet Military Districts. These and later reforms also impacted the PLARF Reconnaissance Regiment, the PLAAF Airborne Corps SOF BDE, and the PAP SOF units. Some of these SOF units are relatively new and were created using conventional forces to expand the PLA's SOF capability. All PLA SOF units are supported by the PLA Air Force's 15th Airborne Corps for tactical insertion, extraction, and resupply.

Each PLA SOF BDE has between 2,000 and 3,000 personnel while a regiment has between 1,000 and 2,000 personnel. While PLA SOF units have discrete missions based on branch and location, their internal structure resembles the PLA Army brigade-battalion-company-team construct with a main, reserve, and rear command structure.

There are three SOF units within the PAP which have a total of six detachments. Three detachments are assigned to the 1st Mobile Contingent based in Beijing, two detachments are assigned to the 2nd Mobile Contingent based in Guangzhou, and one detachment falls under the Xinjiang Internal Contingent.

There is no national-level special operations command responsible for all SOF activities. PLA SOF also does not have organic or dedicated infrastructure or support and therefore must rely on conventional forces to support their missions whereas the PAP does have an internal logistic support system to support its SOF missions.

MAJOR PAP AND PLA SOF UNITS		
HIGHER HEADQUARTERS	UNIT	UNIT NAME
Central Military Commission	People's Armed Police	Snow Leopards Commando Unit
		Falcon Commando Unit
		Mountain Eagle Commando Unit
Northern Theater Command	78th Group Army SOF BDE	Tigers of the Northeast
	79th Group Army SOF BDE	Lions
	80th Group Army SOF BDE	Falcons
Eastern Theater Command	71st Group Army SOF BDE	Sharks
	72nd Group Army SOF BDE	Thunderbolts
	73rd Group Army SOF BDE	Dragons of the East Sea
Southern Theater Command	74th Group Army SOF BDE	Unknown
	75th Group Army SOF BDE	Sword of the South
	PLA Navy Marine Corps SOF BDE	Sea Dragons
Western Theater Command	76th Group Army SOF BDE	Sirius
	77th Group Army SOF BDE	Cheetahs
	Xinjiang Military District SOF BDE	Snowy Owls
		Sharp Blade of the Kunlun
	Tibet Military District SOF BDE	Snow Leopards of the Plateau
Central Theater Command	PLA Rocket Force Reconnaissance Regiment	Sharp Blade
	PLA Air Force Airborne Corps SOF BDE	Thunder Gods
	81st Group Army SOF BDE	Sacred Sword of the East
	82nd Group Army SOF BDE	Whistling Arrows
	83rd Group Army SOF BDE	Ferocious Tigers of the Central Plain

Internal Training and Exercises. The PRC's SOF focus on individual and squad-level training; however, they have participated in larger combined arms and joint exercises. SOF training entails physical fitness training, close quarters combat, individual and team survival, camouflage, weapons proficiency, land navigation, and communication. All PRC SOF units are airborne and air assault capable.

The recent reforms under Xi gave theater commanders authority over a wider range of forces including PLA SOF and also emphasized joint training. However, these reforms did not create joint task forces which might encourage increased coordination between the services. The restructuring to theater commands has not resulted in increased integration of PLA SOF into joint training. There is scant evidence of PRC's SOF units from different services training together or

with conventional forces, the exception being PLAAF aircraft for PLAA SOF airborne training. There is also no evidence that PAP SOF units have participated in joint exercises with any PLA forces. Theater commanders have no authority over PAP units, making it difficult to incorporate PAP SOF into PLA training exercises.

External Training and Exercises. In 2002, the PLA began participating in multinational training exercises and since then, PRC's SOF personnel and units, to include PAP SOF, have taken part in several foreign events, primarily focused on counterterrorism. Some of these events were held with units from Belarus, India, Pakistan, Sri Lanka, Mongolia, Russia, Thailand, Indonesia, Malaysia, and Jordan. Individual PLA SOF personnel and small units have participated in training in Israel, Turkey, Estonia, Colombia, and Venezuela In August 2021, PLA SOF participated in joint training exercise "Zapad" with their Russian counterparts to help maintain security and stability in the Transbaikal region. Supported by Y-20 transport aircraft, PLA SOF focused their training on large-scale airborne exercises including heavy equipment insertion. Of note, the PAP's Snow Leopards have won the International Warrior Competition held at Jordan's King Abdullah II Special Operations Training Centre in Amman several times.

Equipment and Sustainment. The PRC's SOF units are equipped with the most modern domestically-produced weapons and equipment. These include advanced communication and electronics, unmanned aerial systems ranging from micro-UAVs to the medium-altitude long endurance platforms, night vision devices, targeting devices, parachutes, and light vehicles, boats, and aircraft. PLA SOF units tasked with conducting clandestine maritime missions are also equipped with diver navigation aids, radios, undersea sensors, diver propulsion systems, underwater personnel delivery systems, and handheld direction-finding sonars for low-visibility underwater environments.

PLA SOF do not have an internal support system to conduct missions and relies on the theater command to meet their logistical needs whereas the PAP has an internal logistic system separate from the PLA to meet their sustainment needs during operations.

Operational Capabilities. Most PLA ground SOF units appear to be elite light infantry units that can be inserted behind enemy lines but are limited by their conventional force counterpart's ability to support their mission. PLA SOF brigades emphasize a "centralized command style"—common in conventional units—as opposed to a more flexible "task-oriented command style" via radio and satellite communications. PLA Army SOF brigades also include liaison officers from pertinent PLA Navy, Air Force, Rocket Force, and aviation units in their command post to facilitate SOF missions in support of theater command operations. PLA SOF brigades also face the same C2 issues that conventional PLA brigades encounter. One example from 2019 showed that voice communications were difficult to maintain using single-function and limited bandwidth radios and satellite communications terminals. This limited communication between the brigade and below conventional forces as well as the supporting SOF battalion and below forces.

Many U.S. SOF activities do not fall within the purview of China's SOF missions. PLA SOF do not conduct military information support operations (also known as psychological operations).

These operations are conducted by elements within the PLA Political Department System. However, PLA SOF units may assist in larger information support operations, but would not be in command. PLA SOF also do not have units equivalent to U.S. Army Civil Affairs units.

Humanitarian aid and disaster relief (HADR) is a mission conducted by all PLA, PAP, and militia units in conjunction with local civilian authorities. The PRC's SOF may provide support in the form of communications and reconnaissance in remote areas, but would not be the lead agency for HADR missions.

Both the PLAA and PLAAF lack aviation assets to conduct long-range insertions of PLA SOF to conduct strategic-level direct action or reconnaissance, but they can conduct air insertions of SOF in support of theater operations. Helicopters are used to transport SOF for airborne and air assault missions. All PLA airborne-qualified SOF train in fixed-wing aircraft, such as the Yun-5 biplane, which can also be used for SOF missions. However, the PLA's shortage of long-range, heavy transport aircraft means PLA Air Force units receive priority to use these aircraft for airborne training.

Employment. Since 2008, approximately 70 PLANMC SOF personnel have deployed to the Gulf of Aden aboard PLAN vessels as part of the PRC's counterpiracy operations. In 2015, PLA SOF conducted search and rescue, medical evacuation, and force protection operations in Nepal following an earthquake. Also in 2015, PLANMC SOF helped evacuate foreign nationals due to the war in Yemen and in 2017, PLANMC SOF recaptured a hijacked freighter from Somali pirates in the Gulf of Aden. In 2020, PLA SOF from the Tibet Military Region deployed to the border with India following clashes between Chinese and Indian forces along the LAC.

JOINT CAPABILITIES IN DEVELOPMENT

Key Takeaways

- The PLA is aggressively developing capabilities to provide options for the PRC to dissuade, deter, or, if ordered, defeat third-party intervention in the Indo-Pacific region.
- The PLA continues developing the capabilities to conduct military operations deeper into the Indo-Pacific region and globally.
- The PLA has undertaken important structural reforms and introduced new military doctrine to strengthen joint operations and is testing joint capabilities in and beyond the FIC.

UNDERGROUND FACILITIES

The PLA maintains a robust and technologically advanced underground facility (UGF) program to conceal and protect all aspects of its military forces, including C2, weapons of mass destruction, logistics, and modernized missile, ground, air, and naval forces. The PRC has thousands of UGFs and constructs more each year. These UGFs are central to The PRC's counter-intervention and power projection efforts, enabling the PLA to protect valuable assets from the effects of missile strikes and to conceal military operations from adversaries. The PRC's emphasis on strategic deterrence has also contributed to the construction of UGFs for the country's nuclear forces, which aims to survive an initial nuclear first-strike by an adversary.

The PRC began to update and expand its military UGF program in the mid- to late-1980s. This modernization effort took on renewed urgency following the PRC's observation of U.S. and Coalition air operations during the 1991 Gulf War and their use in OPERATION ALLIED FORCE. These military campaigns convinced China it needs to build more survivable, deeply buried facilities to protect military assets from the effects of penetrating conventional munition and nuclear strikes. Since the 2015-2016 military reforms, the PRC has expanded their UGF program to support survivable and redundant nodes for its wartime contingency planning. These nodes aim to enable continuous C2, communications, sustainment, and counterstrike capabilities across all PLA services and domains, as well as its joint forces. The PRC will likely continue to develop and expand its UGF program to support its expanding forces and military modernization.

JOINT CAPABILITIES FOR COUNTERINTERVENTION

The PRC's counter-intervention strategy aims to restrict the United States from having a presence in the PRC's immediate periphery and limit U.S. access in the broader Indo-Pacific region. The PLA's A2/AD—otherwise known as "counterintervention"—capabilities are, to date, the most robust within the FIC, although the PLA is increasingly able to project power into the Philippine Sea and the PRC seeks to strengthen its capabilities to reach farther into the Pacific Ocean.

Long-Range Precision Strike and Supporting ISR. PLA texts state that precision attack in all warfare domains is critical in modern war. The PLA further notes that small elite forces using advanced weapons or capabilities can attain military effects that previously required large armies and much higher levels of damage and cost. Therefore, PLA writings state that precision weapons are not only force multipliers, but also a means of "war control" to prevent escalation. PLA documents further state that the range of vital political, economic, and military targets has grown as the advanced globalized economy develops, implying that growing PLA strike capabilities will attack an increasing array of targets, and, thereby, attain international strategic effects by striking critical nodes of the global economy during a future conflict.

The PRC's military modernization efforts have rapidly transformed the PLA's missile force. The force is increasingly capable of conducting strikes against regional air bases, logistics and port facilities, communications, and other ground-based infrastructure—targets that PLA writings discuss as adversary vulnerabilities. The PLA is capable of reaching U.S. bases in Guam with ballistic and cruise missiles. In the future, PLA LACMs will also likely be deployable on surface platforms like the RENHAI-class guided-missile cruisers. H-6K bomber flights into the Philippine Sea demonstrate the PRC's ability to range Guam with air-launched LACMs. The DF-26 intermediate range ballistic missile is a capable of ranging Guam and is capable of conducting nuclear, precision conventional, and maritime attacks.

The PRC views its ability to acquire timely, high-fidelity information as critical to its ability to execute precision strikes. The PLA's information support system for precision strikes depends heavily on Strategic Support Force (SSF) assets to detect, identify, target, and conduct battlefield damage assessments. The PRC emphasizes the importance of space-based surveillance capabilities in supporting precision strikes and, in 2022, continued to develop its constellation of military reconnaissance satellites that could support monitoring, tracking, and targeting of U.S. and allied forces. The PRC is also investing in reconnaissance, surveillance, command, control, and communications systems at the strategic, operational, and tactical levels to provide high-fidelity OTH targeting information for its strike platforms.

Integrated Air Defense System (IADS). The PRC has a robust and redundant IADS architecture over land areas and within 300 nm (556 km) of its coast that relies on an extensive early warning radar network, fighter aircraft, and a variety of SAM systems. The PRC has also placed radars and air defense weapons on outposts in the SCS, further extending the range of its IADS. It also employs point defenses, primarily to defend strategic targets against adversary long-range cruise missiles and airborne strike platforms.

The PLA has increasing numbers of advanced long-range SAMs, including its indigenous CSA-9 (HQ-9) and its follow-on HQ-9B, Russian SA-10 (S-300PMU), and SA-20 (S-300PMU1/PMU2), all of which have the advertised capability to protect against both aircraft and low-flying cruise missiles. To improve its strategic air defenses, the PLA possesses Russian-built SA-21 (S-400) Triumf SAM systems as a follow-on to the SA-20. Compared to these other systems, the SA-21 systems possess a longer maximum range, improved missile seekers, and more sophisticated radars.

The PRC manufactures a variety of long-range air surveillance radars, including models claiming to support BMD and other models asserting the ability to detect stealth aircraft. Marketing materials also emphasize these systems' ability to counter long-range airborne strike and combat support aircraft. PLAAF AEW&C aircraft such as the KJ-2000 and KJ-500 can further extend the PRC's radar coverage well past the range of its ground-based radars.

Ballistic and Cruise Missile Defense. The PLA's long-range SAM inventory also offers a limited capability against ballistic missiles. The PRC's domestic CSA-9 (HQ-9) long-range SAM system likely has a limited capability to provide point defense against tactical ballistic missiles. The PLA

has SA-20 (S-300 PMU2) SAMs and SA-21 (S-400) SAMs that may have some capability to engage ballistic missiles, depending on the interceptors and supporting infrastructure. The PRC is working to develop BMD systems consisting of exo-atmospheric and endo-atmospheric kinetic-energy interceptors. The PRC is pursuing a mid-course interceptor that may have capabilities against IRBMs and possibly ICBMs.The Type-055 Destroyer has been identified as a platform for mid-course intercept capabilities, suggesting the PRC will have forward deployed missile defense in the near future. Additionally, the HQ-19 interceptor has undergone tests to verify its capability against 3,000 km-class ballistic missiles. The PLA's cruise missile defense capability is more robust than that of its ballistic missile defenses, with short-to-medium range SAMs, such as the HQ-22, augmenting the PLA's long-range SAMs in this role.

Hypersonic Weapons. The PRC's deployment of the DF-17 HGV-armed MRBM will continue to transform the PLA's missile force. The system, fielded in 2020, is possibly intended to replace some older SRBM units, according to PRC media, and is intended to strike foreign military bases and fleets in the Western Pacific, according to a PRC-based military expert.

JOINT CAPABILITIES FOR POWER PROJECTION

Key Takeaways

- The PLA continues to increase its military capabilities to achieve China's regional and global security objectives beyond its immediate periphery.
- The PLA has emphasized primarily power projection capabilities in the maritime domain, while its joint operational capabilities beyond the FIC remains limited.
- Improvements of PLA air and naval systems are enabling PLA forces to operate further from China for longer periods.

PLA ground, naval, air and rocket forces are increasingly capable of projecting power at greater distances from China. However, joint service training is still in its infancy and the PLA has demonstrated limited joint operational capabilities beyond the FIC. Instead, overseas activities are mostly conducted by single services and do not involve combat. In early 2022, the Southern Theater Command Navy conducted a joint distant sea training, where personnel from the Navy, Air Force, and Rocket Force served in the joint operations command system.

Beijing recognizes the importance of increasing military capabilities to achieve global security objectives and has encouraged the PLA to increase its operations beyond the Indo-Pacific. China's 2015 and 2019 defense white papers claim that Beijing is primarily interested in developing these capabilities to protect PRC maritime rights and commercial interests. However, the majority of PLA modernization and recent exercises remains focused on winning a regional conflict. As the PRC's economic interests expand in areas like Africa, Central Asia, and the Middle East, we expect to see increased focus on expanding power projection operations globally.

PLAN Operational Experience. The PLAN's experience in extended range operations is primarily derived from naval task group deployments and its ongoing counterpiracy mission in the Gulf of Aden, humanitarian and disaster relief operations, or intelligence collection missions. However, the PLA does also deploy surface task groups into areas of the western and southern Pacific to gain incremental far seas experience.

- The PLAN has operated in the Gulf of Aden since 2008, deploying 3-4 vessels on average and 700 personnel for 4-month deployments. As of January 2023, the PLA has deployed 131 vessels and more than 32,000 personnel across 42 escort missions.
- In early 2022, the PLAN conducted distant sea joint training in the eastern Indian and western Pacific oceans. The task group included two destroyers, an amphibious landing dock, and a replenishment ship.
- In January and February 2022, the PLAN and PLAAF delivered disaster relief supplies to the Pacific Island nation Tonga.
- In March 2022, a PLA naval supply ship conducted resupply at the PLA's Support Base in Djibouti, marking the first time a PLA vessel naval ships berthed at the location.
- In August 2022, a PLA AGI conducted an intelligence collection mission during the U.S. Navy's international exercise RIMPAC.
- In September 2022, the PLA conducted a four-day maritime training exercise with guided missile destroyers in the South Pacific, near French Polynesia.
- In November 2022, the Peace Ark hospital ship conducted its first visit since 2018 to Indonesia.

PLAN PLATFORMS

New ships enable the PLAN to gradually extend its operational reach beyond East Asia. In 2022, the PLAN launched its third aircraft carrier, *Fujian*, equipped with electromagnetic catapults, capable of launching various fixed-wing aircraft. When commissioned, the carrier will be capable of launching various specialized fixed-wing aircraft for early warning, electronic warfare, or anti-submarine warfare missions, increasing the strike power potential of the PLAN.

The RENHAI and LUYANG III are the PRC's premier carrier escort for blue-water operations. The RENHAI CG, with 13,000 tons displacement and long-range ASCMs and SAMs, will likely be equipped with a planned naval variant of the Z-20 helicopter. The PLAN is engaged in series production of the RENHAI CG with at least eight units in service. The PLAN currently operates eight YUCHAO-class amphibious assault ships (LPD) and commissioned its first of three YUSHEN-class helicopter assault ships (LHD) in April 2021. The PLAN's expanding fleet of large modern amphibious warships will enable it to conduct a wide range of expeditionary operations to protect the PRC's interests or in support of international assistance operations.

The PLAN is also expanding its logistical capabilities to support long-distance operations. The PLAN now has a sizable force of highly capable logistical replenishment ships to support long-duration deployments.

The PLANMC continues to make strides towards becoming a multidimensional expeditionary force capable of conducting operations beyond the FIC to protect the PRC's growing overseas interests. The PLANMC maintains a presence at the PRC's first overseas military support facility in Djibouti, which the PRC refers to as its "PLA support base in Djibouti" (吉布提保障基地), that extends The PRC's military reach and strategic influence in Africa and the Middle East. The PLANMC's presence in Djibouti seeks to enable a military response to contingencies affecting the PRC's investments and infrastructure in the region.

Aviation Forces (PLAAF, PLAA Aviation, PLAN Aviation). PLA aviation forces are fielding advanced platforms capable of supporting future long-distance operations, as their mission sets evolve from defending Chinese territorial space to launching offensive operations at distances beyond the FIC. While interoperability is a stated priority, joint exercises between the aviation's forces are limited. Individually, the PLAAF, PLAN Aviation, and PLAA Aviation continue to improve their capabilities to conduct offensive and defensive operations offshore, including strike, air and missile defense, strategic mobility, early warning and reconnaissance missions, and insertion. The PLAAF, in particular, has received repeated calls from its leadership to become a truly "strategic" air force, able to project power at long distances to advance and defend the PRC's global interests.

- The PLA's indigenously developed Y-20A heavy-lift transport has performed numerous overseas missions, including an April 2022 arms delivery to Serbia. Y-20A aircraft have delivered humanitarian aid throughout Asia, Africa, Europe, the Middle East and the South Pacific. In 2021, the Y-20U tanker entered service, supporting the continued PLAAF expansion of air refuelable fighters, bombers, and SMA aircraft. These new air refuelable aircraft will significantly expand the PRC's ability to conduct long-range offensive air operations. In addition to aerial refueling, it is expected that there will likely be further Y-20 variants, such as a possible AWAC variant.

- The PRC is developing a new generation of long-range bombers, likely named the H-20, according to publicly released computer-generated design plans and promotional videos and a 2016 public statement by then PLAAF Commander General Ma Xiaotian. The H-20, which may debut sometime in the next decade, will have a range of more than 10,000 km, enabling the PLAAF to cover the Second Island Chain and into the western region of the Pacific. The H-20 bomber's range could be extended to cover the globe with aerial refueling. It is also expected to employ both conventional and nuclear weaponry and feature a stealthy design.

- The PLA Army aviation and air assault units are enabling highly-mobile, modular ground task force capable of expeditionary operations. According to PRC media, three Z-8 transport

aircraft battalions could airdrop a combat battalion in one lift. The Z-20 is also expected to fill a variety of missions including special force insertion and shipborne ASW.

- PRC's outposts in the SCS extend the operating reach of PLA aviation forces.

PLA Strategic Support Force (SSF). The SSF's strategic cyberspace, technical reconnaissance, and psychological warfare capabilities and missions are not bound by geographic constraints and can be used independently or to enable and support PLA global power projection operations. The SSF's information support role involves centralizing technical intelligence collection and management, which provides strategic intelligence support to the theater commands, enables power projection, and aids joint operations.

The Network Systems Department's (NSD), also referred to as the Cyberspace Force (CSF), missions across the cyber and information domains and the electromagnetic spectrum probably provide key capabilities to support PLA power projection globally, including improving China's access to the cyber domain in peacetime and contesting it in wartime.

- The PLA integrates offensive and defensive cyber operations into its joint military exercises, allowing its cyber personnel to gain operational experience while testing new capabilities.

- In August 2022, the PLA SESS Yuanwang-5 docked at Hambantota Port, in Sri Lanka. These ships are equipped with advanced electronic equipment, sensors, and antenna that can assists in tracking satellite, rocket, and ICBM launches.

The PRC continues to develop a variety of counterspace capabilities designed to limit or prevent an adversary's use of space during a crisis or conflict. In addition to the development of directed-energy weapons and satellite jammers, the PLA has an operational ground-based anti-satellite (ASAT) missile intended to target low-Earth orbit satellites. The PRC probably intends to pursue additional ASAT weapons capable of destroying satellites up to geosynchronous Earth orbit.

ADVANCING TOWARDS AN INFORMATIZED MILITARY

Key Takeaways

- The PLA considers information operations (IO) as a means of achieving information dominance early in a conflict and continues to expand the scope and frequency of IO in military exercises.

- The PRC presents a significant, persistent cyber-enabled espionage and attack threat to an adversary's military and critical infrastructure systems.

- The PLA is pursuing next-generation combat capabilities based on its vision of future conflict, which it calls "intelligentized warfare," defined by the expanded use of AI and other advanced technologies at every level of warfare.

- The PRC is advancing its cyberspace attack capabilities and has the ability to launch cyberspace attacks—such as disruption of a natural gas pipeline for days to weeks—in the United States.

Xi has called for the PLA to create a highly informatized force capable of dominating all networks and expanding the country's security and development interests. PRC military writings describe informatized warfare as the use of information technology to create an operational system-of-systems, which would enable the PLA to acquire, transmit, process, and use information during a conflict to conduct integrated joint military operations across the ground, maritime, air, space, cyberspace, and electromagnetic spectrum domains. The PLA is accelerating the incorporation of command information systems, providing forces and commanders with enhanced situational awareness and decision support to more effectively carry out joint missions and tasks to win informatized local wars. The PLA continues to expand the scope and regularity of military training exercises that simulate informatized operations and likely views offensive and defensive cyberspace operations as a means to achieve information dominance early in a crisis or conflict.

C4I MODERNIZATION

Command, Control, Communications, Computers, and Intelligence Modernization (C4I). The PRC continues to prioritize C4I modernization as a response to trends in modern warfare that emphasize the importance of rapid information collection, processing, and sharing and accelerated decision making. The PLA is continuing modernization and reform efforts, both technologically and organizationally, to effectively command complex, joint operations across all warfare domains and potentially in multiple theaters.

The PLA sees networked, technologically advanced C4I systems as essential to providing reliable, secure communications to fixed and mobile command posts, thereby enabling rapid, effective, multi-echelon decision making. These systems are designed to distribute real-time data – including intelligence, battlefield information, logistical information, and weather reports via redundant, resilient communications networks – to improve commanders' situational awareness. PLA field commanders view near-real-time ISR and situational data as well as redundant and reliable communications as essential to streamlining decision making processes and shortening response timelines. Beijing recognizes advantages of near-space ISR capabilities and will probably seek to leverage near-space platforms to augment space-based satellite capabilities or provide redundancy during times of crisis. The PRC is also fielding the Integrated Command Platform to units at multiple echelons across the force to enable lateral and cross-service communications and intelligence sharing required for joint operations.

As the PLA continues to focus on improving its ability to fight and win informatized wars, future information systems will likely implement emerging technologies such as automatization, big data, the internet of things, AI, and cloud computing to improve process efficiencies. The PLA has already begun this process by embracing big data analytics that fuse a variety of data to improve automation and to create a comprehensive, real-time picture for warfighters. The PRC's

increasingly limited access to advanced technologies from the West may impede the PLA's progress toward fully achieving an "intelligentized" military. However, the PRC is pursuing domestic production of critical technologies to reduce reliance on foreign sources.

Electronic Warfare. The PLA considers EW to be an integral component of modern warfare and seeks to achieve information dominance in a conflict through the coordinated use of cyberspace and electronic warfare to protect its own information networks and deny the enemy the use of the electromagnetic spectrum. The PRC's EW strategy emphasizes suppressing, degrading, disrupting, or deceiving enemy electronic equipment throughout the continuum of a conflict. The PLA will likely use electronic warfare prior to a conflict as a signaling mechanism to warn and deter adversary offensive action. Potential EW targets include adversary systems operating in radio, radar, microwave, infrared and optical frequency ranges, as well as adversary computer and information systems. PLA EW units routinely train to conduct jamming and anti-jamming operations against multiple communication and radar systems and Global Positioning System (GPS) satellite systems during force-on-force exercises. These exercises test operational units' understanding of EW weapons, equipment, and procedures and they also enable operators to improve confidence in their ability to operate effectively in a complex electromagnetic environment. In addition, the PLA reportedly tests and validates advances in EW weapons' R&D during these exercises.

Cyberspace Warfare. The development of cyberspace warfare capabilities is consistent with PLA writings, which identify IO – comprising cyberspace, electronic, space, and psychological warfare – as integral to achieving information superiority early in a conflict as an effective means to counter a stronger foe. The PRC has publicly identified cyberspace as a critical domain for national security and declared its intent to expedite the development of its cyber forces.

The PRC poses a sophisticated, persistent cyber-enabled espionage and attack threat to military and critical infrastructure systems and presents a growing influence threat. The PRC seeks to create disruptive and destructive effects—from denial-of-service attacks to physical disruptions of critical infrastructure—to shape decision making and disrupt military operations beginning in the initial stages and throughout a conflict. The PRC can launch cyberspace attacks that, at a minimum, can cause localized, temporary disruptions to critical infrastructure within the United States, and the PRC believes these capabilities are even more effective against militarily superior adversaries that depend on information technologies. As a result, the PRC is advancing its cyberspace attack capabilities and has the ability to launch cyberspace attacks—such as disruption of a natural gas pipeline for days to weeks—in the United States.

Authoritative PLA sources call for the coordinated employment of space, cyberspace, and EW as strategic weapons to "paralyze the enemy's operational system of systems" and "sabotage the enemy's war command system of systems" early in a conflict. PLA writings judge other countries have effectively used cyberspace warfare and other IO in recent conflicts and argue for attacks against C2 and logistics networks to affect an adversary's ability to make decisions and take actions in the early stages of conflict. The PLA also considers cyberspace capabilities to be a

critical component in its overall integrated strategic deterrence posture, alongside space and nuclear deterrence. PLA studies discuss using warning or demonstration strikes—strikes against select military, political, and economic targets with clear awing effects—as part of deterrence. Accordingly, the PLA probably seeks to use its cyber-reconnaissance capabilities to collect data for intelligence and cyberspace attack purposes; to constrain an adversary's actions by targeting network-based logistics, C2, communications, commercial activities, and civilian and defense critical infrastructure; and, to serve as a force-multiplier when coupled with kinetic attacks during armed conflict.

In addition, PLA publications emphasize the importance of cyber defense to defend the PRC's critical infrastructure and military system-of-systems against adversary reconnaissance and attacks. The PLA likely views cyber defense as including preventative measures as well as offensive actions to deter or disrupt adversary cyberspace activity.

The PLA may further change how it organizes and commands IO, particularly as the SSF continues to develop its capabilities and further integrate into joint planning, exercises, and operations with other PLA forces. The SSF likely is generating synergies by combining national-level cyberspace reconnaissance, attack, and defense capabilities in its organization, alongside other strategic IO capabilities, and integrating into theater command planning and operations.

CYBERSPACE ACTIVITIES DIRECTED AGAINST THE U.S. DEPARTMENT OF DEFENSE (DOD)

China-based intrusions continued to target computer systems around the world, including those owned by the U.S. Government, throughout 2022. These and past intrusions exploit known vulnerabilities to actively target U.S. government networks to steal intellectual property and develop access into sensitive networks. The PRC uses its cyberspace capabilities, not only to support intelligence collection against U.S. academic, economic, military, and political targets, but also to exfiltrate sensitive information from the critical defense infrastructure and research institutes to gain economic and military advantage and possibly for cyberattack preparations. The targeted information can benefit the PRC's defense high-technology industries, support the PRC's military modernization, provide the PRC's leadership with insights into U.S. plans and intentions, and enable diplomatic negotiations. Moreover, targeted information could enable their cyberspace forces to build an operational picture of U.S. defense networks, military disposition, logistics, and related military capabilities that could be exploited prior to or during a crisis. The access and skillset required for these intrusions are similar to those necessary to conduct cyberspace operations in an attempt to deter, delay, disrupt, and degrade DoD operations prior to or during a conflict. Taken together, these cyber-enabled campaigns either directly or indirectly impact the United States' ability to project, or defend against, military action.

Intelligentized Warfare. In recent years, the PLA has increasingly emphasized intelligentization as a leading element of its modernization plans. The PRC is in the middle of its 14th Five-Year Plan, covering years 2021-2025, in which it outlined the development of intelligentized weapons as important to keep pace with modern warfare. Beijing is applying its research into AI technologies, such as machine learning and human-machine teaming, to military processes, such as decision-making to ultimately gain a cognitive advantage in future warfare.

PLA strategists have stated new technologies would enhance the PLA's capability to process and utilize information at scale and machine speed, allowing decision-makers to plan, operate, and support cross-domain unconventional and asymmetrical fighting in the battlefield. The PLA is researching various applications for AI including support for missile guidance, target detection and identification, and autonomous systems. The PLA is exploring next-generation operational concepts for intelligentized warfare, such as attrition warfare by intelligent swarms, cross-domain mobile warfare, AI-based space confrontation, and cognitive control operations. The PLA also considers unmanned systems to be critical intelligentized technology, and is pursuing greater autonomy for unmanned aerial, surface, and underwater vehicles to enable manned and unmanned teaming, swarm attacks, optimized logistic support, and distributed ISR, among other capabilities.

