



U.S. Department *of* Defense

ANNUAL REPORT TO CONGRESS: MILITARY AND SECURITY DEVELOPMENTS INVOLVING THE PEOPLE'S REPUBLIC OF CHINA

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**REPORT TO CONGRESS ON MILITARY AND SECURITY DEVELOPMENTS
INVOLVING THE PEOPLE'S REPUBLIC OF CHINA 2025**

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PREFACE

For twenty-five years, Congress has directed the Department of War to provide an annual report on military and security developments relating to the People’s Republic of China. These reports have chronicled the development of China’s military capabilities and strategy.

China’s military focus is currently the First Island Chain that runs from the Japanese archipelago to the Malay Peninsula. Beijing recognizes this region as the strategic center of gravity for its goals in the region. While China’s strategic center of gravity remains the First Island Chain, however, as Beijing continues to grow wealthier and more powerful, it is logical that its military power will also continue to grow towards a force capable of projecting power worldwide. This aligns with Beijing’s stated ambition to field a “world-class” military by 2049, and the People’s Liberation Army (PLA) has already made significant progress in this regard.

Under President Trump’s leadership, relations between the United States and China are stronger than they have been in many years, and the Department of War will support efforts to build on this progress. We will do so in part by opening a wider range of military-to-military communications with the PLA with a focus on strategic stability as well as deconfliction and de-escalation, more broadly. We will also seek other ways to make clear our peaceful intentions.

At the same time, we will ensure that the Joint Force is always ready and able to defend our nation’s interests in the Indo-Pacific. As we do so, it bears emphasizing that U.S. interests in the Indo-Pacific are fundamental—but also scoped and reasonable. We do not seek to strangle, dominate, or humiliate China. Rather, as laid out in President Trump’s National Security Strategy, we seek only to deny the ability of any country in the Indo-Pacific to dominate us or our allies. That means being so strong that aggression is not even considered, and that peace is therefore preferred and preserved. The Department of War will therefore prioritize bolstering deterrence in the Indo-Pacific through strength, not confrontation.

President Trump seeks a stable peace, fair trade, and respectful relations with China, and the Department of War will ensure that he is able to achieve these objectives from a position of military strength. In the process, we will forge and sustain a balance of power that will enable all of us to enjoy a decent peace in an Indo-Pacific—one in which trade flows openly and fairly, we can all prosper, and all nations’ interests are respected.



EXECUTIVE SUMMARY

China’s People’s Liberation Army (PLA) has for decades marshaled resources, technology, and political will to achieve its vision of a world-class military. The PLA is a key component of China’s ambition to displace the United States as the world’s most powerful nation. The PLA measures its concepts and capabilities against the “strong enemy” of the United States. Moreover, China’s top military strategy focuses squarely on overcoming the United States through a whole-of-nation mobilization effort that Beijing terms “national total war.”

China’s historic military buildup has made the U.S. homeland increasingly vulnerable. China maintains a large and growing arsenal of nuclear, maritime, conventional long-range strike, cyber, and space capabilities able to directly threaten Americans’ security. In 2024, Chinese cyberespionage campaigns such as Volt Typhoon burrowed into U.S. critical infrastructure, demonstrating capabilities that could disrupt the U.S. military in a conflict and harm American interests.

The PLA continues to make steady progress toward its 2027 goals, whereby the PLA must be able to achieve “strategic decisive victory” over Taiwan, “strategic counterbalance” against the United States in the nuclear and other strategic domains, and “strategic deterrence and control” against other regional countries. In other words, China expects to be able to fight and win a war on Taiwan by the end of 2027.

In pursuit of these goals, the PLA continues to refine multiple military options to force Taiwan unification by brute force. Those options include, most dangerously, an amphibious invasion, firepower strike, and possibly a maritime blockade. Over 2024, the PLA tested essential components of these options, including through exercises to strike sea and land targets, strike U.S. forces in the Pacific, and block access to key ports. PLA strikes could potentially range up to 1500-2000 nautical miles from China. In sufficient volume, these strikes could seriously challenge and disrupt U.S. presence in or around a conflict in the Asia-Pacific region.

The PLA’s modernization is propelled by China’s defense spending and technological development. Since the first full year of Xi Jinping’s term as General Secretary of the Chinese Communist Party, China’s announced defense budget has nearly doubled. China continues to accelerate its development of military technology, including in military artificial intelligence (AI), biotechnology, and hypersonic missiles.



CHAPTER 1: CHINA'S STRATEGY AND U.S.-CHINA RELATIONS

Baseline of China's National Strategy

China's National Strategy is to achieve "the great rejuvenation of the Chinese nation" by 2049. In this vision, a rejuvenated China would have raised its "influence, appeal, and power to shape events to a new level," and it would field a "world-class" military that can "fight and win" and "resolutely safeguard" the country's sovereignty, security, and development interests.

China claims three "core interests," defined as issues so central to China's national rejuvenation that their official position is not subject to negotiation or compromise. These include: 1) the Chinese Communist Party's (CCP's) control, 2) promoting China's economic development, and 3) defending and expanding China's sovereignty and territorial claims.

China's leadership has extended the term "core interest" to cover Taiwan and China's sovereignty claims amid territorial disputes in the South China Sea, the Senkaku Islands, and the northeastern Indian state of Arunachal Pradesh. Chinese officials have described the unification of China and contested territories, especially Taiwan, as "a natural requirement" for national rejuvenation.¹ The CCP is highly sensitive to any perceived threat to its rule over China and to any domestic criticism that the CCP is failing to defend Chinese interests. To strengthen party control, the CCP labels unfriendly political voices in Hong Kong, Xinjiang, and Tibet – as well as political leadership in Taiwan – as separatist elements that are pushing for independence and are buoyed by so-called "external forces." The CCP views these political groups outside the CCP as an unacceptable threat to its legitimacy and power.

Recent Developments in National Strategy

July 2024 Third Plenary Session of 20th Central Committee

In July 2024, Beijing announced a new wave of reforms for the PLA focused on political discipline and military modernization. The CCP introduced a resolution with three major aspects. First, it would combat corruption by empowering discipline inspection units and intensifying investigations into any areas of collusion between the private and public sectors. Second, it sought to spur military-civilian fusion through reforms to defense-related science, technology, and industrial sectors. Third, it identified a need to reform the reporting, communications, and mobilization systems for national defense mobilization, the militia system, and China's border and coastal defense to strengthen mutual support among the civilian sectors, local governments, and the military. The resolution did not provide specifics regarding the details and timeline of reforms, but the reforms reflect the PLA's commitment to achieving its 2027 military modernization goals.

China's Increasing Pressure on Taiwan

Beijing is undertaking a determined effort to coerce Taiwan to unify with China. It does not merely seek to deter Taiwan from formally declaring its independence; instead, it seeks to apply near constant

pressure on Taipei to reach meaningful but coerced progress toward unification on Beijing's terms. The repeated omission of "peaceful unification" language in high-profile statements in 2024 and 2025, combined with China's substantial military operations around Taiwan in 2024 and 2025, indicate that Beijing is seeking to compel Taipei's unification through a concerted pressure campaign, combined with positive inducements, rather than only deterring independence.

This shift is observable in the rhetoric used at the 2025 "Two Sessions" and 2025 Taiwan Affairs Work Conference meetings, which signals Beijing's increasing frustration with policies and rhetoric from Taipei and intent to intensify pressure against the island. The February 2025 Taiwan Affairs Work Conference statement echoed themes from recent years, such as language on Beijing's overall strategy for "resolving the Taiwan issue in the new era," the "1992 Consensus" and "one-China principle." Yet the statement omitted language that was in the 2023 and 2024 conferences on the need to "promote the peaceful development of cross-Strait relations." Similarly, the March 2025 National People's Congress work report also omitted mentions of "peaceful [re]unification" with regard to Taiwan. This phrase has only appeared in one work report in the last five years. A later statement from the State Council Taiwan Affairs Office stated the principle of peaceful unification remains China's basic policy for "resolving the Taiwan question." This statement indicates that Beijing is maintaining continuity in its overall strategy for Taiwan.

China's Assessment of U.S.-China Relations

China's Perceptions of its External Environment and U.S. Competition

Beijing views its external environment as increasingly unstable and threatening to China's national interests and development goals, and it has vowed to "fight to the end" in the face of growing external pressure. During the National People's Congress in March 2025, China's Premier Li Qiang described the international environment as "exceptionally complex," and noted that Beijing is facing growing external pressure. Li also pointed to the increasing "adverse impact" of the external environment on China's development, appearing to shift accountability for China's internal economic difficulties away from domestic policies and onto external factors.

In 2024, several developments contributed to Beijing's perception of an increasingly uncertain and threatening external environment. These developments included the intensifying civil war in Burma, heightened tensions on the Korean Peninsula, U.S.-Japan-ROK trilateral cooperation, and the words and actions of Taiwan President "William" Lai Ching-te to strengthen resilience and counter China's infiltration in Taiwan, which Beijing views as undermining its unification goal.

Beijing perceives U.S. alliances and partnerships as constraining China's national objectives, and fears Washington is expanding the scope and scale of its defense partnerships and activities in the Asia-Pacific region. In 2024, Beijing expressed heightened concern over U.S. actions to strengthen defense cooperation in the Asia-Pacific region, including U.S. deployments of mid-range and anti-ship missile systems to the Philippines and U.S. arms sales to Taiwan.

Beijing continues to believe that a bipartisan consensus exists in Washington, committed to containing China's rise. Throughout 2024, Beijing denounced numerous U.S. policy actions related to competition with China, including export controls on advanced technologies, trade barriers on electric vehicles, and

military sales to Taiwan. China condemned U.S. competitive actions as intentionally provocative, intended to suppress China's economic and technological development, and an interference in China's internal affairs.

Despite bilateral tensions, Beijing continued to push for interactions with Washington in 2024, viewing engagement, particularly at the working level, as valuable to gauging U.S. intentions, shaping U.S. behavior, and fostering a stable external environment conducive to China's development. Beijing will balance its engagement with Washington with its need to portray strength to domestic and international audiences, as well as demonstrate its firm opposition to U.S. actions it perceives as infringing upon China's national interests, which may lead it to curtail engagement in response to what it perceives as U.S. provocations.

U.S.-China Defense Contacts and Engagements in 2024

In 2024, DoD and the PLA executed several bilateral defense contacts and exchanges, including senior leader contacts, defense policy talks, operational safety talks, and routine working level communication. At the end of 2024, the PLA denied a call request from the then-U.S. Chairman of the Joint Chiefs of Staff and also denied a meeting request from the then-U.S. Secretary of Defense.

As the PLA expands its operations regionally and globally, U.S. and PLA forces will increasingly operate in close proximity, thereby increasing the potential for increased tension.

China's record of canceling defense and military engagements in response to perceived offenses or heightened tensions suggests that China views defense and military engagements as a tool to punish or reward the United States for its perceived behavior, instead of these engagements being inherently valuable to maintaining peace and stability.

DoD remains committed to maintaining open lines of communication to reduce risk and manage crisis. DoD ensures that the bilateral defense relationship is fair and reciprocal. Talks between DoD and the PLA are primarily focused on supporting crisis communication, ensuring that DoD messaging is clear to China, and operational safety.

Defense Engagements in 2024

High-Level Contacts and Exchanges. In 2024, the Secretary of Defense engaged twice with the PLA Minister of National Defense—one video call in April 2024 and a meeting in May 2024 on the sidelines of the Shangri La Dialogue. The PLA rejected a meeting request from the Secretary in November 2024. The PLA ignored a call request from the U.S. Chairman of the Joint Chiefs in late 2024. In May 2024, the Assistant Secretary of Defense for Indo-Pacific Security Affairs, within the Office of the Under Secretary of Defense for Policy (OUSD(P)), held a video call with the PLA Central Military Commission (CMC) Office of International Military Cooperation (OIMC) Director. In September 2024, Commander, U.S. Indo-Pacific Command (USINDOPACOM) held a Defense Telephone Link (DTL) video call with the PLA Southern Theater Command (STC) Commander. Later that month, the PLA STC Commander attended the Chiefs of Defense Conference in Hawaii, which the USINDOPACOM Commander hosted.

Recurring Exchanges. DoD and the PLA resumed formerly routine defense engagements in 2024 that had been dormant since 2020 or earlier. In January 2024, the Deputy Assistant Secretary of Defense

for China, Taiwan, and Mongolia hosted the CMC OIMC Deputy Director for Defense Policy Coordination Talks. In April 2024, working level delegations from USINDOPACOM and the PLA executed a working group of the Military Maritime Consultative Agreement, an operational safety dialogue. USINDOPACOM and PLA representatives met again for the second MMCA working group, as well as the two-star plenary in November 2024.

Academic Exchanges and Other Contacts. In January 2024, a Defense POW/MIA Accounting Agency team conducted site surveys in China to locate U.S. service members missing in action from World War II. DoD and OIMC held an inaugural Terms and Translations Working Group in June 2024 focused on increasing mutual understanding of key terms and phrases used in the context of bilateral defense and security issues. Also in late June 2024, PLA National Defense University (NDU) officials visited the U.S. NDU for a research exchange. DoD and OIMC met in October 2024 for the second Crisis Communications and Prevention Working Group to discuss how the two sides could increase engagement during times of high tension.

The PLA's Role in China's Foreign Policy

As a component of China's broader diplomatic efforts, the PLA deepened international military cooperation in 2024 by focusing on advancing China's strategic interests and managing key relationships. The PLA supports China's overall foreign policy by engaging with foreign militaries to cultivate friendly relations and promote China as a responsible global power that helps manage international security challenges. The PLA's military diplomacy prioritizes engagements with neighboring countries throughout Asia as well as with Russia. It conducts a range of military diplomacy activities, including senior-level visits, military exercises, professional exchanges and training, multilateral security dialogues, and arms transfers to achieve these objectives.

In 2024, PLA leaders conducted senior-level visits with their foreign military counterparts and participated in various multilateral defense dialogues to manage key relationships and promote China as a global power. In particular, China conducted frequent high-level meetings with senior Russian military officials. China also hosted the 11th Xiangshan Forum and the Western Pacific Naval Symposium and participated in the Shangri-La Dialogue, Shanghai Cooperation Organization Defense Ministers' meeting, and the Association of Southeast Asian Nations (ASEAN) Defense Ministers Meeting Plus.

In 2024, the PLA conducted approximately 26 exercises and training events with foreign militaries, probably in an effort to normalize its overseas presence and strengthen defense ties. Many of the exercises focused on non-traditional security fields such as anti-terrorism, anti-piracy, humanitarian aid, and disaster relief. Most of China's combined exercises were held with neighboring countries such as Cambodia, Laos, Singapore, and Thailand, although some occurred in Africa and the Middle East. The PLA's UN peacekeeping forces also conducted drills in the Democratic Republic of the Congo, Lebanon, and South Sudan.

PLA defense attaché activity in 2024 probably was aligned with broader trends in China's military outreach, including partnerships to strengthen its economic ties, China's global posture in relation to Taiwan, and with China's Global Security Initiative. Throughout 2024, China expanded its military attaché presence in Latin America, the Caribbean, and Africa. China thereby deepened existing bilateral military relationships abroad, probably demonstrating its interest in using military partnerships to

further its military modernization goals. In 2024, China's diplomatic missions grew to 274, with their first PLA defense attachés accredited to the Dominican Republic, Niger, and Rwanda.

China's Defense Relations with Russia

China and Russia deepened their strategic partnership, almost certainly driven by a shared interest in countering the United States. In 2024, China and Russia expanded their defense engagement, increasing the frequency, scope, and complexity of their combined military exercises. China and Russia also echoed each other's narratives on international developments and areas of respective national interest, while expanding on already extensive economic ties. Beijing has remained a critical enabler of Russia's war effort in Ukraine, continuing to provide diplomatic, defense industrial, and economic support amid Western sanctions.

Beijing has also drawn lessons from the Russia-Ukraine war that are relevant to a Taiwan conflict scenario, including operational concepts, the need for modern weapon systems, and the danger of a protracted conflict. The PLA's observations have reinforced the importance of a number of its ongoing modernization efforts, including the expansion of its nuclear deterrent capability, the development of a true joint force, and improved logistics. Additionally, the PLA has sought to rapidly incorporate observations on the efficacy of autonomous platforms and distributed satellite communications (SAT-COM), and the challenges of urban warfare, into both force structure and military training. China almost certainly has recognized the necessity of controlling the internal and external narrative in conflict and seeks to develop methods to better implement information warfare.

Despite continued growth in their relationship, Beijing and Moscow remain unwilling to establish a formal defense alliance with mutual security guarantees. China and Russia continue to harbor a mutual distrust of each other, which likely prevents cooperation on areas each side perceives as sensitive. China also has stopped short of providing Russia with lethal aid for use in its war against Ukraine. This has allowed Beijing to preserve its close ties with Moscow while mitigating reputational or economic costs associated with Russia's global behavior.

Combined Military Exercises. In 2024, China and Russia conducted combined bilateral and multi-lateral military drills in the Asia-Pacific region, Middle East, and Arctic, in part to signal strength to the United States and its allies. China-Russia exercises during the past few years have been less focused on large-scale troop operations, probably due to the strain of Russia's war against Ukraine.

In July 2024, China and Russia flew a combined bomber patrol into the U.S. Alaska Air Defense Identification Zone (ADIZ) for the first time. In October 2024, the two countries conducted their first combined coast guard patrol, which took place in the Bering Sea near the coast of Alaska. Additionally, on November 29 and 30, 2024, China's and Russia's Air Forces conducted their ninth combined strategic aerial patrol over the Sea of Japan, East China Sea, and Miyako Strait, which included two PLA Air Force (PLAAF) H-6N bombers and two Russian Tu-95 bombers. This patrol marked the first time China deployed nuclear weapons-capable bombers in a patrol with Russia.

Defense Industrial Cooperation. The strategic partnership between China and Russia is also underpinned by bilateral defense trade. Russia continues to provide advanced technologies and expertise to support China's defense and strategic goals, including for ballistic missile defense, satellite navigation, nuclear energy projects, and space exploration initiatives. China has sought additional Russian aerospace technologies, especially aircraft engines, to facilitate domestic combat aircraft production, but

Russia has been reluctant to provide them. Meanwhile, China's state-owned defense firms have provided crucial dual-use components—including semiconductors, radars, and sensors—to support Russia's weapons production during its war against Ukraine.

Regional Developments in Foreign Security Engagement

Southeast Asia. China is pressing its unlawful territorial claims in Southeast Asia, specifically the South China Sea, through maritime coercion and lawfare tactics. In November 2024, China declared new baselines around Scarborough Shoal and increased patrols in response to the Philippines enactment of new maritime laws. Throughout 2024, the China Coast Guard demonstrated a willingness to use violent and aggressive tactics against the Philippines and Vietnam to assert its unlawful South China Sea claims. For instance, in September 2024, China Coast Guard boarded a Vietnamese fishing boat within the Vietnam exclusive economic zone (EEZ), injuring the fishermen and confiscating their property. In December 2024, a China Coast Guard ship fired water cannons at a Philippine vessel and conducted aggressive maneuvers, including sideswiping, against other Philippine vessels that were supporting Filipino fishermen in the South China Sea.

Oceania and the Pacific Island Countries (PICs). China is seeking to draw the South Pacific region closer by promoting diplomatic, economic, and security cooperation. In November 2024, China surpassed the United States to become the second largest bilateral donor to the PICs, as China continues its pivot from relying on loans to finance infrastructure projects in the PICs to increasing grants to decrease regional concerns of debt trap diplomacy. Since September 2024, China has sought to strengthen security cooperation in the PICs by conducting police training targeting transnational crime in support of China's desire to develop a global public security governance system. In November 2024, China warned New Zealand that joining the Australia, United Kingdom, United States (AUKUS) partnership would “inevitably” have negative consequences on the China-New Zealand relationship and characterized AUKUS as part of a zero-sum Cold War mentality. Additionally, China questioned the integrity of the Non-Proliferation Treaty if New Zealand were to join AUKUS.