SPACE AND COUNTERSPACE CAPABILITIES

Key Takeaways

- The PLA views space superiority, the ability to control the space-enabled information sphere and to deny adversaries their own space-based information gathering and communication capabilities, as critical components to conduct modern "informatized warfare."
- The PLA continues to invest in improving its capabilities in space-based ISR, satellite communication, satellite navigation, and meteorology, as well as human spaceflight and robotic space exploration.
- The PLA continues to acquire and develop a range of counterspace capabilities and related technologies, including kinetic-kill missiles, ground-based lasers, and orbiting space robots, as well as expanding space surveillance capabilities, which can monitor objects in space within their field of view and enable counterspace actions.

Space Strategy and Doctrine. The PRC officially advocates for the peaceful use of space and is pursuing agreements in the United Nations on the "non-weaponization" of space. The PRC continues to improve its counterspace weapons capabilities and has enacted military reforms to better integrate cyberspace, space, and EW into joint military operations. The PRC's space strategy is expected to evolve over time, keeping pace with the application of new space technology. These changes probably will be reflected in published national space strategy documents, through space policy actions, and in programs enacted by political and military leadership. In September 2021, Xi stated that "space is an important strategic asset for the country that must be well managed and

utilized and, more importantly, protected," and called for strengthened space traffic management and international cooperation on security issues to improve effectiveness in managing crises in space.

The PLA views space superiority, the ability to control the space-enabled information sphere and to deny adversaries their own space-based information gathering and communication capabilities, as a critical component to conduct modern "informatized warfare." The PRC's first public mention of space and counterspace capabilities came as early as 1971, largely from academics reviewing foreign publications on ASAT technologies. However, Chinese science and technology efforts on space began to accelerate in the 1980s, most likely as a result of the U.S. space-focused Strategic Defense Initiative to defend against the former Soviet Union's nuclear weapons. Subsequently, after observing the U.S. military's performance during the 1991 Gulf War, Kosovo, Afghanistan, and the second Iraq War, the PLA embarked on an effort to modernize weapon systems, across all domains including space, and update its doctrine to focus on using and countering adversary information-enabled warfare.

The PRC's perceptions of the importance of space-enabled operations to the United States and its allies has shaped integral components of PLA military planning and campaigns. In addition, space is a critical enabler of beyond-line-of-sight operations for deployed Chinese forces, and the PLA sees counterspace operations as a means to deter and counter a U.S. intervention during a regional military conflict. The PRC has claimed that "destroying or capturing satellites and other sensors" would make it difficult for the U.S. and allied militaries to use precision-guided weapons. Moreover, Chinese defense academics suggest that reconnaissance, communication, navigation, and early warning satellites could be among the targets of attacks designed to "blind and deafen the enemy."

Space and Counterspace Capabilities. The PRC's space enterprise continues to mature rapidly and Beijing has devoted significant economic and political resources to growing all aspects of its space program, from military space applications to civil applications such as profit-generating launches, scientific endeavors, and space exploration. The PRC's space enterprise includes the SSF and also encompasses other military, government, and civilian organizations, including state-owned enterprises, academic institutions, and commercial entities. The PLA has historically managed the PRC's space program and the SSF Space Systems Department is responsible for nearly all PLA space operations. The PRC continues to strengthen its military space capabilities despite its public stance against the weaponization of space. The PLA continues to invest in improving its capabilities in space-based ISR, satellite communication, satellite navigation, and meteorology, as well as human spaceflight and robotic space exploration. The PRC has built an expansive ground support infrastructure to support its growing on-orbit fleet and related functions including spacecraft and space launch vehicle (SLV) manufacture, launch, C2, and data downlink. Additionally, the PRC continues to develop counterspace capabilities—including direct ascent, co-orbital, electronic warfare, and directed energy capabilities—that can contest or deny an adversary's access to and operations in the space domain during a crisis or conflict.

The PRC has devoted considerable economic and technological resources to growing all aspects of its space program, improving military space applications, developing human spaceflight, and conducting lunar and Martian exploration missions. In 2022, the PRC conducted over 60 successful space launches, which is a three-fold increase compared to five years ago. One of these launches was a technology testing mission of a reusable spaceplane, which was in orbit from August 2022 until May 2023. These 2022 launches carried over 180 satellites into orbit, which is a five-fold increase in satellites deployed compared to five years ago. Last year, the PRC completed construction of the three-module Chinese space station. Furthermore, the PRC has launched a robotic lander and rover to the far side of the Moon; a lander and sample return mission to the Moon; and an orbiter, lander, and rover in one mission to Mars. The PRC has launched multiple ASAT missiles that are able to destroy satellites and developed mobile jammers to deny SATCOM and GPS.

The PRC's goal is to become a broad-based, fully capable space power. Its rapidly growing space program—second only to the United States in the number of operational satellites—is a source of national pride and part of Xi's "China Dream" to establish a powerful and prosperous China. The space program, managed by the PLA, supports both civilian and military interests, including strengthening its science and technology sector, growing international relationships, and modernizing the military. The PRC seeks to rapidly achieve these goals through advances in the research and development of space systems and space-related technology.

The PLA continues to acquire and develop a range of counterspace capabilities and related technologies, including kinetic-kill missiles, ground-based lasers, and orbiting space robots, as well as expanding space surveillance capabilities, which can monitor objects in space within their field of view and enable counterspace actions. In concert with its marked improvements in satellite navigation, launch capabilities, and space object surveillance and identification, the PRC is developing electronic warfare capabilities such as satellite jammers; offensive cyberspace capabilities; and directed-energy weapons. Moreover, the PRC has demonstrated sophisticated, potentially damaging on-orbit behavior with space-based technologies. The PRC has an operational ground-based anti-satellite (ASAT) missile intended to target low-Earth orbit satellites, and China probably intends to pursue additional ASAT weapons capable of destroying satellites up to geosynchronous Earth orbit. The PRC is employing more sophisticated satellite operations and is probably testing dual-use technologies in space that could be applied to counterspace missions.

ISR Satellite Capabilities. The PRC employs a robust space-based ISR capability designed to enhance its worldwide situational awareness. Used for military and civilian remote sensing and mapping, terrestrial and maritime surveillance, and intelligence collection, China's ISR satellites are capable of providing electro-optical and synthetic aperture radar (SAR) imagery as well as electronic and signals intelligence data. The PRC also exports its satellite technology globally, including its domestically developed remote-sensing satellites.

As of March 2022, China's ISR satellite fleet contained more than 290 systems—a quantity second only to the United States, and nearly doubling China's in-orbit systems since 2018. The PLA owns and operates about half of the world's ISR systems, most of which could support monitoring, tracking, and targeting of U.S. and allied forces worldwide, especially throughout the Indo-Pacific region. These satellites also allow the PLA to monitor potential regional flashpoints, including the Korean Peninsula, Taiwan, Indian Ocean, and the SCS. In early 2023, the United States announced sanctions against Chinese companies Spacety and China HEAD Aerospace for providing imagery of Ukraine to Russian private military company Wagner during the conflict.

Recent improvements to the PRC's space-based ISR capabilities emphasize the development, procurement, and use of increasingly capable satellites with digital camera technology as well as space-based radar for all-weather, 24-hour coverage. These improvements increase China's monitoring capabilities—including observation of U.S. aircraft carriers, expeditionary strike groups, and deployed air wings. Space capabilities will enhance potential PLA military operations farther from the Chinese coast. These capabilities are being augmented with electronic reconnaissance satellites that monitor radar and radio transmissions.

Satellite Communications. The PRC owns and operates more than 60 communications satellites, at least four of which are dedicated to military use. The PRC produces its military-dedicated satellites domestically. Its civilian communications satellites incorporate off -the-shelf commercially manufactured components. The PRC is fielding advanced communications satellites capable of transmitting large amounts of data. Existing and future data relay satellites and other beyond-line-of-sight communications systems could convey critical targeting data to Chinese military operation centers.

In addition, China is making progress on its ambitious plans to propel itself to the forefront of the global SATCOM industry. China is continuing to test next-generation capabilities like its Quantum Experimentation at Space Scale (QUESS) space-based quantum-enabled communications satellite, which could supply the means to field highly secure communications systems. In 2016, the PRC launched the world's first quantum communications satellite (Micius) into low Earth orbit, and in July 2022, the PRC launched an additional experimental quantum satellite Testing satellite-based quantum entanglement represents a major milestone in building a practical, global, ultrasecure quantum network, but the widespread deployment and adoption of this technology still faces hurdles.

The PRC also intends to provide SATCOM support to users worldwide and plans to develop at least seven new SATCOM constellations in low earth orbit (LEO), most notably one from state-owned enterprise China SatNet. These constellations are still in the early stages of development and may begin to launch in the next year.

Position, Navigation, and Timing (PNT) Capabilities. The PRC's satellite navigation system, known as BeiDou, is an independently constructed, developed, and exclusively China-operated PNT service. It reached initial operating capability in 2018 and was finalized with its last launch in 2020. The PRC's priorities for BeiDou are to support national security and economic and

social development by adopting Chinese PNT into precise agriculture, monitoring of vehicles and ships, and aiding with civilian-focused services across more than 100 countries in Africa, Asia, and Europe. BeiDou provides all-time, all-weather, and high-accuracy PNT services to users domestically, in the Asia-Pacific region, as well as globally and consists of 49 operational satellites. The PRC's military uses BeiDou's high-accuracy PNT services to enable force movements and precision guided munitions delivery.

BeiDou has a worldwide positional accuracy standard of 10 meters; accuracy in the Asia-Pacific region is within 5 meters. In addition to providing PNT, the BeiDou constellation offers unique capabilities, including text messaging and user tracking through its Regional Short Message Communication service to enable mass communications among BeiDou users. The system also provides additional military C2 capabilities for the PLA.

The PRC intends to use its BeiDou constellation to offer additional services and incentives to countries taking part in its BRI emphasizing building strong economic ties to other countries to align partner nations with the PRC's interests. In 2021, China predicted Beidou products and services will be worth $156 billion by 2025, and potentially export BeiDou products to more than 100 million users in 120 countries.

Human Spaceflight and Space Exploration Efforts. Following uncrewed missions that began in 1999, China became the third country to achieve independent human spaceflight when it successfully orbited the crewed Shenzhou-5 spacecraft in 2003. In 2011, China then launched its first space station, Tiangong-1, and in 2016, it launched its second space station, Tiangong-2. In 2020, China conducted its first orbital test of the New-Generation Manned Spaceship, which is expected to replace the Shenzhou series of crewed spacecraft. In 2022, China successfully launched the Mengtian Chinese Space Station laboratory module into orbit, completing the three-module Chinese space station.

China has also taken on a greater role in deep space exploration and space science and has made notable accomplishments during the past several years. The PRC has demonstrated its interest in working with Russia and the European Space Agency (ESA) to conduct deep-space exploration. China was the third country to place a robotic rover on the Moon and was the first to land a rover on the lunar far side in 2019, which is communicating through the Queqiao relay satellite that China launched the year before to a stable orbit around an Earth-Moon Lagrange point. In May 2021, the PRC landed the Zhurong rover on Mars, the first Chinese rover to operate on Mars. This rover has provided China with valuable scientific data of the Martian surface and underground.

Space Launch Capabilities. The PRC is improving its space launch capabilities to ensure it has an independent, reliable means to access space and to compete in the international space launch market. The PRC continues to improve manufacturing efficiencies and launch capabilities overall, supporting continued human spaceflight and deep-space exploration missions—including to the Moon and Mars. New modular SLVs that allow the PRC to tailor an SLV to the specific configuration required for each customer are beginning to go into operation, leading to increased launch vehicle reliability and overall cost savings for launch campaigns. The PRC is also in the

early stages of developing a super heavy-lift SLV similar to the U.S. Saturn V or the newer U.S. Space Launch System to support proposed crewed lunar and Mars exploration missions.

In addition to land-based launches, in 2019, the PRC demonstrated the ability to launch a Long March-11 (LM-11) SLV from a sea-based platform. Since 2021, the PRC has been expanding its sea launch infrastructure near Haiyang to expand the frequency of sea launch missions. This capability, if staged correctly, would allow the PRC to launch nearer to the equator than its land-based launch sites, increase the rocket's carrying capacity, and potentially lower launch costs.

The PRC has developed quick-response SLVs to increase its attractiveness as a commercial small satellite launch provider and to rapidly reconstitute LEO space capabilities, which could support PRC military operations during a conflict or civilian response to disasters. Compared with medium- and heavy-lift SLVs, these quick-response SLVs are able to expedite launch campaigns because they are transportable via road or rail and can be stored launch-ready with solid fuel for longer periods than liquid-fueled SLVs. Because their size is limited, quick-response SLVs such as the Kuaizhou-1 (KZ-1), LM-6, and LM-11 are only able to launch relatively small payloads of up to approximately 2 metric tons into LEO.

The expansion of non-state-owned PRC launch vehicle and satellite operation companies in China's domestic market since 2015 suggests that China is successfully advancing military-civil fusion efforts. Military-civil fusion blurs the lines between these entities and obfuscates the end users of acquired foreign technology and expertise.

Space Situational Awareness. The PRC has a robust network of space surveillance sensors capable of searching, tracking, and characterizing satellites in all Earth orbits. This network includes a variety of telescopes, radars, and other sensors that allow the PRC to support its missions including intelligence collection, counterspace targeting, ballistic missile early warning (BMEW), spaceflight safety, satellite anomaly resolution, and space debris monitoring.

Electronic Warfare Counterspace Capabilities. The PLA considers EW capabilities to be critical assets for modern warfare, and its doctrine emphasizes using EW to suppress or deceive enemy equipment. The PLA routinely incorporates in its exercises jamming and anti-jamming techniques that probably are intended to deny multiple types of space-based communications, radar systems, and GPS navigation support to military movement and precision-guided munitions employment. The PRC probably is developing jammers dedicated to targeting SAR, including aboard military reconnaissance platforms. Interfering with SAR satellites very likely protects terrestrial assets by denying imagery and targeting in any potential conflict involving the United States or its allies. In addition, China probably is developing jammers to target SATCOM over a range of frequency bands, including military-protected extremely high frequency communications.

Directed Energy Weapons (DEW). During the past two decades, PRC defense research has proposed the development of several reversible and nonreversible counterspace DEWs for reversible dazzling of electro-optical sensors and even potentially destroying satellite components. The PRC has multiple ground-based laser weapons of varying power levels to disrupt, degrade, or

damage satellites that include a current limited capability to employ laser systems against satellite sensors. By the mid- to late-2020s, the PRC may field higher power systems that extend the threat to the structures of non-optical satellites.

ASAT Missile Threats. In 2007, the PRC destroyed one of its defunct weather satellites more than 800 kilometers above the Earth with an ASAT missile. The effect of this destructive test generated more than 3,000 pieces of trackable space debris, of which more than 2,700 remain in orbit and most will continue orbiting the Earth for decades. The PLA's operational ground-based ASAT missile system is intended to target LEO satellites. The PRC's military units have continued training with ASAT missiles.

The PRC plans to pursue additional ASAT weapons that are able to destroy satellites up to GEO. In 2013, the PRC launched an object into space on a ballistic trajectory with a peak orbital radius above 30,000 kilometers, near GEO altitudes. No new satellites were released from the object, and the launch profile was inconsistent with traditional SLVs, ballistic missiles, or sounding rocket launches for scientific research, suggesting a basic capability could exist to use ASAT technology against satellites in geostationary orbit (GEO).

Orbital Threats. The PRC is developing other sophisticated space-based capabilities, such as satellite inspection and repair. At least some of these capabilities could also function as a weapon. The PRC has launched multiple satellites to conduct scientific experiments on space maintenance technologies and is conducting research on space debris cleanup. The Shijian-17 was the PRC's first satellite with a robotic arm, technology that could be used in a future system for grappling adversary satellites. In October 2021, the PRC launched another satellite with a robotic arm, the Shijian-21, into GEO, and, in January 2022, it moved a derelict BeiDou navigation satellite to a high graveyard orbit above GEO.

Since at least 2006, the PRC has investigated aerospace engineering aspects associated with space-based kinetic weapons—generally a class of weapon used to attack ground, sea, or air targets from orbit. Space-based kinetic weapons research included methods of reentry, separation of payload, delivery vehicles, and transfer orbits for targeting purposes. In July 2021, the PRC conducted the first fractional orbital launch of an ICBM with a hypersonic glide vehicle from China. This demonstrated the greatest distance flown (~40,000 kilometers) and longest flight time (~100+ minutes) of any Chinese land attack weapons system to date.

NUCLEAR CAPABILITIES

Key Takeaways

- Over the next decade, the PRC will continue to rapidly modernize, diversify, and expand its nuclear forces. Compared to the PLA's nuclear modernization efforts a decade ago, current efforts dwarf previous attempts in both scale and complexity.

- The PRC is expanding the number of its land-, sea-, and air-based nuclear delivery platforms while investing in and constructing the infrastructure necessary to support further expansion of its nuclear forces.

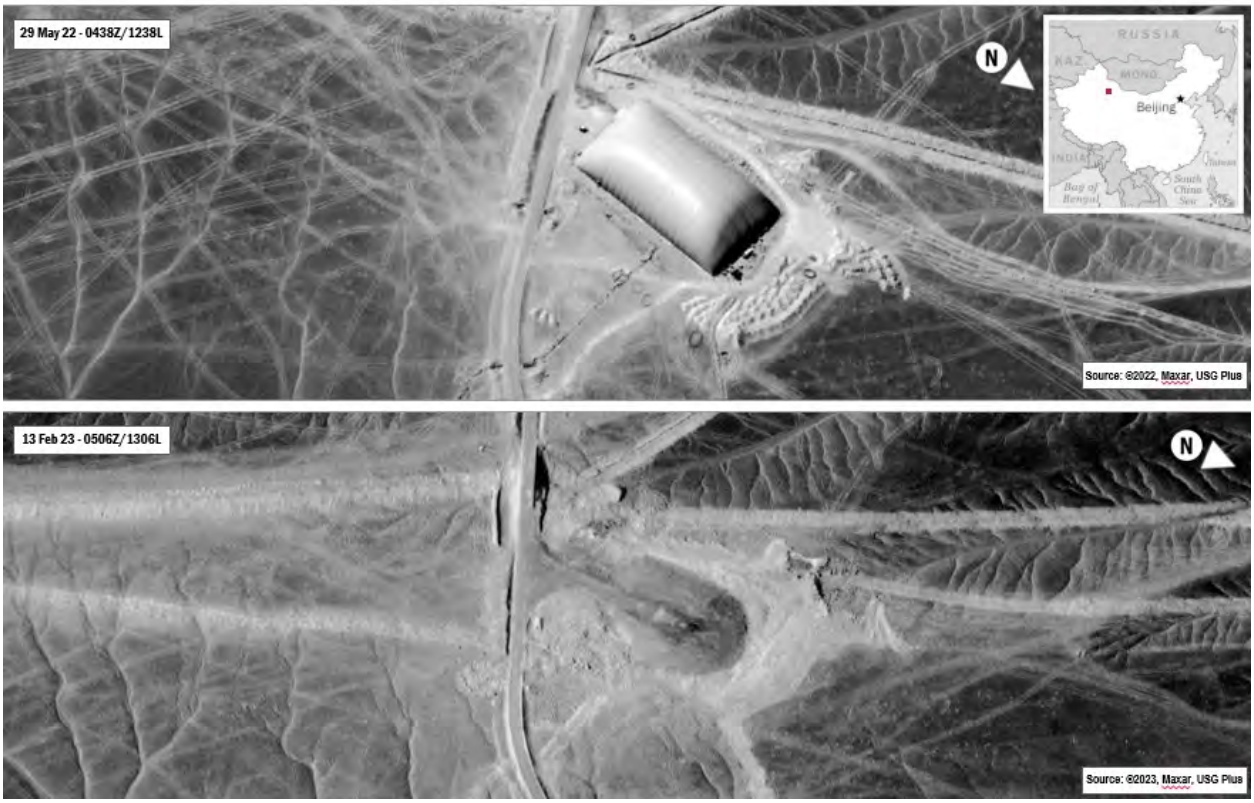
- In 2022, Beijing continued its rapid nuclear expansion, and DoD estimates China's stockpile had more than 500 operational nuclear warheads as of May 2023.

- DoD estimates that the PRC will have have over 1,000 operational nuclear warheads by 2030, much of which will be deployed at higher readiness levels and will continue growing its force to 2035 in line with its goal of ensuring PLA modernization is "basically complete" that year, which serves as an important milestone on the road to Xi's goal of a "world class" military by 2049.

- The PRC probably will use its new fast breeder reactors and reprocessing facilities to produce plutonium for its nuclear weapons program, despite publicly maintaining these technologies are intended for peaceful purposes.

- The PRC probably completed the construction of its three new solid-propellant silo fields in 2022, which consists of at least 300 new ICBM silos, and has loaded at least some ICBMs into these silos. These silo fields are capable of fielding both DF-31 and DF-41 class ICBMs. This project and the expansion of China's liquid-propellant silo force is meant to increase the peacetime readiness of its nuclear force by moving to a launch-on-warning (LOW) posture.

- The PRC is updating its capability to deliver multi-megaton warheads by fielding the new DF-5C silo based, liquid-fueled ICBM.The PRC is fielding the longer-range JL-3 SLBMs on its current JIN-class SSBN, rendering them capable of ranging the continental United States from PRC littoral waters, and continues to produce additional JIN-class SSBNs.



China: ICBM Silo Externally Completed *- Hami Silo Fields*

Strategy. The PRC's approach to using nuclear force is based on PLA "deterrence" of an enemy first strike and "counterstrike" when deterrence fails, threatening retaliation against an adversary's military capability, population, and economy. The PRC's nuclear weapons policy prioritizes the maintenance of a nuclear force able to survive a first strike and respond with sufficient strength to conduct multiple rounds of counterstrike, deterring an adversary with the threat of unacceptable damage to its military capability, population, and economy. The PLA probably selects its nuclear strike targets to achieve conflict de-escalation and return to a conventional conflict with a remaining force sufficient to deter its adversary. PLA planners would probably avoid a protracted series of nuclear exchanges against a superior adversary, and state that the scale and intensity of retaliatory force needs to be carefully controlled. The buildup of the PLA's nuclear arsenal may change the PRC's nuclear strategy in the future, while the PLA insists its nuclear policy remains clear and consistent.

- The PRC's current approach to nuclear force includes a declaratory "no first use" (NFU) policy, stating it will never use nuclear weapons first at any time under any circumstances. This includes unconditionally not to use or threaten to use nuclear weapons against any non-nuclear-weapon state or in nuclear-weapon-free zones. Despite this policy, China's nuclear strategy

probably includes consideration of a nuclear strike in response to a nonnuclear attack threatening the viability of China's nuclear forces or C2, or that approximates the strategic effects of a nuclear strike. Beijing probably would also consider nuclear use to restore deterrence if a conventional military defeat in Taiwan gravely threatened CCP regime survival.

The PRC's commingling of some of its conventional and nuclear missile forces during peacetime and ambiguities in its NFU conditions could complicate deterrence and escalation management during a conflict. If a comingled PRC missile launch is not readily identifiable as a conventional missile or nuclear missile, it may not be clear what the PRC launched until it detonates. Furthermore, potential adversary attacks against China's conventional missile force-associated C2 centers could inadvertently degrade China's nuclear C2 and generate nuclear use-or-lose the pressure to use weapons before they are targeted. Once a conflict has begun, China's dispersal of mobile missile systems to hide sites could further complicate the task of distinguishing between nuclear and conventional forces and, thus, increase the potential for inadvertent attacks on the nuclear forces. PRC leadership calculus for responding to conventional attacks on nuclear forces remains a key unknown.

Readiness. The PLA Rocket Force uses a set of operational procedures to keep part of its force at heightened readiness during peacetime, according to PLA documents and media reporting. PLARF brigades conduct "combat readiness duty" and "high alert duty" which includes assigning a missile battalion to be ready to rapidly launch. Further, a new generation of silo-based ICBMs are beginning to enter the force and they will probably be operating under China's developing "Early Warning Counterstrike" (预警反击) posture (the PLA term for launch on warning), enabling a rapid responsive nuclear strike. This readiness posture allows the Rocket Force to maintain a portion of its units on a heightened state of readiness while leaving the other portion in peacetime status with separated launchers, missiles, and warheads.

The PLA also probably has an orderly, pre-planned series of "combat readiness level" steps that govern the increases in the readiness of its forces from peacetime to wartime combat operations. This process probably allows the PLA to transition most, perhaps all, of its nuclear missile force from its current peacetime status to full combat readiness in order to respond to possible contingencies.

Land-Based Platforms. The PRC's land-based nuclear force primarily consists of ICBMs with different basing modes complimented by theater-range road-mobile systems. The PRC has approximately 350 ICBMs in its arsenal, all of which can reach CONUS.

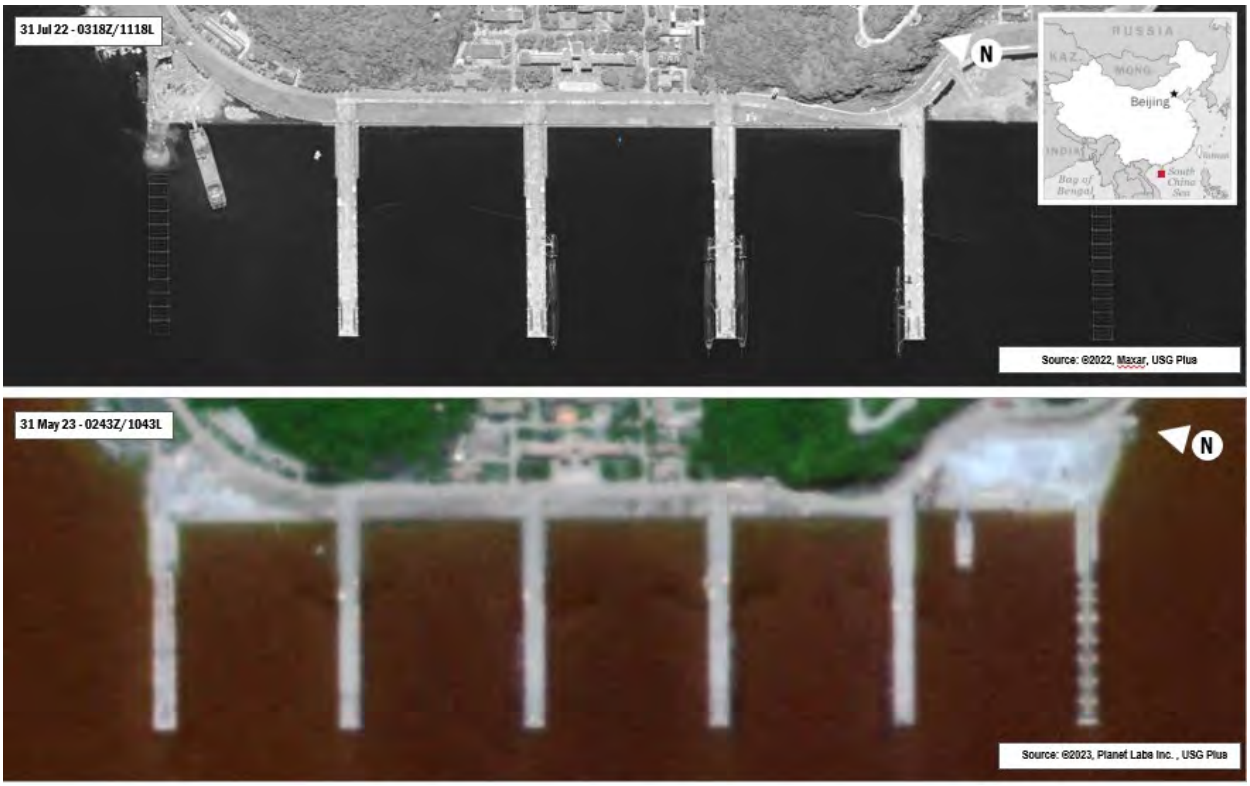
Silo-Based Systems. The PRC's silo-based ICBMs consist of multiple CSS-4 (DF-5 class) liquid-fueled ICBMs and more recently a CSS-10 (DF-31class) solid-propelled ICBM, which China probably began to load at its new silo fields. The PRC is updating its capability to deliver multi-megaton warheads by fielding the new DF-5C silobased, liquid-fueled ICBM. The PRC is building more silos for DF-5 class ICBMs; increasing the number of brigades while simultaneously increasing the number of launchers per brigade – though there is no indication this project will approach the size or numbers of the solid propellant missile silos. The PLA probably is also developing an upgrade to its existing MIRVed DF-5 liquid-fueled ICBMs.



China: Military garrisons constructed at newly build ICBM Silo Fields – *Guazhou ICBM Silo Field Missile Garrison*

Road-Mobile Systems. China's road-mobile ICBMs consist of the solid-fueled CSS-10 (DF-31 class) and CSS-20 (DF-41) ICBMs. The CSS-20 has improved range and accuracy over legacy solid-fueled ICBMS and is armed with no more than three warheads per missile. The PRC is establishing additional nuclear units and increasing the number of launchers in mobile ICBM units. This strategic arsenal is complemented by road-mobile and DF-26 IRBMs capable of ranging targets in the Indo-Pacific region.

Sea-Based Platforms. The PRC probably fielded the extended-range CSS-N-20 (JL-3) SLBM on China's JIN-class SSBN, giving the PRC the ability to target the continental United States from littoral waters and allowing the PLAN to consider bastion operations to enhance the survivability of its sea-based deterrent. The SCS and Bohai Gulf are probably the PRC's preferred options for employing this concept. The PRC also continued to construct additional JIN class SSBNs. It is unclear whether continued JIN-class SSBN production is the result of delays in the development of the PRC's next-generation Type 096 SSBN or is an effort to accelerate its sea-based nuclear capability as Xi has directed. The Type 096 SSBN is probably intended to field MIRVed SLBMs and will likely begin construction in the early 2020s. Based on the 30-plus-year service life of the PRC's first generation SSNs, the PRC will operate its JIN and Type 096 SSBN fleets concurrently. The PRC probably continued to conduct near-continuous at-sea deterrence patrols with its six operational JIN-class SSBNs, which are equipped to carry up to 12 CSS-N-14 (JL-2) or CSS-N-20 (JL-3) SLBMs.



China: PLA Navy Constructs Additional Submarine Piers *– Yalong Naval Base*

Air Platforms. The PLAAF has operationally fielded the H-6N bomber, providing a platform for the air component of the PRC's nascent nuclear triad. The H-6N, compared to other H-6 bombers, adds an air-to-air refueling probe, as well as its recessed fuselage modifications that would allow for external carriage of a nuclear-capable ALBM. The ALBM carried by the H-6N appears to be armed with a maneuvering reentry vehicle, indicating the ALBM, along with the DF-26 IRBM, is

likely capable of conducting nuclear precision strikes against targets in the Indo-Pacific theater. The PRC is probably also developing a strategic stealth bomber, according to PRC state media.

Future Developments. Over the next decade, the PRC probably will continue to pursue selective qualitative parity with an increasing scope of U.S. and Russian capabilities. The PLA seeks a diverse nuclear force, comprised of systems ranging from low-yield precision strike missiles to ICBMs with multi-megaton yields. Developing robust nuclear strike options is likely intended to provide deterrence predominantly against a "strong enemy," as well as ensure China can inflict unacceptable damage with both proportionate and overwhelming retaliatory capabilities, and thus denying an adversary victory if a war escalates to the nuclear domain.

The PRC is establishing new nuclear materials production and reprocessing facilities very likely to support its nuclear force expansion. Although these efforts are consistent with the PRC's goals to increase nuclear energy generation and to close its nuclear fuel cycle, Beijing likely also considers this dual-use infrastructure as crucial to supporting its military goals, judging from Chinese nuclear industry reporting and think tank publications. Despite the PRC's public support for a Fissile Material Cutoff Treaty (FMCT), it is likely that Beijing intends to use this infrastructure to produce nuclear warhead materials for its military in the near term. For example, the PRC's efforts to impede progress at the Conference on Disarmament (CD) run contrary to its stated commitments of a FMCT.

- **Plutonium Production.** The PRC is constructing, with Russian assistance including in the form of highly enriched uranium (HEU) supply, two CFR-600 sodium-cooled fast breeder nuclear reactors at Xiapu, each capable of producing enough plutonium for dozens of nuclear warheads annually from blankets (referring to uranium placed around the fuel core for the purpose of breeding plutonium) surrounding the core, according to think tank estimates and informed by Chinese state media and nuclear industry reporting**.** The PRC originally planned to use Russian-sourced mixed-oxide (MOX is a blend of uranium and plutonium) fuel for these reactors but changed the order to highly enriched uranium (HEU) fuel through 2030, according to nuclear industry reporting. By using HEU fuel, China has the potential to generate additional weapons-grade plutonium. Chinese officials claim the CFR-600 reactors are intended to help the PRC achieve its civilian nuclear power and carbon neutrality objectives, but the PRC has described the CFR-600s as a "national defense investment project" subject to military nuclear facility regulations. By December 2022, Russia delivered the first three batches of HEU nuclear fuel assemblies, to China for the first core loading and the first refueling of the CFR-600. In early 2023, think-tank reporting indicates the quantity of HEU transferred from Russia to China for its CFR-600 reactors is more than the entire amount of HEU removed worldwide under U.S. and International Atomic Energy Agency (IAEA) auspices in the last three decades. In March 2023, the PRC and Russia signed an agreement that includes commitments for continued cooperation on fast reactor and reprocessing technology development, extending this relationship for "the decades ahead."

- **Plutonium Extraction**. China could extract the WGPu at its 50 ton/year reprocessing plant at Jiuquan (Plant 404) or at one of the two 200 ton/year reprocessing plants under construction at the CNNC Gansu Nuclear Technology Industrial Park in Jinta, Gansu Province, the first of which is expected to be operational by 2025. China has reduced transparency in its nuclear program as its capabilities are increasing and has not reported its stockpile of separated plutonium to the IAEA since 2017, according to a Western think tank. China has, thus far, refused international calls to apply IAEA safeguards, under a Voluntary Offer Agreement on its civilian reactors.

- **Uranium and Tritium.** In the past several years, China's organization traditionally associated with military uranium enrichment has expanded production capacity and likely will continue to do so. China is also working to expand and diversify its capability to produce tritium by methods such as using tritium production targets in reactors and extraction from tritiated heavy water, according to Chinese nuclear industry reporting.

Nuclear Testing. In recent years, the PRC expanded its nuclear warhead research, development, testing, and production capacity to support the size and pace of its nuclear stockpile expansion. The PRC's possible preparation to operate its Lop Nur nuclear test site year-round and lack of transparency on its nuclear testing activities have raised concerns regarding its adherence to the U.S. "zero yield" standard adhered to by the United States, the United Kingdom, and France in their respective nuclear weapons testing moratoria.

EVOLVING NUCLEAR POSTURE

Though it is often thought that the PRC maintains a "minimum deterrent," the PRC's evolving nuclear posture is more consistent with its own definition of "limited deterrent." Rocket Force documents describe these terms as follows:

- "Minimum Deterrence" is achieving nuclear deterrence with only a small quantity of nuclear weapons to strike enemy urban targets.

- "Maximum Deterrence" is seeking overwhelming disarming strikes to minimize one's own losses and maintain strategic freedom of action; employing overwhelming qualitative and quantitative superiority, a multi-function offensive system capable of hitting hard targets and a comprehensive defense system.

- "Limited Deterrence" is the wide space between minimum and maximum deterrence.

The PRC perceived national security requirements will grow as it transitions from a "large country" to a "powerful country" and its minimum number of military forces – to include nuclear –needed to defend those greater interests is also likely to grow. In 2022, the PRC rejected requests by the United States to discuss strategic stability or strategic risk reduction, and other impacts of the PRC's rapid nuclear build up.

Stockpile Size. In 2020, the DoD estimated China's operational nuclear warhead stockpile was in the low-200s and expected to at least double by 2030. However, Beijing has accelerated its nuclear expansion, and DoD estimates China's stockpile had more than 500 operational nuclear warheads as of May 2023. By 2030, DoD estimates that the PRC will have over 1,000 operational nuclear warheads, most of which will be fielded on systems capable of ranging the CONUS. Beijing has not declared an end goal nor acknowledged the scale of its expansion, has resisted calls in multilateral fora for increased transparency, and has declined to engage in substantive arms control discussions. We continue to assess the PRC is constructing the infrastructure necessary to support this force expansion, including increasing its capacity to produce and separate plutonium by constructing fast breeder reactors and reprocessing facilities. Though this is consistent with the PRC goal of closing the nuclear fuel cycle, the PRC likely intends to use some of this infrastructure to produce plutonium for its expanding nuclear weapons program.

The PRC's long-term nuclear requirements—and the relationship between the PRC's nuclear requirements and its national strategy and goal to field a "world-class" military by mid-century—remain unclear from public sources. Hawkish PRC state media outlets have asserted that the PRC needs 1,000 warheads, while retired PLA officers have suggested that the PRC should possesses a "mutually assured destruction" capability. While neither of those claims are official, China's arming of hundreds of silos over the next decade, continued rapid growth in its road-mobile force and air and sea legs indicates that beyond 2030, China will probably have over 1,000 operational nuclear warheads, much of which will be deployed at higher readiness levels, and will continue growing its force to 2035 in line with previous estimates. These changes to the numbers, capability, and readiness of the PRC's nuclear forces in the coming years are likely to outpace potential developments by the nuclear forces of any competitor.

Regardless of the ultimate number of nuclear weapons it makes, the PRC will probably continue to claim it is, like other nuclear powers, adhering to the minimum of nuclear weapons needed to protect its security interests.

Hypersonics and Fractional Orbital Bombardment. The PRC probably is developing advanced nuclear delivery systems such as a strategic hypersonic glide vehicle and a FOB system in part due to long-term concerns about United States missile defense capabilities as well as to attain qualitative parity with future worldwide missile capabilities. On July 27th, 2021, the PRC conducted a test of an ICBM-range hypersonic glide vehicle that travelled 40,000 kilometers. The test likely demonstrated the PRC's technical ability to field a FOB system. The PRC does not appear to have tested a FOB system in 2022.

Lower-Yield Nuclear Weapons. The PRC probably seeks lower yield nuclear warhead capabilities to provide proportional response options that its high-yield warheads cannot deliver. PRC strategists have highlighted the need for lower-yield nuclear weapons in order to increase the deterrence value of the PRC's nuclear force, though they have not defined specific nuclear yield values. A 2017 defense industry publication indicated a lower-yield weapon had been developed for use against campaign and tactical targets that would reduce collateral damage. By late 2018,

PRC concerns began to emerge that the United States would use low-yield weapons against its Taiwan invasion fleet, with related commentary in official media calling for proportionate response capabilities. The DF-26 is the PRC's first nuclear-capable missile system that can conduct precision strikes, and therefore, is the most likely weapon system to field a lower-yield warhead in the near-term.

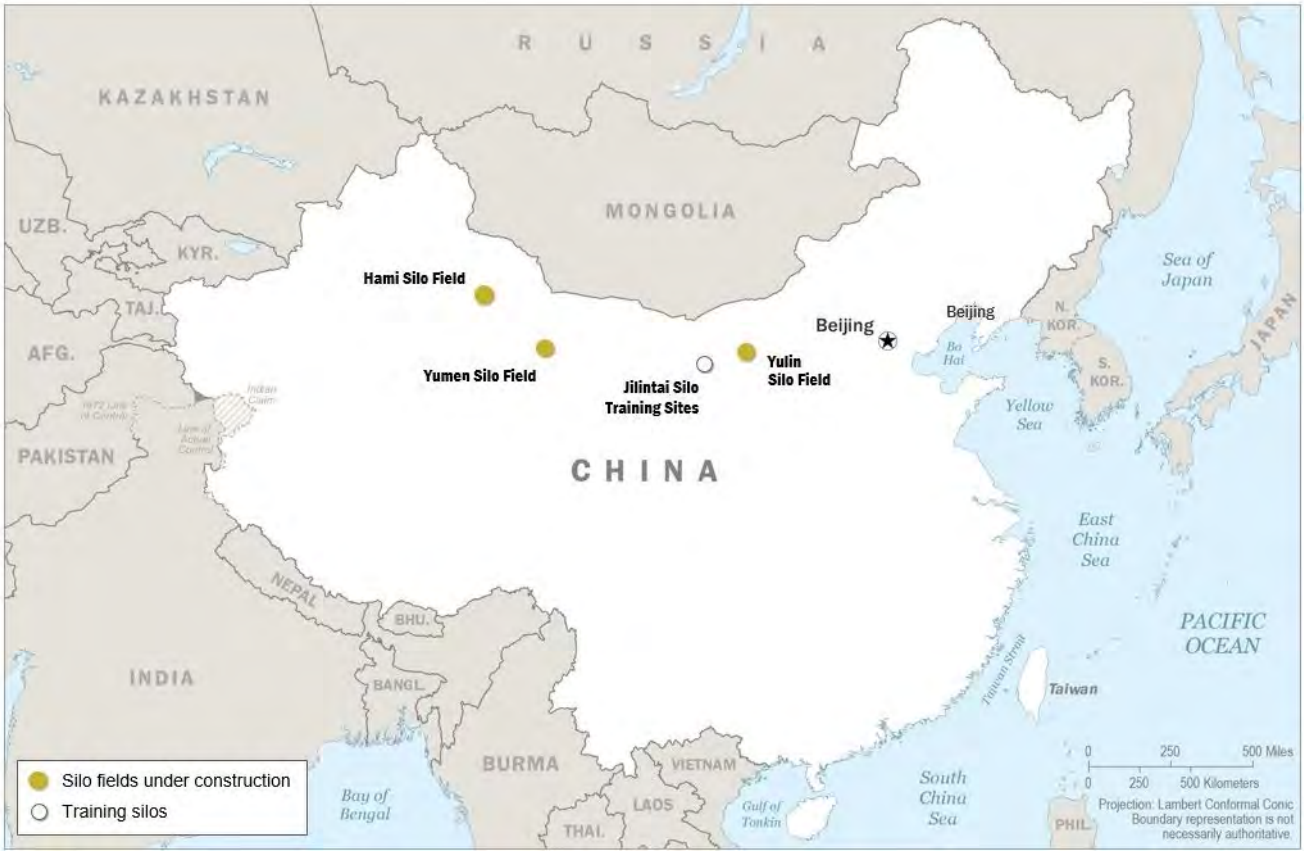
PRC military writings in 2021 noted that the introduction of new precise small-yield nuclear weapons could possibly allow for the controlled use of nuclear weapons, in the warzone, for warning and deterrence. Additional PRC military writings as of 2017 noted that while strategic nuclear weapons remain the foundation of deterrence, tactical nuclear weapons with high hit precision and smaller yield would be effective in lowering the cost of war. Such discussions provide the doctrinal basis for limited nuclear employment on the battlefield, suggesting PRC nuclear thinkers could be reconsidering their long-standing view that nuclear war is uncontrollable.

Launch on Warning (LOW). The PLA is implementing a LOW posture, called "early warning counterstrike" (预警反击), where warning of a missile strike leads to a counterstrike before an enemy first strike can detonate. PLA writings suggest multiple manned C2 organs are involved in this process, warned by space and ground based sensors, and that this posture is broadly similar to the U.S. and Russian LOW posture. The PRC probably seeks to keep at least a portion of its force, especially its new silo-based units, on a LOW posture, and since 2017, the PLARF has conducted exercises involving early warning of a nuclear strike and LOW responses.

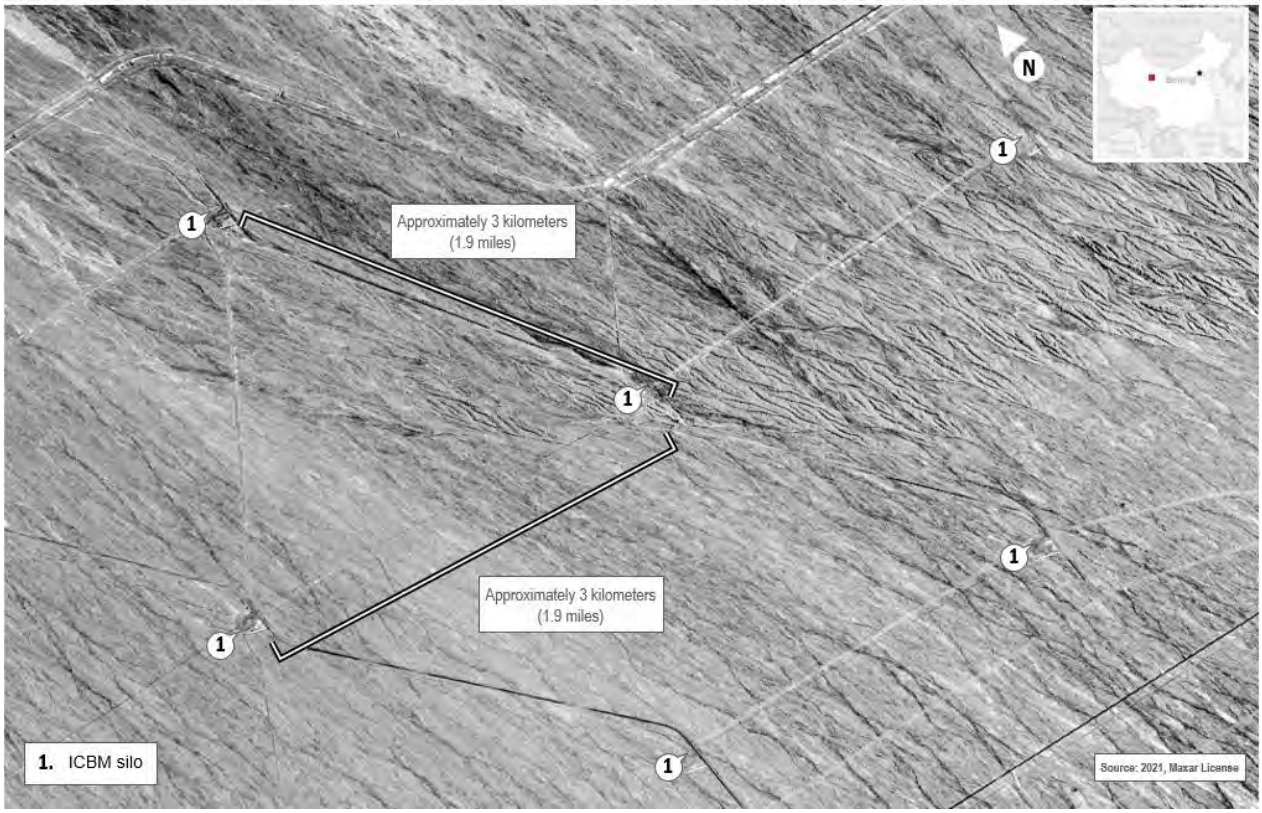
The PRC's considerations to attain a LOW posture date back to even the 1970s and 1980s, when the PRC considered using existing land-based ballistic missile early warning radar to support a LOW posture for its silo-based CSS-4 ICBMs, but apparently this early warning system was unreliable. In recent years, the PRC has been able to make advances in early warning needed to support a LOW posture. The PRC has several ground-based large phase array radars – similar in appearance to U.S. PAVE PAWS radars – that could support a missile early warning role. There has likely been progress made in space-based early warning as well. In 2013, foreign media sources claimed to be in possession of PLA documents indicating expedited plans to field three geostationary satellites capable of detecting ballistic missile launches. Then, in 2015, the PRC's defense white paper identified "improved strategic early warning" as specific nuclear force modernization goals with the PRC's 13th Five-Year Plan (2016-2020) reported including requirements to place early warning satellites in space. As of 2022, the PRC likely has at least three early warning satellites in orbit. In 2019, President Putin of Russia stated that Russia is aiding the PRC in developing a ballistic missile early warning system.

Despite these developments, the PRC has called upon other states to abandon similar launch-on-warning postures to enhance strategic stability while declining to engage in substantive dialogue on risk reduction. The PRC seems to believe a LOW posture is consistent with its no first use policy, given that it involves a retaliatory strike that takes place after warning of an inbound first attack from an adversary. At the same time, PRC military writings note that command and control systems – which would include early warning systems – can be a source of accidental nuclear war.

The PRC has refused to join the Hague Code of Conduct or participate in other confidence-building measures designed to reduce the risk of accidental nuclear war. However, the PRC does have a bilateral missile and carrier rocket launch notification agreement with Russia called the Russian-Chinese inter-governmental agreement signed in 2009, which was extended for 10 years in 2021—though little additional information regarding the implementation of the notification agreement is known.



China: Solid Propellant ICBM Silo Fields and Associated Training Site Locations



China: Yumen Silo Field Launch Sites

CHEMICAL AND BIOLOGICAL RESEARCH

Key Takeaways

- The PRC's chemical and biotechnology infrastructures are sufficient to research, develop, and produce some chemical and biological agents or toxins on a large scale.
- The PRC likely possesses capabilities relevant to chemical and biological warfare that pose a threat to U.S., Allied, and partner forces, military operations, and civilian populations.
- The PRC continues to engage in biological activities with dual-use applications, which raise concerns regarding its compliance with the Biological Weapons Convention (BWC). This includes studies at PRC military medical institutions on potent toxins with dual-use applications.
- The United States cannot certify that the PRC has met its obligations under the Chemical Weapons Convention (CWC) due to concerns regarding the PRC's research on pharmaceutical-based agents (PBAs) and toxins with potential dual-use applications.

The PRC continues to engage in biological activities with dual-use applications, which raise concerns regarding its compliance with the BWC. In addition, the United States does not have sufficient information to determine whether China eliminated its assessed historical biological warfare (BW) program, which the United States assesses that the PRC possessed from the 1950s to at least the late 1980s. The PRC acceded to the BWC in 1984 and regularly submits to confidence-building measures (CBM) under the BWC; however, the PRC's CBM reporting has never acknowledged its past offensive program. As part of its historical BW program, the PRC had reported weaponized ricin, botulinum toxins, and the causative agents of anthrax, cholera, plague, and tularemia.

Based on available information, the United States cannot certify that the PRC has met its obligations under the CWC due to concerns regarding the PRC's research of PBAs and toxins with potential dual-use applications. The PRC has declared that it once operated a small chemical weapons program for offensive purposes; however, Beijing has consistently maintained that the program was dismantled and all agents and munitions were used before China ratified the CWC in 1997. Beijing also has declared two historical chemical warfare production facilities that were probably capable of producing mustard gas, phosgene, and lewisite.

Scientists at a PRC military institute have expressed interest in military applications of PBAs, including synthesis, characterization, and testing of PBAs with potential dual-use applications. In addition, available information on studies conducted at PRC military medical institutions indicates that researchers identify, test, and characterize diverse families of potent toxins with dual-use applications.

The PRC's chemical and biotechnology infrastructures are sufficient to research, develop, and produce some chemical and biological agents or toxins on a large scale. The PRC probably has the technical expertise to weaponize CBW agents, and China's robust armaments industry and numerous conventional weapon systems, including missiles, rockets, and artillery, probably could be adapted to deliver CBW agents. China also has the technical expertise, military units, and equipment necessary to detect CBW agents and to defend against a CBW attack.

Entities and individuals in the PRC continue to supply countries of concern with technologies, components, and raw materials applicable to weapons of mass destruction and missile programs. Such material and technology transfers could assist countries in developing their own production capabilities.

CHINA: HIGH-ALTITUDE BALLOON DEVELOPMENT

Military and commercial entities in the PRC have been researching and developing high-altitude systems—including high altitude balloons—since at least the mid-2000s. PRC-based research institutions and companies have developed and tested high-altitude balloons as early as 2015, including payloads to support imaging, data relay, and communications capabilities. While some of this research may support civilian applications such as weather monitoring, many of these high-altitude systems are very likely intended to support PLA requirements. Chinese military publications have demonstrated interest in integrating "near-space" platforms as another layer in the PLA's broader reconnaissance "system-of-systems," and have highlighted the use of high-altitude systems to support various tracking and targeting missions. The high-altitude balloon shot down on February 4th, 2023, was developed as part of this broader military-linked aerial surveillance program.

CHINA: JANUARY 28TH TO FEBRUARY 4TH, 2023 HIGH-ALTITUDE BALLOON INTRUSION

On January 28th, 2023, the U.S. Department of Defense detected a high-altitude balloon (HAB) approaching U.S. airspace off the west coast of Alaska. According to a timeline reconstruction published in the New York Times that made use of commercial imagery, the balloon launched from Hainan Island in China on approximately January 15th. It traveled across the Pacific over the course of 13 days, before passing over Alaska's Aleutian Islands and then over the Alaskan mainland. The United States and Canada tracked the balloon as it crossed into Canadian airspace, where prevailing high-altitude winds blew it south, and it re-entered U.S. airspace over Idaho on January 31st. The Department of Defense tracked and monitored the balloon as it made its way across the United States and confirmed via handheld imagery from the pilot of a U-2 high-altitude surveillance aircraft that the balloon was indeed equipped with intelligence collection capabilities.

As stated by CDR NORAD & USNORTHCOM, the United States took precautions to minimize the amount and sensitivity of any intelligence the balloon could collect as it transited the United States. President Biden later confirmed and on June 29, DoD spokesmen reiterated that the balloon did not collect. On February 4th, U.S. fighters shot down the balloon off the coast of Myrtle Beach, South Carolina, where U.S. Coast Guard, Navy, and agents of the FBI conducted salvage and recovery operations.

For its part, China initially expressed "regret" that its airship entered North American airspace, but claimed that it was a purely civilian airship used for meteorological research, and that prevailing winds had blown off course. In slightly over a week, China's tone changed, accusing the U.S. of flying surveillance balloons over China 10 times during 2022 (which the National Security Council denied), and claiming that the U.S. and NATO were attempting to "smear and accuse China," likely reflecting a decision by China's top leadership to respond by manufacturing a counter-narrative.

CHAPTER THREE: OPERATIONAL STRUCTURE AND ACTIVITIES ON CHINA'S PERIPHERY

KEY TAKEAWAYS

- The PRC continues to refine military reforms associated with the establishment of the Eastern, Southern, Western, Northern, and Central Theater Commands, which are organized based on the PRC's perception of peripheral threats.
- Under the direction of the CMC, each Theater Command has operational authority over the PLA conventional forces within the theater.
- In August 2022, the PLA carried out large-scale joint military exercises aimed at pressuring Taiwan. The exercises included firing ballistic missiles over Taiwan's main island, over a dozen naval patrols, and hundreds of flights into Taiwan's claimed air defense identification zone (ADIZ).

The PRC continues to make steady improvements to joint operations in the five theater commands, which were established in early 2016. Each theater command receives direction from the CMC, has operational authority over assigned PLA forces within its theater, and is responsible for all conventional combat and non-combat operations within its area of responsibility. Theater commands are responsible for developing theater-specific strategies aimed at preparing to fight and win against an adversary, developing joint operational plans and military capabilities, responding to crises, and safeguarding the sovereignty and stability of its claimed territories. The strategic directions of the theater commands are based on Chinese perceptions of peripheral threats:

- Eastern Theater Command – Taiwan, ECS;
- Southern Theater Command – SCS; Southeast Asia border security; territorial and maritime disputes;
- Western Theater Command – India, Central Asia, "counterterrorism" in Xinjiang and Tibet;
- Northern Theater Command – Korean Peninsula, Russia border security;
- Central Theater Command – Capital defense; surge support to other theaters.

EASTERN THEATER COMMAND

Key Takeaways

- The Eastern Theater Command is oriented toward Taiwan and the ECS.
- The Eastern Theater Command likely would be in charge of a Taiwan Invasion.
- The Eastern Theater Command was responsible for executing the PLA's large-scale joint exercises aimed at pressuring Taiwan in August 2022.

The Eastern Theater Command has responsibility for the ECS and likely executes operational control over military matters related to Taiwan and Japan, including contingencies in and around the Taiwan Strait and the Senkaku Islands.

During 2022, the Eastern Theater Command maintained focus on a series of training and exercises to improve joint operations and combat readiness, organizing exercises and drills consisting of long-distance training and mobilization, aerial combat, live-fire training, and the use of modified civilian ferries to help augment transportation.

For Taiwan-related issues, see section on DEVELOPMENTS IN THE SECURITY SITUATION IN THE TAIWAN STRAIT (Pg. 136).

2022 EASTERN THEATER COMMAND LEADERSHIP

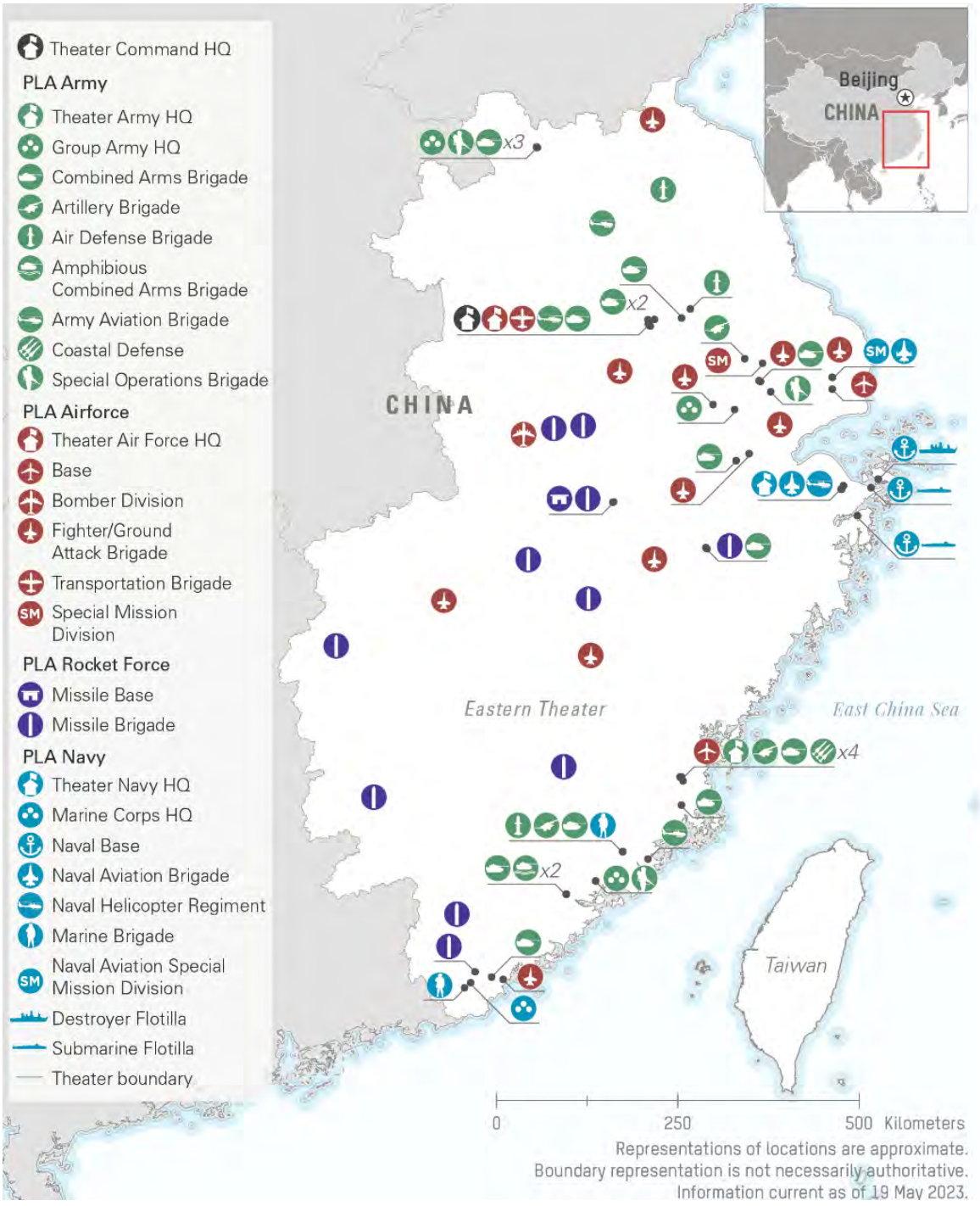
Commander of the Eastern Theater Command – General Lin Xiangyang [林向阳]
Previous Position: Commander of the Central Theater Command
DOB: October 1964
Age: 58
Birthplace: Dengjun Village, Haikou Town, Fuqing, Fuzhou, Fujian Province [福建省福州市福清市海口镇登俊村]
Education: Nanchang Army Academy; Studied abroad in Russia; Attended a class at PRC NDU for Young- and Middle-aged Cadres [中青班]

Political Commissar of the Eastern Theater Command – General He Ping [何平]
Previous Position; Director of the Political Department of the Western Theater Command; Deputy Political Commissar of the Western Theater Command
DOB: November 1957
Age: 63
Birthplace: Nanchong, Sichuan Province [四川省南充市]
Education: Unknown

Chief of Staff of the Eastern Theater Command, Deputy Commander of the Eastern Theater Command – Lieutenant General Hong Jiangqiang [洪江强]
Previous position: Commander of the 80th Group Army, Northern Theater Command Army

DOB: 1965
Age: 57
Birthplace: Meishi Village, Gangwei Town, Longhai, Zhangzhou, Fujian Province [福建省漳州市龙海市港尾镇梅市村]
Education: Unknown

PLA units located within the Eastern Theater Command include 71st, 72nd, and 73rd Group Armies; the Eastern Theater Navy and its naval aviation division and two marine brigades; and two Air Force divisions, two operational PLAAF bases, and one PLARF base. During a contingency, the Eastern Theater Command likely also exercises command over some SSF units in theater and receives strategic intelligence support from the SSF to improve battlefield awareness and facilitate joint operations within the theater. The Eastern Theater Command also likely commands all CCG and maritime militia ships while they are conducting operations related to the ongoing dispute with Japan over the Senkaku Islands.



PLA Force Laydown in Eastern Theater Command

EAST CHINA SEA (ECS)

Key Takeaways

- The PRC continues to use maritime law enforcement ships and aircraft to patrol near the Japan-administered Senkaku Islands.
- The PRC attempts to legitimize its claims in the ECS through the continuous presence of PRC fishing and Maritime Militia vessels, escorted by CCG cutters and with PLA Navy warships nearby as overwatch.
- In 2021, the PRC passed new legislation regarding the rules of engagement for their Coast Guard vessels, which created a legal justification for more aggressive patrols. Throughout 2021 and 2022, the PRC expanded its annual unilateral summer fishing ban in Beijing-claimed waters north of the 12th parallel to include the ECS by an additional month to incrementally enforce its de facto maritime sovereignty claims.