Korean Peninsula. Relations between China and North Korea were notably cool, with minimal high-level exchanges. In April 2024, Zhao Leji, third-ranking member of the Politburo Standing Committee, traveled to Democratic People's Republic of Korea (DPRK) to celebrate the 75th anniversary of diplomatic ties between the two countries, declaring 2024 a “Year of Friendship.” However, in contrast to past anniversaries, there were no further high-level exchanges for the rest of the year. Beijing has publicly distanced itself from North Korea's support to Russia's war in Ukraine, referring to it as a strictly bilateral matter. In May 2024, after a four-year hiatus, China held a three-way summit with the Republic of Korea (ROK) and Japan and issued a joint declaration on trilateral cooperation as Beijing seeks to manage its relations with Seoul and Tokyo so as to counterbalance U.S. influence.

Developments along the Line of Actual Control (LAC) with India. In October 2024, Indian leadership announced an agreement with China to disengage from remaining standoff sites along the LAC two days before a meeting between President Xi and Indian Prime Minister Modi on the sidelines of the BRICS Summit. The Xi-Modi meeting marked the onset of monthly high-level engagements between the two countries, where parties discussed border management and next steps for the bilateral relationship, including direct flights, visa facilitation, and the exchange of academics and journalists. China probably seeks to capitalize on decreased tension along the LAC to stabilize bilateral relations and prevent the deepening of U.S.-India ties; however, India probably remains skeptical of China's

actions and motives. Continued mutual distrust and other irritants almost certainly limit the bilateral relationship.

Latin America and the Caribbean. Although China does engage in modest defense sales and military training with Latin American countries, Beijing is making greater inroads through the space domain and soft power avenues. Throughout 2024, China's efforts to provide infrastructure and energy development, economic assistance, and trade throughout Latin America probably helped expand Beijing's non-military influence in the region, including to secure access to critical minerals with defense applications. China has the largest space infrastructure footprint outside of mainland China in Latin America and the Caribbean, and in April 2024, Beijing held the first China-Latin American and Caribbean States Space Cooperation Forum. Beijing's interest in expanding its space domain footprint throughout Latin America almost certainly provides China with enhanced space domain surveillance capabilities, including against U.S. military space assets, throughout the hemisphere.

Africa. China's engagement in Africa is focused on expanding defense cooperation, securing PLA access to the Atlantic and Indian Ocean coasts, gaining access to raw resources including critical minerals with defense applications, protecting its economic interests and China's citizens, and advancing its desired narrative as leader of the Global South. During the Forum on China-Africa Cooperation held in 2024 in Beijing, China pledged to boost military aid to the continent, including at least \$140 million in security assistance and training for 6,000 military personnel and 1,000 police officers, across Africa. In 2024, the PLA organized two separate bilateral exercises with Tanzania and Mozambique, respectively, under the combined label of PEACE-UNITY, which was executed on land and at sea focusing on counterterrorism military operation. The PLA Navy's hospital ship "Peace Ark" made port calls to 13 African countries throughout the year, and provided medical services to populations in pursuit of expanding security influence and boosting defense ties. Beijing also sought to boost military cooperation with African countries by donating or selling both lethal and non-lethal equipment, including armored personnel carriers, drones, light weapons, patrol boats, as well as providing training and financing infrastructure and aircraft. China has postured itself as one of Africa's most important space cooperation partners, developing satellites, space infrastructure, and promoting Beidou satellites navigation systems to meet African nations' demands for space equipment and services.

Middle East. In 2024, China's approach to the Middle East is focused on energy security and Beijing's perception that the region is more open to engagement as key countries question U.S. commitment and pursue more diversified partnerships. In 2024, China conducted military exercises with Egypt, the United Arab Emirates, and a trilateral maritime exercise with Iran and Russia, which mainly reflect China's priority regional relationships. The PLA's Navy Escort Task Force continued routine deployments to the Gulf of Aden and conducted goodwill visits to Arab Gulf ports throughout 2024 to promote itself as contributing to regional security. China has continued to align itself in support of the Palestinian cause to provide a contrast to U.S. support for Israel while avoiding a direct diplomatic role in the Gaza conflict. China views Houthi attacks in the Red Sea as a spillover effect from the conflict, and Beijing has been critical of U.S. military activities against the group as ineffective and contributing to regional insecurity. China is recalibrating its relations with Syrian Transitional Government through limited engagement, which almost certainly will be driven by Beijing's concern that a Uyghur presence in Syria could threaten China's security at home.

Defense Relations with Iran and views of Iranian Proxies. China's defense relationship with Iran is focused on an annual trilateral naval exercise with Russia, limited bilateral military training, and China-

based companies' sale of dual-use components for Iran's ballistic missile and UAV programs. PLA and Iranian defense ministers conduct reciprocal visits almost every 2 years; however, Beijing probably is reluctant to deepen its modest defense relationship with Iran for fear of diplomatic blowback and sanctions. As of August 2024, China-based commercial satellite companies participated in business exchanges with Iran's Islamic Revolutionary Guard Corps. China does not have extensive relations with Iranian proxies and partners such as Hezbollah in Lebanon, the Huthis in Yemen, or Iranian-backed militia groups in Iraq. However, Beijing has privately engaged the Huthis since the start of the Huthi attack campaign to secure the safety of Chinese commercial shipping in the Red Sea and Gulf of Aden. Since November 2023, China-based companies have sold dual-use components that the Huthis have used in attacks in the Red Sea, while China's officials have denied responsibility. China probably avoids publicly criticizing these groups to maintain an image of neutrality and avoid regional entanglement.



CHAPTER 2: PLA STRATEGY AND CAPABILITIES IN 2024

China's Defense Policy and Military Strategy

China tasked its armed forces 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.” Accordingly, China’s stated defense policy is to “resolutely safeguard” its sovereignty, security, and development interests, including in support of China’s broader regional and global ambitions. The PLA is tasked to:

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

China’s military strategy is based on the concept of “active defense,” a combination of the principles of strategic defense and offensive action. Active defense is neither a purely defensive strategy nor limited to territorial defense; it encompasses offensive and preemptive aspects at the operational and tactical levels.

PLA writings on “effective control” and “war control” stipulate using all domains of national power to control the timing, pace, scope, and scale of escalation from peacetime through crisis and war. At both the 20th and the 19th Party Congresses, Xi Jinping emphasized the need for the PLA to execute effective control’s basic formulation to “shape [China’s] security situation, contain crises and conflicts, and win local wars.” The PLA is directed to achieve national political objectives by avoiding war when possible and fighting a war that is winnable. If war is unavoidable, the PLA must seize the initiative, moderate escalation, and minimize the cost and duration of conflict.

China's 2027 Objectives

China follows a three-step development strategy for military modernization. At present, China's goals for modernizing its armed forces are publicly noted 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: “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: “Fully transform the people’s armed forces into world-class forces.”

China obfuscates information surrounding these goals, and it has not publicly revealed significant requirements of its 2027 goals. Although Beijing first publicly unveiled the 2027 goal in October 2020 during the 5th Plenum of the 19th Central Committee, it was internally established in late 2019 at an expanded meeting of the CMC. Chinese media connected the PLA’s 2027 goals to developing the capabilities to counter the U.S. military in the Asia-Pacific region, and coerce Taiwan’s leadership to the negotiation table on Beijing’s terms.

The PLA has linked the achievement of its 2027 goals to the development of “three major strategic capabilities”:

- ▶ “Strategic decisive victory” (战略决胜): This likely requires the PLA to be credibly able to prevail in a conflict at acceptable cost. The PLA probably tracks this requirement to a Taiwan conflict with U.S. involvement, which is the most stressing contingency the PLA plans against.
- ▶ “Strategic counterbalance” (战略制衡): This likely requires the PLA to build up its means of strategic deterrence—including nuclear deterrence—to sufficiently deter or restrain U.S. military involvement. The PLA, viewing itself as militarily weaker than the United States, contextualizes counterbalance as a means by which the weak offsets the advantages of the strong. Accordingly, it views modernizing its nuclear capabilities in line with strategic counterbalance to address a disadvantage vis-à-vis the United States.
- ▶ “Strategic deterrence and control” (战略威慑): This likely requires the PLA to have the force capacity to limit horizontal escalation or dissuade other states from taking opportunistic actions.

Updates to Military Strategic Guidelines

Beginning in late 2022, the CMC probably began revising its top-level military strategy, known as military strategic guidelines, which were last updated in 2019. China’s new military strategic guidelines are likely a response to Beijing’s view of a worsening security environment for China. In 2022,

the 20th Party Congress report stated that China was facing “drastic changes in the international landscape, especially external attempts to [...] exert maximum pressure on China,” which required China to “study and grasp the characteristics and patterns of informationized and intelligent warfare; innovate military strategic guidance; and develop people’s war strategies and tactics.” Additionally, China’s new military strategic guidelines likely advance previously-identified trends in PLA thinking. PLA writings since 2022 have prominently observed lessons from the Russia-Ukraine war and assess that China’s international strategic environment is growing increasingly complex as a result of challenges from the United States. These perceptions suggest the new military strategic guidelines stem from a renewed focus on previously identified trends such as intelligentization and great power competition, not a complete transformation of PLA thinking.

MILITARY STRATEGIC GUIDELINES

China’s military strategic guidelines set the general principles and concepts for the use of force in support of Beijing’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 CMC issues new military strategic guidelines, or adjusts existing guidelines, whenever they perceive it necessary to shift the PLA’s priorities based on Beijing’s perceptions of China’s security environment or changes in the character of warfare. The guidelines are not publicly available. Not all changes to the guidelines are equally important in their impact on PLA organization and approach to warfighting. While the 2019 revision of the guidelines probably reflects major changes from the 2014 guidelines, the revisions begun in 2022 probably reflect minor changes and evolutions.

Authoritative PLA texts published since 2022 emphasize enhancing the aggressiveness of the military strategic guidelines, noting that the PLA must take the initiative to seize strategic opportunities and create favorable external conditions. At the strategic level, this means no longer simply defending China’s borders and passively responding to threats but rather actively building and shaping a military posture around China’s periphery that can adequately respond to China’s perceived threats. The implementation of this guidance can be seen in China’s more assertive military posture in the South China Sea and around Taiwan.

The PLA’s revised military strategy also reveals a growing confidence and comfort with military escalation, including against the United States. Notably, under this strategy the PLA continues to be reliant on long-range precision strike capabilities. The growth of these capabilities has blurred the boundaries between strategic, operational, and tactical levels of war, accepting the use of “elite forces” as a basic combat method to conduct long-range precision strikes on targets “in all depths” outside the immediate combat zone. Other texts suggest the PLA can control the intensity of conflict by coordinating operational and tactical “destruction and annihilation” of enemy forces with strategic deterrence. This reliance on the strategic level of deterrence – likely nuclear weapons, but also cyber and space capabilities – indicates the growing confidence and comfort the PLA has with conventional escalation.

The PLA's revised military strategic guidelines appear to be focused squarely on the United States. PLA writings reveal a significant anxiety about U.S. competitive efforts and their potential disruptive effect on China's development. Beijing views U.S. strategy documents identifying China as a "pacing threat" and efforts to bolster deterrence in the Asia-Pacific as inherent challenges to China's achievement of its national rejuvenation goals. PLA researchers argue that the military strategic guidelines must optimize the PLA's response to perceived provocations within the 2022 National Defense Strategy, the 2023 National Military Strategy, and their discussions of integrated deterrence. China also perceives that U.S. efforts are driven by internal contradictions and require an external enemy to distract from domestic challenges. This avoids any consideration or self-reflection by China of its own actions.

The revised military strategic guidelines probably seek to respond to the challenge of perceived U.S.-instigated proxy conflicts through whole-of-nation mobilization. The PLA views conflict not simply as a clash of militaries, but as a clash of national systems integrating both civilian and military power. The PLA sees future warfare as characterized by a combination of high-tech autonomous systems on the battlefield, maritime blockades, forced isolation, and comprehensive sanctions, all lessons learned from observing the Western response to Russia's 2022 invasion of Ukraine. One text notes the Russia-Ukraine war has demonstrated how "mixed competition" based on comprehensive national power is more prominent than before, necessitating greater coordination, linkages, and mutual planning between China's military and civilian sectors. Another text describes future great power conflict as a mutually integrated unity of gray zone conflicts, hybrid warfare, and high-end warfare. In a conflict between the United States and China, in which both parties have ample national resources and multiple courses of action, war will likely unfold in all domains and dimensions in the form of a *national total war* (国家总体战). The term "total war" carries historical contexts of a war in which the goals are total—the unconditional surrender of the adversary. However, the PLA's use of the term implies a complete mobilization of a nation's strategic resources to resist the "strong enemy." The PLA likely still adheres to its own thinking on keeping the political ends of a war, even a national total war, limited and defined in scope to maximize control and chances of success.

Doctrine

The PLA released its foundational doctrine document "Chinese People's Liberation Army Joint Operations Outline (Trial)" in November 2020, marking the start of the PLA's fifth generation of operational doctrine. The Outline is the capstone document of this generation and sits atop a hierarchical, integrated doctrinal system, and the PLA is currently in the process of issuing dozens of additional theater-, domain-, and service-specific doctrinal texts. This generation is uniquely important, as it provides first time doctrinal guidance for theater commands and addresses basic issues regarding the organization and implementation of joint operations and command rights and responsibilities within theater commands. The model of issuing doctrine in generations has proved rigid, with PLA leaders noting the inability to make rolling updates based on lessons learned. The previous generation of doctrine was issued in 1999, and PLA leaders and PLA-affiliated academics pointed to the long delay in updated doctrine as a key obstacle to advancing the next steps in building a unified joint PLA. The long-term efficacy of the new joint doctrine likely requires bureaucratic updates that enable more rapid responses to reflect changes to China's security situation, lessons learned from conflicts such as the Russia-Ukraine war, or technological advancements impacting warfare.

Since the CMC issued the Outline, the PLA has launched a force-wide effort to study and implement it, including through joint operations undertaken through joint exercises led by each theater command and service led exercises including STRIDE, MOBILITY, RED SWORD, SKY SWORD, and JOINT LOGISTICS MISSION. In 2021, China's National Defense University (NDU) remolded the curriculum of its joint operations command training course to align with the new doctrine. In at least one revised course implementing the doctrinal writings, officers now must complete three scenario-based operations acting as a theater commander.

Optimizing Operational Concepts

Multi-Domain Precision Warfare (MDPW) is the PLA's core operational concept, representing an evolution of the PLA's operational thinking for a potential future conflict with the United States. As envisioned, MDPW would leverage an integrated network of PLA command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems to organize joint forces under a centralized command, instantly aggregate military power across all domains, and use that multi-domain power to identify and exploit weak points in the U.S. operational system. A primary aspect of MDPW is to harness the power of big data and artificial intelligence to rapidly process and analyze vast amounts of information, facilitating swift and informed operational decision-making.

Starting in 2021, PLA writings began discussing MDPW as a new “core operational concept” that is meant to sit atop an “operational conceptual system-of-systems.” The PLA’s advancement of MDPW coincides with broader research into the role operational concepts play in solving operational problems, guiding future force design, and forming a connective tissue between strategic guidance and military doctrine. The former is too high-level to be directly implemented, but it will influence and constrain the operational concept, while the latter is an authoritative regulation to guide operations and training. MDPW as a core operational concept, fitting between the PLA’s military strategic guidelines and its joint operational doctrine, is intended to “predict” warfare, be informed by an understanding of the adversary, and ultimately enable the PLA to “design” warfare at a high level so that it can win future conflicts. Thus, MDPW is likely intended to serve as a connective link between the PLA’s doctrine and military strategic guidelines, reinforcing key themes and directives in both while concentrating on what is necessary for the PLA to succeed in future warfare.

This indicates the PLA will develop additional subordinate operational concepts, and use simulations, war games, and exercises to test, evaluate, and improve these future-oriented concepts.

Enhancing Wargaming and Simulation

The PLA recognizes that it faces a challenge in designing its force, preparing doctrine, and coming up with plans in the face of future uncertainty stemming from new and emerging technologies and the inherent unpredictability of warfare. Despite this uncertainty, it believes it must develop accurate theories that thoroughly predict the nature of future warfare. In order to hone its concepts, plans, and doctrine, it emphasizes the use of joint combat experiments and wargames. The PLA approach to wargaming emphasizes quantitative analysis and simulation verification to enhance the “scientific nature” of its combat plans and doctrines. The PLA is almost certainly working to further augment its wargaming capabilities with artificial intelligence.

The PLA is seeking to leverage modern science and technological developments to advance its simulation technologies to create a realistic combat evaluation system that can evaluate its force against its doctrinal standards, embodied in the Joint Operations Outline, the Joint Command Outline, the Military Training Regulations, and other guidance. This constitutes for the PLA the integration of theory and technology—something Xi Jinping has directed it to do. For example, in an operational planning process, the PLA envisions wargames as a staff-led function that dynamically displays, in a data-rich environment, the results of different courses of action, enabling commanders to understand the effects of their planned operations and adjust as necessary.

The PLA is also developing professional “blue forces” to model the U.S. military and test PLA forces and concepts in wargames. To optimally train its units, the PLA discusses turning its blue forces into “whetstones,” and PLA blue forces seek to emulate the current equipment, organization, rules and regulations, tactics, and training of the U.S. military. This is part of a sustained push to strengthen the study of enemy situations to develop tactics and training methods that can better prepare the PLA to combat the United States.

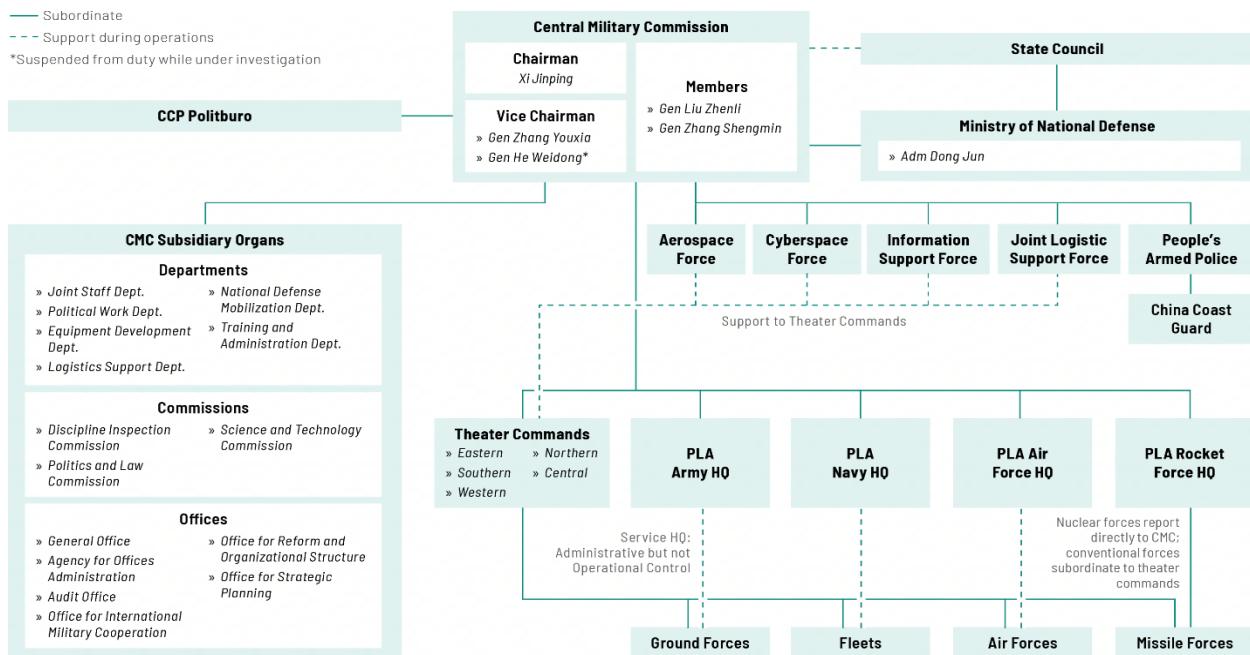
Readiness

Alongside modernizing the PLA’s capabilities and organizational reform, China’s leaders have identified enhancing the combat readiness of the armed forces as an important element in developing its military strength. Senior CCP and PLA leaders are keenly aware that China’s military has not experienced combat in decades nor fought with its current suite of capabilities and organizational structures. In February 2025, the CMC revised the PLA’s basic laws and code of conduct – known as the Common Regulations – for the first time since 2018. The new regulations place greater priority on combat effectiveness to better prepare the PLA to “fight and win wars,” stressing the importance of employing veterans and reserve personnel in a conflict, and introducing rules for the handling of advanced firearms. The revised regulations also emphasize the importance of political loyalty within the PLA and provide guidance on internal and external relations, etiquette, and discipline. National defense education training is likely to become more rigorous and realistic as the PLA moves to standardize its combat readiness system to enable China to quickly transition to a wartime footing.

PLA Leadership

Since 2022, the CMC has experienced turbulent changes affecting its senior leadership, primarily due to ongoing rampant corruption afflicting the PLA. General Li Shangfu, previously appointed to the CMC as Minister of National Defense, was removed in October 2023, probably because of corruption related to weapons procurement in his previous role as head of the CMC Equipment Development Dept. In December 2023, Admiral Dong Jun was appointed as the new Minister of National Defense, but he was not selected to join the CMC, an unusual decision that may reflect a reduced role for the PLA’s top diplomat. In November 2024, CMC Political Work Department Director Admiral Miao Hua was placed under investigation for corruption and suspended from duty. In early 2025, the CMC’s second Vice Chairman Gen He Weidong was noted as absent from several important PLA meetings and events and was presumed to be suspended due to corruption. Despite their adverse statuses, both He and Miao remained on the CMC as of early 2025.

Military Leadership and Organization Chart, as of 31 December 2024



Strategic Support Force Dissolution: Between 2016 and 2024, the Strategic Support Force formed the core of China's information warfare force, supporting the entire PLA and reporting directly to the Central Military Commission (CMC). In April 2024, the Strategic Support Force was dissolved and the PLA's Aerospace Force, Cyber Space Force and newly created Information Support Force became directly subordinated to the Central Military Commission.

Key PLA Modernization Developments in 2024

In 2024, the PLA continued to refine and improve its capabilities, with new systems reaching initial operational capability (IOC) and other systems conducting inaugural trials. The PLA almost certainly will continue to develop capabilities to achieve its 2027, 2035, and 2049 modernization milestones in order to effectively use its military regionally and globally to achieve its national strategic objectives.

In 2024, the PLA adjusted its military organizational structure—dissolving the Strategic Support Force—to improve information network warfare capabilities in an effort to fulfill the requirements of modern warfare, further develop joint operational capabilities, and progress on the development of several domestic weapons systems. The PLA also made several developments in the air domain. In December 2024, two Chinese companies conducted the initial test flight of two separate sixth-generation prototype aircraft. Once operational, a sixth-generation aircraft will likely be suitable for various combat missions, including air-to-air and air-to-surface missions, as well as guiding uncrewed aircraft in combat missions. Chinese sixth-generation aircraft are in the nascent stages of development and expected to be operational by 2035. Additionally, the PLA conducted an initial flight with the KJ-3000 Airborne Early Warning and Control (AEW&C) aircraft, which will serve as a surveillance aircraft to monitor aircraft, ships, and other vehicles. The KJ-3000 will probably be the world's first model to use digital radar and will be capable of anti-jamming, passive detection, and target identification.

In the maritime domain, the PLA Navy (PLAN) completed the inaugural sea trials of its third aircraft carrier—*Fujian*, also known as CV-18—in May. This is the PLAN’s first indigenously designed aircraft carrier. It is larger than the PLAN’s previous two aircraft carriers and is its first flat-deck carrier. The PLAN likely intends for *Fujian*’s future airwing to include the J-35 stealth fighter, J-15T fighter jet, J-15D electronic warfare aircraft, Z-20 helicopter, KJ-600 early warning aircraft, and various UAVs. The PLAN aims to produce six aircraft carriers by 2035 for a total of nine. In October 2024, the PLAN’s two operational aircraft carriers—*Liaoning* and *Shandong*—conducted dual-carrier operations for the first time. The training occurred in the Yellow Sea, East China Sea, and South China Sea, and aimed to improve integrated combat capabilities, with J-15s operating from *Liaoning*’s deck.

PLA C4ISR Developments

Multi-Domain C4ISR Architecture

C4ISR system architecture largely defines the scope and limits of PLA operational reach and the ability to rapidly close long-range kill chains, especially in large-scale operations against U.S forces. Terrestrial C4ISR architecture includes the vast network of dedicated PLA fiber-optic cabling across mainland China and into the PLA’s artificial island-reefs in the South China Sea. Additional land-based sensors, including Skywave Over-the-Horizon radars, can probably detect ships and aircraft between the first and second island chains. Air-based C4ISR sensors, including special mission aircraft with airborne early warning and control and signals and electronic intelligence (SIGINT/ELINT) capabilities as well as a variety of UAVs play a critical role in providing ISR, communications relay, and possible electronic warfare capabilities. Airborne sensors combined with increased PLAN vessel presence has significantly improved PLA maritime domain awareness. Long-range maritime ISR is enabled by SIGINT and radar information collected by PLAN ship patrols, while more persistent air and maritime domain awareness is largely enabled by rapidly developing space-based capabilities, discussed further below.

Current State of PLA C4ISR Integration

In 2024, PLA C4ISR and its ability to command and operate its joint force probably defines PLA conventional military power projection to the Western Pacific and Southeast Asia in a real-world combat scenario. In an operation to counter foreign military involvement, PLA kinetic strikes would probably be effective within 1,500-2,000 nautical miles from the Chinese mainland. Such strike capabilities, if realized in sufficient volume, may seriously challenge U.S. military involvement.

As of January 2024, China’s ISR satellite fleet contained more than 359 systems, more than tripling its on-orbit collection presence since 2018. This includes over 100 low earth orbit (LEO)-based Jilin-1 imaging satellites on orbit. The PLA is also investing in and fielding new and novel technologies including a persistent imaging capability from geostationary orbit (GEO) and automated detection and tracking from LEO satellites. These capabilities, coupled with the PLA’s growing space-based ISR order of battle has dramatically increased its ability to monitor, track, and target U.S. and allied forces both terrestrially and on orbit. Additionally, the Chinese commercial company Shanghai Gesi Aerospace Technology Co. (上海格思航天科技有限公司) plans to launch the first 108 of a planned 12,000 “G60 Starlink” LEO communication satellite constellation. PLA access to proliferated LEO (pLEO)

architectures will significantly improve communication, navigation, remote sensing, and data connectivity for deployed PLA forces, including ships, aircraft, and amphibious units, likely serving multiple mission areas across military communications, early warning, and targeting support. Furthermore, a vast pLEO capability may also decrease the likelihood of detection and targeting of PLA forces by U.S. or allied ISR.

In early May 2024, advanced PLA electronic warfare systems on Dongfeng Mengshi CTL181A armored vehicles capable of monitoring and direction-finding within the very-high frequency, ultrahigh frequency, and superhigh frequency spectrums, surfaced on social media. In mid-November 2024, China unveiled two new long-range radars: the “780 target designator radar” and the “610A intelligence radar system,” which are expected to augment the PLA’s situational awareness and support air-defense systems.

Improved Command and Control (C2) During PLA Exercise Joint Sword-2024B

In late-May 2024, the PLA conducted exercise JOINT SWORD 2024A around Taiwan. The Eastern Theater Command Joint Operations Command Center (JOCC) led the exercise operations with a focus on joint operational capabilities, including joint command and control (C2). For the first time, the exercise included Taiwan’s offshore islands of Kinmen, Matsu, Wuqiu, and Dongyin, and saw the integration of China Coast Guard vessels into the exercise. The coordination between the China Coast Guard and PLA services, which likely will become the norm in maritime operations around Taiwan and South China Sea, enhances China’s ability to leverage maritime law enforcement resources to support military objectives, according to the same report. The PLA’s direct integration of the China Coast Guard to conduct patrols around Taiwan’s offshore islands indicate an iterative progression from exercise JOINT SWORD 2023 in improved C2 and suggests PLA intent to erode Taiwan’s jurisdiction over these areas.

In mid-October 2024, the PLA conducted exercise JOINT SWORD 2024B around Taiwan, reportedly in response to President Lai’s National Day Speech. The Eastern Theater Command JOCC again led exercise operations, which were designed, in part, to test multi-domain collaboration and joint operational C2. Additionally, the exercise emphasized the PLA’s ability to coordinate military operations across multiple theaters and domains.

PLA Cyber Developments

In 2024, China remained the most persistent cyber threat to U.S. government, military, and civilian networks. Throughout 2024, PLA cyber actors almost certainly maintained and developed further cyberattack capabilities that would disrupt U.S. defense and civilian critical infrastructure. The PLA almost certainly is pursuing robust cyber capabilities to use in a crisis or conflict to degrade systems integral to U.S. military operations and interoperability with allies and partners. U.S. cybersecurity company CrowdStrike noted that China-linked intrusions increased by 150 percent across all sectors in 2024 in comparison with 2023 intrusions.

As the newest PLA combat support force, the Information Support Force oversees PLA network information systems and provides force-wide communications support, while the Cyberspace Force retains its responsibilities for cyberspace warfare, electronic warfare, technical reconnaissance, psychological operations, and influence operations. Cyberspace Force cyber operations continue to pose a threat to the United States and key allies and partners by gaining access to critical networks. The PLA’s cyber capabilities, as demonstrated by its use of advanced techniques allowing it to operate without detection in networks, indicate that the PLA is a sophisticated and capable cyber actor.

In 2024, China’s cyber actors continued to conduct widespread cyberespionage and pre-position cyberattack capabilities against the United States, its allies, and partners, in line with Beijing’s goals to gain dominance in the information domain. In the fall of 2024, a Chinese cybersecurity firm conducted a major cyberespionage campaign—publicly referred to as Salt Typhoon—into several U.S. telecommunications providers. China’s cybersecurity firms could provide useful information to the PLA as China’s cyber actors increasingly draw on the enabler ecosystem that acts as a force multiplier. As late as 2024, China sponsored cyber operations—publicly referred to as Volt Typhoon—burrowed into U.S. critical infrastructure, as well as targeting partners such as Singapore and Taiwan, demonstrating China’s capacity for building cyber capabilities for future use in crisis or conflict, including for disrupting the U.S. military’s ability to mobilize in conflict.

Also in 2024, state-sponsored cyber actors from China carried out a sustained operation to infect a network of 200,000 worldwide internet devices—including small office and home office routers. Such networks can provide obfuscation capabilities for China’s cyber actors for evading detection and attribution.

During the initial stages and throughout a conflict, China probably would seek 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. Initial target selection probably would include U.S. military C4ISR and logistics nodes, as well as civilian targets with political and economic significance. China can launch cyberspace attacks that, at a minimum, would cause localized, temporary disruptions to critical infrastructure—such as disruption of a continental United States natural gas pipeline—for days to weeks, and China probably believes these capabilities are even more effective against militarily superior adversaries that depend on information technologies. The objective of these cyberattacks probably would be to deter U.S. involvement by demonstrating China’s capability and resolve to threaten U.S. strategic interests and weaken U.S. public support for involvement.

Cyber Activities Directed Against DoD in 2024

The PLA's cyber goals almost certainly prioritize degrading U.S. force projection during conflict. If the PLA were to execute cyberattacks in conflict, it would likely seek to deter U.S. military action by impeding U.S. decision-making, inducing societal panic, and interfering with the deployment of personnel. Cyberespionage and prepositioning activities that China's cyber actors have undertaken are not necessarily mutually exclusive as access points for espionage and can potentially then be used to conduct a cyberattack. Further, China's cyberespionage itself can threaten U.S. operations by virtue of extracting sensitive information about operations.

The targets of China's cyber activity — such as Volt Typhoon — indicate that these cyber exploitations probably are aimed at undermining U.S. support for Taiwan in the event of a contingency. China's cyber actors are increasingly focused on mission-specific intrusions against systems that could affect DoD activities. This aligns with Beijing's goals for conflict preparation in which PLA-affiliated texts emphasize using non-kinetic capabilities such as cyber operations to degrade adversary C4ISR, weapon systems, and support nodes early in a conflict to seize information dominance. The evolving security situation and cross-Strait tensions may lead China to target U.S. government and military entities with further cyberespionage or attacks.

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PLA Space Developments

Throughout 2024, China expanded its space launch, SATCOM, and ISR capabilities, hastened development of LEO megaconstellations that will provide additional SATCOM resilience, and relied on its commercial space sector to drive innovation. These improved space-based capabilities likely enhance the PLA's effectiveness by improving space situational awareness, increasing its ability to detect U.S. aircraft carriers and expeditionary forces, and enabling long-range precision strikes against U.S. and allied forces.

- **Space Launch:** China is expanding its space launch capabilities to meet broader military, civil, and commercial space goals, including reducing launch costs and achieving the launch cadence necessary to rapidly sustain and replace satellites composing LEO megaconstellations that will counter U.S. systems. In 2024, China's launch company LandSpace conducted a successful vertical takeoff, vertical landing (VTVL) test of a space launch vehicle (SLV) model intended to be reusable, and state-owned enterprise Shanghai Academy of Spaceflight Technology achieved China's highest VTVL of a reusable SLV test article. A separate commercial

company, Orienspace, conducted China's first sea-based launch of a medium-lift SLV. Sea-based launch enables China to launch closer to the equator, increasing carrying capacity and lowering launch costs. In 2024, Hainan Commercial Launch Complex also completed new launch sites that will in the future be able to support dozens of additional launches per year, easing a bottleneck of access to launch sites. China's commercial companies Galactic Energy, Deep Blue Aerospace, Space Pioneer, iSpace, and Lanspace have significantly expanded their space launch infrastructure to support their plans to conduct inaugural test flights of several developmental rockets with increased lift capacity in 2025 and 2026.

- ▶ **Satellite Communications:** China has advanced communication satellites capable of transmitting critical data between remote sensing satellites and military operations centers, and began building communications proliferated constellations in LEO to improve its SATCOM redundancy, improving its ability to maintain persistent, global coverage and enable long-range kill chains. In December 2024, the operator of the state-owned Xingwang megaconstellation successfully launched the first batch of Xingwang satellites, which will give China additional SATCOM resilience when proliferated. In August 2024, China successfully launched the first set of 18 internet satellites for the commercially-produced Qianfan megaconstellation (aka G60 Starlink).
- ▶ **ISR Satellites:** ISR satellites are used by military and civilian sectors for remote sensing and mapping, terrestrial and maritime surveillance, and intelligence collection. In 2024, China launched 67 ISR-capable satellites into orbit, making its total number of ISR-capable satellites more than 500. Recent improvements to China's ISR satellite capabilities and its growing number of satellites have increased its ability to monitor U.S. and allied military assets and activities throughout the Pacific and provide targeting support to long-range kill chains.
- ▶ **Commercial space:** China's commercial space sector has rapidly expanded and become a key pillar of its efforts to achieve space goals by filling gaps and spurring technical innovation, which will ultimately assist the PLA with its military modernization efforts. Many of China's commercial companies are part of its military-civil fusion strategy to develop dual-use technologies in the commercial sector for eventual integration into the military. In 2024, commercial space development was written into the CCP's Government Work Report for the first time, demonstrating its increased importance.
- ▶ **Space Cooperation:** Throughout 2024, China increased its space cooperation outreach worldwide, probably to boost its image as a collaborative space power while undermining U.S. global leadership, particularly with developing nations. As of December 2024, China has signed nearly 200 intergovernmental space cooperation agreements with more than 50 countries and international organizations, covering fields including earth observation, deep space exploration, satellite development, lunar exploration, and manned spaceflight. In 2024, Senegal became the latest country to join the China-led International Lunar Research Station (ILRS), and entities from the United Arab Emirates, Switzerland, Panama, Serbia, Pakistan, South Africa, and Indonesia signed agreements on ILRS cooperation. China also has a close bilateral space partnership with Russia and in 2024, Beijing publicly reaffirmed its intent to expand space cooperation with Moscow.

- ▶ **Cislunar and Space Exploration:** Throughout 2024, China continued to pursue cislunar and space exploration activities. In June 2024, China became the first country to retrieve samples from the far side of the moon with the successful mission of its Chang'e-6 lunar probe. The Chang'e-6 was supported by China's Queqiao-2 relay satellite, which was launched in March 2024. China is planning to use its next two unmanned missions, Chang'e 7 and Chang'e 8, to establish a prototype for its ILRS base. In 2024, the Chinese Space Station received two crewed mission and two cargo supply missions, and the China Manned Space Agency announced China would seek to accomplish a lunar crewed landing before 2030. In February and March 2024, China launched distant retrograde orbit (DRO)-A/B/L demonstrators. DRO-L entered a sun-synchronous orbit. DRO-A/B recovered from a launch anomaly and became the first satellites to enter DRO. After DRO-A/B's August 2024 separation, the three satellites demonstrated inter-satellite communication links. In March 2024, China also launched the Tiandu-1/2 satellites, which will serve as pathfinders for a planned Queqiao lunar satellite constellation.

PLA Counterspace Developments

China perceives that the U.S. military heavily relies on space for intelligence collection and communications, and China is developing counterspace capabilities designed to restrict U.S. use of space and space-enabling technologies in a conflict. The PLA almost certainly plans to conduct terrestrial and space-based kinetic and non-kinetic antisatellite (ASAT) operations during a conflict with the United States, and will adapt employment strategies as new capabilities are fielded. The PLA's large and dispersed inventory of reversible counterspace systems, including disruptive lasers and jammers, almost certainly provides China sufficient capacity to execute such operations with little warning.

- ▶ **Ground-Based ASAT Missiles:** China currently has ASAT missiles designed to target and destroy low Earth orbit satellites. In 2007, China destroyed one of its satellites with an ASAT missile, creating thousands of pieces of trackable space debris and resulting in international condemnation. China has not conducted a destructive ASAT missile test since, probably to avoid backlash and remain consistent with rhetoric that it is a responsible spacefaring nation. To expand the range of its ASAT deterrent, China probably intends to develop and deploy additional ASAT missiles that can destroy satellites in all orbits. However, if ASAT missiles were used in a conflict, China would be forced to contend with the resulting large debris fields possibly threatening its own satellites.
- ▶ **On-Orbit:** China has conducted close approach and rendezvous operations between different sets of satellites reflecting a likely on-orbit antisatellite capability. Since launch, the TJS-3 approached other nations' spacecraft in GEO multiple times. These close approaches to foreign spacecraft are inconsistent with Beijing's stated mission of TJS-3 as a communications technology test satellite, suggesting China may have obfuscated its true mission. In 2022, China used the Shijian-21 satellite, equipped with robotic arms, to move a defunct navigation satellite into a graveyard orbit. Satellites with robotic arms, including the Shijian-21, can manipulate and re-orient other satellites, including U.S. ISR, communications, and others, degrading the target's operational capability. In May 2024, China launched the Shiyan-23 satellite into orbit, which is tasked with monitoring and surveying the space environment. The satellite was designed and developed by the Shanghai Academy of Spaceflight Technology. Additionally, throughout 2024, China's Shiyan-24C trio of satellites demonstrated their ability

to conduct complex rendezvous and proximity operations, sometimes with satellites approaching within 1 kilometer of each other.