The PRC claims sovereignty over the Japanese-administered Senkaku Islands in the ECS, which Taiwan also claims. Beijing continues to uphold the importance of the 2014 four-point consensus, which states Japan and the PRC will acknowledge divergent positions over the ECS but prevent escalation through dialogue, consultation, and crisis management mechanisms. The United States does not take a position on sovereignty of the Senkaku Islands but recognizes Japan's administration of the islands and continues to reaffirm that the islands fall within the scope of Article 5 of the U.S.-Japan Mutual Security Treaty. In addition, the United States opposes any unilateral actions that seek to undermine Japan's administration of the islands.

The PRC uses maritime law enforcement ships and aircraft to patrol near the Senkaku Islands, not only to demonstrate its sovereignty claims, but also to improve readiness and responsiveness to potential contingencies. In 2022, the PRC continued to conduct regular patrols into the contiguous zone territorial seas around the Senkaku Islands and stepped up efforts to challenge Japan's control over the islands by increasing the duration and assertiveness of its patrols. For the third year in a row, CCG ships entered Japanese-claimed waters for more than 100 consecutive days, including over 300 days in the contiguous zones around the Islands in 2022. In December 2022, the CCG conducted the longest entrance to date into the Senkaku Islands territorial waters, with four ships remaining in the waters for nearly 73 hours. The previous record for territorial waters entrance duration was 64 hours, set in July 2022. The increased PRC assertiveness around the Senkaku Islands caused Japanese Prime Minister Fumio Kishida to express "grave concern" in November to President Xi during the first meeting between Chinese and Japanese leaders since December 2019. The two leaders agreed to reestablish a maritime and aerial hotline between the two countries' militaries to resume security dialogue, which the two defense ministers later used for the first time in May 2023.

SOUTHERN THEATER COMMAND

Key Takeaways

- The Southern Theater Command is oriented toward the SCS, Southeast Asia border security, and territorial and maritime disputes.
- The Southern Theater Command is responsible for responding to U.S. freedom of navigation operations in the SCS and can assume command as needed over all CCG and CMM ships conducting operations within the PRC's claimed "nine-dash line."
- In 2022, Southern Theater Command units conducted multiple live-fire drills and amphibious training events near PRC-occupied features in the SCS.

The Southern Theater Command covers mainland and maritime Southeast Asia, including the SCS. This geographic area implies that the Southern Theater Command is responsible for securing the SCS, supporting the Eastern Theater Command in any operation against Taiwan, and assuring the security of sea lines of communication (SLOCs) vital to China's global ambitions in the SCS. The Southern Theater Command is responsible for responding to U.S. freedom of navigation operations in the SCS by regularly tracking and reacting to U.S. ships operating within the China-claimed "nine-dash line."

The Southern Theater Command is responsible for training, force disposition, and operations in the SCS. The Southern Theater Command also plays a significant role in the PLA's bilateral and multilateral exercises with countries in Southeast Asia, such as participating in humanitarian assistance and disaster relief exercise with Thailand in 2022.

The PLA Hong Kong and Macao garrisons are subordinate to the Southern Theater Command. In August 2022, the PLA Hong Kong and Macao garrisons conducted an annual rotation of forces. Since 1997, the PLA has rotated forces by land, air, and sea from Shenzhen at night, nominally as part of the usual annual rotation. Since the 2019 pro-democracy protests, China maintains a rotational deployment of PAP forces in Hong Kong. The PAP and PLA units continued to publicly highlight their anti-riot, counterterrorism, and disaster prevention training.

All of the PLA's 24 Su-35s purchased from Russia are assigned to the Southern Theater Command Air Force and have flown patrols in the SCS and into the Western Pacific. The Southern Theater Command was also the first command to receive the PLAN's H-6J maritime strike bombers. In December 2019, the PRC commissioned its first-domestically produced aircraft carrier, *Shandong* into service at Yulin Naval Base in the Southern Theater Command. In April, the *Shandong* conducted its first training exercise in the Philippine Sea with J-15 aircraft entering Taiwan's air defense identification zone for the first time, demonstrating the PLA's increased capabilities further from China's borders.

2022 Southern Theater Command Leadership

Commander– **Wang Xiubin [王秀斌]**

Previous position: Chief of Staff, Eastern Theater Command; Deputy Commander, Eastern Theater Command
DOB: March 1964
Age: 58
Birthplace: Rudong County, Nantong, Jiangsu Province [江苏省南通市如东县掘港镇港南村]
Education: National Defense University's Joint Command and Staff College [联合指挥与参谋学院]; Postgraduate class at Zhejiang University; Taught at Nanjing Artillery Academy

Political Commissar of the Southern Theater Command – **Wang Jianwu [王建武]**

Rank: General
Previous position: Deputy Director of the CMC Political Work Department
DOB: August 1958
Age: 64
Birthplace: Luoning, Henan Province [河南省洛宁]
Education: Unknown

Chief of Staff of the Southern Theater Command – **Liu Yayong [刘亚永]**
Rank: Lieutenant General
Previous position: Deputy Chief of Staff of the Northern Theater Command
DOB: April 1958
Age: 64
Birthplace: Duchang, Jiangxi Province [江西省都昌]
Education: Unknown

PLA units located within the Southern Theater Command include 74th and 75th Group Armies, the Southern Theater Navy, three marine brigades, two PLA Air Force bases, and two PLA Rocket Force bases.



PLA Force Laydown in Southern Theater Command

SOUTH CHINA SEA (SCS)

Key Takeaways

- The PRC's outposts on the Spratly Islands are capable of supporting military operations, including advanced weapon systems, and have supported non-combat aircraft. However, no large-scale presence of combat aircraft has been yet observed at airfields on the outposts.

- In 2022, the PRC continued to deploy PLAN, CCG, and civilian ships in response to Vietnamese and Malaysian drilling operations within the PRC's claimed "Nine-DashLine," the Philippines' construction at Thitu Island, and the Philippines' resupply missions to Second Thomas Shoal.

DEVELOPMENTS IN THE SECURITY SITUATION IN THE SCS

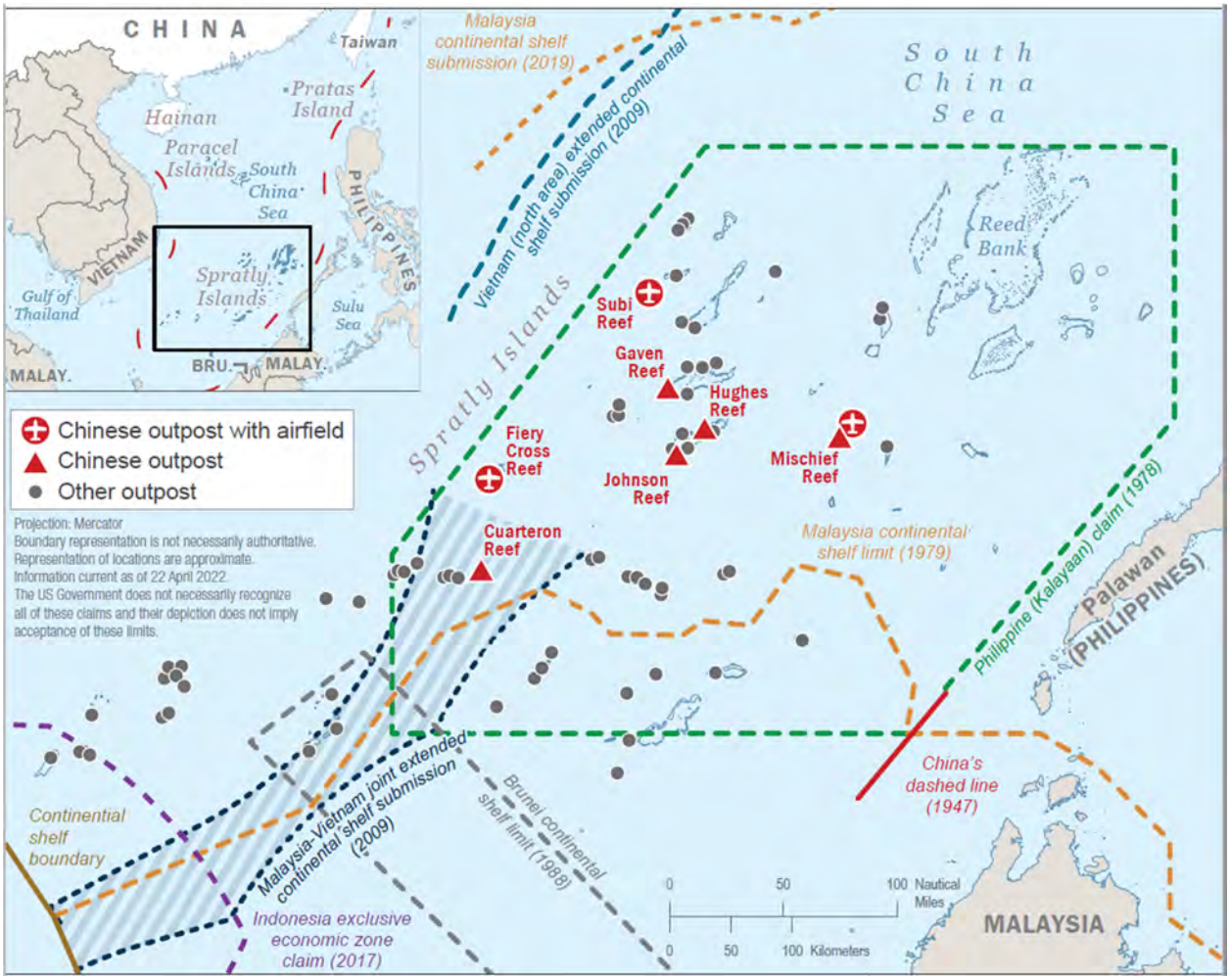
In July 2016, pursuant to provisions in the 1982 United Nations Convention on the Law of the Sea (UNCLOS), an arbitral tribunal convened at the Philippines' behest, ruled that the PRC's claims to "historic rights" in the SCS, depicted by the "nine-dash line," were not compatible with UNCLOS. Since December 2019, Indonesia, Malaysia, the Philippines, and Vietnam have explicitly referenced the arbitral ruling in notes verbales to the UN denying the validity of the PRC's "historic rights" and nine-dash line claims. Beijing, however, categorically rejects the tribunal decision, and the PRC continues to use coercive tactics, including the employment of PLA naval, coast guard, and paramilitary vessels, to enforce its claims. The PRC does so in ways calculated to remain below the threshold of provoking conflict. In 2022, the PRC continued to impose a yearly, unilateral three-month fishing ban that includes the waters inside the EEZ of the Philippines and Vietnam to incrementally enforce its de facto maritime claims.

- The PRC states that international military presence within the SCS is a challenge to its sovereignty. Throughout 2022, the PRC deployed PLAN, CCG, and civilian ships to maintain a presence in disputed areas, such as near Scarborough Reef and Thitu Island, as well as in response to oil and gas exploration operations by rival claimants within the PRC's claimed "nine-dash line." Separately, the CCG and People's Armed Forces Maritime Militia (PAFMM) used nets and ropes to block Philippine supply boats on their way to an atoll in the SCS and issued radio challenges and threats to Philippine ships during routine resupply missions.

- In November 2022, a CCG vessel forcibly seized apparent PRC rocket debris that had fallen near Philippine-occupied Thitu Island from the Philippines by cutting the tow line of a Philippine Navy vessel as it was towing debris back to shore. PRC insisted the debris was returned to them after a "friendly negotiation," despite the Philippines producing video evidence of the incident and issues diplomatic notes of protest.

- In March 2022, the Philippines lodged a diplomatic protest after a CCG ship maneuvered within 21 meters of a Filipino vessel near Scarborough Shoal. This was the fourth time in under a year that the CCG had maneuvered dangerously close to Philippine vessels.

- In December 2022, the Philippines expressed serious concern over reports that the PRC had reclaimed several unoccupied land features in the SCS, notably at four features in the Spratly Islands. The Philippines noted that new construction contravenes the Declaration of Conduct on the South China Sea's undertaking on self-restraint and the 2016 Arbitral Award, while Beijing denied any actions and emphasized dialogue between the two nations.



Outposts in the Spratly Islands

SCS OUTPOSTS CAPABLE OF SUPPORTING MILITARY OPERATIONS

Since early 2018, the PRC-occupied Spratly Islands outposts have been equipped with advanced anti-ship and anti-aircraft missile systems and military jamming equipment, representing the most capable land-based weapons systems deployed by any claimant in the disputed SCS areas to date. In mid-2021, the PLA deployed an intelligence-gathering ship and a surveillance aircraft to the Spratly Islands during U.S.-Australia bilateral operations in the region. From early 2018 through 2022, the PRC regularly used its Spratly Islands outposts to support naval and coast guard operations in the SCS. The PRC has added more than 3,200 acres of land to the seven features it occupies in the Spratlys. China has also added military infrastructure, including 72 aircraft hangars, docks, satellite communication equipment, antenna array, radars, and hardened shelters for missile platforms.

The PRC has stated these projects are mainly to improve marine research, safety of navigation, and the living and working conditions of personnel stationed on the outposts. However, the outposts provide airfields, berthing areas, and resupply facilities that allow the PRC to maintain a more flexible and persistent military and paramilitary presence in the area. This improves the PRC's ability to detect and challenge activities by rival claimants or third parties and widens the range of response options available to Beijing.

WESTERN THEATER COMMAND

Key Takeaways

- The Western Theater Command is oriented toward India and counterterrorism missions along China's Central Asia borders.
- The Western Theater Command focuses on Xinjiang and Tibet Autonomous Regions, where the CCP perceives a high threat of separatism and terrorism, particularly among Uyghur populations in Xinjiang.
- Since early May 2020, sustained tensions along the India-China border have dominated the Western Theater Command's attention, including at least one border clash in December 2022 along the PRC border with India's Arunachal Pradesh state that injured multiple soldiers.

The Western Theater Command is geographically the largest theater command within the PRC and is responsible for responding to conflict with India and what the PRC refers to as "terrorist threats" in western China. PLA units located within the Western Theater Command include 76th and 77th Group Armies and ground forces subordinate to Xinjiang and Xizang Military Districts; three PLAAF bases, one transportation division, one flying academy, and one PLARF base.

Within China, the Western Theater Command focuses on Xinjiang and Tibet Autonomous Regions, where the CCP perceives a high threat of separatism and terrorism, particularly among Uyghur populations in Xinjiang. According to the U.S. Department of State's *2022 Country Reports on Human Rights Practices*, in the PRC, "genocide and crimes against humanity occurred during the year against the predominantly Muslim Uyghurs and other ethnic and religious minority groups in Xinjiang." Authorities were reported to have arbitrarily detained more than one million ethnic Uyghurs, Kazakhs, Kyrgyz, and other Muslims in extrajudicial internment camps designed to erase religious and ethnic identities. Although PRC government officials justified the camps under the pretense of "combatting terrorism, separatism, and extremism," information from the international community, including the UN, refute such justifications. Moreover, oppression of Muslim Uyghurs and other ethnic and religious minority groups in Xinjiang is likely used by extremist organizations as a propaganda and recruiting tool, generating new threats to the region.

Since early May 2020, sustained tensions along the India-China border have dominated the Western Theater Command's attention. Differing perceptions between India and the PRC

regarding border demarcations along the LAC, combined with recent infrastructure construction on both sides, led to multiple clashes, an ongoing standoff, and military buildups along the shared border. In response to a skirmish in June 2020 between PRC and Indian patrols in Galwan Valley, the most violent clash between the two countries in 45 years, the Western Theater Command implemented a large-scale mobilization and deployment of PLA forces along the LAC. Commander-level negotiations meant to reduce tensions continued in December 2022 with the 17th round of talks. The Western Theater Command's deployments along the LAC will likely continue through 2023.

2022 Western Theater Command Leadership

Commander– **General Wang Haijiang** [汪海江]
Previous position: Commander, Xinjiang Military District
DOB: July 1963
Age: 59
Birthplace: Anyue County, Ziyang, Sichuan Province
Education: Unknown

Political Commissar– **General Li Fengbiao** [李凤彪]
Previous position: Commander, Strategic Support Force
DOB: October 1959
Age: 63
Birthplace: Anxin County, Baoding, Hebei Province
Education: Xinyang Army Infantry School; received a Master's degree in strategic studies from National Defense University

Chief of Staff– **Major General Li Zhonglin** [李中林]
Previous position: Commander, 71st Group Army, Eastern Theater Command Army
DOB: Unknown
Age: Unknown
Birthplace: Unknown
Education: Unknown



PLA Force Laydown in Western Theater Command

CHINA-INDIA BORDER

Key Takeaways

- In 2022, the PLA increased the deployment of forces and continued infrastructure build up along the LAC.
- Negotiations between India and the PRC made minimal progress as both sides resisted losing perceived advantages on the border.

Beginning in May 2020, PRC and Indian forces faced off in clashes with rocks, batons, and clubs wrapped in barbed wire at multiple locations along the LAC. The resulting standoff triggered the buildup of forces on both sides of the disputed border. Each country demanded the withdrawal of the other's forces and a return to pre-standoff conditions, but neither China nor India agreed on those conditions. The PRC blamed the standoff on Indian infrastructure construction, which it perceived as encroaching on PRC territory, while India accused China of launching aggressive incursions into India's territory. On 15 June 2020, patrols violently clashed in Galwan Valley and resulted in the death of approximately 20 Indian soldiers and four PLA soldiers. This incident was the deadliest clash between the two since the 1962 Sino-Indian War. Following the 2020 clash, the PLA has maintained continuous force presence and continued infrastructure build up along the LAC.

- In 2022, China continued to develop military infrastructure along the LAC. These improvements include underground storage facilities near Doklam, new roads in all three sectors of the LAC, new villages in disputed areas in neighboring Bhutan, a second bridge over Pangong Lake, a dual-purpose airport near the center sector, and multiple helipads.

- In 2022, China deployed one border regiment, supported by two divisions of Xinjiang and Tibet Military Districts with four combined arms brigades (CAB) in reserve in the western sector of the LAC. China also deployed as many as three light-to-medium CABs in the eastern sector from other theater commands and an additional three CABs in the central sector of the LAC. Although some elements of a light CAB eventually withdrew, a majority of the deployed forces remain in place along the LAC.

- On July 17th, China and India held the 16th round of Corps Commander-level talks focusing on the resolution of border disagreements in the western sector of the LAC. Both sides agreed to withdraw forces from the Gogra-Hotsprings area of the LAC and to maintain dialogue through military and diplomatic channels to reach a mutually acceptable solution to the remaining border issues. Two previous rounds of Corps Commander-level talks in March and January made no progress to resolve the China-India border dispute.

- On September 8th, Chinese and Indian forces began to withdraw from the Gogra-Hotsprings area along the western sector of the LAC. This withdrawal was the direct result of the 16th round of Corps Commander-level talks held in July.

- On October 14th, representatives from China and India attended a virtual 25th Meeting of Working Mechanism for Consultation and Coordination (WMCC). Both sides lauded the recent withdrawal of forces from the border and agreed to take measures to reduce border tension and shift from emergency response to regular management of the border areas. The 24th WMCC was held on 31 May with no significant progress being made to disengage from the western sector of the LAC.

- On 9 December, hundreds of Chinese and Indian forces clashed along the eastern sector of the LAC near the Yangtse area of Tawang, India. Both sides previously agreed to not use firearms

along the border—instead they use sticks and clubs as weapons—however both Chinese and Indian forces sustained injuries. Media reports described the skirmish as the worst since the 2020 Galwan Valley incident.

- On 20 December, China and India held the 17th round of Corps Commander-level talks at the Chushul-Moldo border meeting point in China. This round of talks was not announced—unlike previous talks—and came 10 days after Chinese and Indian forces clashed along the eastern sector of the LAC near the Yangtse area of Tawang, India. No agreements were made during this meeting and both sides pledged to continue dialogue through military and diplomatic channels.

NORTHERN THEATER COMMAND

Key Takeaways

- The Northern Theater Command is oriented toward the Korean Peninsula and Russian border security.
- In September 2022, the Northern Theater Command sent a 2,000 member contingent of army, navy, and air force units to participate in the Russia-hosted multi-national military exercise Vostok-2022.

The Northern Theater Command includes the PRC's provinces bordering Mongolia, Russia, North Korea, and the Yellow Sea. It is responsible for operations along China's northern periphery and border security associated with North Korean, Russia, and Mongolia. PLA units located within the Northern Theater Command include the 78th, 79th, and 80th Group Armies; the Northern Theater Navy and its naval aviation division and two marine brigades; and two operational PLAAF bases, one special mission aircraft division, and one flying academy; and one PLARF base.

During a contingency, the Northern Theater Command likely exercises command over some SSF units in theater and receives strategic intelligence support from the SSF to improve battlefield awareness and facilitate joint operations within the theater. The North Sea Fleet is responsible primarily for protecting the sea approaches to northern China but could provide mission-critical assets to support other fleets during contingencies located beyond the Northern Theater. In 2022, Northern Theater Command forces conducted various joint and single service training activities including carrier navigation and flight training, and likely conducted UAS training.

2022 Northern Theater Command Leadership

Commander– **General Wang Qiang [王强]**
Previous position: Commander of the Western Theater Command Air Force; Deputy Commander of the Western Theater Command
DOB: ~1963
Age: ~59
Birthplace: Probable Rong County, Zigong, SichuanProvince [四川省自贡市荣]
Education: Unknown

Political Commissar– **Admiral Liu Qingsong [刘青松]**
Previous position: Political Commissar of the Northern Theater Command Navy; Deputy Political Commissar of the Northern Theater Command
DOB: ~November 1963
Age: ~58
Birthplace: Zhangqiu District, Jinan, Shandong Province [山东省济南市章丘区]
Education: Unknown

Chief of Staff– **Vice Admiral Jiang Guoping**
Rank: Admiral
Previous position: Assistant to the Chief, Joint Staff Department, CMC
DOB: ~October 1962
Age: 60
Birthplace: Rushan, Weihai, Shandong Province
Education: Dalian Naval Ship Academy



PLA Force Laydown in Northern Theater Command

CENTRAL THEATER COMMAND

Key Takeaway

- The Central Theater Command's mission is the defense of Beijing while providing support to other theater commands.

The Central Theater Command's primary responsibility is to defend the capital and CCP leadership while providing a strategic reserve to the other theater commands. It is centrally located, connecting the four remaining theater commands. Major military units under the Central Theater Command military include the PLAA's 81st, 82nd, and 83rd Group Armies; and the PLAAF's 13th Transport Division, 34th VIP Transport Division, 36th Bomber Division, 15th Airborne Corps, and the Shijiazhuang Flying Academy. Other assets in the Central Theater Command include PLA Rocket Force and the Wuhan and Datong Bases.

2022 Central Theater Command Leadership

Commander– **General Wu Ya'nan [吴亚男]**

Previous position: Deputy Chief, Joint Staff Department, CMC
DOB: August 1962
Age: 60
Birthplace: Shijiazhuang, Hebei Province [河北省石家庄市]
Education: Unknown

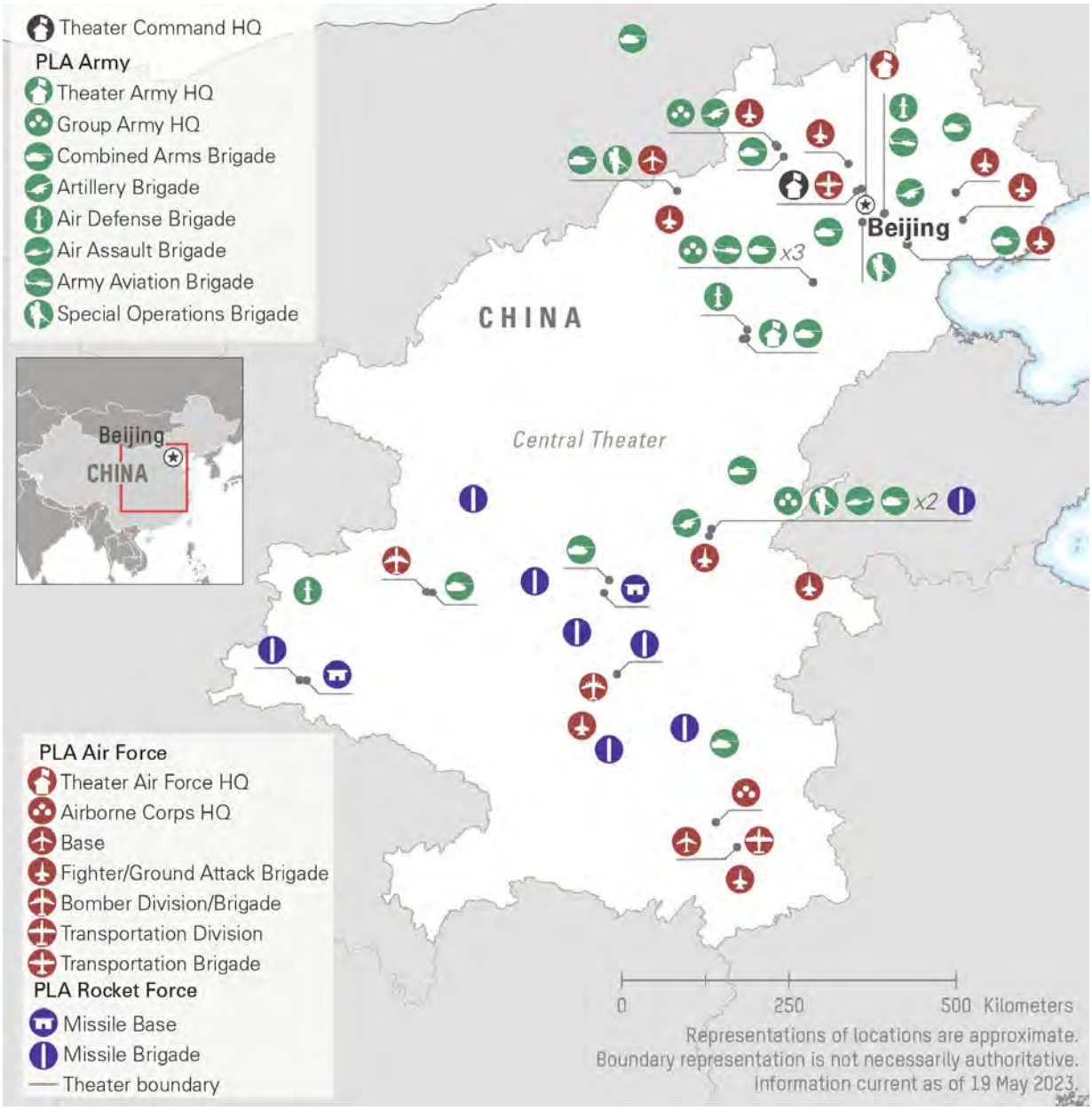
Political Commissar– **General Xu Deqing [徐德清]**

Previous position: Political Commissar, Western Theater Command Army; Deputy Political Commissar, Western Theater Command
DOB: July 1963
Age: 59
Birthplace: Chongzhou, Chengdu, Sichuan Province [四川省成都市崇州市]
Education: Unknown

Chief of Staff– Vice **Admiral Wang Changjiang** [王长江]

Previous position: Deputy Commander of the Northern Theater Command
DOB: February 1959
Age: 63
Birthplace: Luanzhou, Tangshan, Hebei Province [河北省唐山市滦州市]

Education: The PLA Air Force's Fourth Aviation Academy



PLA Force Laydown in Central Theater Command

DEVELOPMENTS IN THE SECURITY SITUATION IN THE TAIWAN STRAIT

Key Takeaways

- In 2022, the PRC amplified diplomatic, political, and military pressure against Taiwan.
- Throughout 2022, the PLA increased provocative and destabilizing actions in and around the Taiwan Strait, to include ballistic missile overflights of Taiwan, sharply increased flights into Taiwan's self-declared ADIZ and a series of major military exercises near Taiwan.

Throughout 2022, the PRC conducted large-scale joint military exercises focused on training to deter further U.S. and allied operations along China's periphery. Many of these exercises focused on combat realism and have featured night missions, training in extreme weather, and simultaneous multi-domain operations.

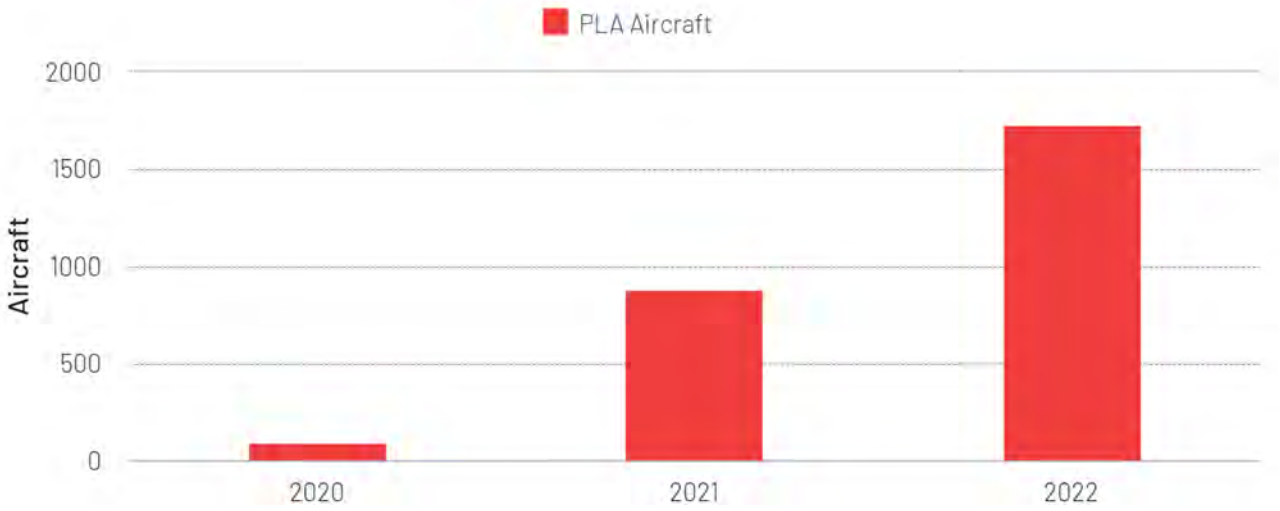
The PLA is preparing for a contingency to unify Taiwan with the PRC by force if perceived as necessary by Beijing, while simultaneously deterring, delaying, or denying any third-party intervention, such as the United States and/or other like-minded partners, on Taiwan's behalf. As part of a comprehensive campaign to pressure Taiwan and the Tsai administration and signal its displeasure at deepening Washington-Taipei ties, the PRC has persistently conducted military operations near Taiwan and military training for a Taiwan contingency. Throughout 2022, the PLA increased provocative actions in and around the Taiwan Strait, to include ballistic missile overflights of Taiwan, significantly increased flights into Taiwan's self-declared air defense identification zone, and conducted a series of large-scale military exercises around Taiwan.