- ▶ **Cyberthreats:** China has identified cyberspace as a critical domain for national security and is rapidly developing its cyber forces as part of its integrated warfare strategy. The PLA emphasizes cyberspace capabilities to support military operations against space-based assets and considers these capabilities crucial to its strategic deterrence posture. China has been implicated in several cyberattacks against foreign satellite networks, particularly those of the United States, in an effort to disrupt critical space-based communications infrastructure between the United States and Asia. Through state-sponsored actors like Volt Typhoon, China compromises and prepositions itself within networks of U.S. space and defense organizations, likely for both intelligence collection and preparation for cyberattacks that could disable or disrupt space systems during conflict. These counterspace cyber operations aim to degrade adversary C4ISR systems early in a conflict, targeting not only satellites but also ground-based space infrastructure and support nodes to achieve information dominance.
- ▶ **Electronic Warfare (EW):** China fields a range of ground-based jammers and likely intends to field space-based jammers, including global navigation satellite system “spoofers” and SATCOM “jammers.” In early 2024, Chinese scientists claimed to have achieved seamless, wide bandwidth, real-time monitoring and analysis of the full electromagnetic spectrum to support future PLA EW operations. China 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. China is also probably developing jammers to target SATCOM over a range of frequency bands, including extremely high frequency communications used by the U.S. military.
- ▶ **Directed Energy Weapons:** The PLA probably considers directed energy weapons (DEW) useful and versatile counterspace systems due to their reversible and nonreversible effects against satellites. China controls the majority of critical rare earth elements associated with DEW development and production, partially contributing to Beijing’s domestic capacity to unilaterally develop and produce such weapons. China has been pursuing directed energy weapons for decades, and has deployed multiple ground-based laser weapons with varying power levels to disrupt, degrade, or damage satellites. The PLA probably views the flexibility of DEWs as a benefit to maintaining escalation control during a conflict. China probably continued developing directed energy weapons for counterspace use throughout 2024.

Developments in PLA Nuclear Capabilities

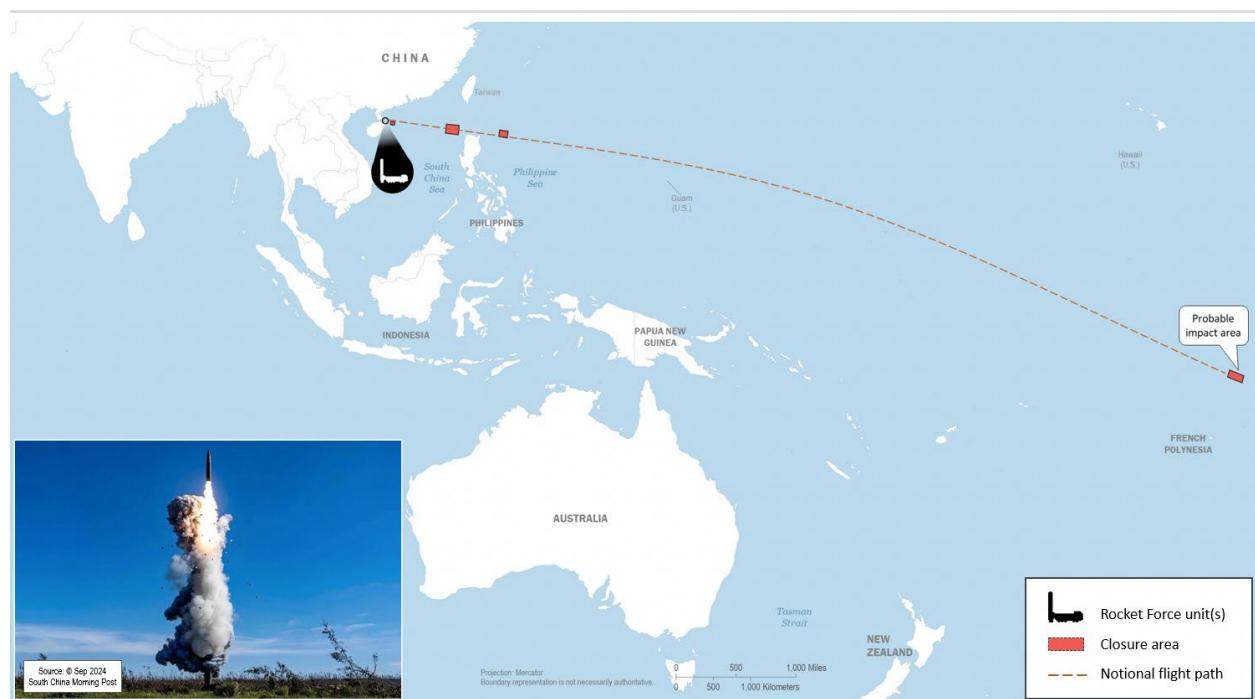
Current Nuclear Force Activity

China’s stockpile of nuclear warheads remained in the low 600s through 2024, reflecting a slower rate of production when compared to previous years. Despite this slowdown, the PLA has continued its massive nuclear expansion. While this report assessed in 2020 that China’s nuclear warhead would double from a stockpile of the low 200s over the next decade, the PLA remains on track to have over 1,000 warheads by 2030.

ICBM Open-Ocean Launch

In September 2024, China launched an unarmed intercontinental ballistic missile (ICBM) into the Pacific Ocean for the first time since 1980, probably to practice a wartime nuclear deterrence operation during peacetime and validate its ability to deliver a nuclear weapon to full range. The PLA Rocket Force launched the DF-31B ICBM from northern Hainan island, and the missile flew approximately 11,000km before impacting the ocean near French Polynesia. China publicly stated that the launch was not targeted towards a specific country but rather was part of the PLA's routine annual training plan, suggesting future launches may occur with some regularity. China provided pre-notification of the upcoming launch to the United States and some other countries including France, but did not notify Japan or the Philippines.

The PLA views ICBM launches, including into broad ocean areas during crisis or conflict, as an option for medium-to-high intensity nuclear deterrence operations. The September 2024 launch probably enabled the PLA to train on the procedures and tactics for this type of operation during peacetime. Since 1980, China has almost exclusively tested ICBMs within its own borders, indicating this launch probably also provided an opportunity to verify ICBM performance with a full-range trajectory.



Nuclear Development

In 2024, China probably made progress on its attempts to achieve an early warning counterstrike (EWCS) capability, similar to launch on warning (LOW), where warning of a missile strike enables a counterstrike launch before an enemy first strike can detonate. China likely will continue to refine and train on this capability throughout the rest of the decade.

- ▶ China probably expanded its space-based early warning architecture in 2024 and early 2025 by launching two additional Tongxun Jishu Shiyan (TJS), also known as Huoyan-1, satellites with likely infrared sensor payloads into geosynchronous orbit. China's early warning infrared

satellites can reportedly detect an incoming ICBM within 90 seconds of launch with an early warning alert sent to a command center within three to four minutes.

- ▶ China also employs several ground-based, large phased-array radars (LPARs) probably to support EWCS, which detect incoming ballistic missiles thousands of kilometers away and high into the atmosphere. LPARs probably can corroborate incoming missile alerts first detected by the TJS/Huoyan-1 and provide additional data, with the flow of early warning information probably enabling a command authority to launch a counterstrike before inbound detonation.
- ▶ In December 2024, the PLA launched several ICBMs in quick succession from a training center into Western China, indicating the ability to rapidly launch multiple silo-based ICBMs, as required for an EWCS operation. The PLA has likely loaded more than 100 solid-propellant ICBM missile silos at its three silo fields with DF-31 class ICBMs, which are very likely intended to support EWCS.

The PLA is probably pursuing nuclear weapons with yields below 10 kilotons. Such weapons address long-held PLA desires to be able to conduct limited nuclear counterstrikes against military targets and control nuclear escalation. Of China's currently fielded systems, the DF-26 IRBM and the H-6N's ALBM are both highly precise theater weapons that would be well suited for delivering a low-yield nuclear weapon.

Anticorruption Efforts in Nuclear Development

Xi's anticorruption campaign—including the firing of two PLA Rocket Force (PLARF) commanders, deputy commanders, Chief of Staff members; state-owned defense industry seniors; and a top PLARF engineer, all of which have involvement in nuclear weapons—is very likely creating reverberations within China's nuclear forces and may be raising questions among leadership about force readiness. In 2023, China replaced senior PLARF officials with members of other services, specifically the PLAN and PLAAF. The unprecedented appointments probably reflect Xi's preference for loyal outsiders capable of achieving national defense objectives and meeting critical modernization milestones. The ongoing anticorruption campaign could have short-term effects on readiness while potentially setting the stage for long-term PLA improvements overall.

In October 2024, Xi visited the 611th Brigade of the Rocket Force—his first visit to the PLARF since the corruption allegations surfaced—and spoke to brigade leaders about military policy, commitment to deterrence, and showing strength and preparedness. This inspection probably reinforced the importance Xi is placing on this anti-corruption campaign.

Weapons-Grade Material Production

China probably has faced delays constructing and commissioning its two CFR-600 sodium-cooled fast breeder reactors at Xiapu. China previously planned for the first unit to come online in 2023, but it is probably still undergoing testing. The second reactor unit is still under construction. Once online, the CFR-600s will reestablish China's ability to produce weapons-grade plutonium. China has continued to expand its reprocessing capacity at the China National Nuclear Corporation Gansu Nuclear

Technology Industrial Park in Jinta County, Gansu Province where a third 200-ton per year reprocessing plant is now under construction.

Nuclear Deterrence

In addition to its longstanding goal of deterring an adversary's nuclear first strike and coercion, Beijing probably increasingly seeks to use nuclear deterrence to more broadly deter and limit adversary military involvement in a conventional conflict. China continues to reaffirm its commitment to its No First Use (NFU) policy despite seeking to deter non-nuclear military actions with its nuclear forces, complicating communication about the role of these forces during a Taiwan conflict and raising the risks of unintended escalation. Beijing continues to reiterate NFU when questioned about its lack of transparency regarding its expanding nuclear arsenal and is likely to reemphasize this policy when faced with assessments that it has expanded its objectives for nuclear deterrence.

Arms Control

China has not demonstrated a willingness to advance discussions on nuclear risk reduction measures, bilaterally or multilaterally among the five permanent members of the UN Security Council, except for affirming the need to maintain human control over the decision to use nuclear weapons. China unilaterally suspended a bilateral consultative mechanism with the United States on arms control and non-proliferation in April 2024. China continues to tout its NFU policy and U.S. policy toward Taiwan as rationales for Beijing refusing substantive engagement with the United States on measures to reduce the risk of accidental nuclear war. China, however, has maintained an agreement with Russia to notify one another of some ballistic missile and space test launches. Prior to its ICBM launch in September, Beijing notified the United States, France, New Zealand, the United Kingdom, and Australia—though not Japan or the Philippines and other PICs. U.S. officials noted the bilateral notification as a positive step towards preventing misperception or miscalculation, while pressing China to develop a regularized, bilateral test-launch notification mechanism and/or join the Hague Code of Conduct Against Ballistic Missile Proliferation. However, Beijing continues to demonstrate no appetite for pursuing such measures or more comprehensive arms control discussions.

PLA Corruption Developments

The PLA has continued to experience corruption-related investigations in every service, which have led to the removal of dozens of general officers. By late 2024, corruption issues had again reached the level of the CMC. Additionally, multiple senior officers and defense industry executives have not been seen attending public events, suggesting that additional corruption investigations remain in progress. These investigations very likely risk short term disruptions in the operational effectiveness of the PLA. Alternatively, the PLA could emerge as a more proficient fighting force in the future if it uses the current campaign to eliminate systemic issues enabling corruption.

Corruption's Continuing Impact on Senior Leadership Ranks of PLA

Beijing has detained or suspended multiple members of its Central Military Commission (CMC), China's highest-level military decision-making body. In March 2025, CMC Vice Chairman He Weidong was reportedly detained and has not made any public appearances since the end of the National

People's Congress in early March. As one of two CMC vice chairman, he shared responsibility with Vice Chairman Zhang Youxia for direct oversight over the 15 departments, commissions, and offices of the CMC. Improved monitoring of these CMC organizations was a key impetus for the 2015-2016 CMC reforms. He's likely detention indicates how over a decade into Xi's anti-corruption campaign, corruption still extends to even the most senior officers who have been promoted during Xi's tenure.

In November 2024, Admiral Miao Hua—head of the CMC Political Work Department (PWD) and the PLA's top political officer—was publicly suspended from duty on suspicion of “serious violations of discipline.” Miao had authority over political education, party organizations within the military, and had overall responsibility for maintaining loyalty within the PLA. His responsibilities extended to human resources management, including recommending senior officers for promotion—possibly in exchange for bribes. Miao's detention calls into question the qualifications of any officers he has recommended during his seven years as head of the CMC PWD as well as his decades of service as a political commissar before then.

Investigations into these corrupt leaders indicate Beijing is pursuing a zero-tolerance approach to corruption and is willing to purge the military of perceived disloyalty regardless of the disruptive impact on the PLA.

The total number of PLA leaders removed for corruption or other unprofessional conduct is hard to measure, but expulsions from party and state bodies is a barometer for measuring the extent of the removals. 2023 saw at least 10 officers dismissed from the National People's Conference (NPC), China's national legislature, including then- Minister of National Defense Li Shangfu and nine additional general officers, presumably for connections to corruption. At least another four officers were removed from the NPC in 2024. In February 2024, a month before the NPC was due to meet, a theater deputy commander was dismissed. In the fall, a PLA Army (PLAA) deputy commander and a retired deputy commander were removed, as well as the replacement for the Southern Theater Command deputy commander who had been dismissed for corruption just 12 months before.

Several military members of the CCP Central Committee have also apparently been placed under investigation for corruption. General Xu Zhongbo, the PLARF political commissar, was investigated for two months before being replaced by a PLAAF political commissar in July 2023. General Qin Shutong, the PLAA political commissar, and Admiral Yuan Huazhi, the PLAN political commissar, have not been seen since October 2024 and are likely under investigation; General Qin was replaced in December 2024 by a PLAAF political commissar. General Wang Chunning, previously identified as the People's Armed Police (PAP) commander, has not been seen since November 2024.

The recent removal of Vice Chairman He, Admiral Miao, political commissars of three of the four services, and the head of China's internal security forces for corruption has decreased China's leaders' confidence in the reliability of PLA leadership. The number of personnel removed likely has implications for the PLA's progress towards its 2027 modernization goals. Given the PLA's continued progress against these goals, it is difficult to ascertain how significant these implications have been. Despite plausible short-term impacts to readiness, China remains committed to its strategic goals, with the ongoing anticorruption campaign having the potential to improve PLA readiness in the long term.

Corruption scrutiny has led to removals of senior leadership in every theater command:

Senior PLA Leaders Investigated and Removed or Punished, May 2023-May 2025

| | | |
|--|---|---|
| <p>Removed Nov 2024; Likely Detained/Under Investigation</p>  <p>Adm Miao Hua Director Political Work Department</p> | <p>Last Seen March 2025; Likely Detained/Under Investigation</p>  <p>Gen He Weidong 2nd Vice Chairman</p> | <p>Under Suspicion Since Fall 2024 Detained, March 2025</p>  <p>Gen Lin Xiangyang Commander Eastern Theater Command</p> |
| <p>Replaced July 2023 Investigation Likely Complete</p>  <p>Gen Xu Zhongbo PLARF Political Commissar</p> | <p>Expelled from Party July 2024 Turned Over for Prosecution</p>  <p>Gen Li Shangfu Minister Of National Defense</p> |  <p>Gen Wang Houbin PLARF Commander</p> |
| <p>No Known Assignment Investigation Possibly Complete</p>  <p>Gen Li Yuchao Commander, PLARF</p> | <p>Last Seen July 2024 Likely Detained /Under Investigation</p>  <p>Gen Ju Qiansheng Strategic Support Force Commander</p> |  <p>Gen Wang Xiubin Executive Deputy Director Joint Operations Command Center</p> |
| <p>Replaced December 2024; Likely Detained/Under Investigation</p>  <p>Adm Yuan Huazhi PLAN Political Commissar</p> | <p>Last Seen October 2024 Likely Detained/Under Investigation</p>  <p>Gen Qin Shutong PLAA Political Commissar</p> |  <p>Gen Wang Haijiang Commander Western Theater Command</p> |
| | | <p>Removed/Detained March 2025</p>  <p>Gen He Hongjun Executive Secretary Political Work Department</p> |
| | | <p>Removed/Detained, April - May 2025</p>  <p>Gen Huang Ming Commander Northern Theater Command</p> |
| | | <p>Removed/Detained May 2025</p>  <p>Adm Wang Renhua Secretary Politics and Law Commission</p> |
| | |  <p>Gen Zhang Hongbing PAP Political Commissar</p> |
| | |  <p>Gen Liu Qingsong Political Commissar Eastern Theater Command</p> |

 PLA Army (PLAA)

 People's Armed Police (PAP)

 PLA Navy (PLAN)

 PLA Rocket Force (PLARF)

| | | |
|--|---|---|
|  Gen Wei Fenghe Minister Of National Defense Mar 2018-Mar 2023 |  Lt Gen You Haitao Deputy Commander, PLAA 2016-2021 |  Lt Gen Zhang Yulin Deputy Director Equipment Development Dept |
|  Lt Gen Liu Guangbin Deputy Commander, PLARF |  VAdm Feng Danyu Deputy Commander, PLAN |  VAdm Li Pengcheng Commander Southern Theater Command Navy |
|  Lt Gen Li Chuanguang Deputy Commander, PLARF |  Gen Ding Laihang Commander, PLAAF 2017-2021 |  VAdm Ju Xinchin Commander Southern Theater Command Navy |
|  Lt Gen Sun Jinming Chief Of Staff, PLARF |  Lt Gen Tang Yong Deputy Secretary Discipline Inspection Commission |  Lt Gen Li Zhizhong Deputy Commander Central Theater Command |
|  Maj Gen Li Tongjian Deputy Director, PLARF Equipment Dept |  Lt Gen Zhang Zhenzhong Deputy Chief CMC Joint Staff Department |  Gen Zhao Keshi fmr head, General Logistics department |
|  Maj Gen Lu Hong Deputy Director PLARF Equipment Dept |  Lt Gen Li Jun Commander CMC Joint Operations Command Center |  Lt Gen Wang Peng Director CMC Training and Administration Department |
|  Gen Zhou Yaning Commander, PLARF 2017-2022 |  Maj Gen Rao Wenmin Deputy Director Equipment Development Dept |  Vadm Wang Zhongcai Commander Eastern Theater Command navy |
|  Lt Gen Wu Guohua Deputy Commander, PLARF 2016-2020 |  Maj Gen Xia Qingyue Deputy Director Equipment Development Dept | |
|  Maj Gen Zhang Junxiang Chief Of Staff, PLARF 2016-2017 | | |
|  Lt Gen Deng Zhiping Deputy Commander, PLAA | | |

 /  PLA Army / Retired

 /  PLA Navy / Retired

 /  PLA Air Force / Retired

 /  PLA Rocket Force / Retired

Lengthy Processes to Investigate and Punish Corruption

The disciplinary process for Central Committee members or alternate members especially can be extremely lengthy, as their cases apparently need to be reviewed at a Central Committee plenum. Therefore, former PLARF commander Li Yuchao (Central Committee member) and former PLARF Chief of staff Sun Jinming (Central Committee alternate) were detained in summer 2023 but were not formally expelled from the party until July 2024, when the CMC investigation report and the Politburo's decision to expel them were endorsed at the Central Committee's Third Plenum meeting. It is only after this step that formal prosecution by the legal system can proceed.

Several military members of the 20th Central Committee are therefore in a state of limbo until CMC investigations are completed and any politburo decision on expelling them is endorsed by the next party plenum. CMC Political Work Department head Admiral Miao Hua, former PLAA political commissar Gen Qin Shutong, PLAN political commissar Admiral Yuan Hauzhi, and PAP commander Wang Chunning are all full Central Committee members likely under investigation. Similarly, while the Politburo reportedly decided in 2023 that former PLARF political commissar Xu Zhongbo would lose his Central Committee seat, there was no mention of his case in the Third Plenum report, nor of former SSF commander Ju Qiansheng. With Li Shangfu's and Li Yuchao's expulsion from the party in July 2024, of the 42 military Central Committee members chosen at the October 2022 party congress, eight—19% —have already either been removed or are under investigation.

In July 2024, the Central Committee Third Plenum promoted three alternate members to full membership to replace individuals expelled from the party. Lieutenant General Ding Xingnong, a PLARF

deputy political commissar, was the second ranking alternate member and should have been appointed as a full member but was passed over. Major General Tang Yong, deputy secretary of the CMC's Discipline Inspection Commission—the body responsible for investigating corruption and other malfeasance—and a former PAP deputy political commissar, was dismissed from the Chinese People's Political Consultative Conference shortly after its March 2025 meeting.

New Emphasis on Combating Corruption

The PLA expanded anti-corruption efforts during 2024. In June, the CMC held a political work conference in the symbolic location of Yan'an, calling for increased anti-corruption and discipline inspection to be done at the lower levels as part of efforts to eliminate conditions that breed corruption. These themes, and even restoring basic discipline, have been amplified in speeches and articles since the Yan'an conference. Past initiatives have been unsuccessful at eliminating corruption to date, probably because the CCP is unable or unwilling to change practices that have facilitated enduring corruption or empower independent bodies to find, investigate, and report on corruption within the military.

Corruption's Impact to Morale, Recruitment, and Retention

Corruption at the highest levels remains a sensitive topic within the PLA, as demonstrated by the cases of Minister of National Defense Li Shangfu and CMC Vice Chairman He Weidong. Asked about the status of the defense minister at a press conference over two weeks after his disappearance at the end of August 2023, officials stated they were unaware of the situation. When questioned in March 2024 at a press conference after Vice Chairman He did not appear at expected events, officials again expressed no knowledge of the matter; the question was omitted from the transcript of the meeting. Official mention of cases is often limited, making the November 2024 announcement of Admiral Miao's suspension a rare example of candor.

The ongoing removal of senior PLA officers has caused uncertainty over organizational priorities and lack of continuity in those priorities as leadership changes and is gapped. These removals have reverberated throughout the ranks of the PLA as well, as there are reports that some new recruits question the PLA's absolute loyalty to the party.

Corruption in defense procurement has contributed to observed instances of capability shortfalls, such as malfunctioning lids installed on missile silos or possibly the pier side sinking of the PLAN's first Zhou-class submarine as it prepared for sea trials. Speaking to military delegates at the March 2024 NPC session, CMC Vice Chairman He Weidong criticized low-quality equipment being provided to the PLA and false reports made to CMC leadership.

Corruption's Impact on China's Defense Industrial Base

In 2024, the PLA expanded its anticorruption investigations throughout the defense industry. Investigations have expanded from a 2023 focus on procurement of rockets and missiles industry to most of China's defense industry, including China's nuclear and shipbuilding industries. The number of "tigers"—individuals at the vice-ministerial level or above—investigated by the Central Commission for Discipline Investigation in 2024 rose by almost a third, with much of that increase coming from the defense sector. At least 26 top and former managers with state-owned arms suppliers have been

placed under investigation or removed from their positions. The number of heads of state-owned enterprises officially under investigation doubled, from three in 2023 to six in 2024.

Looking at the China National Nuclear Corporation (CNNC), for example, between December 2023 and December 2024, the Central Commission for Discipline Investigation announced investigations of at least two former division chiefs, one former deputy division chief, and former heads of two CNNC subsidiaries. Yu Jianfeng, the head of CNNC, has missed public activities since at least January 2025, including the March 2025 NPC meeting, indicating that he may also be under investigation. Other personnel moves within CNNC may indicate additional investigations are ongoing.

In addition to the three defense industry leaders dismissed from the Chinese People's Political Consultative Conference (CPPCC) in December 2024, at least two more individuals were dismissed in 2024. The lead designer for the PLA's J-20 fighter and his company's general manager were placed under investigation in January 2025.

Compared to senior military officers, civilians experience a much longer time between initial detention and the issuance of a formal referral for criminal investigation. It is unclear whether the relative slowness stems from procedural differences for military and civilian leaders or reflects limited bureaucratic capacity. For example, Tan Ruisong, the head of the Aviation Industry Corporation of China (AVIC), was removed from his position in March 2023. The Central Commission for Discipline Investigation only announced in August 2024 that he was under investigation. Tan was finally expelled from the party in February 2025 and arrested the next month for formal prosecution – some eight months after Li Shangfu, even though his investigation had likely begun four months earlier. The lengthy process may prolong disruption within the defense industry.

China's Paramilitary Forces

People's Armed Police (PAP)

PAP Roles and Missions. The PAP is a critical part of China's armed forces, with the primary mission set of ensuring domestic security within China while also supporting wartime missions in rear areas. This includes handling emergencies, maintaining stability, conducting counterterrorism operations, and executing maritime law enforcement and rescue. The 2020 reforms additionally permit the PAP to conduct specific operations, including counterterrorism training outside of China.

PAP Force Structure and Organization. The PAP is a component of China's armed forces and an armed wing of the CCP with an estimated 500,000 personnel. The primary responsibilities of the PAP include maintaining political, institutional, and regime security, emergency-rescue operations, counterterrorism, air support, maritime rights protection, administrative law enforcement, and defense operations. The PAP is composed of three main parts: the Internal Security Corps, the Mobile Corps, and the China Coast Guard. The Internal Security Corps is responsible for each of China's provinces, provincial-level cities, and autonomous regions. The Mobile Corps is composed of PAP units placed to reinforce the Internal Security Corps and provide flexibility in responding to internal security issues. The 1st Mobile Contingent is in Shijiazhuang, south of Beijing, with subordinate units in the north-central part of the country that would likely reinforce PAP units in the event of a threat to the regime in Beijing. The 2nd Mobile Contingent is in Fuzhou with subordinate units across Southern China. The

PAP is also focused on Xinjiang due to alleged separatist activity in addition to its proximity to other areas of unrest in Central Asia.

PAP Capabilities and Modernization: Conducting civil-support operations is among the responsibilities delegated to the PAP. In July 2024 the PAP and PLA mobilized over 900 personnel to support emergency rescue operations in response to severe flooding in Hunan Province. The PAP also plays a leading role securing China's western regions and, also in July, participated in a large military-police joint exercise in Xinjiang province. The drill involved around 3,000 PAP, PLA and public security officials utilizing helicopters, UAS, and armored vehicles to practice combating terrorism in high-altitude regions. The PAP's counterterrorism mission has an international dimension as well. Since 2016, the PAP has hosted an international counterterrorism conference in Beijing known as the "Great Wall Forum." The 2024 iteration of the conference was held in August, with a focus on the role of "unmanned technology in combating terrorism." Over 170 delegates from more than 50 countries participated in the conference. Lastly, from late July to early August 2024, the PAP conducted a two-week joint counterterrorism training event with members of the Vietnamese Ministry of Public Security, a first-of-its kind event between the two countries.

PAP Readiness. In 2024, multiple PAP units conducted combat readiness training, to improve their tactical skills and ability to support PLA operations. In September 2024, the PAP's Chengde Detachment conducted a joint force-on-force security exercise with the PLA's 81st Group Army 70th Light Combined Arms Brigade to strengthen cooperation and improve operational readiness. In May 2024, a detachment from the PAP's Sichuan Contingent conducted specialized joint training in chemical defense with the PLA's 77th Group Army, 3rd Chemical Defense Brigade and Sichuan militiamen.

PAP Special Operations Forces (SOF). The PAP has three main SOF units assigned to the two Mobile Contingents and the Xinjiang Military District. The Falcon commando unit and the Snow Leopard commando unit belong to the 1st and 2nd Mobile contingents, respectively. They are large rapid reaction forces with mixed capabilities to deploy in major contingencies on a national level. These units are trained in counterterrorism missions and include assault, reconnaissance, explosive ordnance disposal, hostage rescue, and sniper teams. The Snow Leopards have rigorous selection standards with 40-50% of recruits failing the initial screening. The Snow Leopard's annual "Devil week" training simulates counterterrorism missions in multiple combat environments, including desert, jungle, urban terrain, and sea. The Mountain Eagle Commando Unit is assigned to Xinjiang Internal Security Contingent and is trained for counterterrorism missions in the province.

Coast Guard

China Coast Guard Mission. The China Coast Guard is China's front-line force for carrying out "rights protection" operations in disputed areas of China's maritime periphery. The PLAN overwatches China Coast Guard operations to deter other claimants and provide China an option to rapidly respond with force, if necessary.

Effective June 2024, China passed a regulation to further implement the 2021 Maritime Traffic Safety Law governing China Coast Guard activity, authorizing China Coast Guard ships to apprehend foreigners in China's claimed waters. The regulation almost certainly is intended to strengthen the China Coast Guard's ability to enforce China's sovereignty claims in the First Island Chain.

Militia

Militia Overview. The militia is an armed force of civilians available for mobilization ultimately subordinate to the Central Military Commission and managed 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. The China Maritime Militia is a subset of China’s national militia, an armed reserve force of civilians available for mobilization ultimately subordinate to the Central Military Commission and managed through the National Defense Mobilization Department.

Maritime Militia Structure and Organization. Through the National Defense Mobilization Department, Beijing subsidizes various local and provincial commercial organizations to operate China Maritime Militia vessels to perform “official” missions on an ad hoc basis outside of their regular civilian commercial activities. China Maritime Militia units employ marine industry workers, usually fishermen, to supplement the PLAN and the China Coast Guard. While retaining their day jobs, these mariners are organized and trained, often by the PLAN and the China Coast Guard, and can be activated on demand. The China Maritime Militia’s primary peacetime role is to assert and advance Beijing’s maritime territorial claims in disputed areas of China’s maritime periphery. In wartime, the China Maritime Militia may support combat operations by conducting reconnaissance or creating obstacles and providing logistical support to other PLA forces. The China Maritime Militia operates in all areas inside the First Island Chain: the Bohai Gulf, the Yellow Sea, the East China Sea, and the South China Sea—where the China Maritime Militia has conducted numerous operations.

New Developments. In 2024, the China Maritime Militia continued to operate in the South China Sea in order to reinforce China’s expansive territorial claims and to seek to normalize China’s maritime activities in these areas. In June 2024, China Maritime Militia ships clashed with Philippines forces at Second Thomas Shoal, using axes and spears to hack at Philippine boats, resulting in a sailor briefly losing a thumb during a physical confrontation; the thumb was later surgically reattached. Along with the China Coast Guard, the China Maritime Militia has continued to increase its presence in the South China Sea. In October 2024, a China Maritime Militia vessel collided with a Philippine vessel near Thitu Island when the China Maritime Militia vessel attempted to block the path of the Philippine vessel. Some China Maritime Militia vessels were reportedly painted white, similar to China Coast Guard vessels, near Scarborough Shoal as of April 2024.



CHAPTER 3: PLA FORCE EMPLOYMENT IN 2024

Exercises and Operations in 2024

Throughout 2024, the PLA conducted a range of joint and single-service exercises and training activities focused on improving combat proficiency and readiness and joint operations. The 2024 PLA training cycle focused on joint operations, force-on-force realism, incorporating new technologies, and improving basic combat skills. PLA training activity included an array of drills testing capabilities related to far seas operations, area familiarization, amphibious assault, live-fires, anti-ship defenses, nighttime operations, logistics, and systems familiarity, as well as integration with non-PLA forces and civilian entities. The PLA also conducted short notice exercises that demonstrated flexible responses to real world events, particularly around Taiwan.

- ▶ In October 2024, the PLAN conducted its first-ever dual-carrier group training event, which occurred in the South China Sea and drilled the joint operations capability of the PLAN's two commissioned aircraft carriers, the *Liaoning* and *Shandong*, as well as their respective strike groups.
- ▶ During 2024, the PLA conducted two sudden-notice, Eastern Theater Command-led exercises in response to Taiwan President William Lai's May 2024 inauguration speech and October 2024 Taiwan National Day speech—named JOINT SWORD 2024A and JOINT SWORD 2024B, respectively. Both exercises consisted of PLA aircraft, navy vessels, and China Coast Guard vessels encircling the main island of Taiwan and its outer islands.
- ▶ In spring and summer 2024, the PLA conducted three live-fire exercises along the China-Burma border to deter spillover from Myanmar's ongoing civil war. The Southern Theater Command led exercises involved both PLAA and PLAAF forces and focused on mobility, reconnaissance, border control, air defense, and firepower capabilities. The increased exercise activity is in response to the expansion of internal unrest in Burma following an October 2023 attack by ethnic armed organizations against the military junta near the border with China.

During 2024, the PLA also conducted several operations in support of enduring national security interests.

- ▶ Throughout 2024, the PLA sustained its counter-piracy task groups in the Gulf of Aden, a 16-year effort that is the PLA's first enduring naval operation beyond the Asia-Pacific region.
- ▶ Starting in June 2024, the PLAN's Peace Ark hospital ship also conducted its tenth multi-country medical diplomacy tour, publicized as HARMONIOUS MISSION 2024, which visited 13 countries in Africa.
- ▶ As of December 2024, the PLA had over 1,700 troops participating in UN peacekeeping missions distributed among UN-led missions in Lebanon, South Sudan, and Sudan.

The table below features PLA named exercises in the past. We assess the PLA probably conducted at least some of these exercises in 2024.

| Leading Organization | Name |
|-----------------------------|-------------------------|
| PLAAF | RED SWORD |
| | BLUE SHIELD |
| | ELECTRONIC SUPPORT |
| | GOLDEN HELMET |
| | GOLDEN DART |
| PLAA | STRIDE |
| | FIREPOWER |
| | SEVERE COLD |
| JLSF | JOINT LOGISTICS MISSION |
| PLAN | DEEP BLUE |
| PLARF | HEAVEN SWORD |

PLA 2024 Exercises with Foreign Militaries

In 2024, the PLA participated in at least 26 exercises with foreign militaries across the Asia-Pacific region, Africa, and Europe. Foreign exercises and outreach facilitate PLA power projection in multiple different regions of the world, normalize its overseas presence, and strengthen defense ties. The PLA participated in a diverse range of partner military exercises, which varied in levels of complexity, domains, military competencies trained, and force integration, consistent with previous years.

In 2024, the PLA increased the scale and complexity of exercises it completed with Russia. The two countries completed seven combined exercises, including their first combined coast guard exercise, as well as two aerial patrols and three maritime patrols. These exercises have gradually increased in size, scale, and complexity since their establishment and may offer the two militaries opportunities for modest advancements in combined capabilities during peace time operations. Russia is the PLA's most consistent and most advanced foreign military partner. China and Russia probably utilize the opportunity to exercise together as a means to highlight military cooperation regionally and globally.

In Africa, the PLA expanded the scale of exercise activity compared to previous years, conducting counterterrorism and counterpiracy exercises with partners. Most notably, the PLA completed the combined naval and ground counterterrorism exercise, PEACE-UNITY, with Tanzania in August 2024. This exercise was one of the largest PLA exercises in Africa to date, showcasing the PLA's modest improvements in far sea projection. The 2024 exercises in Africa likely served as an opportunity for the PLA to make broader diplomacy advancements in addition to showcasing PLA weapons and equipment, which is a consistent theme for their exercises across the continent.

In the Asia-Pacific region, the PLA completed exercises with longstanding partners including Cambodia, Laos, and Thailand. The exercises consisted of prior themes such as small-scale combat, counterterrorism, humanitarian assistance, and disaster relief in recurring exercises such as GOLDEN

DRAGON and FALCON STRIKE. The exercises likely improved the PLA's reputation with neighboring countries and served as a tool for regional military diplomacy.

PLA Exercises and Training With Foreign Militaries

| Exercise Name | Month | Participants | Type of Exercise |
|--|--------------|--|--|
| MARITIME SECURITY BELT | March | Iran, Russia | Maritime Exercise |
| GOLDEN DRAGON | | Cambodia | Multidomain Exercise |
| STEPPE PARTNERS | May | Mongolia | Ground Exercise |
| GOLDEN FRIENDSHIP | | Bangladesh | Counterterrorism Ground Exercise |
| INCREMEX | | Nigeria, Cameroon, Brazil | Naval Exercise |
| China-Russia Counterterrorism Exercise | June | Russia | Counterterrorism Ground Exercise |
| China-Belarus Counterterrorism Exercise | | Belarus | Counterterrorism Ground Exercise |
| FRIENDSHIP SHIELD | | Laos | Ground Exercise |
| JOINT SEA | July | Russia | Naval Exercise |
| FALCON SHIELD | | UAE | Aerial Exercise |
| PEACE - UNITY | | Tanzania | Counterterrorism Multidomain Exercise |
| PEACE - UNITY | | Mozambique | Naval Exercise |
| KHAAN QUEST | | Mongolia, Multinational | Peacekeeping Ground Exercise |
| GULF OF FINLAND EXERCISE | August | Russia | Naval Exercise |
| FALCON STRIKE | | Thailand | Aerial Exercise |
| PLA-Egypt | | Egypt | Maritime Exercise |
| OCEAN | | Russia | Naval Exercise |
| NORTHERN INTERACTION | | Russia | Naval Exercise |
| FORMOSA | September | Brazil, United States, France, Italy, Mexico, Argentina, Nigeria, Pakistan, the Republic of the Congo and South Africa | Ground Exercise |
| SAGARMATHA FRIENDSHIP | | Nepal | Ground Exercise |
| STRIKE | | Thailand | Ground Exercise |
| EXERCISE COOPERATION | | Singapore | Naval Exercise |
| PACIFIC PATROL | October | Russia | Coast Guard Exercise |
| COMMANDO | | Thailand | Counterterrorism Ground Exercise |
| China-Pakistan Counterterrorism Exercise | | Pakistan | Counterterrorism Ground Exercise |
| HEPING GARUDA | December | Indonesia | Naval Exercise |

China Coast Guard Exercises and Operations

Throughout 2024, the PLA improved its coordination with the China Coast Guard during operational activity around Taiwan, leading to increasingly integrated maritime law-enforcement capabilities. Last year, the China Coast Guard averaged 13 entrances into restricted and prohibited waters near Taiwan’s Kinmen and Matsu Islands per week, an increase from 8 entrances a week in 2023. This surge followed Beijing’s February 2024 call to increase patrols after an incident between the Taiwan Coast Guard and a Chinese fishing vessel resulted in the drowning of two Chinese fishermen.

- ▶ The China Coast Guard participated in two iterations of JOINT SWORD alongside the PLA in 2024, a change since it did not participate in the PLA’s Eastern Theater Command-led 2023 JOINT SWORD exercise. During JOINT SWORD 2024A in May 2024, it conducted a law enforcement exercise in the waters surrounding Taiwan’s outer islands—including Kinmen and Matsu—and to the east of Taiwan, demonstrating the China Coast Guard’s increased ability to integrate with PLA operations. During JOINT SWORD 2024B in October, the China Coast Guard participated with an increased number of ships compared to JOINT SWORD 2024A conducting law enforcement drills and encircling Taiwan for the first time. The China Coast Guard also deployed its largest ship operating east of Taiwan. The China Coast Guard contributed to a broader propaganda campaign by releasing a map of its exercise route depicting a heart around Taiwan.
- ▶ In the South China Sea, the China Coast Guard employed a range of increasingly aggressive tactics intended to assert China’s unfounded maritime claims, including unsafe and unprofessional measures such as ramming against South China Sea claimant ships.
 - In June 2024, China passed a regulation that authorizes additional activities intended to further implement the 2021 Maritime Traffic Safety Law governing China Coast Guard activity in the South China Sea. Under the new regulation, the China Coast Guard is authorized to detain foreign vessels and persons accused of illegal activity in “waters under China’s jurisdiction” for up to 60 days without trial. The same month, the China Coast Guard used the newly passed regulation to justify boarding a claimant vessel for the first time.
 - The China Coast Guard expanded its presence and activities in the South China Sea. For example, the China Coast Guard spent 313 days around Luconia Shoals in 2024, compared to 162 days in 2019.
 - During a June 2024 Philippine resupply to its outpost at the Second Thomas Shoal in the Spratly Islands, the China Coast Guard impounded two Philippine rubber boats. The China Coast Guard also periodically deployed the world’s largest coast guard vessel—nicknamed the “monster ship”—to the South China Sea, and periodically turned off its public tracking data, probably to obfuscate its operations as part of China’s pressure campaign against the Philippines surrounding disputed features.
 - China Coast Guard vessels continued aggressive posturing against Philippine vessels in the vicinity of the Spratly Islands, including the alleged ramming of a Philippines vessel by a China Coast Guard vessel in August 2024.