- According to Taiwan Ministry of National Defense (MND) data, the PLA sent a total of 1,737 aircraft in Taiwan's ADIZ in 2022. This is a 79 percent increase from 972 incursions in 2021.
- Throughout 2022, the PLA also diversified the type of aircraft it sent into Taiwan's ADIZ. Since September 2022, when the Taiwan MND began releasing information on UAV operations in the ADIZ, UAVs have made up around 10 percent of aircraft tracked.

At the 20th Party Congress in 2022, Xi Jinping repeated the CCP's longstanding public position that China seeks peaceful unification with Taiwan but would never renounce the use of force as an option. Additionally, the CCP amended its constitution to reaffirm that it will resolutely oppose and deter Taiwan independence. The circumstances under which the PRC has historically indicted it would consider the use of force has evolved over time. These circumstances have included the following:

- Formal declaration of Taiwan's independence
- Undefined moves toward Taiwan independence

- Internal unrest in Taiwan
- Taiwan's acquisition of nuclear weapons
- Indefinite delays in the resumption of cross-strait dialogue on unification
- Foreign military intervention in Taiwan's internal affairs.



PlA Aircraft Entering Taiwan ADIZ

Tensions between the PRC and Taiwan increased in 2022, as the PRC intensified political and military pressure aimed at Taiwan. Following the U.S. Speaker of the House CODEL to Taiwan in August 2022, Beijing released a new Taiwan white paper, which was the third paper issued by Beijing since 1993. The content of the white paper appears consistent with familiar talking points from Beijing, albeit with a more pointed tone. It highlights that unification is foundational to the PRC's "national rejuvenation," Beijing's preference for peaceful reunification under the "one country, two systems" framework, and a refusal to renounce the use of force to compel reunification, if needed. Unlike the previous Taiwan white paper (released in 2000), this iteration explicitly calls out Taiwan's ruling Democratic People's Party for "having adopted a separatist stance," and features heavier criticism on "external interference" by singling out the United States. The paper further asserts that all U.S. "interference" in Taiwan is guided by a strategy to use Taiwan as a "pawn" in an effort to contain China.

The PRC continues to suspend formal communications with Taiwan, which began in 2016, and remains steadfast that Taiwan must accept the PRC's view of the "1992 Consensus" to restart such engagement. China's leaders have directly equated the "1992 Consensus" to the PRC's "One China principle," which was reaffirmed by President Xi in a January 2019 address to "compatriots" in Taiwan.

CONSISTENT U.S. DEFENSE ENGAGEMENT WITH TAIWAN

In response to U.S. defense engagement with Taiwan, Beijing routinely accuses the United States of not abiding by its One China principle. U.S. defense engagements with Taiwan, as one element of the unofficial U.S.-Taiwan relationship, remain consistent with our one China policy – as guided by the Taiwan Relations Act (TRA), three U.S.-China Joint Communiques, and the Six Assurances. U.S. defense engagement with Taiwan has evolved over time in response to the PRC's capacity and willingness to use military coercion against Taiwan. This evolution does not contradict publicly-stated U.S. policy, and it is in fact required by U.S. policy.

The 1979 TRA states that the United States "will make available to Taiwan such defense articles and defense services in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capability." In 1982, President Reagan clarified in an internal memo—which the United States made public in 2019—that the quantity and quality of U.S. defense assistance provided to Taiwan be "conditioned entirely on the threat posed by the PRC." President Reagan further emphasized that this linkage is intended as a "permanent imperative" of foreign policy.

The United States opposes unilateral changes to the cross-Strait status quo by either side; does not support Taiwan independence; and expects cross-Strait differences to be resolved by peaceful means. United States defense engagement with Taiwan's will continue to bolster these positions and be conditioned entirely on the evolving threat posed by the PRC and the interests of the people of Taiwan, as enumerated in U.S. policy.

PLA COERCIVE AND RISKY OPERATIONAL BEHAVIOR

The PLA's coercive and risky air and maritime activity, particularly in the East and South China Seas, continued throughout 2022 and into 2023. The PLA's coercive and risky activities includes unsafe, unprofessional, and other behaviors that seek to impinge upon the ability of the United States and other nations to safely conduct operations where international law allows. The goal of the PLA's behavior is to pressure the United States and other nations to reduce or cease lawful operations near areas Beijing claims territorial sovereignty.

Examples of the PRC's coercive and risky operational behavior against U.S. and Allied aircraft have included lasing (i.e., the use of military-grade lasers against a target), reckless maneuvers (i.e., maritime bow crossings and barrel rolls and acrobatics in close proximity to aircraft), close approaches in the air or at sea, high rates of closure (i.e., rapid approaches), discharging objects (i.e., chaff or flares) in front of, or in close proximity to, aircraft; and other actions.

The PLA's behavior contravenes flight safety protocols and the international maritime rules of the road; increases the risk of a major accident, incident, or crisis, including the potential for loss of life.

Over the last 18 months, the PLA appears to have been engaged in a centralized, concerted campaign to perform these risky behaviors in order to coerce a change in lawful U.S. operational activity, and that of U.S. Allies and partners. Prior to the fall of 2021, the PLA routinely intercepted foreign air and maritime assets operating in the Indo-Pacific, but these earlier interactions rarely involved PLA employment of coercive and risky behavior. ***Between the fall of 2021 and fall of 2023, the United States has documented over 180 instances of PLA coercive and risky air intercepts against U.S. aircraft in the region – more in the past two years than in the previous decade. Over the same period, the PLA has conducted around 100 instances of coercive and risky operational behavior against U.S. Allies and partners, in an effort to deter both the United States and others from conducting lawful operations in the region.*** The PRC's messaging regarding its forces' operational behavior, such as claiming it is "justified to take forceful countermeasures" against activities that Beijing labels "provocative," suggests centralized coordination, not the behavior of a few isolated PLA officers.

Some examples of the PRC's coercive and risky behavior include the following:

- In February 2022, a Chinese naval ship directed a laser at an Australian P-8A Poseidon aircraft operating in Australia's exclusive economic zone, endangering the health of Australian airmen.
- While flying a mission between April and May 2022, the Canadian CP-140 patrol aircraft were the subject of harassment by PLAAF fighter jets, which on several occasions, attempted to divert Canadian CP-140s. The PLAAF aircraft did this by conducting close approaches which forced the Canadian patrol craft to alter its flight path to avoid collision.
- During a routine May 2022 maritime surveillance flight by an Australian P-8A in the South China Sea, a Chinese J-16 conducted a dangerous intercept maneuver which posed a safety threat to the P-8A and its aircrew. The Australian government issued a press release on this event.
- In June 2022, a Chinese J-16 cut across the nose of another Australian P-8A Poseidon that was operating in international airspace over the South China Sea. The Chinese jet released a round of chaff, which was ingested into the Australian aircraft's engine.
- In December 2022, a PLA J-11 fighter came within 20 feet of the nose of a U.S. military aircraft operating lawfully in international airspace over the South China Sea.
- In February 2023, the Philippine Department of Foreign Affairs issued a statement concerning an incident with a Chinese Coast Guard vessel, operating under PLA overwatch, engaged in dangerous maneuvers against a Philippine Coast Guard vessel operating within Manila's own EEZ, including by deploying a military-grade laser that temporarily blinded Filipino crew members.
- In May 2023, the DoD released cockpit video of a PLA J-16 "thumping" a U.S. RC-135 aircraft by forcing the U.S. RC-135 to fly directly behind it in its wake turbulence.
- Less than one week later, in June, the DoD released video of the PLA's unprofessional reaction to the USS CHUNG HOON during a U.S.-Canada bilateral Taiwan Strait Transit.

PLA RESPONSE TO HIGH-PROFILE VISIT TO TAIWAN BY FOREIGN FIGURES

Throughout 2022, the PRC continued to respond to high-level foreign visits to Taiwan with low-level military drills near Taiwan, typically including Taiwan Strait centerline crossings, increased PLA Navy activity around Taiwan, and public statements condemning the visits. In stark contrast, the PLA responded in early August 2022 to the CODEL vist to Taiwan with significantly larger-scale military activities that included several unprecedented actions. The Eastern Theater Command conducted snap military drills that included PLA aviation flying more than 250 fighter aircraft into Taiwan's self-declared ADIZ and 13 PLA Navy vessels operating around Taiwan. The PLARF fired multiple ballistic missiles into impacts zones in waters around Taiwan, including the first-seen instance of at least four missiles overflying Taiwan. These military drills also afforded the PLA an opportunity to train simulated joint blockade and simulated joint firepower strike operations.

PRC MILITARY COURSES OF ACTION AGAINST TAIWAN

Although Beijing reaffirms that "peaceful reunification" is its preferred course of action, the PRC continues to signal its willingness to use military force against Taiwan. The PLA has a range of options to coerce Taipei based on its increasing capabilities in multiple domains. The PRC could increasingly signal its readiness to use force or conduct punitive actions against Taiwan. The PLA could also conduct a range of cyberspace, blockade, and kinetic campaigns designed to force Taiwan to capitulate to unification or compel Taiwan's leadership to the negotiation table on the PRC's terms. In any case, the PRC would seek to deter potential U.S. intervention in any Taiwan contingency campaign. Failing that, the PRC would attempt to delay and defeat intervention in a limited war of short duration. In the event of a protracted conflict, the PLA might choose to escalate cyberspace, space, or nuclear activities in an attempt to end the conflict, or it might choose to fight to a stalemate and pursue a political settlement. The PLA could offer Xi the following military options against Taiwan, listed below individually or in combination, with varying degrees of feasibilities associated risk. The PRC's perception of domestic and international receptivity to military action, the expected impact on its economy of resulting sanctions, political trends in Taiwan, and its level of confidence in the PLA's capability to conduct a successful invasion of Taiwan will determine which military option the PRC chooses during crises. The PLA practiced elements of each of these military options during its August 2022 large-scale military exercise aimed at pressuring Taiwan, and again in April 2023 in response to Taiwan president Tsai Ing-wen's transit of the United States.

Air and Maritime Blockade. PLA writings describe a Joint Blockade Campaign in which the PRC would employ blockades of maritime and air traffic, including a cut-off of Taiwan's vital imports, to force Taiwan's capitulation. Large-scale missile strikes and possible seizures of

Taiwan's offshore islands would accompany a Joint Blockade Campaign in an attempt to compel Taiwan's surrender, while at the same time, posturing air and naval forces to conduct weeks or months of blockade operations if necessary. The PRC likely would complement its air and maritime blockades with concurrent EW, network attacks, and IO to further isolate Taiwan's authorities and populace and to control the international narrative of the conflict.

Limited Force or Coercive Options. The PRC could use a variety of disruptive, punitive, or lethal military actions in a limited campaign against Taiwan, probably in conjunction with overt and clandestine economic and political activities supported by IO to shape perceptions or undercut the effectiveness or legitimacy of the Taiwan authorities. Such a campaign could include computer network or limited kinetic attacks against Taiwan's political, military, and economic infrastructure to induce fear in Taiwan and degrade the Taiwan population's confidence in their leaders. Similarly, PLA SOF could infiltrate Taiwan and conduct attacks against infrastructure or leadership targets.

Air and Missile Campaign. The PRC could use precision missile and air strikes against key government and military targets, including air bases, radar sites, missiles, space assets, and communications facilities to degrade Taiwan's defenses, neutralize its leadership, or undermine the public's resolve to resist.

Amphibious Invasion of Taiwan. PRC writings describe different operational concepts for an amphibious invasion of Taiwan. The most prominent of these, the Joint Island Landing Campaign, envisions a complex operation relying on coordinated, interlocking campaigns for EW, logistics, air, and naval support. The objectives are to break through or circumvent Taiwan's shore defenses, establish a beachhead, build up combat power along Taiwan's western coastline, and seize key targets or the entire island.

The PLA continues to test new options to force unification. In October 2022, seven Chinese civilian car ferries, under CMM, participated in amphibious landing drills on Chinese beaches in the Taiwan Strait. In August 2022, in response to the U.S. Speaker of the House CODEL to Taiwan, the PLA conducted joint exercises focusing on establishing air, maritime, and information superiority. The exercise consisted of joint air and maritime activities to the north, southwest, and southeast of Taiwan, focused on establishing air dominance, according to Eastern media reporting.

A large-scale amphibious invasion would be one of the most complicated and difficult military operations for the PLA, requiring air and maritime superiority, the rapid buildup and sustainment of supplies onshore, and uninterrupted support. It would likely strain the PRC's armed forces and invite a strong international response. These factors, combined with inevitable force attrition, the complexity of urban warfare, and potential for an insurgency, make an amphibious invasion of Taiwan a significant political and military risk for Xi and the CCP, even assuming a successful landing and breakout past Taiwan beachhead defenses.

Small Island Seizure. The PLA also is capable of attempting various amphibious operations short of a full-scale invasion of Taiwan. With few overt military preparations beyond routine training,

the PRC could launch an invasion of small Taiwan-occupied islands in the SCS, such as Pratas or Itu Aba. A PLA invasion of a medium-sized, better-defended island, such as Matsu or Kinmen, is also within the PLA's capabilities. Such an invasion would demonstrate military capability, political resolve, and achieve tangible territorial gain while simultaneously showing some measure of restraint. However, this kind of operation involves significant, and possibly prohibitive, political risk because it could galvanize pro-independence sentiment on Taiwan and generate powerful international opposition.

CIVILIAN ROLL-ON/ROLL-OFF (RORO) SHIPS AND THEIR POTENTIAL USE IN A TAIWAN INVASION

The lack of significant PLA amphibious ship buildup does not independently reflect a PLA deficiency toward building a military option to take Taiwan by force, but rather, is consistent with the PRC's exploratory approach to testing multi-dimensional Taiwan seizure concepts.

In 2015, China's official media reported that all future builds of five categories of civilian vessels had to be built to "national defense requirements" including container ships, RORO ferries, multipurpose vessels, bulk carriers, and break bulk ships.

In 2019, images emerged on Chinese state television that at least one of its RORO ferries had been modified with a ramp to allow amphibious vehicles to disembark at sea suggesting these ferries could be used to deliver first echelon forces without requiring prior seizure of a pier. By demonstrating intent to use commercial ROROs during an amphibious invasion, the PLA is eroding the principle of distinction under the law of armed conflict and obscuring crucial lines between warships and non-warships, civilians and combatants, and civilian objects and military objectives.

In a similar state media disclosure, images emerged in 2021 showing that China had modified a flat deck container vessel to function as a landing platform helicopter (LPH) or as an expeditionary transfer dock (ESD); such modification could serve as a mid-way refueling point for helicopters returning from delivering air assault forces to Taiwan or enable PLA helicopters to transport forward stocks of logistics ashore.

Although China has not officially revealed the size of its civilian fleet or how it plans to use it during an invasion, 2019 information indicated the PLA have at least 63 civilian ROROs suitable for military operations.

Subsequent information from one Chinese province indicates as many as 64 civilian ROROs would be made available to the PLA in wartime and that these platforms would be equipped with weapons as part of the mobilization process.

Some public estimates suggest that China's use of its dual-capable civilian fleet could provide it greater displacement tonnage than the sum of all of the U.S. Navy's amphibious assault ships.

In 2022, the PLA significantly stepped up RORO training to supportChina's military activities by more than doubling the number of ROROs used to support similar activity in the prior year. Although most of these events consisted of troop movements within or between theaters, several marked a continued maturation towards using ROROs and other civilian shipping to support PLA amphibious force employment against Taiwan. However, these events have not demonstrated the realism or requisitite tactical proficiency to engage in wartime operations. This includes the absence of opposed landing operations in unfavorable weather conditions and sea states. It also includes a lack of RORO training to operate in convoys, conduct rapid disembarkation, and the offload of PLA forces at sea while underway.

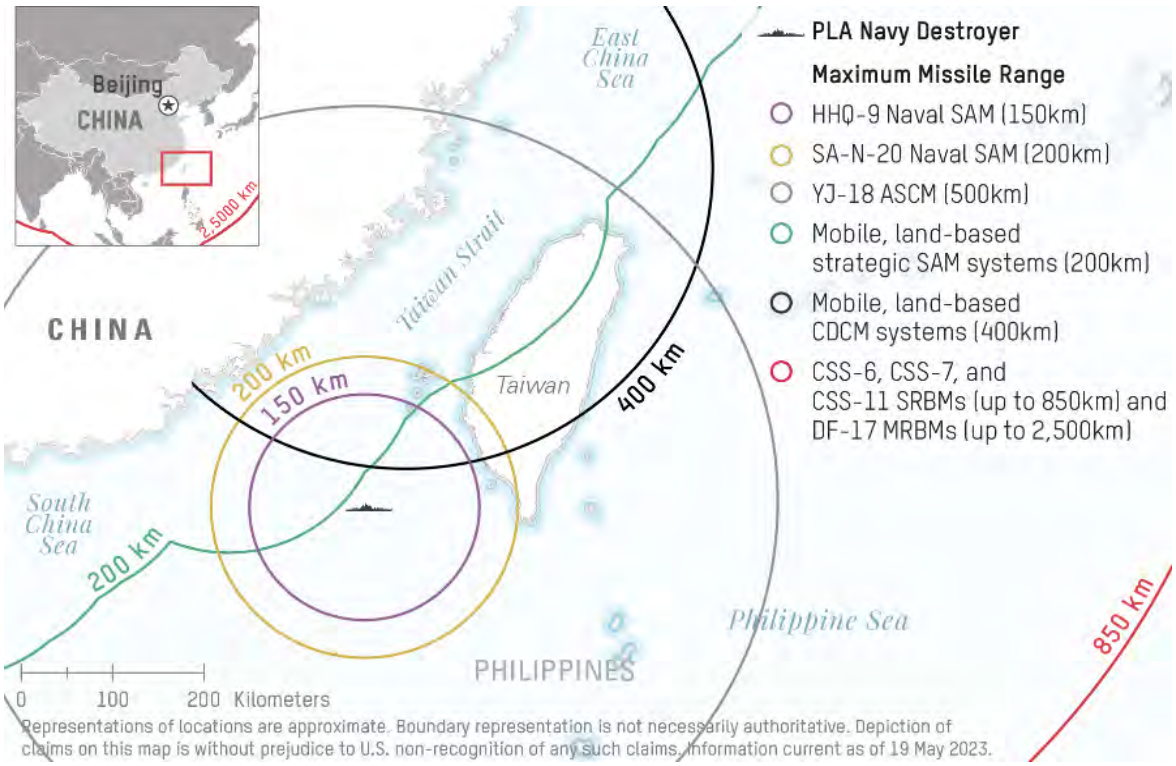
- **Floating Causeway Improvement.** During three events between May and July 2022, two Chinese civilian ROROs participated in docking evolutions with a new floating causeway system intended to allow ROROs to disembark forces onto a beach without seizing a port or being modified to discharge amphibious vehicles at sea. The causeway observed in 2022 featured several improvements over the one used in 2021 to include having six uniform self-propelled sections extendable to an additional 200 meters. The causeway system seems to rely on a semi-submersible barge to stabilize the causeway, which may limit its utility for a cross strait invasion. However, PLA naval writings stress the importance of floating causeways, especially those with wave attenuation capabilities, as one solution to dealing with Taiwan ports that might be inaccessible for off-loading operations in wartime.

- **Large-Volume Lift Exercise.** From mid-July to mid-August, the PLA conducted large amphibious lift exercises along China's Northern and Southern coast, using 12 civilian ships including eight large RORO ferries. The lift capacity, number of vessels stops, and the number of participating ground vehicles suggest this training could have simulated the movement of up to a full group army for the first time. The PLA also conducted a five-day loading/unloading exercise in September 2022 using six ROROs and three cargo ships to simulate the movement of a heavy combined arms brigade in a Taiwan invasion.

- **Denial and Deception Training.** In August 2022, a PLAA air defense brigade exercise attempted to obscure observation of its loading onto a RORO in the Bohai Gulf. A PLA video showed the brigade entering a dock-side building where it hid for an undetermined period of time before loading onto a RORO using a tarp that extended from the building to the ship, likely intended to limit observation of their loading activity.

- **Austere Port Operations.** In mid-August 2022, a single RORO supported the transport of roughly 40 vehicles from a portion of Dongshan Port that had little cargo handling infrastructure, no pier-side RORO ramp, and no tugboat support. This training suggests the PLA seeks the capability to operate from any intact pier, even ones without offloading infrastructure.

- **RORO Participation in PLAN Amphibious Forces.** From August 31st to September 2nd, 2022, the PLA conducted its most complex use of civilian shipping for amphibious assault operation at Dacheng Bay and Honghai Bay in southern China. The exercise featured 10 civilian ships – including RORO ferries and RORO vehicle carriers – operating alongside PLAN amphibious ships, including at least one Type-071 LPD. The operations at Dacheng Bay made use of the new six-segment floating causeway, supported by a San Hong Gong submersible floating barge, which docked with at least one RORO ferry. ROROs in both exercise area off-loaded forces at sea, suggesting stern ramp modifications allowing for at-sea disembarkation are becoming more commonplace within the RORO fleet. One combined-arms amphibious brigade and one combined-armed amphibious battalion were believed to have been delivered as part of this exercise.



PRC Missile Coverage over the Taiwan Strait

THE PLA'S CURRENT POSTURE FOR A TAIWAN CONFLICT

PLAA. The PLAA has increased its posture in the Eastern Theater Command and along the Taiwan Strait, providing the PLAA with enhanced firepower, mobility, and rapid strike capabilities. Significant reorganizations and amphibious assault training in recent years likely indicate that the Taiwan contingency is a high priority for the Army. Major PLAA contributions to a Taiwan invasion scenario likely include extensive amphibious, army aviation, and air assault operations.

The PLAA fields six amphibious combined arms brigades—four in the Eastern Theater Command (nearest Taiwan) and two in the Southern Theater Command. PLAA units continued amphibious assault training as a single service and with joint service counterparts in 2022. Training events refined the tactics of rapid loading, long-distance transport and beach assault under complicated sea situations, and logistic support capabilities. Press reports also claimed that the PLA extensively used sea, air, and ground UAS in support of the amphibious assault operation. PLAA amphibious brigades reportedly conduct realistic, large-scale amphibious operations that are almost certainly aimed at supporting a Taiwan invasion scenario.

PLAN. The PLAN is improving its anti-air, anti-surface, and ASW capabilities, further developing an at-sea nuclear deterrence, and introducing new multi-mission platforms capable of conducting diverse missions during peace and war and has increased its posture surrounding Taiwan since August 2022. New attack submarines and modern surface combatants with anti-air capabilities and fourth-generation naval aircraft entering the force are designed to achieve maritime superiority within the FIC as well as to deter and counter any potential third-party intervention in a Taiwan conflict.

The PRC's amphibious fleet has in recent years focused on acquiring a modest number of ocean-going LPD and LHA ships. There is no indication the PRC is significantly expanding its number of tank landing ships (LSTs) and medium sized landing craft at this time. Although the PLAN has not invested in the large number of landing ships and medium landing craft that analysts believe the PLA would need for a large-scale assault on Taiwan, it is possible the PLA assesses it has sufficient amphibious capacity and has mitigated shortfalls through investment in other operational capabilities, such as civilian lift vessels and rotary-wing assets to address this gap. The PLA may also have confidence in the PRC's shipbuilding industry's massive capacity to produce the necessary ship-to-shore connectors relatively quickly.

PLAAF. The PLAAF has maintained a ready force posture for a variety of capabilities necessary in a Taiwan contingency. It has acquired a large number of advanced aircraft capable of conducting operations against Taiwan without requiring refueling, providing it with a significant capability to conduct air and ground-attack operations. A number of long-range air defense systems provide a strong layer of defense against attacks on key military installations or population centers on China's mainland. The PRC's development of support aircraft provides the PLAAF with improved ISR capability to support PLA operations. The PLAAF also has improved refueling capabilities, expanding its ability to operate further from China and increasing its ability to threaten third party intervention. Throughout 2022, Eastern Theater Command-based PLAAF units operated at higher levels than in previous years. Taiwan ADIZ incursions involved greater numbers of aircraft and were more frequent than in 2021, demonstrating the PLAAF's improved ability to sustain pressure on Taiwan.

PLARF. The PLARF is prepared to conduct missile attacks against high-value targets, including Taiwan's C2 facilities, air bases, and radar sites, in an attempt to degrade Taiwan's defenses, neutralize Taiwan's leadership, or break the public's will to fight. As of 2023, the PLARF is

increasing its presence along the Taiwan Strait with new missile brigades, possibly indicating an increasing number of deployed missiles.

Strategic Support Force (SSF). PLA doctrinal writings emphasize the importance of space and cyberspace domains in joint operations. PLA writings suggest that the SSF would be responsible for the use of EW and cyberspace operations during a Taiwan contingency, as one of the missions of the force is to seize and maintain information dominance. The SSF 311 Base would be responsible for political and psychological warfare, such as disseminating propaganda against Taiwan to influence public opinion and promote the PRC's interests. The SSF would also play a strategic information and communications support role, centralizing technical intelligence collection and management and providing strategic intelligence support to theater commands involved in a Taiwan contingency. Following the U.S. Speaker of the House's CODEL in August 2022, Taiwan's MND claimed that China launched widespread cyber-attacks against Taiwan.

Joint Logistic Support Force (JLSF). The JLSF's primary goal is to provide joint logistics support to the PLA's strategic and campaign-level operations, such as a Taiwan contingency, by conducting C2 of joint logistics, delivering materiel, and overseeing various support mechanisms. The JLSF participates in joint, theater-level exercises, becoming most relevant when units operate far from their home garrisons and beyond their organic logistics capabilities.

TAIWAN'S ABILITY TO DETER THE MAINLAND

Key Takeaways

- The PRC's multi-decade military modernization effort continues to widen the capability gap compared to Taiwan's military.
- Geopolitical events in 2022 accelerated Taiwan's development of new concepts and capabilities for asymmetric warfare to counter the PRC's improving capabilities.

Taiwan has positioned itself as "a beacon of democracy" to generate international support and expand regional security ties. Taiwan is taking steps to compensate for the growing disparity with the PLA, including building its war reserve stocks, growing its defense-industrial base, improving joint operations and crisis response capabilities, and strengthening its officer and noncommissioned officer corps. Taiwan's Quadrennial Defense Review 2021 reflects adjustments to the military's strategy for defending the island by placing emphasis on protecting its littorals and near-shore coastal areas in a multi-layered defense-in-depth. The modified strategy stresses enhanced asymmetric and joint capabilities, as well as suggesting greater reliance on Taiwan's Air Force and Navy through multi-domain deterrence measures.

In 2022, Russia's war on Ukraine and the PRC's forceful response to then-U.S. Speaker of the House's CODEL to Taiwan in August increased the urgency with which Taiwan is pursuing defense reforms. The PRC's response to the then-U.S. House Speaker's visit accelerated the PRC's

ongoing military and gray zone activity toward Taiwan. The PRC's actions likely intended to establish a new status quo and to place greater operational demands on Taiwan's military. Taiwan's planned improvements only partially address its defense challenges, and a majority of Taiwan citizens believe that the then-Speaker's visit and the PLA response were detrimental to Taiwan's security.

Taiwan's armed forces are authorized to fill approximately 215,000 billets, including 188,000 active-duty billets. As of 2021, the MND had accomplished its goal to fill 90 percent of the active duty billets (169,000) with volunteers. As Taiwan transitions to an all-volunteer force, the cost savings from manpower reductions provided some margin to improve individual pay and benefits, housing, and incentive pay. However, these savings have been insufficient to cover the full increase in manpower-related costs needed to attract and retain personnel under the new system. Taiwan also faces considerable equipment and readiness obstacles.

Reservists, conscripts, and civil defense volunteers support the volunteer active duty forces. Taiwan's number of reserve personnel ranges from one to two million, while there are fewer than half a million conscripts. In 2021, Taiwan passed legislation to establish an organization to improve the mobilization of reserves and civilians to support military operations. In 2022, Taiwan implemented this legislation by establishing the All Out Defense Mobilization Agency, which coordinates a whole-of-society approach to support military operations and disaster prevention and response. In December 2022, Taiwan announced that it would extend the duration of mandatory military conscription service from four months to one year and double conscripts' monthly salary starting in 2024.

Taiwan continues to increase its defense budget to support defense acquisitions and strengthen its forces against Chinese pressure. In 2020, the Tsai administration announced defense spending to be the highest level since 1990. In October 2022, Taiwan proposed total defense spending of about $19 billion for 2023, a 13.9 percent increase from 2022, which will represent about 2.4 percent of Taiwan's GDP. In January 2022, Taiwan approved an $8 billion multi-year supplemental defense budget to strengthen Taiwan's air and sea combat capabilities. Over half of Taiwan's supplemental defense spending will fund missile corvettes and anti-ship weapons, such as the Hsiung Feng missile system. Meanwhile, China's official defense budget continues to grow to around $230 billion in 2022, about 12 times larger than Taiwan's defense budget, with much of China's defense budget focused on developing the capability to unify Taiwan with the PRC by force.

Recognizing the growing disparity between their respective defense expenditures, Taiwan has stated that it is working to develop new cost effective concepts and capabilities for asymmetric warfare. Specific areas of emphasis in Taiwan's strategy include offensive and defensive information and electronic warfare, high-speed stealth vessels, shore-based mobile missiles, rapid mining and minesweeping, unmanned aerial systems, and critical infrastructure protection. Taiwan has also dedicated significant defense spending toward its Harpoon Coastal Defense Systems, domestic submarine program, upgrading its existing F-16 fighters and producing the remaining three of a previously planned four transport docks.

The United States maintains a one-China policy that is based on the TRA, the three U.S.-PRC Joint Communiqués, and the Six Assurances; opposes unilateral actions aimed at altering the status quo; and continues to support the peaceful resolution of cross-Strait issues in a manner, scope, and pace acceptable to both sides. Consistent with the TRA, the United States contributes to peace, security, and stability in the Taiwan Strait by providing defense articles and services to enable Taiwan to maintain a sufficient self-defense capability. Since 2009 Taiwan has received about $30 billion in arms sales from the United States. Taiwan currently has arms sales agreements to acquire Stinger missiles, Javelins, High Mobility Artillery Rocket Systems, Harpoon missiles, and F-16 fighter jets.

PRC EFFORTS TO CONFLATE FOREIGN ONE CHINA POLICIES WITH ITS "ONE CHINA PRINCIPLE"

The PRC's "One China *principle*," established in 1949, according to PRC government white papers, predicates diplomatic relations with the PRC on "recognizing" the "government of the PRC as the sole legitimate government representing the whole of China" and "that Taiwan is part of China."

Since the establishment of the PRC in 1949, countries around the world have enacted respective and unique "One China" *policies* that govern their relations with the PRC and Taiwan. Some countries have endorsed the PRC's "One China *principle*" in their national "One China" *policies*, while other countries have determined to "acknowledge," "understand," or "note" the PRC's position within their respective, national "One China" *policies.* These unique "One China" *policies,* and their attendant joint communiques with the PRC, provide countries around the world with the legal basis upon which each country engages with the PRC and Taiwan.