- On 18 September 2024, the China Coast Guard participated in Pacific Patrol-2024 with the Russian coast guard in the Peter the Great Gulf, marking the first time China Coast Guard ships sailed to Vladivostok. This exercise was the first of its kind, and its execution implemented a 2023 memorandum of understanding between the two countries. Following the exercise, the vessels sailed into the high seas of the North Pacific Ocean to conduct a combined patrol.

Developments in the Security Situation in the Taiwan Strait

China's Whole of Government Pressure Against Taiwan in 2024

During 2024, Beijing used its expansive set of tools across the domains of national power, including, but not limited to: diplomatic pressure against targeted audiences and within international forums; information operations against Taiwan and to signal the international community; steady-state military pressure and acute military operations around Taiwan; and sector specific targeted economic coercion. Beijing seeks to unify Taiwan through an approach that uses a blend of positive inducements and targeted pressure short of war, though we have not observed many positive inducements during 2024.

Diplomatic. China uses its global influence to isolate Taipei and create an environment more permissive to its military intimidation of Taiwan. As part of this effort, China uses incentives such as aid, investment, and economic inducements to convince countries to switch their recognition from Taiwan to China, thus decreasing Taiwan's remaining diplomatic allies. In January 2024, the Pacific island of Nauru switched its recognition to China just days after President Lai's election.

Information. Beijing almost certainly considers cognitive domain operations to be a key component of its pressure campaign against Taiwan, intended to weaken Taiwan's will to resist and heighten social divisions in the country. Beijing uses the information space to spread political narratives, influence the Taiwan populace, and emphasize PLA activity around Taiwan. In May and October 2024, China exploited the timing of military exercises around Taiwan to combine official accounts and proxy accounts impersonating Taiwan citizens to exaggerate the PLA's capabilities and spread disinformation narratives about U.S.-Japan unwillingness to aid Taiwan's defense. In 2024, Beijing expanded its 2021 Coast Guard law to empower the Chinese Coast Guard to detain ships and personnel trespassing in claimed waters.

Military. The PLA's pressure around Taiwan can be placed in three categories: daily activity around the island, near weekly joint combat patrols, and response exercises conducted during periods of heightened political tension. In 2024, the PLA increased the number of entrances into Taiwan's air defense identification zone to 3,067 incursions from 1,641 in 2023, according to Taiwan Ministry of National Defense (MND) data. In 2024, PLA conducted 38 total joint combat readiness patrols, a near-weekly surge of air and naval activity around Taiwan. Additionally, in 2024 the PLA conducted two largescale shows of force through named exercises in response to perceived provocations. These exercises—JOINT SWORD-2024A and JOINT SWORD-2024B—were conducted in response to President Lai's inauguration in May 2024 and his National Day speech on 10 October 2024, respectively. During both exercises, the PLA conducted simulated joint blockade operations around Taiwan, including the China Coast Guard publicly highlighting an encirclement of Taiwan during the second iteration.

Economic. China regularly uses economic pressure to influence Taiwan and signal displeasure with U.S.-Taiwan relations and Taiwan's government. In January 2024, after Taiwan's presidential election, China's state media emphasized that a deterioration in cross-strait relations would negatively impact Taiwan's economy. In May 2024 China levied tariffs against Taiwan on 134 products, likely to signal displeasure with President Lai's administration.

China's Military Options to Force Unification with Taiwan

As of 2024, China's leaders probably view the PLA's capabilities for a Taiwan campaign as improving but remain unsure of the PLA's readiness to successfully seize Taiwan while countering U.S. involvement. Beijing is continuing to refine plans for several military options to unify Taiwan by force. During the past year, the PLA conducted operations that exercised essential components of these options, including exercises that focused on blockading key ports, striking sea and land targets, and countering potential U.S. military involvement in a conflict. Outlined below are four military options that Beijing is likely considering, should China's senior leaders determine that military action is necessary.

- ▶ **Coercion Short of War.** Beijing probably is considering options to try to induce unification that combine escalating military pressure with other elements of national power to force Taipei's capitulation. China could employ a range of disruptive, punitive, and lethal military actions in a limited campaign against Taiwan, coordinated with economic, informational, and diplomatic pressure. Such a campaign could involve cyberattacks, electronic attacks, or conventional strikes against Taiwan's political, military, and communications infrastructure to instill fear and degrade public confidence in Taiwan's ability to defend itself. The objective of this campaign would be to pressure Taiwan's government into negotiating unification on Beijing's terms. Beijing probably views this approach as less costly than a conventional military campaign to seize the island. However, success of such a campaign would be highly dependent on Taiwan's resilience and will to resist China's coercion as well as external support from the United States and others. Such a strategy also lacks the decisiveness of a direct military campaign and thus poses serious downsides for Beijing.
- ▶ **Joint Firepower Strike Campaign.** China 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, decapitate its military and political leadership, or undermine the public's resolve to resist. In a joint firepower strike campaign, the PLA would likely employ organic ISR capabilities to provide battle damage assessment supporting long-range fires but probably will struggle with performing this action in a time-sensitive manner to enable re-attack recommendations due to the complex intra-service coordination required for such actions. Although the PLA has exercised joint operations, a joint firepower strike campaign requires close coordination between PLA services and operations groups, which the PLA probably will face challenges in effective coordination for multiservice strikes.
- ▶ **Joint Blockade Campaign.** China could employ blockades of maritime and air traffic, cutting-off vital imports to compel Taiwan's capitulation. The PLA probably would posture air and naval forces to conduct weeks or months of blockade operations while conducting missile strikes and possible seizures of Taiwan's offshore islands in an attempt to compel Taiwan to negotiate or surrender. China probably would conduct concurrent electronic warfare, network

attacks, and information operations to further isolate and degrade the island and to control the international narrative of the conflict.

- **Joint Island Landing Campaign (JILC).** An amphibious invasion of Taiwan would involve a highly complex three-dimensional assault on Taiwan, involving multiple carefully coordinated operations. The objectives would be to break through Taiwan's shore defenses and establish a beachhead that allowed the PLA to build up enough combat power to seize key targets or territory to force unification. A large-scale amphibious invasion would be one of the most complicated and difficult military operations for the PLA, requiring it to achieve and maintain air and maritime superiority and rapidly buildup and sustain its forces. Such an approach would carry both enormous risks for China as well as providing the most decisive potential option for forcing unification on Taiwan. While Beijing might prefer less dramatic options, it is preparing for a JILC and could determine that it is its only prudent option for compelling unification. We lack information about whether Beijing has determined the viability of other unification options, and the decisiveness of a JILC will probably make it an increasingly more appealing option as the decision space for other options is constrained.

Across all courses of action, China probably will face some challenges employing cyber capabilities, due to the PLA's lack of combat experience and integration of cyber into joint combat operations. The PLA's cyber and other non-kinetic warfare forces probably are still contending with organizational challenges following the dissolution of the SSF in 2024 and the establishment of the Information Support Force, Cyberspace Force, and Aerospace Force as PLA support arms (alongside the Joint Logistics Support Force).

The PLA's Current Posture for a Taiwan Conflict

In 2024, the PLA continued to refine its posture, improving joint combat proficiency and readiness to conduct military options against Taiwan. The PLA's current posture in the Eastern Theater Command—the command responsible for operations against Taiwan – allows the PLA to challenge Taiwan in the air, land sea, space and information domains with minimal warning. The services below conduct annual training and exercises to improve the PLA's overall joint capabilities. The PLA's pressure operations around Taiwan also provide the PLA, specifically the PLAN and PLAAF, with frequent training opportunities around the island under near-real world conditions.

PLA Ground Forces. Over the last few years, PLA ground force posture has steadily improved in the Eastern Theater Command, providing enhanced firepower, mobility, and rapid strike capabilities. Modernization and refinements to amphibious assault capabilities continues to indicate that a Taiwan invasion scenario remains a top consideration for the PLA. Major ground force contributions to a Taiwan invasion scenario include units responsible for air assault, airborne, amphibious, and urban operations.

Ground forces critical to an invasion of Taiwan likely would come from the PLAA's amphibious combined armed brigades, PLAN Marine Corps maneuver brigades, and the PLAAF Airborne Corps. The PLAA fields six amphibious combined arms brigades—four in the Eastern Theater Command and two in the Southern Theater Command. The PLAN Marine Corps has eight maneuver brigades total, but the two in the Eastern and two in the Southern Theater Command would participate in an invasion in Taiwan. The PLAAF Airborne Corps, based in the Central Theater Command, fields six airborne

combined-arms brigades, three light motorized brigades, two mechanized brigades, and one air-assault brigade.

In 2024, the PLA continued amphibious assault and airborne training, sometimes with joint service counterparts. Training events have refined activities such as beach assault, fire support, logistics coordination, long-distance transport, sea area familiarization, and rapid loading and offloading of amphibious equipment. The PLA continues to use air and ground unmanned systems that can support combat objectives during an amphibious assault or urban operations. The PLA conducts training at increasingly realistic, large-scale sites that simulate environments on Taiwan where the PLA would be expected to operate.

PLA Navy (PLAN). In 2024, China continued to modernize the PLAN with the goal of achieving sea superiority during a conflict over Taiwan. The PLAN maintains a large reserve of operationally ready ships, which will enable it to expand its persistent patrol presence and surge forces during crises and war. In 2024, the PLAN was able to deploy an aircraft carrier task group to the east of Taiwan during JOINT SWORD-2024B that simulated a blockade of the island, presenting a challenge to potential third-party access during a conflict. The PLAN also trained in realistic joint combat exercises that tested readiness and proficiency to conduct antisubmarine warfare, blockade, search and rescue, area denial, and strike operations, areas the PLAN probably is seeking to improve upon.

There is no indication the PLAN is significantly expanding its number of tank landing ships and medium sized landing craft, despite almost certainly not having the conventional air and maritime lift capacity to conduct a large-scale amphibious assault on Taiwan. The PLAN continues to train with civilian roll-on/roll-off commercial vessels, which may indicate that the PLAN is seeking to mitigate this shortfall by incorporating dual-use civilian lift vessels.

PLA Air Force (PLAAF). In 2024, the PLAAF maintained a ready force posture for a variety of capabilities necessary for a Taiwan contingency. This posture allowed the PLAAF to maintain a near-constant presence around Taiwan and surge a large number of sorties across the Taiwan Strait centerline. The JOINT SWORD exercises also demonstrated that the PLAAF has 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. The PLAAF's more advanced aircraft, such as the J-16 and J-20, presents the PLA with a growing inventory and standoff capability, which probably will challenge U.S. or allied forces in a conflict. China's integration of support aircraft, such as the KJ-500 airborne and early warning aircraft, provides the PLAAF with improved ISR capability to support PLA operations, as demonstrated during surge operations near Taiwan.

PLA Rocket Force (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, and break the Taiwan public's will to fight. This activity would occur in addition to PLARF's mission to deter or defeat third-party military involvement. In 2024, the PLARF was active during JOINT SWORD 2024 exercises, conducting simulated strikes in both exercises. During JOINT SWORD 2024B, an Eastern Theater PLARF UAS unit provided ISR support for the first time during an exercise targeted at Taiwan.

Cyberspace Force. The Cyberspace Force is responsible for overseeing PLA cyber operations and information warfare, and it has taken a more prominent role since the dissolution of the Strategic Support Force. PLA doctrinal writings emphasize the importance of the cyberspace domain in joint

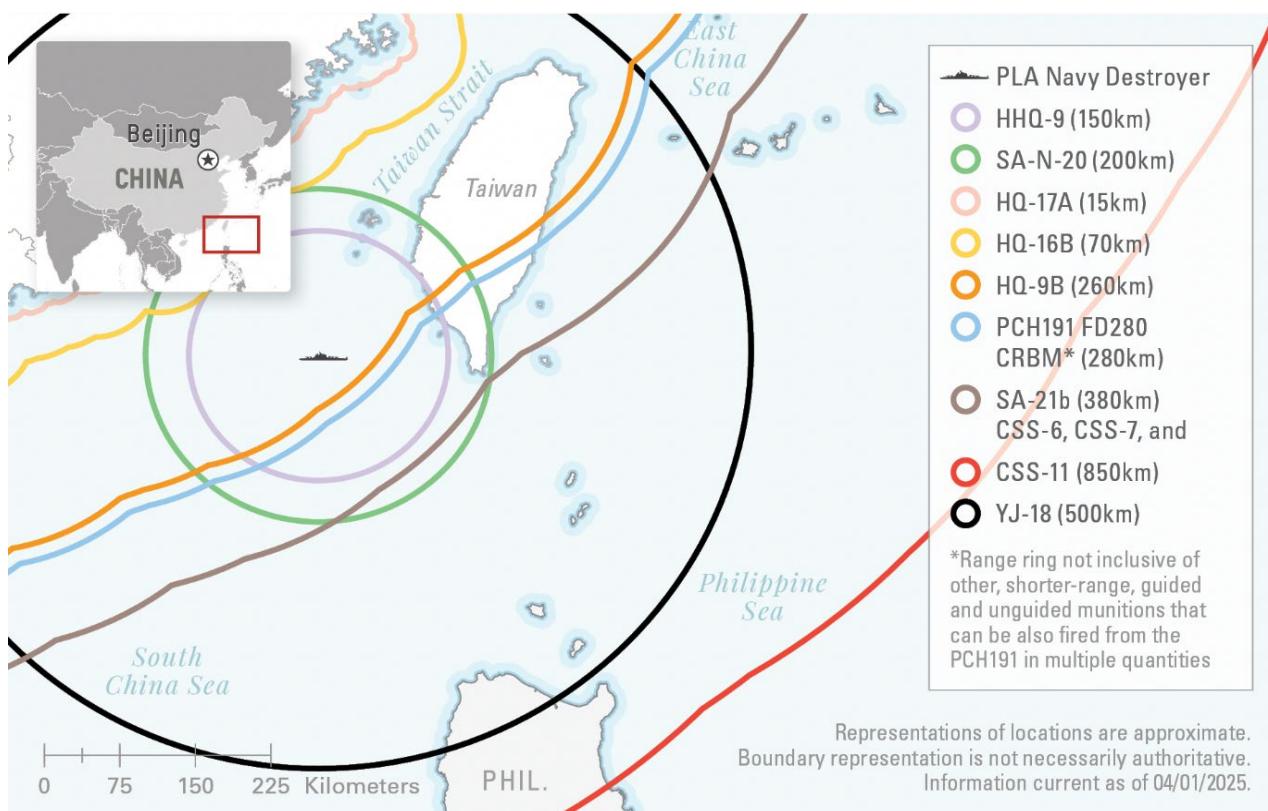
operations, asserting that the Cyberspace Force would be responsible for cyberspace operations during a Taiwan contingency to seize and maintain information dominance. During JOINT SWORD-2024B, China reportedly utilized cyber operations though did not penetrate or compromise the Taiwan military's internet systems.

Aerospace Force. The Aerospace Force is responsible for PLA's space situational awareness. Following the 2024 dissolution of the SSF, the Aerospace Force took a more prominent role to improve PLA capabilities to track foreign space objects and missile early warning in support for PLA joint operations. The Aerospace Force has access to Long Phased Radar Array capabilities, which enable tracking ballistic missiles and other high-flying objects, including satellites in low-Earth orbit. Additionally, the Aerospace Force is responsible for broader support to the majority of China's national satellites, including PLA satellites.

Information Support Force. Following the 2024 dissolution of the SSF, the Information Support Force became responsible for strategic information and communications support to the PLA, centralizing technical intelligence collection and management and providing strategic intelligence support to theater commands involved in a Taiwan contingency. In April 2024, Xi Jinping attended the ceremony establishing the Information Support Force and emphasized that it was critical for integrating network-centric warfare into joint operations. The Information Support Force will also closely collaborate with Aerospace Force and Cyberspace Force to integrate electronic warfare and information operations, as well as space and counterspace operations.

Joint Logistics Support Force. The Joint Logistics Support Force's primary goal is to provide joint logistics support to the PLA's strategic and campaign-level operations by conducting command and control of joint logistics, delivering materiel, and overseeing various support mechanisms. The Joint Logistics Support Force participates in joint exercises to develop the capability to meet general supply, fuel, ammunition, transportation, and medical PLA logistics requirements, which will be critical in a conflict over Taiwan.

PLA CRBM, SRBM, AND SAM Coverage Over the Taiwan Strait



The PLA's Operational Activity Around Taiwan in 2024

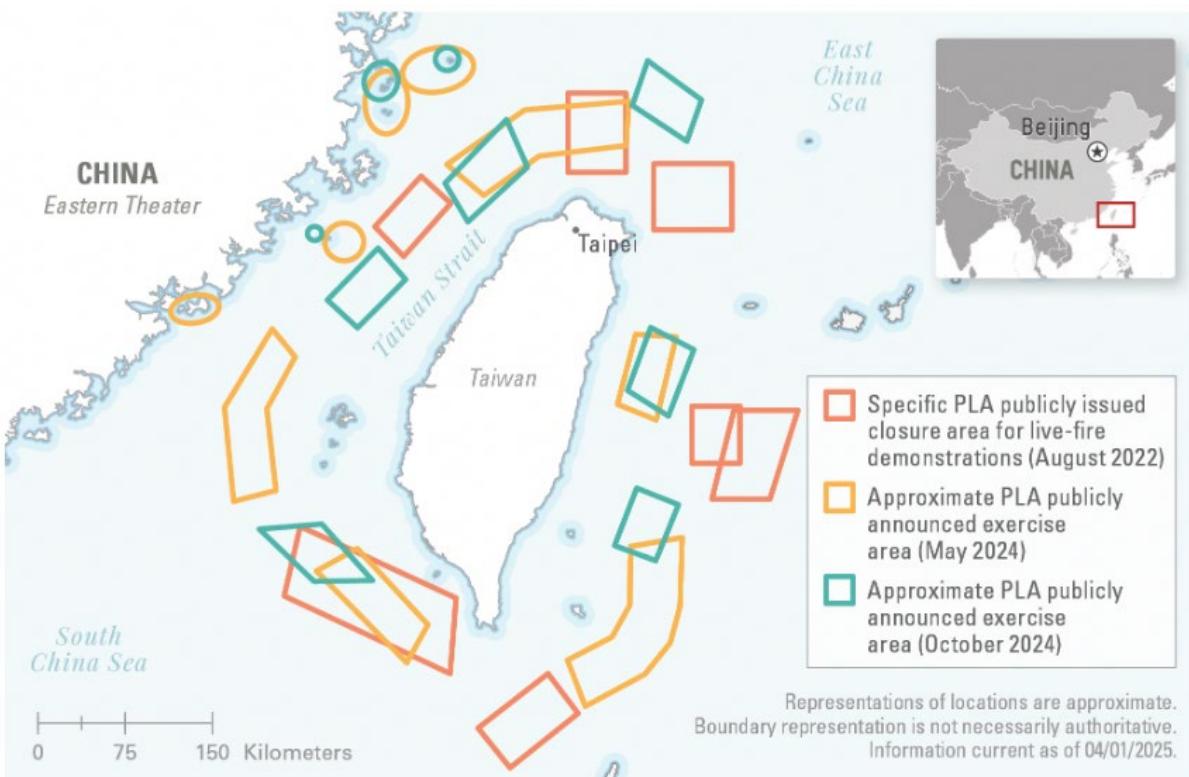
Throughout 2024, the PLA increased its baseline air and naval presence around Taiwan, and it continues to erode Taiwan's ability to enforce its air defense identification zone (ADIZ). China continued to cross the Taiwan Strait centerline—an unofficial delimitation between China and Taiwan in the Taiwan Strait created in the late 1950s that was honored by China until 2019—with increasing frequency. This growing presence has enabled routine PLA operational surges with minimal preparation in the forms of joint patrols or operations that are publicly-announced as joint blockade exercises. In addition, China's operational activity around Taiwan in 2024 has increasingly integrated maritime law-enforcement capabilities through improved coordination with the China Coast Guard.

PLA aircraft sorties and naval and maritime law enforcement patrols operated near Taiwan increased in 2024 from the previous year. As of late November 2024, approximately 2,771 PLA aircraft had been detected in Taiwan's air defense identification zone for 2024, an increase from around 1,703 for all of 2023, paralleling an increase in centerline crossings. As of early September 2024, the PLAN routinely deployed 5-9 vessels around Taiwan, more than in 2023. Additionally, China Coast Guard presence in restricted and prohibited waters near Taiwan's Kinmen and Matsu Islands increased following Beijing's February 2024 call to increase patrols after an accident between Taiwan and Chinese vessels. In 2024, the China Coast Guard averaged 13 entrances into these waters per week, an increase from 8 entrances a week in 2023.

In 2024, the PLA conducted 38 total joint patrols that surged naval and air forces near Taiwan. China's statements have indicated these near-weekly patrols assess the PLA Air Force and Navy's interoperability for activities around Taiwan. A prominent example was the January 2024 patrol following the Taiwan election of Lai Ching-te, where joint air and naval forces conducted small-scale military maneuvers around Taiwan, during which 11 aircraft crossed the Taiwan Strait centerline. In 2024, three joint patrols circumnavigated all of Taiwan, a trend continuing into 2025. During these patrols, the PLA may have used medium altitude long-endurance BZK-005 and TB-001 UAVs to fly reconnaissance missions around the island.

China continues to normalize the use of military exercises to respond to perceived provocative activities on Taiwan. Last year, in response to speeches made by Taiwan President Lai Ching-te, the PLA conducted two named military exercises in which it surged Eastern Theater Command air and naval forces to simulate a blockade of Taiwan's key ports and naval bases. These exercises, May 2024's JOINT SWORD-2024A and October 2024's JOINT SWORD-2024B, were conducted in response to President Lai's inauguration speech and National Day speech, respectively. Notably 2024's JOINT SWORD A and B exercises integrated the China Coast Guard into its PLA activity, an advancement from 2023's JOINT SWORD exercise. Additionally, JOINT SWORD-2024B recorded the most single-day PLA aircraft crossing the Taiwan Strait centerline (111) and PLA vessels around Taiwan (34).

PLA Operational Areas around Taiwan in 2024



Developments in Taiwan's Ability to Deter China and Defend Against Invasion

China's forceful response to then-U.S. Speaker of the House's Congressional Delegation (CODEL) to Taiwan in August 2022 increased the urgency with which Taiwan is pursuing defense reforms, which continued throughout 2023 and 2024. In 2024, the JOINT SWORD series of military exercises further tested the Taiwan Air Force, Coast Guard, and Navy capability to respond to large scale coercive activity in the Taiwan Strait, indicating that Taiwan must make key investments to contend with the growing capability and capacity of the PLA.

Major PLA Exercises around Taiwan in 2024

PLA training and exercises increasingly focus on preparing for contingencies in the Taiwan Strait while simultaneously delaying or denying third-party involvement. During 2024, the PLA conducted joint land, air, and sea exercises and training events around Taiwan to combat readiness. JOINT SWORD 2024A and JOINT SWORD 2024B exercised joint capabilities to seize maritime and air superiority, blockade key ports, and launch precision strikes against targets on Taiwan. Both exercises involved Eastern Theater Command-led army, navy, air force, and rocket force units, and the Northern Theater Command's Liaoning aircraft carrier participated in JOINT SWORD-2024B. Additionally, the China Coast Guard participated in both exercises by operating around Taiwan and near its outlying islands, demonstrating the China Coast Guard's increasing ability to conduct integrated operations with the PLA during a potential blockade campaign. JOINT SWORD-2024B was the first time China Coast Guard ships encircled Taiwan. In December 2024, Beijing surged PLAN and China Coast Guard ships around Taiwan and outside the First Island Chain, shortly after President Lai's transit through the United States, but did not publicize an exercise similar to 2024's two JOINT SWORD iterations. The PLA reserved seven airspace zones along China's eastern coast near Fujian and Zhejiang Provinces and probably drilled for a blockade east of Taiwan and simulated strikes on foreign ships with forces from the Eastern Theater Command, Northern Theater Command, and Southern Theater Command.

In 2024, President Lai created a national Whole-of-Society Defense Resilience (WoSDR) Committee to prepare the nation for both natural disasters and military threats, particularly from China. The WoSDR Committee integrates government agencies, non-governmental organizations, and corporations in order to build Taiwan's ability to withstand a crisis or conflict. The WoSDR strategy focuses on five key pillars: civilian training, stockpiling critical materials, securing infrastructure, bolstering medical and evacuation systems, and protecting communication and financial networks. The Lai administration has set a goal to train 400,000 citizens to contribute to societal resilience. By combining active military defense with a trained, cohesive civilian effort, Taiwan seeks to raise the costs of invasion for China, and deter aggression.

The Taiwan military comprises four main services—the Taiwan Army, Taiwan Navy, Taiwan Air Force, and Information Communication and Electronic Force (ICEF)—with approximately 170,000

active-duty personnel and 1.5 million reserve personnel across all services. In 2024, the Taiwan Ministry of National Defense began implementing a “military force realignment,” extending the duration of mandatory military conscription from four months to one year for a portion of Taiwan’s conscripts. The Taiwan military drafted approximately 6,900 eligible conscripts in 2024. Taiwan conscripts will receive more extensive training than their predecessors, including combat instruction and use of weapons such as Stinger anti-aircraft missiles and anti-tank missiles.

In 2024, the Taiwan defense budget constituted 2.5% of the island’s GDP. Taiwan is almost solely reliant on the United States for defense procurements and is prioritizing domestic defense industrial base to expand its defense procurement options. The National Chung Shan Institute of Science and Technology (NCSIST) is Taiwan’s primary arms manufacturer, focusing on the production of a variety of missiles. Developments beyond the scope of this report indicate the likelihood of increased defense spending and targeted investments that can complicate PLA plans.

Developments in the Security Situation in the South China Sea

The South China Sea plays an important role in security considerations across the Asia-Pacific region because of the region’s reliance on the flow of oil and commerce through South China Sea shipping lanes, including more than 80% of the oil to China, Japan, South Korea, and Taiwan. Claimants also rely heavily on the region for fishing activity for its population. Of the total goods shipped worldwide in 2022, 64% moved through the South China Sea. China maintains broad assertions of territorial sovereignty in the South China Sea and expansive maritime claims that lack foundation in international law, including an ambiguous claim to historic rights within a “dashed line” circumscribing the vast majority of the South China Sea. These claims extend over the Spratly and Paracel Islands and other land features, territorial sovereignty over which is disputed in whole or part by Brunei, Malaysia, the Philippines, Taiwan, and Vietnam. China’s excessive maritime claims pertain to maritime zones in which there may be oil and gas reserves of significant strategic interest to China as well as the other South China Sea claimants. In 2016, a unanimous Arbitral Tribunal constituted under the 1982 Law of the Sea Convention sided with the Philippines in an arbitral claim it brought against China, rejecting China’s “dashed line” and the associated claim to historic rights in the South China Sea as having no basis in international law. The arbitral decision is final and legally binding with respect to China and the Philippines, and is broadly consistent with the U.S. position on China’s maritime claims in the South China Sea.

Low Intensity Conflict and Coercion

In 2024, China continued to selectively employ its military and paramilitary forces to deter and respond to claimant activity near disputed features in the South China Sea, relying on a significant maritime force advantage to intimidate other regional actors. Beijing takes a more assertive military approach to those South China Sea claimants who take a more direct approach to challenging its coercive activity in the region. The China Coast Guard and China Maritime Militia, with PLAN providing overwatch, lead the tactical response to claimant activity at disputed claims in the First Island Chain, employing a range of increasingly aggressive tactics intended to assert China’s maritime claims while avoiding armed conflict. The tactics ranged from shadowing to unsafe and unprofessional measures such as water cannoning, ramming, and boarding against South China Sea claimant ships. In addition to its

overwhelming maritime presence, the PLA has also increased its aggressive air operations near South China Sea features over which there are contested claims, including offensive aerial patrols and air intercepts of claimant aircraft near disputed features.

- **Use of Lawfare.** China leverages its own domestic law and complex and largely baseless arguments regarding international law to attempt to assert its sweeping claims to sovereignty and maritime rights in the South China Sea and justify China Coast Guard and PLAN actions aimed at deterring other South China Sea claimant countries from exercising sovereign rights (where established under the Law of the Sea Convention) or freedom of navigation in waters surrounding disputed features. In June 2024, China passed a regulation that appears to implement the 2021 Maritime Traffic Safety Law governing China Coast Guard activity in the South China Sea. The new regulation authorizes the China Coast Guard to detain foreign vessels and persons accused of illegal activity in “waters under China’s jurisdiction” for up to 60 days. The regulation defies the findings of the 2016 Arbitral Tribunal and provides a purported legal pretext for China to enforce its baseless maritime claims in the South China Sea through the exercise of law enforcement jurisdiction.

Philippines. The Philippines is a significant focal point for China in the South China Sea due to conflicting claims across disputed features in the Philippines’ Exclusive Economic Zone (EEZ), and Manila’s alliance with the United States. China applies a mixture of diplomatic pressure and coercive maritime tactics aimed at deterring the Philippines from deepening ties with the United States, asserting its sovereignty claims to disputed features, and exercising its sovereign rights and jurisdiction in the South China Sea.

In June 2024, China escalated tactics employed against Philippine resupply missions to the grounded BRP Sierra Madre at Second Thomas Shoal, boarding a Philippine inflatable watercraft for the first time. The boarding led to injuries to the Philippine crew, including one Filipino sailor losing a thumb. Following this event, the two sides reached a provisional agreement in July 2024, which deescalated confrontation during resupplies to Second Thomas Shoal through 2024. De-escalation at Second Thomas Shoal did not apply more broadly across the bilateral relationship. In September 2024, the China Coast Guard employed aggressive tactics against the Philippines at contested Sabina Shoal, leading to a Philippine Coast Guard ship having to depart from Sabina Shoal due to a lack of provisions and damage from China Coast Guard ramming. Additionally, China escalated its response to Philippine fishing ships at Scarborough Reef where it maintains a persistent military and paramilitary force. The China Coast Guard and maritime militia conducted coercive activity, including the water cannoning and ramming of Philippine ships in response to the passage of Manila’s new Maritime Zones Act, which reasserted Philippine claims over the reef.

In the last year, the PLA has also conducted unprofessional air intercepts against the Philippines in an effort to assert its claim over the Scarborough Reef, including PLA fighter jets deploying multiple flares at a Philippine Bureau of Fisheries and Aquatic Resources plane, coming as close as 15 meters.

Vietnam. China views Vietnam as an important diplomatic and economic partner in the region and so seeks to compartmentalize South China Sea disputes. During an August 2024 visit to Vietnam, President Xi Jinping touted both countries’ party-to-party connections and reiterated Beijing’s prioritization of Hanoi as important to Beijing’s regional diplomacy. Despite President Xi Jinping’s calls for “better management and resolution of differences,” in September 2024 a Chinese law enforcement ship boarded a Vietnamese fishing boat within Vietnam’s EEZ, injuring the fishermen and confiscating

their property. Additionally, following Vietnam's announcement of a new straight baseline reaffirming maritime claims in the Gulf of Tonkin, the PLA conducted a live-fire exercise in the Gulf, likely to assert its claims in the region.

Malaysia. China prefers to balance its relationship with Malaysia through high-level diplomatic and economic engagements to redirect attention from its maritime activities in Malaysia's EEZ. China regularly hosts cultural exchanges with Malaysian counterparts to promote cooperation. Malaysia's less assertive approach to challenging Beijing in the South China Sea has allowed China to advance its claimant interests without employing aggressive paramilitary or military actions similar to those used against the Philippines or, to a lesser extent, Vietnam. Despite a more diplomatic approach to Malaysia, Beijing demanded Malaysia stop conducting oil and gas exploration in certain areas inside Malaysia's EEZ, and at Luconia Reef, which falls within China's dashed line claim.

Brunei. China views Brunei as the least militarily capable of the South China Sea claimant countries, and Beijing's approach to Brunei mostly consists of diplomatic engagements, leveraging China's economic investments and bilateral talks to keep claims subdued. Maritime features such as Bombay Castle, Louisa Reef, Owen Shoal, and Rifleman Bank all fall within Brunei's EEZ; however, Brunei claims only Louisa Reef, located on its continental shelf. Louisa Reef is also claimed by China and Vietnam. Brunei is the only claimant that does not occupy any contested feature in the region.

China's Infrastructure Building and Land Reclamation Activity

In the last decade, China has bolstered its occupied outposts in the South China Sea with deployment of air, maritime, and ground-based capabilities to support and sustain its military and paramilitary operations in the region. China has stated these projects are mainly intended to improve marine research, safety of navigation, and the living and working conditions of personnel stationed on the outposts. However, the outposts provide China with airfields, berthing areas, and resupply facilities to enable China to maintain a more flexible and persistent military and paramilitary presence in the area. Throughout 2024, China regularly used its outposts to support regional air patrols and naval and coast guard operations against rival claimants. This improves China's ability to detect and challenge activities by rival South China Sea claimants or third parties and widens the range of response options available to Beijing.

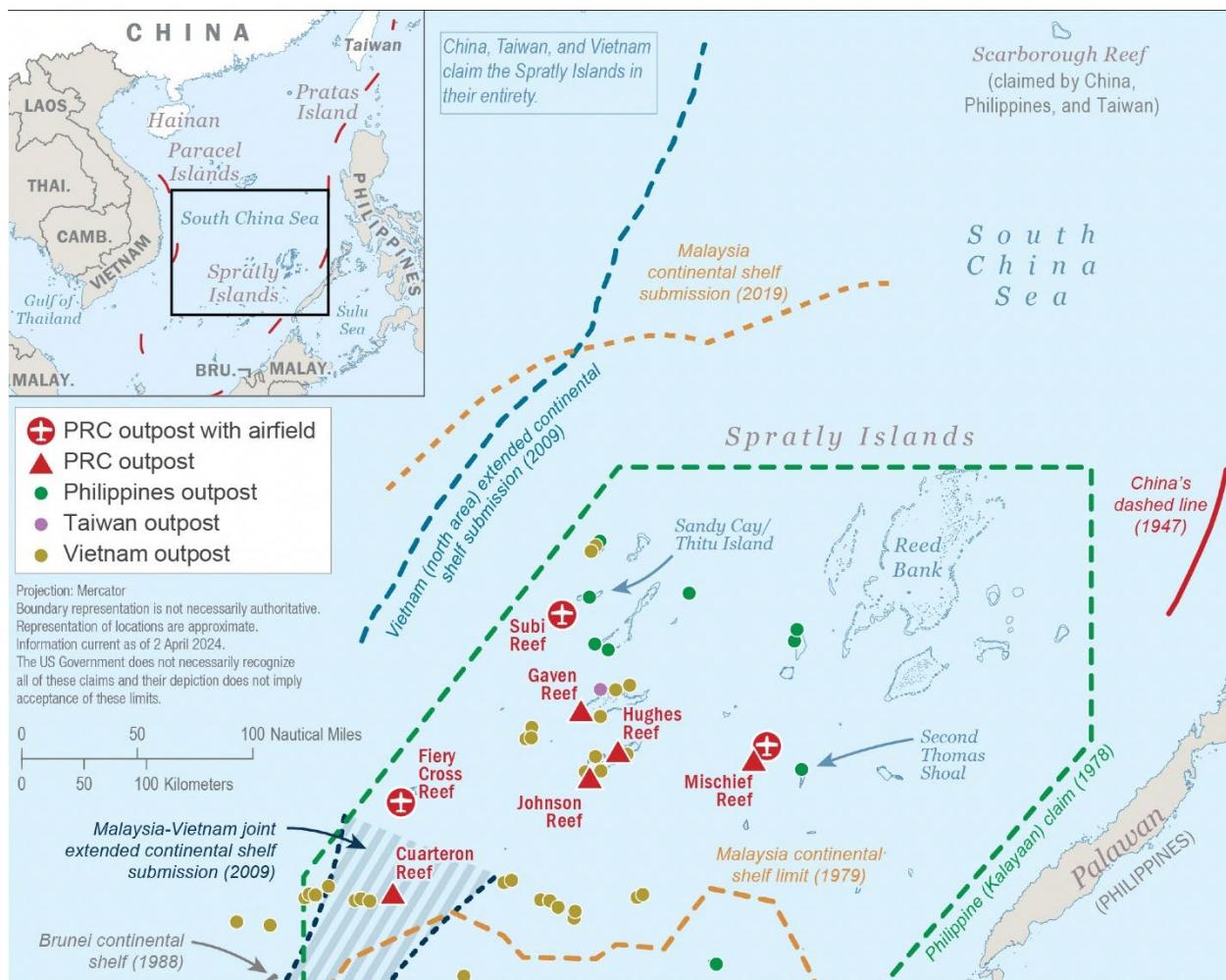
- ▶ **Spratly Islands.** China maintains seven outposts in the Spratly Islands and, as of 2024, has more than 3,200 acres of land across these features to enable its military posture. As a result, China has furthered the militarization of the South China Sea, deploying anti-ship and anti-aircraft missile systems, laser and jamming equipment, and airfield infrastructure at its three most developed bases, Fiery Cross Reef, Subi Reef, and Mischief Reef. The bases in the Spratly Islands significantly diminish the average time it takes PLA ships or aircraft to respond to events in the Spratly Islands and has allowed for persistent military and paramilitary patrols of the Islands by China's forces. In 2024, China continued to leverage Mischief Reef to support PLAN, China Coast Guard, and China Maritime Militia responses to Philippine resupply missions at Second Thomas and Sabina Shoals and support its persistent maritime patrols.

- **Paracel Islands.** In 2024, the PLA upgraded its outpost on Triton Island with a new counter-stealth radar system, expanding surveillance capabilities in the region. The PLA has built similar systems at its in Subi Reef outpost, and on Hainan Island. With the completion of this radar infrastructure, the PLA's Triton Island outpost, which is 135 nautical miles east of Vietnam, will improve its ability to detect air activity and improve its early warning of Vietnamese efforts to access oil and gas deposits in the region.

As of late 2024, the Philippines has expressed concern that China will attempt to conduct covert land-reclamation activities in the South China Sea. In early 2024, the Philippines discovered mounds of dead and crushed coral that had been dumped on Sabina Shoal's underwater sandbars, and claimed this was the result of China's land-reclamation activities. In April, the Philippine Coast Guard deployed one of its largest ships to Sabina Shoal to monitor the area and deter any Chinese land-reclamation efforts. The ship returned to port in September, due to depleted supplies, following ramming incidents with the China Coast Guard and months of pressure from Beijing.

Beijing recently has spoken out against other claimants' land-reclamation activities in the South China Sea, including against Vietnam in early 2025. Vietnam's land reclamation has expanded the size of its disputed Barque Canada Reef, located in the Spratly Islands, by more than 10 times from its previous size since 2022; construction included dredging a channel wide enough to berth large vessels, such as warships.