The U.S. one China policy is guided by the Taiwan Relations Act, the three Joint Communiques, and the Six Assurances. Under the three Joint Communiques, the U.S. acknowledged the PRC's position and reaffirmed U.S. interest in a peaceful settlement of the "Taiwan question." U.S. implementation interpretation of the 1982 Communique related to arms sales to Taiwan is guided by President Ronald Reagan's August 17th, 1982 internal presidential memo (known as the Six Assurances), where he stated the U.S. willingness to reduce its arms sales to Taiwan is conditioned "absolutely" upon the continued commitment of the PRC to the peaceful solution of the Taiwan-PRC cross-Strait differences. The Six Assurances, delivered to Taiwan in 1982, outlined key principles for continued U.S. support for Taiwan.

The PRC has sought to conflate the United States, as well as other foreign nations' respective "One China" *policies,* with its own "One China *principle.*" This effort erroneously portrays broad international support for its claim over Taiwan, attempts to legitimize PRC coercion against Taiwan, and make assertions of "broken legal commitments" by countries who engage with Taiwan in ways that Beijing perceives as threatening to its unification objectives.

CHAPTER FOUR: THE PLA'S GROWING GLOBAL PRESENCE

KEY TAKEAWAYS

- CCP leaders view the PLA's growing global presence as an essential part of the PRC's international activities to create an international environment conducive to China's national rejuvenation.
- The CCP has tasked the PLA to develop the capability to project power outside China's borders and immediate periphery to secure the PRC's growing overseas interests and advance its foreign policy goals.

The CCP continues its goal to create international conditions that are conducive to the PRC's development and compatible with its aspirations for the PRC's rejuvenation as a "great modern socialist country." CCP leaders believe that the PRC's global activities, including the PLA's growing global presence, contribute to creating a "favorable" international environment for the PRC's national rejuvenation. Of note, the PRC's perception of its international security environment is evolving in ways that Beijing views as "increasingly complex." The PRC's view of its increasingly complex security environment likely also factors into the PLA's growing global ambitions.

The CCP has tasked the PLA to develop the capability to project power outside China's borders and immediate periphery to secure the PRC's growing overseas interests and advance its foreign policy goals. The PRC is focusing on efforts to develop security relationships with key countries along its periphery. In addition to promoting BRI, the PRC is seeking new cooperative security partnerships with foreign nations, including the expansion of the PLA's global military attaché presence and access, expansion of strategic partnerships, and ensuring more reliable, cost-effective, and diverse sources of energy and other strategic resources.

The PRC probably will continue to expand the PLA's global military presence through humanitarian assistance, naval escorts and port calls, peacekeeping operations (PKO), arm sales, influence operations, and bilateral and multilateral military exercises. Through these engagements, Beijing can strengthen and expand its diplomatic relationships to advance its foreign policy goals, to include shaping the international system to align with the PRC's interests, gaining operational experience for the PLA, and attracting foreign interest in hosting PLA bases and dual-use installations abroad.

CHINA'S GLOBAL MILITARY ACTIVITIES

Key Takeaways

- The PRC has increasingly determined that its armed forces should take a more active role in advancing its foreign policy goals.
- As the PRC's overseas interests have grown over the past two decades, the Party's leaders have increasingly pushed the PLA to think about how it will develop the capabilities to operate beyond China's borders and its immediate periphery to advance and defend these interests. This has led to the PRC's greater willingness to use military coercion — and inducements — to advance its global security and development interests.
- In 2022, the PLA continued to normalize its presence overseas and build closer ties to foreign militaries. In 2022, Beijing maintained an active peacekeeping force of more than 2,000 personnel stationed abroad, conducted regular anti-piracy escorts in the Gulf of Aden and waters off Somalia, continued construction of a PLA facility at Cambodia's Ream Naval Base, participated in bi- and multilateral military exercises, and restarted in-person military diplomacy suspended by COVID-19.

THE PLA'S EVOLVING MISSIONS AND TASKS

In 2004, one of the "new historic missions" given to the PLA by then-President Hu Jintao was to support China's overseas interests and diplomacy. The PLAN's evolving focus—from "offshore defense" to "open seas protection"—reflects the PLAN's interest in a wider operational reach. The PLAAF's missions and tasks have similarly evolved towards conducting operations beyond China and its immediate periphery and supporting the PRC's interests by becoming a "strategic" air force. Additionally, the PLA has embraced its concept of NWMA as an effective way to support and safeguard the PRC's development, expand the PRC's global interests, and gain valuable operational experience.

The PLAN, PLAAF, PLAA, and SSF have deployed abroad for counterpiracy, HA/DR, peacekeeping, training exercises, and space support operations. Within the PLA, the PLAN has the most experience operating abroad due to its far seas deployments and counterpiracy missions, the PLAAF likely has the most experience conducting rapid response HA/DR operations abroad, and the PLAA has the most experience conducting peacekeeping operations. The SSF operates tracking, telemetry, and command stations in Namibia, Pakistan, Argentina, and Kenya. The SSF also has a handful of Yuan-wang space support ships to track satellite and ICBM launches.

- Increasingly, the PLAN is operating outside of its home waters to places including the Middle East, Europe, Africa, South Asia, Southeast Asia, Oceania, and Latin America. The PLAN has also conducted submarine deployments to the Indian Ocean, demonstrating its increasing familiarity in that region and underscoring the PRC's interest in protecting SLOCs beyond the

SCS. In 2015, three PLAN ships from a Gulf of Aden naval escort task force (NETF) evacuated 629 PRC citizens from Yemen to Djibouti and Oman.

- Since 2002, the PLAAF has delivered aid after natural disasters throughout Southeast Asia and South Asia and assisted with evacuations from Libya and Yemen. In January 2022, the PLAAF flew relief supplies to Tonga ten days after a volcanic eruption devastated the island nation, offering the PLA to normalize its presence in the region.

PLA OVERSEAS MILITARY PRESENCE

Counterterrorism. Beijing is implementing its global counterterrorism strategy through international outreach that spans across diplomatic and military domains to garner the assistance of partner governments to prevent terrorist attacks in China and against Chinese citizens and economic projects abroad. The PRC routinely lobbies foreign partners to extradite alleged Uyghur extremists, coordinates with host nations to pursue terrorist threats, and seeks public endorsement of its counterterrorism efforts in multilateral forums. Beijing further leverages involvement in regional security forums, joint border patrols, and international exercises to press its neighbors into adopting the PRC's approach to counterterrorism operations.

Counterpiracy Efforts. In 2008, the PLAN joined anti-piracy efforts in the Gulf of Aden, its first missions outside the Western Pacific. Since then, China has dispatched more than 40 NETFs to the region to escort Chinese and foreign ships. This naval activity demonstrates the PLAN's increasing familiarity with the area, hones its ability to operate in far seas, and allows the PLAN to advance military diplomacy efforts by conducting port calls in Africa. In 2022, in addition to deploying its 42nd NETF to the Gulf of Aden, the PLAN convened a China-Africa symposium to discuss cooperating on anti-piracy efforts in the Gulf of Guinea.

Peacekeeping Operations. China is the largest contributor of peacekeepers among the five UN Security Council permanent members, having deployed about 50,000 personnel over 31 years and pledged an 8,000-strong PKO standby force to the UN's Peacekeeping Capability Readiness System. Beijing frames these efforts as advancing cooperative global governance, peaceful development, and the principles of the UN Charter, which are key components of its responsible global power narrative. However, the UN peacekeeping missions in Africa have also become a testing ground for China's "far seas operations" as Beijing seeks to extend its reach in tandem with the growth and expansion of its interests. The PRC could use its role in the UN PKOs to collect intelligence on other UN units, and supporting these missions demonstrates the PLA's ability to operate outside of China's borders.

- In 2022, the PRC provided about 2,200 personnel to eight UN PKO missions in Africa and the Middle East: Cyprus, Democratic Republic of the Congo, Israel, Lebanon, Mali, South Sudan, Sudan, and Western Sahara. These personnel consist of groups-infantry, engineering, medical service, and maintenance specialists. The PRC troop contributions have slightly decreased from 2,548 personnel in 2021 to 2,200 in 2022.

MILITARY ATTACHÉ PRESENCE

The PRC's military attaché presence continues to grow globally, reflecting the PRC's increasing interests in military modernization and partnerships. Military Attaché offices manage the day-to-day overseas military diplomacy efforts in over 110 offices worldwide. The attachés serve as military advisors to the ambassador, and support Ministry of Foreign Affairs and PLA foreign policy objectives. They also perform a variety of PLA military and security cooperation duties, including counterpart exchanges with host-nation and third-country personnel. Additionally, the attachés conduct clandestine and overt intelligence collection on respective areas of responsibility. Although the general function of an attaché office is the same worldwide, individual attaché offices probably prioritize specific missions or diplomatic priorities based on location, close bilateral relations, or other factors.

The PRC's military attaché offices vary in size, generally ranging from two to 1-officers. Most offices are made of two to three officers, although officers in countries considered important to China's strategic interests often employ more attachés. These offices potentially include multiple assistant attaches, service attaches such as naval or air force, and additional support staff.

MILITARY COOPERATION

As the PRC's regional and international interests grow increasingly complex, the PLA's international engagements likely will continue to expand. Beijing often relies on senior military visits, bilateral and multilateral exercises and training, peacekeeping, and military assistance to promote the PRC's foreign policy objectives.

Senior-level military visits and international exchanges remained limited in 2022 due to continuing COVID-19 restrictions in China. Many engagements were still conducted via remote video, such as the 2nd China-Africa Peace and Security Forum Ministerial and a minister-level meeting with Latin American and Caribbean nations. In 2022, former PRC Defense Minister Wei Fenghe resumed attending some multilateral security meetings in person, including the revived Shangri-La Dialogue in Singapore and the ASEAN Defense Ministers' Meeting Plus in Cambodia. Wei also traveled to traditional partner nations such as Russia and Iran, and met with his Australian counterpart for the first time in two years. Wei likely undertook these visits to influence foreign approaches to shared security concerns, demonstrate solidarity with long-standing partners, and improve bilateral and multilateral defense relations.

The PLA continued to participate in bilateral and multilateral military exercises in 2022, though fewer than in past years, likely in part due to lingering concerns over COVID-19. The PLA carried out what appears to be a standard annual list of military exercises with the Russian military: the

Joint Sea naval exercise and a joint naval patrol; two strategic aerial patrols; and PLA participation in Russia's capstone military exercise, VOSTOK 2022. The PRC and Russia also conducted a trilateral naval exercise with Iran, the third such exercise since 2019. Other bilateral exercises the PLA conducted last year included the fifth FALCON STRIKE air exercise with Thailand, the PEACE TRAIN humanitarian rescue exercise with Laos, and the SEA GUARDIANS naval exercise with Pakistan. The PRC's lifting of COVID-19 restrictions in late 2022 will likely facilitate the reinvigoration of PLA defense activities abroad as well as the hosting of senior level bilateral and multilateral engagements in China.

Military Education Collaboration. Beijing considers establishing international professional military education (PME) as a way to create transnational networks of alumni, foster a common understanding of military operational doctrine, and strengthen the PRC's defense and security ties. Over the past decade, the PRC has increased its military exchange programs with a bias toward junior officers. Nearly half of the 70 military academies operated in China admit foreign students but only a few offers senior-level education. The College of Defense Studies of the PLA National Defense University (PLA NDU) provides the highest level of training for foreign officers offered by the Chinese People's Liberation Army. In addition to training foreign senior military officials, PLA NDU conducts international exchanges and academic discussions on defense and security issues. The PLA NDU has accepted students from more than 100 partner nations and has pursued relationships with Latin American and African militaries.

Although third countries have historically perceived Chinese PME as less prestigious than Russian or U.S. PME, the PRC's growing economic clout and expanded global security presence has bolstered the international reputation of Chinese programs. For example, PLA NDU offers students higher stipends and greater exposure to Chinese technological and scientific innovations (such as military applications of AI) than Russian schools.

The PRC also cultivates transnational alumni and shared doctrinal understanding through short-term course offerings. Since 2002, the PLA NDU sought to increase exchanges with the international military community by sponsoring annual security seminars which aim to foster cooperation, strengthen military exchanges, and attempt to impart a common approach to issues of interest to the community. The PLA NDU has received thousands of students from over 90 countries and maintains regular contacts with military academies in more than 10 countries in addition to over 140 countries' militaries.

Despite the PRC's progress to enhance its PME programs, cultural and linguistic barriers limit the effectiveness of Chinese PME. For example, foreign student and host nation student contacts and opportunities for interaction are limited due to the separation between Chinese and foreign language courses. Additionally, despite detailed dives on specific issues, PRC military schools rarely teach students about the root causes of security problems. Military ethics and human rights are off-limits for discussion within the PLA NDU curriculum and students are prohibited from criticizing the PRC's record in these areas.

In November 2022, the PLA hosted the third International Army Forum on Military Education via video link from Nanjing. Participants from 21 military academies in 10 countries including Pakistan, Greece, Egypt, and Argentina discussed training and career paths for junior army officers. According to an official PLA news site, the annual forum seeks to foster dialogue and cooperation between Chinese military academies and other nations.

PLA OVERSEAS BASING AND ACCESS

Key Takeaways

- The PRC is seeking to expand its overseas logistics and basing infrastructure to allow the PLA to project and sustain military power at greater distances.
- A global PLA military logistics network could disrupt U.S. military operations as the PRC's global military objectives evolve.
- Beyond the PLA support base in Djibouti, the PRC is very likely already considering and planning for additional military logistics facilities to support naval, air, and ground forces projection.
- In June 2022, a PRC official confirmed that the PLA would have access to parts of Cambodia's Ream Naval Base. The PRC probably also has considered other countries as locations for PLA military logistics facilities, including Burma, Thailand, Indonesia, Pakistan, Sri Lanka, United Arab Emirates, Kenya, Equatorial Guinea, Seychelles, Tanzania, Angola, Nigeria, Namibia, Mozambique, Bangladesh, Papua New Guinea, Solomon Islands, and Tajikistan.

The PRC is seeking to establish a more robust overseas logistics and basing infrastructure to allow the PLA to project and sustain military power at greater distances. Beijing may assess that a mixture of military logistics models, including preferred access to commercial infrastructure abroad, exclusive PLA logistics facilities with prepositioned supplies co-located with commercial infrastructure, and bases with stationed forces, most closely aligns with the PRC's overseas military logistics needs. Some of the PRC's BRI projects could create potential military advantages, such as PLA access to selected foreign ports to pre-position the necessary logistics support to sustain naval deployments in waters as distant as the Indian Ocean, Mediterranean Sea, and Atlantic Ocean to protect its growing interests.

- Official PRC sources assert that military logistics facilities, to include its Djibouti base, will be used to provide international public goods like HA/DR, and secure China's lines of communication, citizens, and assets abroad. Regardless, a global PLA military logistics network could disrupt U.S. military operations as the PRC's global military objectives evolve. Host nations can perform an essential role in regulating the PRC's military operations, as PRC officials very likely recognize that a stable long-term relationship with the host nation is critical to the success of their military logistics facilities.

- PRC military academics assert that bases abroad can enable forward deployment of PLA forces and support military conflict, diplomatic signaling, political change, bilateral and multilateral cooperation, and training. They also suggest that a military logistics network could enable intelligence monitoring of the U.S. military.

- In August 2017, the PRC officially opened its first PLA base in Djibouti. PLANMC are stationed at the base with wheeled armored vehicles and artillery but are currently limited in their ability to conduct expeditionary operations due to a lack of helicopters at the facility. Notably, we have no evidence that the PRC has used its base to assist in evacuation of Chinese citizens.

- In late March 2022, a Type 903A "Fuchi" class supply ship, *Luomahu* (AOE-964), docked at the 450-meter pier for resupply; this was the first such reported PLA Navy port call to the Djibouti support base, indicating that the pier is now operational. The pier likely is able to accommodate the PLA Navy's aircraft carriers, other large combatants, and submarines. PLA personnel at the facility have interfered with U.S. flights by lasing pilots and flying drones, and the PRC has sought to restrict Djiboutian sovereign airspace over the base.

Beyond its base in Djibouti, the PRC is very likely considering and planning for additional military logistics facilities to support naval, air, and ground forces projection. The PLA's approach likely includes consideration of many different sites and outreach to many countries, but only some will advance to negotiations for an infrastructure agreement, status of forces or visiting forces agreement, and/or basing agreement. Critical organizations involved in planning and negotiating for military logistics facilities are CMC Joint Staff Department, CMC Logistic Support Department, and service headquarters. The PRC's overseas military basing will be constrained by the willingness of potential host nations to support a PLA presence. Host nations are likely concerned about risks to sovereignty, regional and international perceptions, and relations with the United States when considering hosting a Chinese military facility. PRC interlocutors likely use all means available to conduct influence operations to gain political favor among elites in host nations, while obfuscating the scale and scope of PRC political and military interests.

In June 2021, Cambodian Defense Minister Tea Bahn stated that the PRC would help to modernize and expand Ream but would not be the only country given access to the facility. The following June, China and Cambodia hosted a ground opening ceremony for the Chinese-built upgrades of the Ream base.

The PRC has likely also considered Burma, Thailand, Indonesia, Pakistan, Sri Lanka, United Arab Emirates, Kenya, Equatorial Guinea, Seychelles, Tanzania, Angola, Nigeria, Namibia, Mozambique, Bangladesh, Papua New Guinea, Solomon Islands, and Tajikistan. The PRC has probably already made overtures to Namibia, Vanuatu, and the Solomon Islands. According to a draft copy of the China-Solomon Islands Security Agreement, the PRC will be permitted to send armed police and military personnel to the Solomon Islands to help maintain order, though the Solomon Island government denied this would lead to a PRC military base. The PLA is most

interested in military access along the SLOCs from China to the Strait of Hormuz, Africa, and the Pacific Islands.

China seeks to strengthen its security ties through small-scale, in-country efforts to support domestic security. As of 2022, the PRC provides occasional personnel support at public events for the Royal Solomon Islands Police Force. In Africa, the PRC maintains an embedded PLA training cadre for local military forces in the Democratic Republic of the Congo and a military training school in Tanzania. The PRC probably pursues such efforts in regions it assesses can help foster favorable environments for its security goals, but these efforts do not signal definite interest in overseas basing.

INFLUENCE OPERATIONS

Key Takeaways

- The creation of the PLA SSF in 2015 reflected the CCP's understandings of cyber operations as the primary means for psychological manipulation.
- The PLA concept of Cognitive Domain Operations (CDO) combines psychological warfare with cyber operations to shape adversary behavior and decision making.
- The PLA probably intends to use CDO as an asymmetric capability to deter U.S. or third-party entry into a future conflict, or as an offensive capability to shape perceptions or polarize a society.

The PLA views controlling the information spectrum in the modern battlespace as a critical enabler and means of achieving information dominance early in a conflict. Beginning in the early 2000s, as part of the PRC's overall influence operations, the PLA began developing the "Three Warfares" concept, which calls for the coordinated use of public opinion warfare, psychological warfare, and legal warfare. Public opinion warfare creates and disseminates information to guide an adversary's public opinion and gain support from domestic and foreign audiences. Psychological warfare uses propaganda, deception, and coercion to induce pressure and affect the behavior of the target audience. Legal warfare uses domestic and international laws to shape narratives that advance Chinese interests and undermine those of an adversary. The PLA likely seeks to combine digital influence activities with the "Three Warfares" concept to demoralize adversaries and influence domestic and foreign audiences, creating an environment advantageous to the PRC.

From the PRC's perspective, all nations – especially the United States – that use digital narratives to undermine the CCP's authoritarian system in China employ offensive influence operations. Hence, the PRC considers its influence operations that counter this perceived subversion as defensive in order to protect the party and the military.

Another primary goal of the PRC's influence operations is to maintain domestic stability and protect CCP rule. Domestically, the CCP uses influence activities to protect its image to the public

and garner popular support for the military. Internationally, Beijing aims to create an information environment favorable to the PRC and its strategic foreign policy objectives. The PRC conducts influence operations that target media organizations, businesses, academic and cultural institutions, and policy communities of the United States, other countries, and international organizations to achieve outcomes favorable to its strategic and military objectives.

PRC INFLUENCE ACTORS

PRC influence operations are coordinated and executed by a range of affiliated actors, such as the United Front Work Department (UFWD), the MSS, and the SSF. The CCP likely seeks to condition multilateral political establishments and public opinion to accept the PRC's narrative surrounding its priorities such as the PRC's "one China principle" on Taiwan unification, BRI, political control over Hong Kong, and territorial and maritime claims in the SCS and ECS. In mid-2022, official messaging from diplomatic personnel, state media outlets, and diplomatic social media accounts surrounding the U.S. Speaker of the House's visit to Taiwan highlighted how the PRC uses influence operations to shape the information environment surrounding Taiwan policy. In an August 2022 PRC Ministry of Foreign Affairs Communique, Beijing advanced its official narrative that the PRC is a responsible, law-abiding member of the international community and that the U.S. Speaker's visit unlawfully violated the PRC's sovereignty and needlessly provoked potential U.S.-China confrontation.

PRC INFLUENCE OPERATIONS

PRC influence operations can range from lobbying and cultivating foreign politicians, injecting Chinese cultural narratives or values into foreign education systems, bringing academic or thank tank researchers' access to China, and flooding Chinese language media abroad, all of which can be accomplished via diplomacy or coercive means. For example, a hallmark of the PRC's influence strategy includes appealing to overseas PRC citizens or ethnic Chinese of other countries as indirect proxies to assert the CCP's objectives through soft power engagements. The PRC often targets Uyghurs and overseas dissidents with harassment or threats to imprison their family members in China. Furthermore, the UFWD collaborated with overseas Chinese communities in the Global South, including Latin America and Caribbean countries in order to shape positive views of China that would better facilitate economic ties. Additionally, the PRC's "Thousand Talents Program" targets overseas Chinese emigrants to support its foreign technology acquisition strategy, which is critical to China's scientific and technical modernization.

The PRC has demonstrated its intent to use multilateral forums and organizations to expand its defense influence and security cooperation, while establishing a leadership role in those organizations. The PRC promotes strategic messaging by portraying China as a responsible global actor through international organizations such as the World Trade Organization, the Association of Southeast Asian Nations (ASEAN), and through PRC created multilateral regional forums like the Forum on China-Africa Cooperation (FOCAC), China-Arab States Cooperation, the China-

Central and Eastern Europe Cooperation Framework, the Community of Latin American and Caribbean States (CELAC), and through organizations which exclude traditional western partners, such as Brazil, Russia, India, China, and South Africa (BRICS), and the Shanghai Cooperation Organization (SCO). In August 2022, official PRC Ministry of Foreign Affairs remarks to the FOCAC advanced a narrative that, unlike other potential foreign partners, Beijing respected the sovereignty of African nations and was committed to supporting sustainable development, food security, public health services, and foreign direct investment across the continent. In May 2022, the PRC Ministry of Foreign Affairs highlighted the Forum for Senior Defense Officials from Caribbean and South Pacific Countries, last hosted by Beijing in 2019, as evidence of its strong security cooperation with the Solomon Islands.

The PRC government-affiliated entities use overt and covert messaging vectors, such as the internet and social media platforms, and military cyber capabilities during both peacetime and wartime. The PLA's goals for social media influence operations include promoting narratives to shape foreign governments' policies and public opinion in favor of the PRC's interests and undermining adversary resolve. The PLA views social media through the prism of information dominance, and during a crisis could use digital influence operations to undermine enemy morale and confuse or deceive adversary decision makers. Most Chinese media platforms, including traditional and digital newspaper and television programs, are either state-owned or heavily influenced by Beijing to augment the CCP's response to geopolitics and often take on a more aggressive messaging tone.

COGNITIVE DOMAIN OPERATIONS (CDO)

The creation of the PLA SSF in 2015 reflected that the CCP understands cyber operations as the primary means for psychological manipulation. As the PLA seeks to expand the reach of its influence operations around the world and seize information dominance on the battlefield, it is researching and developing what it believes to be the next evolution of psychological warfare, which it calls CDO. CDO blends previous Chinese concepts such as public opinion and psychological warfare with modern internet technologies and communication platforms, and is designed to achieve strategic national security goals by affecting a target's cognition and resulting in a change in the target's decision making and behavior. The PLA has recognized the importance of incorporating emerging technologies such as AI, big data, brain science, and neuroscience into CDO as PLA perceives that these technologies will lead to profound changes in the ability to subvert human cognition.

The goal of CDO is to achieve what the PLA refers to as "mind dominance, which the PLA defines as the use of information to influence public opinion to affect change in a nation's social system, likely to create an environment favorable to China and reduce civilian and military resistance to PLA actions. The PLA probably intends to use CDO as an asymmetric capability to deter U.S. or third-party entry into a future conflict, or as an offensive capability to shape perceptions or polarize a society. Authoritative PLA documents describe one aspect of deterrence as the ability to bring about psychological pressure and fear on an opponent and force them to surrender. PLA articles

on CDO state that seizing mind dominance in the cognitive domain and subduing the enemy without fighting is the highest realm of warfare.

LESSONS LEARNED FROM RUSSIA'S WAR ON UKRAINE

The PRC almost certainly is learning lessons from the Russian war of aggression in Ukraine that are most applicable to the PRC's strategic interests of strengthening its whole-of-government approach to counter a perceived U.S.-led containment strategy. From the PRC's perspective, the war provides unique opportunities for PRC leaders to evaluate how countries use diplomatic, informational, military, and economic measures to advance their interests before, during and after a major conflict. As the conflict continues, the PRC's ultimate takeaways probably will depend on the conflict's resolution, the PRC's predispositions and perceptions of Washington's intent toward the PRC and competing bureaucratic priorities within the PRC system.

Diplomatically, the war in Ukraine probably has reaffirmed to Beijing the importance of persuading Global South countries in Africa, Latin America, the Middle East, and the Indo-Pacific to echo China's narratives on the conflict. The PRC probably views support from the developing countries as crucial to blunting U.S.-led efforts imposing reputational and economic costs on the PRC as well as claiming broad international support for PRC goals. At the same time, Beijing almost certainly continues to be surprised by the scope, scale, duration, and cohesion of the international response to Russia war on Ukraine. The PRC's dismissal of the independent agency of countries it views as aligned with the United States or the legitimacy of shared values almost certainly has contributed to the PRC's continued diplomatic struggles, especially in Europe.

The PLA likely is observing how Russia and Ukraine are employing CDO during the current Russia-Ukraine war, and likely will seek to incorporate lessons learned from this conflict into its own doctrine for future conflicts. The PLA's lessons learned from Russia's war of aggression in Ukraine probably will reinforce a commitment to conducting influence operations to deter adversaries, shape public opinion early on during a conflict, polarize societies, erode the will to fight, and guard against charismatic leaders changing public perceptions. PLA researchers have stated that the victory of the cognitive narrative may yield greater strategic benefits than firepower destruction, force control, and siege, and that effects of CDO can last long after the conflict has concluded.

On the economic front, western sanctions against Russia almost certainly have amplified the PRC's push for defense and technological self-sufficiency and financial resilience. The PRC's reliance on Western technology and capital investment probably will slow economic decoupling from Washington.

PRC ENERGY STRATEGY

Key Takeaway

- The PRC's interest in ensuring reliable, cost-effective, and diverse hydrocarbon sources to support its economic growth drives its overseas energy investments.

In 2022, the PRC imported approximately 10.2 million barrels per day of crude oil, which met about 70 percent of its needs, and produced the other 30 percent domestically, according to industry reports. The PRC continues to build its crude oil emergency petroleum reserve (EPR) capacity to safeguard against supply disruptions with a goal to have the equivalent of 90 days' worth of oil imports in storage. The PRC's EPR storage capacity is approximately 600 million barrels, equal to about 60 days' worth of oil imports, according to industry data. The PRC met about 41 percent of its natural gas demand with imports in 2022, and industry experts estimate that the PRC's natural gas imports will increase to about 50 percent by 2035. In 2022, most of China's oil and natural gas imports came from Africa, Central Asia, the Persian Gulf, and Russia. China's investments in transport networks for oil and gas could help diversify its supply and reduce dependency on strategic chokepoints such as the Strait of Malacca.

The PRC relies on maritime routes that transit the SCS and Strait of Malacca for most of its hydrocarbon deliveries. Approximately 62 percent of the PRC's oil imports and 17 percent of its total natural gas imports transit the SCS and Strait of Malacca. Despite the PRC's efforts to diversify energy suppliers, Beijing will most likely continue to rely on oil and natural gas imports from Africa and the Middle East to meet energy demands for at least the next 10 years.

Crude oil pipelines from Russia and Kazakhstan to China demonstrate the PRC's interest in increasing overland fuel supply. In 2022, the PRC imported about 600,000 barrels per day of Russian crude oil via the East Siberia–Pacific Ocean pipeline, which has a total designed capacity of 1.6 million barrels per day. The PRC also imports crude oil from Middle Eastern—primarily Saudi—and African suppliers via a crude oil pipeline across Burma. This 440,000-barrels-per-day pipeline bypasses the Strait of Malacca by transporting crude oil from Kyaukpyu, Burma, to Yunnan Province, China, and reduces shipping time by more than a third. This pipeline, however, still relies on seaborne oil imports through the Indian Ocean, where the PRC has little power projection capability.

In 2022, approximately 30 percent of the PRC's natural gas imports came from Turkmenistan via a pipeline that runs through Kazakhstan and Uzbekistan. This pipeline can transport 55 billion cubic meters per year; Turkmenistan and China are planning to expand it to 85 billion cubic meters per year. A natural gas pipeline connecting China to Burma can deliver 12 billion cubic meters per year, but only 4 billion cubic meters of gas was shipped in 2022. Russia's Power of Siberia gas pipeline supplied approximately 15 billion cubic meters to China in 2022. The pipeline is projected to reach an annual capacity of 38 billion cubic meters per year by 2027.

CRITICAL MINERAL EXPLOITATION

China controls the majority of the global critical minerals refining, in addition to the majority of rare earth element (REE) production and refining. Critical minerals such as lithium are key to the green energy transition, while REEs have significant industrial and defense applications. A 2022 Brookings report estimated that the PRC refines 68 percent of nickel, 40 percent of copper, 59 percent of lithium, and 73 percent of cobalt. However, other countries make up the majority of lithium and cobalt mining. While China's share of the global extraction of REEs has declined from a peak of 95 percent in 2010 to nearly 60 percent in 2019, the world is still significantly reliant on China for over 90 percent of REE processing and refining. The PRC's control of these supply chains could grant it a competitive advantage in sustainable energy technologies such as lithium-ion battery production and secure critical supply lines for its defense industrial base and production of high-end weapons platforms.

CHINA'S TOP CRUDE SUPPLIERS 2022

Country	Volume (1,000 barrels per day)	Percentage of Imported Crude Oil
Saudi Arabia	1,752	17
Russia	1,728	17
Iraq	1,111	11
UAE	858	8
Oman	789	8
Malaysia	715	7
Kuwait	667	7
Angola	603	6
Brazil	497	5
Colombia	173	2
Others	1,289	13
Total	**10,182**	**101***

* Total does not equal 100 because figures have been rounded.

CHINA IN THE POLAR REGIONS

CHINA IN THE ARCTIC

The PRC has increased activities and engagement in the Arctic region since gaining observer status in the Arctic Council in 2013. In January 2018, the PRC published its first Arctic strategy paper that promoted a "Polar Silk Road" and declared China to be a "near-Arctic State," although it has since stopped using this language to describe itself in public fora. The strategy paper identifies the PRC's interests as access to natural resources, sea lines of communication, and promoting an image of a "responsible major country" in Arctic affairs. The strategy highlights the PRC's icebreaker vessels and research stations as integral to implementation.

The PRC maintains civilian research stations in Iceland and Norway and operates three icebreaking research vessels as of early 2023. The first is the Xue Long, which in 2017 became the first official Chinese vessel to traverse Canada's Northwest Passage. In 2018, Beijing launched its second icebreaking research vessel, the Xue Long 2. The Xue Long 2 can break ice up to 1.5 meters thick, compared to the Xue Long's maximum of 1.2 meters, and the first polar research vessel that can break ice while moving forwards or backwards. In October 2022, the Xue Long 2 commenced the PRC's 12th Arctic expedition, during which researchers did comprehensive observations of the atmosphere, ocean and ecology. During the 12th Arctic Expedition, the PRC deployed an autonomous underwater vehicle (AUV) for the first time in the Arctic Ocean. In November 2020, the Xue Long 2 embarked on the PRC's 37th Antarctic expedition, where researchers planned to carry out hydrological, meteorological and environmental studies and monitor new pollutants such as microplastics and drifting garbage in the Antarctic Ocean. In February 2023, the PRC's third polar icebreaker—the Zhong Shan Da Xue Ji Di—completed a 3,000-mile round-trip winter sea trial in the Bohai Sea.

The PRC's expanding Arctic engagement has created new opportunities for engagement between the PRC and Russia. The PRC is interested in increasing the use of the Northern Sea Route (NSR) to cut shipping times between Europe and China by a third. The use of the NSR also allows China to diversify shipping routes away from the strategic Strait of Malacca. In September 2022, China and Russia also conducted a combined naval patrol in the Bering Sea. China-Russia cooperation on Arctic issues throughout 2022 likely created momentum enabling spring 2023 agreements to coordinate Arctic maritime law enforcement and establish a joint working body for the development of the NSR.

THE PRC IN THE ANTARCTIC

China currently has four active Antarctic sites that are used for environmental research and support to the Chinese space program: the Great Wall Station, Zhongshan Station, Kunlun Station, and Taishan Station. China is quickly building a formidable presence in Antarctica that almost certainly has a nexus with its civilian space program and future PLA missions. It also endeavors to work

more closely with Russia and possibly seeks to revise the Antarctic Treaty in 2048 to afford it greater access to natural resources and support military operations there.

China is constructing bases in Antarctica that includes possible dual-use technology. While the equipment is ostensibly used for legitimate scientific research and is allowable under the Antarctic Treaty, it could also be used for unspecified military purposes. For instance, China is building a fifth station on Inexpressible Island in the Ross Sea to increase its Antarctic footprint that could provide the PLA with better surveillance capabilities. Inexpressible Island will provide telemetry, tracking and communications for scientific polar observation satellite, and its equipment is also well positioned to collect signals intelligence over Australia and New Zealand.

While China is a relative newcomer to Antarctica, it has been de-legitimizing the Consensus-based Antarctic Treaty, preparing for 2048, when central aspects of the treaty will be open to renegotiation. It is likely both China and Russia will work together to seek to renegotiate the Antarctic Treaty to loosen regulations on mining and fishing practices, which both countries need for future consumption.

CHAPTER FIVE: RESOURCES AND TECHNOLOGY FOR FORCE MODERNIZATION

KEY TAKEAWAYS

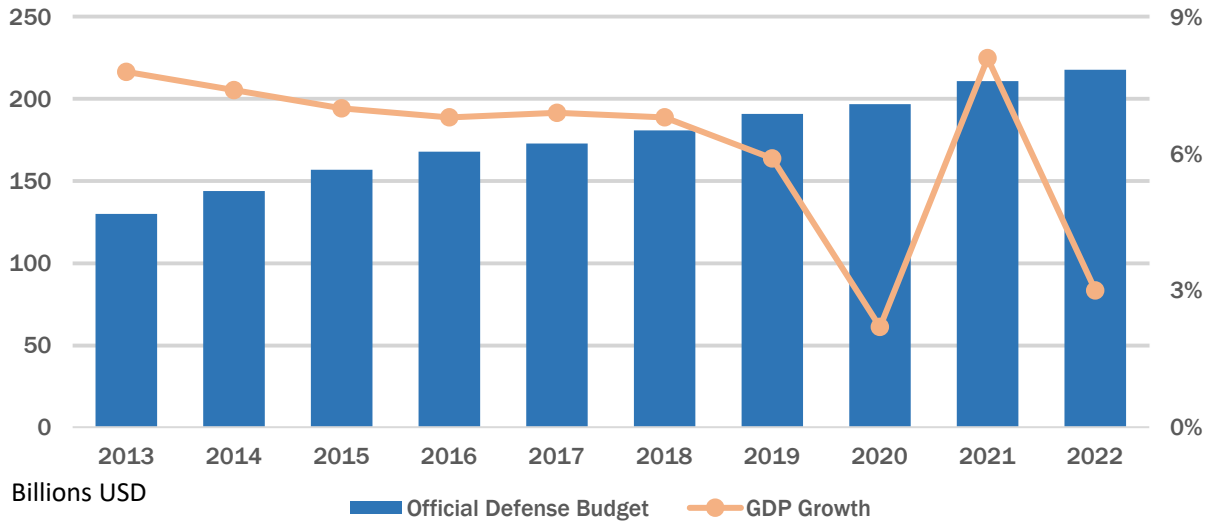
- The PRC's long-term goal is to create an entirely self-reliant defense-industrial sector—fused with a strong civilian industrial and technology sector—that can meet the PLA's needs for modern military capabilities.
- The PRC has mobilized vast resources in support of its defense modernization, including through its MCF Development Strategy, as well as espionage activities to acquire sensitive, dual-use, and military-grade equipment. The PRC has substantially reorganized its defense-industrial sector to improve weapon system research, development, acquisition, testing, evaluation, and production.
- In 2022, the PRC announced its official annual military budget would increase by 7.1 percent, continuing more than 20 years of annual defense spending increases and sustaining its position as the second-largest military spender in the world. The PRC's published military budget omits several major categories of expenditures and its actual military-related spending is significantly higher than what it states in its official budget.

In 2022, China's defense budget marginally increased from $229 billion. According to a PRC "work report," the new defense budget aligned with PRC military goals associated with its 2027 and 2035 military modernization program. PRC state media reported that the part of the defense budget increase over the prior year focused on modernizing the PLA's training with realistic simulation and use of virtual reality; accelerating improvements in logistics capabilities, defense science, and technology; and enhancing the military's strategic capacities.

China is continuing to reorganize its defense, science, and commercial industries to ensure PLA access to the resources, technologies, and expertise required to militarily surpass the United States and develop capabilities for complex future military contingencies. China's efforts include developing and incorporating military-AI and other emerging disruptive technologies (EDT) to build an "intelligentized" force sufficiently equipped with high-tech weapons and advanced communications and information technologies to wage and win dynamic wars. While China's MCF strategy supports acquisition of foreign materiel, technology, and expertise through overt and illicit means, China is also accelerating efforts to build domestic capacity in these areas and reduce its vulnerabilities to foreign supply chokepoints.

MILITARY EXPENDITURES TRENDS

In 2022, the PRC announced a nominal 7.1 percent annual military budget increase to $229 billion, which is approximately 1.3 percent of gross domestic product. This year's budget continues more than 20 years of annual defense spending increases and sustains the PRC's position as the second-largest military spender in the world after the United States. The PRC's defense budget has nearly doubled during the past 10 years—data from 2013 through 2022 indicates China's official military budget grew 6 percent annually after adjusting for inflation. The PRC can support continued growth in defense spending for at least the next five to 10 years, based on economic data and growth projections.



China: Official Defense Budget (2013–2022)

China's Estimated Military Expenditures. The PRC's published military budget does not include details of expenditure breakouts, including R&D and foreign weapons procurement. In 2022, China's actual military-related spending could be significantly higher than its officially announced defense budget. Actual PRC military expenses are difficult to calculate, largely due to the PRC's lack of transparency. United Kingdom and Europe-based think tanks estimate that the PRC's actual 2022 defense budget is at least 30-40 percent higher than the PRC's announced budget.

China's Estimated Defense Budget Growth. If China's official defense budget continues to increase annually by an average of 6 percent, the PLA can dedicate more money for training, operations, and personnel costs. Economic forecasters project that China's economic growth will slow during the next 10 years, from about 3 percent in 2022 to around 4 percent in 2025, which could slow future defense spending growth. Assuming accurate economic projections and a steady defense burden, China will remain the second-largest spender after the United States.

REGIONAL COMPARISON OF THE PRC'S 2022 OFFICIAL DEFENSE BUDGET	
	2022 $ Billion
PRC (official defense budget)	$229
India	$74.4
Japan	$51.9
Russia (national defense budget)	$90.9
South Korea	$42.5
Taiwan	$16.8

PLA PERSONNEL COSTS

China is facing adverse demographics such as an aging population and low-birth rates. The PLA could respond to the demographics issues by raising pay standards to support recruitment and retainment efforts, which would place upward pressure on PLA personnel spending relative to other defense spending categories. The PLA is giving priority to recruiting college graduates with science and engineering backgrounds and those experienced in operating high-tech weapons, suggesting the PLA will have to compete with the private sector to attract top talent.

DEVELOPMENTS AND TRENDS IN ITS DEFENSE INDUSTRY

Key Takeaways

- China's hypersonic missile technologies have greatly advanced during the past 20 years and many of the PRC's missile programs are comparable to other international top-tier producers.
- China is the world's top ship-producing nation by tonnage and is capable of producing a wide range of naval combatants, gas turbine and diesel engines, and shipboard weapons and electronic systems, which makes it nearly self-sufficient for all shipbuilding needs.

MISSILE AND SPACE INDUSTRY

China produces a wide range of ballistic, cruise, air-to-air, and surface-to-air missiles, many comparable in quality to those of other international top-tier producers, for domestic military use and export. China has the world's leading hypersonic arsenal and has dramatically advanced its development of both conventional and nuclear-armed hypersonic missile technologies during the past 20 years. Beijing fielded its first missile with a hypersonic glide vehicle in 2020 and tested a

new hypersonic weapon system in 2021, building on previous progress in hypersonic weapons development. China also advanced its scramjet engine development in 2022, which has applications in hypersonic cruise missiles. In April 2019, the PLAN revealed during its 70th anniversary celebration that its new guided-missile cruiser can employ long-range land attack cruise missiles and, in 2022, launched the YJ-21 hypersonic missile designed to defeat aircraft carriers. In 2022, Beijing made its first delivery of a surface-to-air missile system to a European nation, Serbia. China is developing beyond-visual-range air-to-air missiles and exploring dual-mode guidance capabilities, which uses both active radar and infrared homing seekers that improve target-selection capabilities and make the missiles more resistant to countermeasures.

China's space industry, managed by the PLA, is rapidly expanding its intelligence, surveillance, reconnaissance, navigation, and communication satellite constellations. The successful completion of the Tiangong Space Station in 2022 and its planned expansion demonstrates the industry's continued progress. China's domestic space market is dominated by state-run enterprises; however, increased investment has enabled private space companies to successfully launch orbital satellites in the past 4 years. In 2020, China launched its first satellites for an ongoing new space-based internet-of-things project with container monitoring and maritime communications applications and, in 2021, designated satellite internet as a national infrastructure project.

NAVAL AND SHIPBUILDING INDUSTRY

China, the top ship-producing nation in the world by tonnage, is increasing its shipbuilding capacity for all naval classes: submarines, surface combatants, and auxiliary and amphibious ships. China also has developed unmanned underwater systems, publicly revealing a long-range system in 2019. China domestically produces naval gas turbine and diesel engines as well as almost all shipboard weapons and electronic systems for its shipbuilding sector, making the industry nearly self-sufficient for all shipbuilding needs. In 2022, China launched its first domestically designed and manufactured aircraft carrier, featuring an electromagnetic catapult launch and arresting devices. The carrier will be able to deploy up to 70 aircraft, including J-15 fighters and Z-9C anti-submarine helicopters.

ARMAMENTS INDUSTRY

China's production capacity is improving in nearly every PLA ground system category: main and light battle tanks, armored personnel carriers, assault vehicles, air defense artillery systems, and artillery systems. Notably, China began testing unmanned Type-59 tanks in 2018 as part of its military modernization program. In November 2022, China unveiled an unmanned model of its VT-5 light tank, which is an export variant of the Type-15 light tank. The Type-15 entered PLA service in 2018 and was meant to replace aging Type-62 light tanks that first entered service in 1962. China is capable of producing ground weapon systems at or near world-class standards; although customers also cite persistent quality deficiencies with some exported equipment, inhibiting the PRC's ability to expand its export markets.

AVIATION INDUSTRY

China is advancing its domestic aviation industry through two major state-owned aircraft corporations, the China Aviation Industry Corporation (AVIC) and the Commercial Aircraft Corporation of China (COMAC). AVIC designs and produces China's military aircraft, including the J-20 fifth-generation fighter, the Y-20 heavy transport, and the future H-20 flying wing stealth bomber. COMAC produces large passenger aircraft and has begun to export the ARJ21 regional jet to Indonesia, in line with its efforts to expand into the international commercial airliner market. COMAC has also delivered its first narrow-body C919 airliner to China Eastern Airlines, but cooperation with Russia on the wide-body CR929 may be stalled because of the effects of Western sanctions on Russia.

China's decades-long effort to improve domestic aircraft engine production is starting to produce results, with the J-10 and J-20 fighters beginning to switch to domestically produced WS-10 engines, although some Russian AL-31F engines may remain in use. China's first domestically produced high-bypass turbofan, the WS-20, has also entered flight-testing on the Y-20 heavy transport aircraft and probably has begun to replace previously imported Russian engines. UAV development has also proceeded rapidly with new flight tests of experimental craft such as the Y-5U transport UAV. China's military aviation industry has continued to export UAVs abroad, including its sale of nine armed drones to the Democratic Republic of Congo this year.

DRIVE TO DOMINATE EMERGING TECHNOLOGIES

China seeks to be an innovation superpower that is largely non-reliant on foreign technology and serves as a global center for high-tech industries. The goal of attaining self-sufficiency in key S&T sectors—a theme of PRC state plans going back decades—was recently reiterated in the *14th Five-Year Plan*. As part of this self-sufficiency drive, Beijing has mobilized its bureaucracies to rapidly develop the country's capacity for domestic innovation. Published in 2006, the *National Medium-and-Long-Term Plan for the Development of Science and Technology (2006-2020)* was a landmark policy that formalized China's push for domestic innovation while also calling for the assimilation and "re-innovation" of advanced foreign technologies. In 2015, with the *Made in China 2025* plan, Beijing sharpened its emphasis on technological independence by establishing import substitution quotas across a range of core technologies. The plan also called for the reform of state-owned enterprises, the establishment of regional innovation centers, and the leveraging of private sector capabilities in order to leapfrog foreign technological competitors and create a superior innovation ecosystem.

China is particularly focused on dominating a range of emerging, dual-use technologies that promise to be both disruptive and foundational for future economies. In its 14th Five-Year Plan, China prioritized the advancement of next-generation artificial intelligence, quantum information, brain science and biotechnology, semiconductors, and deep space, deep sea, and polar-related technologies. Beijing has a clear understanding of its remaining S&T deficiencies and wields

industrial policies and the country's massive tech transfer apparatus in an effort to close these gaps. China also sustains high levels of R&D funding and offers significant subsidies to domestic companies working on frontier technologies.

Artificial Intelligence. China is a global leader in AI technology and aims to overtake the West in AI R&D by 2025 to become the world leader in AI by 2030. China has designated AI as one of its priority, national-level S&T development areas and assesses that advances in AI and autonomy are central to *intelligentized warfare*, the PRC's concept of future warfare. Beijing views the integration of military and civilian institutions as central for developing AI-enabled military capabilities and has established military-civilian R&D centers and procured commercially-developed AI and robotic technologies to ensure PLA access to cutting-edge AI technologies. Although, Chinese researchers are world leaders in certain AI applications, such as facial recognition and natural language processing, and Chinese companies are marketing domestically-designed AI chips. While China remains reliant on certain foreign capabilities to produce AI hardware, such as advanced semiconductor fabrication factories and electronic design automation software, Chinese researchers continue to explore new materials and design concepts for next-generation semiconductors.

Brain Science. In 2021, Beijing funded the China Brain Plan, a major research project aimed at using brain science to develop new biotechnology and AI applications. That year, China also designed and fabricated a quantum computer capable of outperforming a classical high-performance computer for a specific problem. China was also domestically developing specialized refrigerators needed for quantum computing research in an effort to end reliance on international components. In 2017, China spent over a billion dollars on a national quantum lab which will become the world's largest quantum research facility when completed.

FOREIGN ARMS ACQUISITION

China uses foreign suppliers to overcome limitations in its domestic production capabilities, particularly with helicopters and aircraft engines. Only a few states have been willing to supply military materiel to China, such as Russia and Ukraine. As its aerospace industry improves over the next decade, China very likely will decrease its foreign acquisitions to a point of only maintaining an import relationship with foreign suppliers positioned to quickly fill niche gaps in the PRC's inventory.

- **Helicopters.** In 2019, China signed four contracts with Russia worth a total of $1.7 billion for 100 Mi-171 helicopters. Russia began producing helicopters for these contracts in 2020 and Beijing expects at least one of the orders to be completed in 2022. As of 2021, China sought at least 36 Russian Ka-52K ship-borne heavy attack helicopters to operate from Type 075 amphibious assault ships while it develops a domestic alternative.

- **Aircraft Engines.** China has a longstanding reliance on Russian- and Ukrainian-built engines for fixed and rotary wing aircraft produced domestically. China is developing new engine

designs to lessen its reliance on foreign engines, such as the WS-15 to replace Ukrainian AI-222 engines that power its L-15 trainer aircraft. Russia's war on Ukraine probably will impede China's ability to acquire military equipment and maintenance services from either country.

ESPIONAGE ACTIVITIES SUPPORTING CHINA'S MILITARY MODERNIZATION

There have been multiple U.S. criminal indictments since 2015 involving espionage by PRC nationals, naturalized U.S. citizens, or permanent resident aliens from the PRC, as well as U.S. citizens. These include procuring and exporting controlled items to China and economic espionage, according to a U.S. Department of Justice summary of major U.S. export enforcement. The PRC's efforts to acquire sensitive, dual-use, or military-grade equipment included aviation technologies, radiation-hardened power amplifiers and supervisory circuits, radiation-hardened integrated circuits, monolithic microwave integrated circuits, accelerometers, gyroscopes, naval and marine technologies, signals decoders, syntactic foam trade secrets, space communications, military communication jamming equipment, and dynamic random access memory. Cases from 2022 include the following:

- In November 2022, an MSS intelligence officer was sentenced to 20 years in prison for attempting to steal technology and proprietary information from companies based both in the United States and abroad. The MSS intelligence officer attempted to steal technology related to a U.S. aviation company's exclusive composite aircraft engine fan module – which no other company in the world has been able to duplicate – in order to advance China's commercial and military aviation efforts. The MSS intelligence officer also openly talked about efforts to obtain U.S. military information in addition to commercial aviation trade secrets. The espionage operation was executed with full coordination between the MSS and China's aviation entities.

- In September 2022, a federal district court jury convicted a Chinese national of acting illegally within the United States as an agent of the PRC. The Chinese national was tasked by the MSS with providing biographical information on certain individuals for possible recruitment. The individuals included Chinese nationals who were working as engineers and scientists in the United States, some of whom worked for U.S. defense contractors. This tasking was part of an effort by the MSS to obtain access to advanced aerospace and satellite technologies being developed by companies within the United States.

PRC CYBER-ENABLED ESPIONAGE ACTIVITIES

The PRC presents a sophisticated, persistent cyber-enabled espionage and attack threat to military and critical infrastructure systems through its efforts to develop, acquire, or gain access to information and advanced technologies.

Detected PRC cyberspace operations have targeted telecommunications firms, managed service providers (MSPs), and software developers. Key U.S. targets include proprietary commercial and military technology companies and research institutions associated with defense, energy, and other sectors.

The PRC seeks to create disruptive and destructive effects—from denial-of-service attacks to physical disruptions of critical infrastructure—to shape decision-making and disrupt military operations at the initial stages and throughout a conflict. China's activities in cyberspace constitute a fundamentally different, more complex, and more urgent challenge to the United States national security today than they did a decade ago.

CHINA'S ARMS EXPORTS

China is the fifth-largest arms supplier in the world, and sells nearly every category of conventional military equipment including UAVs, MANPADS, submarines, naval surface vessels, surface to air missile systems, and fighter aircraft to customers worldwide.

Many developing countries buy Chinese weapons systems because they are less expensive than other comparable systems. Although some potential customers consider arms made by the PRC to be of lower quality and reliability, many of China's systems are offered with enticements such as donations and flexible payment options, which make them appealing options for buyers.

China's arms sales operate primarily through state-run export organizations such as AVIC and North Industries Corporation (NORINCO). Arms transfers also are a component of the PRC's foreign policy, used in conjunction with other types of assistance to complement foreign policy initiatives undertaken as part of China's BRI.

- **Fixed-Wing Aircraft**. China offers three combat aircraft for export: the FC-31 fifth generation multirole combat aircraft, the JF-17 light combat aircraft, and the J-10 multirole combat aircraft. As of 2022, China had not sold any FC-31s and had sold J-10s only to Pakistan. China co-produces the JF-17 with Pakistan, which has been sold to Burma, Iraq, and Nigeria. China has supplied strike-capable Caihong and Wing Loong UAVs to countries including Algeria, Pakistan, Egypt, Indonesia, Iraq, Jordan, Kazakhstan, Saudi Arabia, Serbia, and the UAE.

- **Precision-Strike Weapons**. As of 2021, China had exported ballistic missile systems, including the M20, BP-12, and Joint Attack Rocket and Missile System (JARM), as well as long-range satellite-guided rocket systems. Although China typically does not disclose the countries purchasing these types of arms, in 2021, Burma displayed an SY-400 transporter erector launcher (TEL) and in 2017 Qatar displayed a JARM.

- **Air Defense Systems.** In April 2022, Beijing made its first delivery of a surface-to-air missile system to a European nation, Serbia. Serbia displayed the PRC-produced FK-3 medium- to

long-range semi-active radar homing/radio-command guidance air defense system. The FK-3, an export-variant of the HQ-22, fires missiles that can reach Mach 6 and range 100 km.

- **Naval Combatants**. China is a supplier of major naval vessels, highlighted by Pakistan's 2015 purchase of eight Yuan-class submarines for more than $3 billion. Thailand also purchased one Yuan-class submarine in 2017 and is interested in purchasing two more. As of April 2022, China had not delivered any Yuan submarines, although it had delivered two Ming-class submarines to Bangladesh in 2016 and one to Burma in 2021. In 2017 and 2018, China sold two frigates to Bangladesh and four to Pakistan, respectively. In September 2019, China made its first-ever sale of a landing platform dock ship to Thailand.

CHAPTER SIX: DEFENSE CONTACTS AND EXCHANGES IN 2022

KEY TAKEAWAYS

- In 2022, the PLA largely denied, cancelled, and ignored recurring bilateral engagements and DoD requests for communication.
- The PLA's refusal to engage with DoD has largely continued in 2023.
- The PLA's refusal to engage in military-to-military communications with the United States, combined with the PLA's increasingly coercive and risky operational behavior, raises the risk of an operational incident or miscalculation spiraling into crisis or conflict.
- DoD is committed to reopening lines of communication with the PRC to ensure competition does not veer into conflict.
- DoD's objectives in opening lines of communication include ensuring crisis communications channels, reducing strategic and operational risk, and clarifying misperceptions.

DoD contacts and exchanges with the PRC are conducted in accordance with the statutory limitations of the National Defense Authorization Act for the Fiscal Year 2020, as amended.

STRATEGIC CONTEXT FOR U.S.-PRC DEFENSE RELATIONSHIP

Beginning in the early 2000s, the United States approached defense engagement with the PRC as a means of enhancing PLA transparency, advancing mutual reciprocity, and imparting best practices for air and maritime operational safety. These activities sought to encourage the PRC to play a constructive and peaceful role in a free and open international system.

Despite U.S. and international efforts to encourage the PRC's rise to occur within the rules-based international order, PRC malign behavior has subsequently cast doubt on the PRC's willingness to operate in accordance with international laws, rules, and norms. As the PLA modernizes toward its goal of producing a world-class force by 2049, the PRC has increasingly turned to the PLA as an instrument of statecraft to advance its foreign policy objectives— adopting more coercive and aggressive actions in the Indo-Pacific region.

As the PRC pushes the PLA to engage in increasingly coercive and risky operational behavior in an effort to achieve the PRC's policy objectives in the East and South China Seas, Beijing has

retreated from military-to-military communications with the United States. The ability of the two sides to now effectively communicate to preempt or manage a potential incident caused by risky PLA behavior is weak and raises the risk of escalation.

In August 2022, the PRC suspended military contacts and exchanges with the United States, claiming the cut-off was in response to the former House Speaker's visit to Taiwan. Roughly a year on, the PRC continues to point to long-standing U.S. military activities in the Western Pacific, the United States' Taiwan policy, and Washington's refusal to remove sanctions on the PRC's newly-appointed Minister of National Defense, General Li Shangfu, for creating a "negative atmosphere" for talks. The PRC's long track record of cancelling military-to-military lines of communication in response to perceived offenses suggests the PRC views military channels of communication as a tool to punish or reward the United States for its perceived behavior, versus being inherently valuable to maintaining peace and stability.

High-Level Contacts and Exchanges. High-level exchanges between the U.S. and PRC— such as between the U.S. Secretary of Defense and the PRC Minister of National Defense—are an important way to exchange views on the bilateral defense relationship and the international security environment. In the past, the PRC was willing to responsibly engage in high-level dialogue to ensure mutual understanding on a range of policy and operational issues. While DoD continues to seek open lines of communication with the PLA at multiple levels in both operator and policy channels, the PRC now views executing military-to-military communications as a tool to either reward or punish U.S. behavior based on U.S. adherence and respect for PRC core interests.

- **Executed.** In 2022, the Secretary of Defense engaged with then-PRC Minister of National Defense, General Wei Fenghe, three times to discuss regional security, bilateral defense relations, and issues of common concern. They met once in June on the sidelines of the Shangri La dialogue in Singapore, and once in November on the sidelines of the ASEAN Defense Ministerial Meeting + (ADMM+) in Cambodia. The Secretary also held one Defense Telephone Link (DLT) call with General Wei in April 2022 to discuss Russia's war on Ukraine. The Chairman of the Joint Chiefs of Staff (CJCS) held one DTL with then-PRC Chairman of the Joint Staff Department (JSD) in July to discuss operational issues.

- **Refused, Cancelled, or Ignored.** In 2022, the PLA declined, cancelled, or ignored the majority of senior-level contacts. In July, the PLA cancelled a planned DTL call about operational issues between INDOPACOM Commander and the PLA Southern Theater Command (STC) commander. In August, the PLA refused a CJCS DTL call request to the Chairman of the JSD. In August, the PLA refused a Secretary of Defense DTL call request to the PRC Minister of National Defense. In December, the PLA again refused a CJCS DTL call request to the Chairman of the JSD.

Recurring Exchanges. Recurring exchanges serve as regularized mechanisms for dialogue to advance priorities related to crisis prevention and management and reduce of operational risk.

- **Executed.** None.

- **Refused, Cancelled, or Ignored.** In 2020, the PLA indefinitely postponed the Asia-Pacific Security Dialogue (APSD), an Assistant Secretary of Defense-level policy dialogue. The APSD did not take place in 2021 or 2022. In August, the PRC cancelled the Defense Policy Coordination Talks (DPCT), an annual Deputy Assistant Secretary of Defense (DASD) level policy dialogue. In August, the PRC also cancelled all Military Maritime Consultative Agreement (MMCA) talks, an operational safety dialogue between U.S. INDOPACOM and PLA naval and air forces, in violation of the U.S-PRC Memorandum of Understanding (MOU) establishing the MMCA. Until 2020, the U.S. and PRC have met regularly since 1998 for MMCA dialogue to strengthen military maritime safety, improve operational safety in the air and sea, and reduce risk between the two militaries. The PLA also declined to hold a Crisis Communications Working Group (CCWG) meeting, a working-level policy dialogue established in 2020 to advance crisis prevention and management mechanisms between DoD and the PLA.

Confidence Building Measures and Academic Exchanges. Confidence Building Measure engagements focus on employing mechanisms for risk reduction, briefing significant policy documents, reducing misunderstanding or misperceptions, POW/MIA accounting, and communication to promote international rules and norms. Similarly, academic exchanges focus on building mutual understanding.

- **Executed.** In September, the PRC Defense Attaché provided a briefing to the DASD for China, Taiwan, and Mongolia on the PRC's 2022 Taiwan white paper "The Taiwan Question and China's Reunification in the New Era." DoD requested the briefing, consistent with the 2014 Memorandum of Understanding between the U.S. Department of Defense and the PRC Ministry of National Defense on Notification of Major Military Activities Confidence Building Measures Mechanism, to reduce misperceptions about PRC intentions for "reunification." Similarly, DoD provided a briefing to the PRC Defense Attaché on the 2022 annual report on "Military and Security Developments Involving the PRC" and the 2022 National Defense Strategy to share DoD assessments of PRC security developments and discuss areas of perceived misperception. DoD offered these briefings to the PRC to clarify U.S. strategic intent and provide a platform to clarify misperceptions.

- **Refused, Cancelled, or Ignored.** Since 2019, the PRC has not offered or requested briefings to DoD on security related policy developments under the 2014 MOU between the U.S. Department of Defense and the PRC Ministry of National Defense on Notification of Major Military Activities Confidence Building Measures Mechanism. There were no exchanges or contacts in 2022 between the Defense POW/MIA Accounting Agency (DPAA) and the PLA.

U.S.-PRC DEFENSE CONTACTS AND EXCHANGES IN 2023

The PRC's refusal to engage in military-to-military communication only sharpened in 2023.

- **Executed.** The Secretary of Defense and the Chairman of the Joint Chiefs of Staff each sent congratulatory letters to the newly-appointed PRC Minister of National Defense, Li Shangfu, and Chairman of the Joint Staff Department, General Liu Zhenli. The United States, as the chair of the dialogue among the five Nuclear Weapons States, organized a working-level experts meeting on June 13-14 in Cairo, which included officials from the U.S. Department of Defense and PRC Ministry of National Defense.

- **Refused, Cancelled, or Ignored.** As of June 2023, the PRC declined two SECDEF DTL call requests to General Wei Fenghe. The PRC ignored INDOPACOM Commander DTL call requests to the PLA STC, Northern Theater Command (NTC), and Eastern Theater Command (ETC) commanders. The PRC similarly ignored DoD requests to hold recurring exchanges including DPCTs, MMCA talks, and CCWG. The PRC defense attaché in the United States refused multiple invitations to engage with the DASD for China, Taiwan, and Mongolia.

Of note, in April 2023, the PLA requested U.S. assistance in evacuation of PRC diplomats from Khartoum, Sudan amidst ongoing fighting. In response, DoD provided evacuation routes from Khartoum to the Port of Sudan to the PRC and multiple other countries that had requested U.S. assistance.

SPECIAL TOPICS

SPECIAL TOPIC: PLA SELF-ASSESSMENTS

The PLA highlights some self-assessed shortcomings publicly, likely to guide and accelerate force-wide modernization efforts. The PLA routinely use set slogans or phrases to describe these self-assessments to exhort the force to carry out specific campaigns. These evaluations also likely represent genuine anxieties among PRC leaders about the PLA's readiness and ability to conduct joint operations if tested under real combat conditions. The five PLA slogans are described on the next page.

- **Leadership and Command.** The PLA has regularly identified concerns about the quality and ability of its commanders and officers. Numerous PLA slogans have addressed this issue most pointedly expressing concern that its forces will be unable to seize the operational initiative at the level necessary for modern warfare, with previous annual training mobilization orders explicitly referencing the "Five Incapables" and "Two Inabilities."

- **Lack of Combat Experience.** The PLA's self-assessments often express insecurities about the fact that the military has not fought a war since 1979, with common references to the "peace disease" or "peacetime practices". For the PLA, the "peace disease" presents itself as both a lack readiness within the force and a lackadaisical attitude towards training and preparing for potential conflict.

- **Exercise and Training Realism.** For decades, the PLA has identified poor and unrealistic training as a key problem for military modernization. . The PLA has focused on both "formalism" and "bureaucratism" as the leading causes of substandard training. This means that training is stilted and formal rather than being appropriate for dynamic and unpredictable real-world conditions.

- **Professional Military Education.** The PLA has identified a lack of officers with knowledge of joint combat operations and is working to implement a true joint culture throughout the force. To rectify the gap in military education on joint warfighting, theater command headquarters have attempted to set up educational programs at headquarters to build joint proficiency. Additionally, the PRC's NDU launched the PLA's first training course for officers to receive joint post qualifications upon graduation.

- **Fighting and winning modern wars.** The PLA has utilized the slogan the "Two Big Gaps" to underline enduring concerns about its true capability for warfighting despite the long

modernization effort. It also is an acknowledgement that the PLA feels itself to be behind the world's most capable militaries and that they have not yet achieved that standard.

SLOGAN	ARTICULATION
"Five Incapables"	• Cannot judge the situation • Cannot understand the intention of higher authorities • Cannot make operational decisions • Cannot deploy forces • Cannot deal with unexpected situations
"Two Incompatibles"	• Does not meet the requirements of winning local war under informatized conditions • Does not meet the requirements of carrying out its historic missions at the new stage of the new century
"Two Big Gaps"	• Does not meet the requirements for national security • Lack of capability compared to the level of the world's most advanced militaries
"Two Inabilities"	• Inability to fight a modern war • Inability of officers at all levels to command in modern war
"Three Whethers"	• Whether the armed forces can constantly maintain the Party's absolute leadership • Whether the armed forces can fight victoriously when needed by the Party and the people • Whether commanders at all levels are competent to lead forces and command in war

SPECIAL TOPIC: PRC SUPPORT TO RUSSIA IN ITS WAR AGAINST UKRAINE

The PRC probably was caught off guard by Russia's war on Ukraine in February 2022, which occurred 20 days after Russian President Vladimir Putin's visit to Beijing and the signing of a "no limits" partnership. Although Russia's was on Ukraine has tested the strength of the elevated relationship, the PRC has sought to preserve its close ties with Russia while promoting its own image as a responsible great power and its "neutrality" in the war. Xi has also stood by Putin as the war entered its second year and resisted Western pressure to isolate and impose costs on Russia for violating Ukraine's sovereignty. The PRC's perception that Washington and NATO are responsible for starting the conflict, along with its sympathy for Russia's security concerns, has driven the PRC's response to the conflict.

To provide diplomatic cover for Russia, Beijing has parroted Russian narratives when they align with the PRC's criticism of the United States and refrained from condemning its conduct or

referring to Russia's invasion as a "war". The PRC has also legitimized Russia's role on the world stage by continuing to work with Russia in various multilateral fora such as the UN, BRICS, and ASEAN as well as by conducting routine bilateral meetings with Russian leaders. China has stepped up trade and become a willing buyer of Russian energy exports to buoy Russia's sanction-battered economy. As of mid-2022, the PRC's approach probably has shifted towards opportunistically advancing China's interests, specifically to strengthen its international efforts to counter the United States.

On the one-year anniversary of Russia's further invasion of Ukraine, the PRC Foreign Ministry released a 12-point proposal discussing the PRC's approach to the political settlement of Russia's war of aggression in Ukraine. Although Beijing touted the proposal as a major diplomatic statement, it largely recycled and consolidated previous PRC statements and proposals on the war, which probably indicates that Beijing primarily aims to exploit the peace plan as a messaging tool to advance China and Russia's interests. Beijing probably views the proposal as an opportunity to advance China's desired image as a responsible great power, deflect international criticism of Sino-Russian relations, and reemphasize the PRC narrative that blames the United States and NATO for causing and perpetuating the war; this messaging is probably intended to primarily target developing countries in the Global South.

Similarly, the PRC's ambiguous public messaging about the potential use of nuclear weapons probably is intended to portray China as a responsible and peaceful great power and signal its discomfort about the prospect of nuclear escalation to relevant parties in the war in Ukraine. In November 2022, during German Chancellor Olaf Scholz's visit to Beijing, Xi said that nuclear weapons must not be used, nuclear wars should not be fought, and the international community should come together to prevent a nuclear conflict in Eurasia.

Beijing probably has taken a discreet, flexible, and cautious approach to providing materiel assistance to Russia. To date, PRC officials have publicly denied providing any lethal assistance to Russia. However, as Beijing deliberates the scale and scope of materiel commitments, it probably will seek to balance its strategic partnership with Russia while avoiding reputational or economic costs that could result from its assistance. Russian customs data revealed that Chinese companies, including state-owned enterprises under the purview of Beijing, have sold civilian, dual-use, and some minor military items to Russian military end users, such as small arms, spare parts, navigation equipment, and protective gear. Additionally, the United States announced sanctions in 2023 against specific PRC companies for their role in sharing imagery to the private Russian military company, Wagner.

China and Russia have continued to increase the frequency of combined military exercises and maneuvers despite Russia's war on Ukraine. These maneuvers typically are scripted and parallel rather than integrated, suggesting that both countries are not capable of operational or tactical interoperability. During the past five years, China has increasingly participated in several Russian capstone exercises and both countries have undertaken a number of combined air and naval patrols. Beijing has probably benefitted from hands on training with Russian command and control systems

and from Russia's more recent combat experience, given that China has not conducted active combat operations in several decades. In 2021, both countries signed a defense cooperation roadmap pledging to expand military exercises and carry out more patrols, probably to feed their narrative about a strengthening defense partnership. PRC-Russia military exercises since Russia's war on Ukraine include the following:

- In 2022, China and Russia conducted two combined bomber patrols– their fourth- and fifth-ever – during the same year for the first time. In May 2022, the first coincided with the Quad Summit in Tokyo and the United States, Japan, India, and Australia. The second was carried out on November 30th in the vicinity of the Sea of Japan, ECS, and Philippine Sea and included practicing the landing of bombers at each other's airfields.

- China and Russia conducted their second-ever combined naval patrol in September directly after VOSTOK-22, which preceded the annual bilateral naval JOINT SEA exercise in December. For the first time, the security patrol occurred in the Bering Sea along Alaska's Aleutian Island chain.

- China also participated in Russia's capstone VOSTOK-22 exercise in September but decreased the number of personnel it sent. During the exercise, the PLA and Russian navies performed multiple combined maneuvers.

Although Chinese and Russian leaders appear to assess that the benefits of cooperation outweigh the costs of working together, the relationship is still colored by latent tensions and strategic mistrust. The PRC's strategic mistrust is probably fueled by the perception of the more powerful Russian Empire and Soviet Union historically taking advantage of a weaker China. Despite normalization of Sino-Soviet relations in 1989 and the resolution of longstanding border disputes, China remains suspicious of Russia's intentions. The CCP still draws on Russia's past humiliation of China—such as the signing of unjust border treaties that ceded large swaths of Chinese territory to the Russians Far East—as a source of nationalism. For Russia, enduring structural inequities, such as geography and its declining population in the Far East, stoke fears that China may encroach on its interests, exploit Russian weaknesses, or relegate Russia as the inferior partner in their relationship.

China's rise, growing ambitions to establish a military presence in the Arctic, and lackluster economic and military support to Russia during the war in Ukraine probably all contribute to ongoing tensions in the relationship.

SPECIAL TOPIC: PRC BUILDING "A STRONG STRATEGIC DETERRENT SYSTEM"

In President Xi's report to the 20th Party Congress in 2022, he set a goal for the PLA to "build a strong strategic deterrent system." This expands on PLA doctrinal writings from 2020 urging the construction of a "strategic deterrence system with Chinese characteristics" and the PRC's 2021

guidance to create a high-level strategic deterrence system in its 14th Five-Year Plan. The PRC views a "strong strategic deterrent force system" as a set of advanced military capabilities across various domains to maintain national security and play a strategic deterrent role. Building this system consists of two parts: the development of traditional nuclear deterrent force building and the construction of conventional strategic deterrent forces in emerging fields and technologies. The PRC's pursuit of a "strong strategic deterrent force system" is probably driven by threat perceptions of the United States and by specific concerns over Taiwan.

Strategic deterrence is a core component of the PRC's objectives of securing its status as a great power, achieving "the great rejuvenation of the Chinese nation," and developing a world class military by 2049. Beijing considers building a "strong strategic deterrent force system" as necessary to defend its national sovereignty, security, and development interests. It also views it as necessary to increase the PRC's ability to manage escalation in a conflict by deterring and preventing an adversary from escalating confrontation at will.

As of 2022, the PRC perceives an erosion of strategic stability in the US-PRC relationship. PLA academics and PRC government officials also perceive that the United States is interfering in the PRC's periphery. The PRC views building a "strong strategic deterrence force system" as a "trump card" for safeguarding the PRC's core interest of achieving unification with Taiwan.

The PRC views development of nuclear and conventional capabilities as necessary components of its "asymmetric countermeasures" approach to defeat strong enemies seeking to by developing capabilities that exploit PRC strengths and take advantage of its weaknesses. In addition to improving nuclear and conventional capabilities, Xi has urged the PLA to speed up development of other non-traditional capabilities—such as in the space and cyberspace domains—to support modern warfare, further "intelligentization" of the PLA, and "win local wars."

The PRC is committed to maintaining deterrence against its nuclear rivals, and PRC experts view a survivable second-strike capability as crucial to national security. The PRC's understanding of nuclear deterrence has focused on maintaining a sufficient capability to inflict unacceptable destruction against its potential adversaries. Chinese think tanks are concerned about the credibility of its nuclear deterrent due to its smaller nuclear force, which may note be seen by adversaries as sufficiently survivable in a nuclear conflict.

The PLA views space superiority, the ability to control the space-enabled information sphere and to deny adversaries their own space-based information gathering and communication capabilities, as critical components to conduct modern "informatized warfare." The PLA expects space to play an important role in future conflicts by enabling long-range precision strikes and in denying other militaries the use of overhead C4ISR systems.

The development of cyber warfare capabilities is consistent with PLA writings, which identify IO—comprising cyber, EW, space, and psychological warfare—as integral to achieving information superiority early in a conflict as an effective means to counter a stronger foe. The

PRC has publicly identified cyberspace as a critical domain for national security and declared its intent to expedite the development of its cyber forces.

SPECIAL TOPIC: PLA RECRUITMENT AND PERSONNEL MANAGEMENT SITUATION

PLA RECRUITMENT

Traditional PRC military recruitment is dependent on two-year enlisted conscripts, requiring about 400,000 young citizens must voluntarily join the PLA or be compulsorily inducted annually. The ratio of volunteer versus non-volunteer conscripts is unknown, and likely varies by year and place depending on local conditions and individual motivations. As of 2020, PLA officers and civilian personnel probably numbered approximately 450,000 personnel (23 percent), NCOs roughly 850,000 (42 percent), and conscripted recruits about 700,000 (35 percent).

Two-year conscripts are assessed to comprise about one-third of all active-duty personnel. Continuing practices implemented since at least 2016, the updated national conscription law focuses on encouraging college students, both recent graduates and current senior students, to voluntarily enlist. College students are offered incentives to serve, and those who have not yet graduated may return to school to finish their education after their time in service. Prior to this push for college-educated personnel, as recently as 2011, most of the new PLA recruits were high school graduates. In 2021, the PRC adopted a revised version of the Military Service Law to improve the system of military service registration and highlight the predominant role of volunteers in the military service system.

The PLA also recruits civilian personnel to acquire specific skillsets. Civilian personnel are those who work in management or professional technical military posts but are not in active service unless deemed necessary. In 2018, the PLA launched its first written examination for recruiting civilian personnel; among the more than 140,000 participants, 86 percent held a bachelor's degree or above, and 16 percent graduated with a master's degree or above.

In 2022, the PLA extended the recruitment age for university graduates. Compared to the usual age requirements – between 18 and 22 – for new recruits, male applicants who were in their final year of university or held a bachelor's or associate degree, could enlist at age 24, and all applicants who were postgraduate students or held a master's degree could list up to age 26. The Ministry of National Defense's Recruitment Office instructed recruitment officers to focus on recent university and college graduates, with preference given to degree holders in the fields of science, technology, or engineering. Xi has continually urged the military to improve its human resources efforts to recruit and train more talented professionals to help achieve its key goals.

CONSCRIPTION CYCLE

In 2020, the PRC announced its plan to modify its single annual military conscription cycle to a two-phase system. Under the new system, conscription is held in both the spring and autumn instead of just once in the autumn, to account for the academic school year and allow for more efficient enlistment. The COVID-19 pandemic postponed the implementation of the biannual conscription cycle, which was delayed to early 2021. The change did not represent an increase in the total number of recruits, but rather a staggering of the overall intake process. The new system is intended to give military units greater flexibility by reducing the total number affected by turnover at a given time.

2023 REFORMS

Beijing has moved to update its national conscription law by enacting revisions in May 2023. The new law reflects this updated system and recent developments in the PLA, particularly advances in information technology and population shifts. It calls for establishing an "inter-ministerial joint conference system for conscription work" intended to improve efficiency by formalizing the system already in operation through the CMC's National Defense Mobilization Department and Ministry of National Defense Recruitment/Conscription Office. After national-level inter-agency coordination, conscription quotas for every province are sent down the military chain of command and to the local governments for execution.

The law also provides further incentives for recently demobilized personnel to volunteer for a "second enlistment." Second enlistments refer to enlisted personnel who were not promoted to a higher rank, but later decided to return to service. The law specifies that personnel who enlist for a second time and meet the qualifications to be a NCO may be "directly recruited as sergeants" (a general term for NCOs at the rank of corporal or higher). Another option for demobilized personnel is to enter the expanding ranks of non-active-duty contract civilians, some of whom are assigned to the system of local headquarters responsible for conscription.

In pursuit of Xi's vision of achieving a "world-class" military by 2049, the PLA is focusing on the personnel reform of its NCOs, which are expected to be the PLA's "backbone" in future wars. Recognizing that small military units have played an increasingly important role in regional wars, the PLA is seeking to strengthen NCOs' strategic and leadership capabilities, as well as improve their professional skills through academic and technical training. In March 2022, PLA implemented new regulations aimed at increasing "combat effectiveness," such as allowing intermediate and senior sergeants to stay in service longer to have more professional NCOs in the military. The regulations aimed at enhancing professionalism and stability among NCOs, while allowing conscripts to play a more fundamental role in the development of the PRC's military talent. They also intended to improve the management of PLA personnel by progressing the recruitment, training, rank promotion, benefits and demobilization system for NCOs and conscripts, and to play a key role in building a high-quality military.

SPECIAL TOPIC: PRC PERCEPTIONS OF THE INTERNATIONAL SECURITY ENVIRONMENT

Beijing views its international security environment as becoming increasingly complex, with intensifying confrontation with the United States raising the danger of conflict during this decade. PRC leaders believe that the United States is engaging in a systematic effort to suppress China's development, prevent Taiwan's unification with mainland China, and maintain U.S. global hegemony. This perception is driving the PRC to accelerate efforts to increase its economic and technological self-reliance, strengthen its ability to secure interests internationally, and continue to modernize its military.

In October 2022, the 20th Party Congress Political Work Report described the PRC's external landscape as undergoing drastic changes unseen in a century and called on the Party to increase its sense of urgency to prepare for danger in an increasingly severe and complex international environment. In a speech to PRC industry leaders in March 2023, Xi explicitly accused Western countries led by the United States as containing, encircling, and suppressing the PRC and seeking to bring severe challenges to its development, further emphasizing the PRC's view that the international environment has become increasingly hostile.

The PRC probably is increasingly concerned about Washington's efforts to cultivate an international coalition willing to disrupt the PRC's rise. PRC leaders almost certainly view the announcement of AUKUS as well as the expansion of QUAD-related activities in the Indo-Pacific as the latest examples of the United States seeking to use its political and military power to threaten the PRC's sovereignty and territorial integrity. In response, Beijing has sought to strengthen PRC relations with Global South countries and promote PRC-backed incentives such as the GSI. PRC leaders and officials aim to internationally isolate Washington and cultivate support for the PRC's priorities such as diminishing international support for Taiwan and condemning U.S. activities in the Indo-Pacific.

Russia's war against Ukraine also represented a major, unexpected challenge for Beijing. Despite multiple warnings of Russia's intentions, Beijing was caught off guard by the full scope and scale of Russia's war, resulting in PRC officials scrambling to protect PRC interests. As Russia's war of aggression in Ukraine has continued, PRC leaders have increasingly viewed the war through the lens of U.S.-PRC strategic competition and sympathized with Russia's rationale for waging a war against Ukraine. This conclusion has translated into Beijing remaining steadfast in its defense of Sino-Russian strategic cooperation, continuing to support Russia's involvement in diplomatic forums, and opposing international economic sanctions. The PRC has also echoed Russian messaging on the war, claiming that the United States and NATO are responsible for causing and prolonging the war. Beijing also probably views assistance to Russia as an opportunity to maintain the positive trajectory in Sino-Russia ties and improve Russia's willingness to support PRC efforts to counter the United States and reshape the international order. At the same time, PRC leaders have sought to emphasize the PRC's "neutral narrative" on Russia's war of aggression in Ukraine, primarily to protect its reputation and deflect international criticism of Sino-Russian relations.

APPENDIX I: PRC AND TAIWAN FORCES DATA

TAIWAN STRAIT MILITARY BALANCE, GROUND FORCES			
	CHINA		TAIWAN
	Total	*Taiwan Strait Area**	*Total*
Total Ground Force Personnel	1,050,000	420,000	89,000
Group Armies/Army Corps	13	5	3
Combined Arms Brigades	82	31 (6 Amphibious)	7
Artillery Brigades	15	5	3
Army Aviation Brigades	13	4	2
Air Assault Brigades	3	1	0
Airborne Brigades	7	7	0
Marine Brigades	8	5	2
Tanks	4,200	1,100	900
Artillery Pieces**	7,600	2,300	1300

*****For the purposes of this document, the "Taiwan Strait Area" includes the PLA's Eastern and Southern Theaters.

******For the purposes of this document, "Artillery Pieces" refers to systems 100mm and larger, are either towed or self-propelled, and includes Multiple Rocket Launchers (MRLs)

TAIWAN STRAIT MILITARY BALANCE, AIR FORCES			
	CHINA		TAIWAN
	Total	**Eastern and Southern Theater**	**Total**
Fighters	1,900 (3,100*)	750 (900*)	300 (400*)
Bombers/Attack	500	300	0
Transport	500	40	50
Special Mission Aircraft	250	150	20

Note: This chart displays estimated totals of military aircraft from both PLAAF and PLAN aviation. However, the PLAAF may supplement its military transports with civilian aircraft in a combat scenario.

*The totals in parentheses include fighter trainers.

TAIWAN STRAIT MILITARY BALANCE, NAVAL FORCES

	CHINA		TAIWAN
	Total	Eastern and Southern Theater Command Navies	Total
Aircraft Carriers	2	1	0
Amphibious Assault Ships	3	3	0
Cruisers	8	4	0
Destroyers	42	30	4
Frigates	47	30	22
Corvettes	50	40	0
Medium Landing Ships/ Tank Landing Ships / Amphibious Transport Dock	57	50	50
Attack Submarines	47	31	4
Nuclear-Powered Attack Submarines	6	2	0
Nuclear-Powered Ballistic Missile Submarines	6	6	0
Coastal Patrol (Missile)	60	60	43
Coast Guard Ships	142	N / A	168

Note: The PLAN has the largest force of principal combatants, submarines, and amphibious warfare ships in Asia. In the event of a major Taiwan conflict, the Eastern and Southern Theater Command Navies would participate in direct action against the Taiwan Navy. The Northern Theater Navy (not shown) would be responsible primarily for protecting the sea approaches to China, but could provide mission-critical assets to support other fleets. In conflict, China may also employ CCG and CMM ships to support military operations.

CHINA'S ROCKET FORCE

System	Launchers	Missiles	Estimated Range
ICBM	500	350	>5,500km
IRBM	250	500	3,000-5,500km
MRBM	300	1000	1,000-3,000km
SRBM	200	1000	300-1,000km
GLCM	150	300	>1,500km

APPENDIX II: SELECTED BILATERAL AND MULTILATERAL EXERCISES IN 2022

Selected PLA Bilateral and Multilateral Exercises in 2022

Exercise Name	Type of Exercise	Participants
VOSTOK 2022	Test Multi-domain Interoperability	Russia
Maritime Security Belt / Chiru 2022	Counter-Piracy	Iran and Russia
International Army Games 2022	Multinational Military Skills Competition	Russia, Iran, Kazakhstan, Algeria, Uzbekistan, and 7 additional countries
Falcon Strike 2022	Joint Aerial and Ground Training	Thailand
Cobra Gold 2022	Multinational humanitarian and disaster relief training	Thailand, United States, Singapore, Indonesia, Japan, South Korea, Malaysia, Australia, and India
Joint Sea 2022	Joint Naval Exercise	Russia
Unnamed Naval Patrol	Joint Naval Patrol	Vietnam
Khaan Quest	Peace Keeping	Mongolia, Russia, United States, Germany, and 11 additional countries
Peace Train 2022	Humanitarian Medical Rescue Exercise	Laos

APPENDIX III: ABBREVIATIONS

APSCO	Asia-Pacific Space Cooperation Organization
AAM	Air To Air Missiles
AAV	Amphibious Assault Vehicle
ADIZ	Air Defense Identification Zone
ASF	Aerospace Force
AEW&C	Airborne Early Warning & Control
AGI	Intelligence Collection Ships
AGOS	Ocean Surveillance Ships
AI	Artificial Intelligence
ALBM	Air-Launched Ballistic Missile
AOE	Fast Combat Support Ship
AOR	Fleet Replenishment Oilers
APOSOS	Asia-Pacific Ground-Based Optical Space Object Observation System
APSD	Asia-Pacific Security Dialogue
ASAT	Anti-Satellite Weapon
ASBM	Anti-Ship Ballistic Missile
ASCM	Anti-Ship Cruise Missile
ASEAN	Association Of Southeast Asian Nations
ASW	Anti-Submarine Warfare
AUKUS	Australia, The United Kingdom, And the U.S.
AUV	Autonomous Underwater Vehicle
AVIC	Aviation Industry Corporation of China
BACC	Beijing Aerospace Control Center
BMD	Ballistic Missile Defense
BMEW	Ballistic Missile Early Warning
BRI	Belt And Road Initiative
BRICS	Brazil, Russia, India, China, And South Africa
BWC	Biological Weapons Convention
C2	Command And Control
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance, And Reconnaissance
CALT	China Academy of Launch Vehicle Technology
CBM	Confidence-Building Measures
CBW	Chemical And Biological Weapons
CCDI	Central Commission for Discipline Inspection

CCG	Chinese Coast Guard
CCMCFD	Central Commission for Military Civilian Fusion Development
CCP	Chinese Communist Party
CCWG	Crisis Communications Working Group
CDO	Cognitive Domain Operations
CELAC	Community Of Latin American and Caribbean States
CFO	Chief Financial Officer
CG	Coast Guard
CLTC	China Launch and Tracking Control
CMC	Central Military Commission
CMM	Chinese Maritime Militia (See PAFMM)
CMPR	China Military Power Report
CNSA	China National Space Administration
CNSC	Central National Security Commission
COMAC	Commercial Aircraft Corporation of China
CONUS	Continental United States
COSCO	China Ocean Shipping Company
COVID	Coronavirus
CPTPP	Comprehensive And Progressive Agreement for Trans-Pacific Partnership
CSF	Cyberspace Force
CWC	Chemical Weapons Convention
DASD	Deputy Assistant Secretary of Defense
DDG	Guided-Missile Destroyer
DME	Disaster Management Exchange
DOB	Date Of Birth
DPAA	Defense Pow/Mia Accounting Agency
DPCT	Defense Policy Coordination Talks
DSR	Digital Silk Road
DTL	Defense Telephone Link
ECS	East China Sea
EDT	Emerging Disruptive Technologies
EEZ	Exclusive Economic Zone
EO	Electro-Optical
EPR	Emergency Petroleum Reserve
EW	Electronic Warfare
FFG	Guided-Missile Frigate
FFL	Corvette
FIC	First Island Chain
FOB	Fractional Orbital Bombardment
FOC	Full Operational Capability
FYP	Five Year Plan
GDP	Gross Domestic Product
GEO	Geosynchronous Earth Orbit

GLCM	Ground-Launched Cruise Missile
GPS	Global Positioning System
GSD	General Staff Department
GSR	Green Silk Road
HEU	Highly Enriched Uranium
HGV	Hypersonic Glide Vehicle
HQ	Headquarters
HSR	Health Silk Road
IADS	Integrated Air Defense System
ICBM	Intercontinental Ballistic Missile
ICT	Information And Communications Technology
INDOPACOM	U.S. Indo-Pacific Command
IO	Information Operations
IOC	Initial Operational Capability
IRBM	Intermediate-Range Ballistic Missile
ISR	Intelligence, Surveillance, And Reconnaissance
JARM	Joint Attack Rocket and Missile System
JLSB	Joint Logistics Brigades
JLSC	Joint Logistics Service Center
JLSF	Joint Logistics Support Force
JOCC	Joint Operations Command Center
LAC	Line Of Actual Control
LACM	Land-Attack Cruise Missile
LCAC	Landing Craft, Air Cushion
LEO	Low Earth Orbit
LHA	Amphibious Assault Ship
LM	Long March
LNG	Liquid Natural Gas
LOW	Launch-On-Warning
LPD	Amphibious Transport Docks
LST	Tank Landing Ships
MCF	Military-Civilian Fusion
MANPADS	Man-Portable Air Defense System
MDPW	Multi-Domain Precision Warfare
MIRV	Multiple Independently Targetable Reentry Vehicles
MMCA	Military Maritime Consultative Agreement
MND	Ministry Of National Defense
MOU	Memorandum Of Understanding
MOX	Mixed-Oxide
MPS	Ministry Of Public Security
MRBM	Medium-Range Ballistic Missile
MSP	Managed Service Providers
MSS	Ministry Of State Security

MUM-T	Manned Unmanned Teaming
NDMD	National Defense Mobilization Department
NDU	National Defense University
NEO	Noncombatant Evacuation Operations
NETF	Naval Escort Task Force
NFU	No First Use
NIH	National Institutes of Health
NORINCO	North Industries Corporation
NPC	National People's Congress
NSR	Northern Sea Route
NUDT	National University of Defense Technology
NWMA	Non-War Military Activities
OBOR	One Belt One Road
OIMC	Office For International Military Cooperation
OPFOR	Opposing Force
OTH	Over-The-Horizon
PAFMM	People's Armed Forces Maritime Militia
PAP	People's Armed Police
PBA	Pharmaceutical-Based Agents
PKO	Peacekeeping Operations
PLA	People's Liberation Army
PLAA	People's Liberation Army Army
PLAAF	People's Liberation Army Air Force
PLAN	People's Liberation Army Navy
PLA NDU	People's Liberation Army National Defense University
PLANMC	People's Liberation Army Navy Marine Corps
PLARF	People's Liberation Army Rocket Force
PME	Professional Military Education
PNT	Positioning, Navigation, And Timing
POW	Prisoner Of War
PPE	Personal Protective Equipment
PRC	People's Republic of China
PRSS	Pakistan Remote-Sensing Satellite
RIMPAC	Rim Of the Pacific Exercise
RORO	Roll-On/Roll-Off Cargo Ships
SAM	Surface-To-Air Missile
SAR	Synthetic Aperture Radar
SASTIND	State Administration for Science, Technology, And Industry for National Defense
SATCOM	Satellite Communications
SCO	Shanghai Cooperation Organization
SCS	South China Sea
SIC	Second Island Chain

SIGINT	Signals Intelligence
SLAM-ER	Standoff Land
SLBM	Sea-Launched Ballistic Missiles
SLOC	Sea Lines of Communication
SLV	Space Launch Vehicle
SMA	Special Mission Aircraft
SOE	State-Owned Enterprise
SOF	Special Operations Forces
SRBM	Short-Range Ballistic Missile
SRSS	Sudan Remote-Sensing Satellite
SS	Diesel-Powered Attack Submarine
SSBN	Nuclear-Powered Ballistic Missile Submarine
SSD	Space System Department
SSF	Strategic Support Force
SSGN	Guided-Missile Nuclear-Powered Attack Submarine
SSN	Nuclear-Powered Attack Submarine
SSP	Air-Independent Powered Attack Submarines
SSS	Student Small Satellites
STEM	Science, Technology, Engineering, And Mathematics
TEL	Transporter, Erector, Launcher
TRA	Taiwan Relations Act
TT&C	Telemetry, Tracking, And Control
TTP	Tactics, Techniques, And Procedures
UAE	United Arab Emirates
UAS	Uncrewed Aerial Systems
UAV	Uncrewed Aerial Vehicles
UCAV	Uncrewed Combat Aerial Vehicle
UFWD	United Front Work Department
UN	United Nations
UNCLOS	United Nations Convention on The Law of The Sea
USD	U.S. Dollar
USNS	United States Naval Ship (Non-Commissioned)
USTR	United States Trade Representative
VBSS	Visit, Board, Search and Seizure
VIP	Very Important Person
VLS	Vertical Launch System
VRSS	Venezuelan Remote-Sensing Satellite
VTC	Video Teleconference
VTOL	Vertical Take-Off and Landing
XPCC	Xinjiang Production and Construction Corps
XSCC	Xi'an Satellite Control Center