Outposts in the Spratly Islands and Select Disputed Features



Developments in Overseas Basing and Logistics Infrastructure

China seeks to establish sites as part of a global logistics and basing network to allow the PLA to project and sustain military power at greater distances. China's leaders probably accept varied levels of access to meet the PLA's overseas military logistics needs— including bases with garrisoned forces, host-nation shared facilities, exclusive PLA logistics facilities collocated with commercial infrastructure, or ad-hoc access to commercial infrastructure abroad. The purpose and operations performed at each facility are likely to be determined based on host-nation agreements and each location's utility rather than the actual title of the facility.

- **Djibouti.** As of 2024, the PLA Support Base in Djibouti has had minimal participation in the protection of China's citizens or investments, the publicly stated purpose of the base. To date, the support base has not supported noncombatant evacuations and has not provided support to the ongoing Red Sea crisis. Instead, the facility has enabled persistent PLA regional presence under the auspices of support to counter-piracy, and increasingly supports regional military diplomacy.

- **Cambodia.** In April 2025, the Cambodian Prime Minister and a PLA delegation inaugurated the **Joint Logistics and Training Center** at Ream Naval Base in Cambodia. China's Ministry of National Defense insists that the center is to support joint operations in areas like counterterrorism, disaster prevention, humanitarian assistance, and training. Cambodia and China deny that China will have the ability to station PLA forces at the facility, although Phnom Penh and Beijing acknowledge that both nations will maintain essential personnel for the training center's operations. Preceding the official opening at Ream, the PLA continuously stationed two naval combatants—rotated a total of three times—at the facility's pier.

The PLA is actively considering and planning for additional military facilities to support naval and air projection with associated ground security forces. In March 2025, Gabonese President Brice Oligui Nguema confirmed China's interest in a base in the Gulf of Guinea, alleging PLA basing in Gabon was discussed with President Xi in 2024.

China has likely also considered basing in Angola, Bangladesh, Burma, Cuba, Equatorial Guinea, Indonesia, Kenya, Mozambique, Namibia, Nigeria, Pakistan, Papua New Guinea, Seychelles, Solomon Islands, Sri Lanka, Tajikistan, Thailand, Tanzania, United Arab Emirates, and Vanuatu. The PLA is probably most interested in military access along the sea lines of communication in the Malacca Strait, the Strait of Hormuz, and other areas in Africa and the Middle East.

Counterintelligence and security risks of China's overseas investments

PLA academics suggest that a military logistics network could enable intelligence monitoring of the U.S. military. Intelligence collection from PLA facilities would likely be passive and difficult for host nations to detect. This intelligence collection would support broader PLA situational awareness of U.S., allied, and partner activities.

Developments in Overseas Command and Control Structure

China has not yet developed a systematic overseas command and control structure. Since the 2015 reforms, different departments within the CMC have managed overseas activities, including military logistics facilities, UN peacekeeping operations, and bilateral exercises. Critical organizations involved likely include the CMC Joint Staff Department Overseas Operations Office and CMC Logistic Support Department, in conjunction with service headquarters.

Identified Locations of PLA Interest



China'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 and other countries when considering hosting a PLA facility.

Overseas Influence Operations

China's influence operations almost certainly seek to both preempt perceived U.S. efforts to use strategic alliances and partnerships to contain China's geopolitical ascendency and to induce U.S. security partners to realign with China. To achieve these objectives, Beijing directs the PLA, its intelligence services, the foreign ministry, state media and its network of non-state actors to discredit perceived

anti-China political and civil society officials and organizations, shape overseas public opinion in favor of its interests, and police the overseas Chinese diaspora.

Beijing's messaging to undermine U.S. strategic partnerships seeks to cast Washington as an unreliable, hegemonic aggressor seeking to exploit its allies and partners to advance competition with Beijing. Meanwhile, it portrays itself as a stable and responsible global power pursuing mutually beneficial cooperation with overseas partners. Beijing's messaging is regionally tailored, simultaneously presenting itself to global south audiences as a post-colonial partner against American hegemony and a status quo beneficiary and stakeholder in the international system to European interlocutors.

China's Global Influence Tactics, Techniques, and Procedures

Since late-2023, Beijing's influence efforts to undermine U.S. partnerships have included diplomatic messaging efforts in foreign countries; influence operations conducted by China's intelligence services; intimidation through military exercises; and online information operations.

Diplomatic Messaging

Throughout 2024, China's defense and foreign affairs officials publicly condemned U.S. missile system deployments to the Philippines as regionally destabilizing and reminiscent of the Cold War in an effort to have the system withdrawn. At the 2024 Munich Security Conference, China's Foreign Minister Wang Yi called China a consistent and responsible partner for Europe, in contrast to Washington.

Intelligence Service Influence Operations

As of early 2024, China's intelligence services almost certainly had used cooperative members of European parties to acquire sensitive political information and to coordinate influence activities to advance pro-Chinese and anti-transatlantic narratives across Europe. Since at least late 2023, a Chinese intelligence officer had coordinated influence efforts with a former Belgian senator to use members of the European parliament for the explicit purpose of advancing anti-U.S. narratives and degrading U.S.-European relationships.

Military Exercises

During the May and October 2024 JOINT SWORD Exercises, China-based social media accounts impersonated Taiwan officials to spread disinformation, and UAVs dropped leaflets on Taiwan's Kinmen Island warning against resistance, probably to undermine trust in Taiwan security forces and Washington's commitment to Taiwan's defense. The China Coast Guard also released a viral propaganda image of a red heart circling Taiwan and accompanying text referencing a popular Taiwanese television show on the same day the China Coast Guard encircled Taiwan probably as an oblique threat to the Taiwan public.

Information Operations

As of January 2025, the online influence operation Spamouflage, with links to China's Ministry of Public Security, almost certainly had used inauthentic social media accounts to disseminate content, including AI-generated content, to undermine perceived anti-China organizations in Europe, sow

distrust between the United States and Japan, and advance support for Beijing's South China Sea claims in the Philippines. In August 2024, Spamouflage social media accounts sought to amplify a deepfake video of Philippines President Ferdinand Marcos Jr. talking illicit drugs to undermine his political support, almost certainly in response to his defiant and aggressive efforts to advance Philippines' claims in the South China Sea.

In 2024, Chinese public relations firms almost certainly were conducting online activities to undermine European perceptions of the United States, including posing as independent online outlets to share disinformation across Europe that the United States was conducting illegal human experiments. Earlier in November 2023, two Chinese public relations firms were discovered creating websites that impersonated authentic Korean news outlets to spread propaganda decrying South Korea's security partnership with the United States and its participation in the U.S.-led Summit for Democracy.



CHAPTER 4 : DEFENSE SPENDING, RESOURCE, AND TECHNOLOGY

Assessment of China's Defense Spending

China is the second-largest military spender in the world after the United States. From 2013—the first full year of Xi Jinping’s term as General Secretary of the CCP—to 2024, China’s announced defense budget has nearly doubled.

There is broad consensus among academic, think tank, and industry experts that China’s publicly announced defense budget does not contain the totality of China’s defense spending. China’s total defense spending in 2024 was probably approximately \$304-\$377 billion, or 32-to-63% higher than Beijing’s announced budget of \$231 billion. This includes China’s announced defense budget and spending on People’s Armed Police, provincial security spending, veterans’ affairs, mobilization activities, defense-related R&D, and capital spending.

In 2024, China’s announced defense budget increased by an inflation-adjusted 5.2%, compared to 2023, to about \$231 billion. A military spokesperson stated the defense budget would focus on military capabilities, innovation in defense-related science and technology, and military reform. The growth level in the 2024 announced defense budget matched that of the prior year and continues more than 20 years of annual defense spending increases. Economic forecasts predict China’s economic growth rate will slow towards 3-4% by 2030, from an average of almost 8 percent annually during the last decade, which may constrain future defense budget growth.

Research, Development, and Acquisition

China does not announce its military procurement and R&D spending, though the defense industry benefits from investments and subsidies to companies directly supporting military R&D that are not included in the official defense budget. The PLA is likely capable of outsourcing additional R&D spending to the private sector through China’s Military-Civil Fusion initiative. However, China’s defense sector is dominated by state-owned enterprises which have struggled with profitability and, due to a lack of competition, have little incentive to reduce costs or improve efficiency.

Personnel Costs

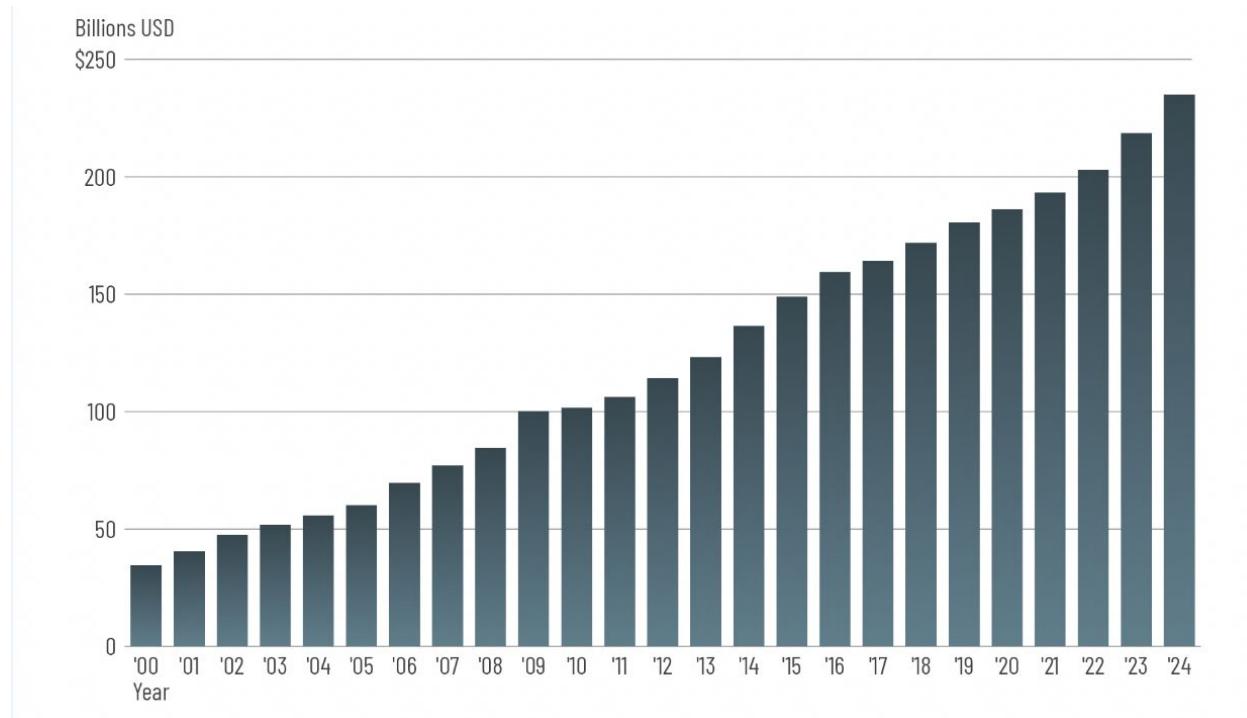
To advance its modernization goals, PLA recruitment efforts have focused on attracting and retaining top-tier talent, particularly college-graduates with science and engineering backgrounds. Recruiting highly-educated talent requires competition with often better-paying civilian roles, likely putting upwards pressure on PLA personnel costs. In addition to attracting new talent, China will continue to bear the costs of providing financial support to PLA veterans.

Internal Security Spending

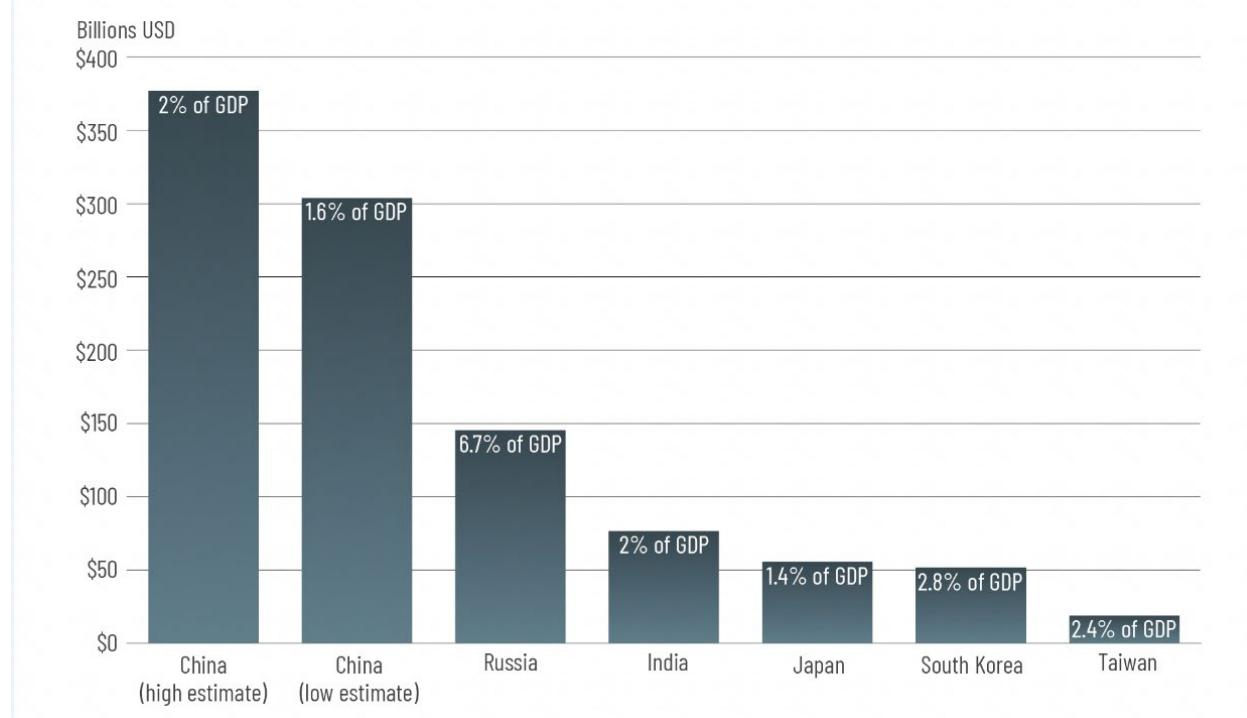
China’s 2024 central government budget included \$32 billion for public security, a less than one percent nominal increase from 2023. However, total internal security spending is almost certainly

significantly higher because local governments are responsible for a substantial portion of public security activities. In 2024, the central and local government budgets for the People's Armed Police, a subset of public security spending, was approximately \$23.5 billion.

China's Announced Defense Budget, 2000-2024



2024 Defense Spending for Select Indo-Pacific States



Developments in China's Defense Industry

China's 14th Five-Year Plan (2021-2025) outlines the need to "accelerate" the development of modern military systems and disruptive technologies to achieve independent, domestic innovation capabilities that are not reliant on "foreign sources of technology and innovation."

Missile Industry

China produces a wide range of ballistic, cruise, air-to-air, air-to-surface, and surface-to-air missiles, many comparable in quality to those of other international top-tier producers, for domestic use and export. China has the world's leading hypersonic missile arsenal and continued to advance the development of conventional and nuclear-armed hypersonic missile technologies during the past year. In May 2024, China revealed a bomber-launched version of the YJ-21 hypersonic anti-ship ballistic missile and displayed an export version at Air Show China 2024 in November. China unveiled the land-based HQ-19 anti-ballistic missile system, with potential mid-course and hypersonic glide vehicle interception capabilities. China also revealed the air-launched CM-98 stealth cruise missile with stand-off abilities, the multi-domain CM-502X loitering munition, and the TM6 precision strike air-to-ground missile at Air Show China 2024. In 2023, China publicized the PL-17 beyond-visual-range air-to-air missile, and at Air Show China in November 2024 China revealed export versions of PL-12A, PL-15, and PL-11 AAMs that have been either improved for performance or completely redesigned.

Naval and Shipbuilding Industry

China continues to be the top commercial ship-producing nation in the world by most industry measures and has sufficient capacity to produce large numbers of naval submarines, surface combatants, and auxiliary and amphibious ships. China has been constructing major new shipyards, such as Hudong Shipyard on Changxing Island, during the last ten years to replace smaller and older yards as well as increase commercial and naval shipbuilding output. In December 2024, the first aircraft landing operation reportedly occurred on the *Fujian*, China's first domestically designed and manufactured aircraft carrier, which features an electromagnetic launch system. Concurrently, in late December 2024, China launched its first Type 076 amphibious assault ship, which also features an electromagnetic catapult and likely will carry UAVs. In early 2025, Chinese researchers claimed that China had developed the first new drone, the *Feyi*, that can be launched by and return to a submarine, and repeatedly transit between the sea and air for reconnaissance, surveillance, and strike missions. Also in early 2025, China commissioned its first Type 054B new generation frigate, which is larger than the Type 054A, has enhanced firepower, and can carry larger utility helicopters, such as the Z-20.

Armaments Industry

China continues to develop its ground arms industry, delivering advanced platforms for domestic use and export, including a variety of self-propelled howitzers, main and light battle tanks, infantry fighting vehicles, and counter unmanned aerial vehicle platforms. China's ground arms modernization plans aim to strengthen combined arms operations through the introduction of modern armor and artillery. In line with these goals, since 2024 the PLAA has received Type-19 wheeled infantry fighting vehicles equipped with a 30mm cannon and anti-tank guided missiles. Additionally, the PLA in 2024 deployed modern fire support systems—such as the PCL-181 wheeled self-propelled howitzer and the modular PHL-16/PCH-191/AR-3 multiple rocket launcher. China's domestic development and production of

ground arms benefits both Beijing's defense export market and the PLA; most PLA ground arms have an export variant. China's armaments producers present themselves as an alternative to Western defense suppliers, as evidenced by the promotion and recent sales of SH-15 155-mm self-propelled howitzers and the VN-22 infantry fighting vehicles to customers in the Middle East and Africa in 2024.

UAV and Aviation Industry

In 2024, China's aviation industry debuted large numbers of new military aircraft and UAVs, including at the November 2024 Zhuhai Airshow, indicating steady progress across a range of capabilities. Major debuts included the J-35A fifth-generation combat aircraft and the J-15D carrier-borne electronic warfare aircraft. China also debuted two stealth aircraft with novel tailless design features. Shortly after these displays, China publicly revealed a new airborne early warning and control program based on the Xian Y-20B transport aircraft, which is meant to identify and track advanced stealth aircraft. At the 2024 Zhuhai Airshow, China also introduced numerous UAV programs—including the twin-engine Scorpion B with a reported range of 8,500 kilometers, as well as modifications to existing UAVs. In December 2024, a WZ-9 Divine Eagle drone was observed operating intermittently out of a South China Sea airbase, suggesting that this platform is semi-operational. Additionally, China has continued to export certain components, especially microelectronics and small turbojet engines, used in UAV and manned aviation production, to Russia for use in military UAVs. China is also progressing on engine development, for example with the development of the WS-20 gas turbine engine on the new Xian Y-20B transport. Engine advancement will likely be gradual, as China steadily works to resolve various technological barriers that have historically delayed its advanced propulsion projects.

Artificial Intelligence Industry

As of 2024, China's defense industry is researching, developing, and delivering AI capabilities to the PLA. Beijing advertised off-the-shelf commercial AI products and an increasingly diverse portfolio of military-specific systems that claim to include AI features, including products for cyber applications, information operations, and increasing the autonomy of unmanned systems. For example, China advertised several developmental military unmanned systems claiming to use AI to assist with navigation and coordination with other unmanned systems; these systems generally still require human operators to preprogram fixed targets, remotely pilot the systems, or provide extensive inputs. The 2024 Zhuhai Airshow featured developmental AI-enabled manned and unmanned systems, including a model of a two-seat J-20 variant capable of controlling loyal wingman UAVs, truck-mounted launch pods for UAVs, and aircraft with payload modules for air-launched UAV swarms. The AI features advertised with these systems were either aspirational future-oriented claims, such as future AI capabilities for loyal wingmen and advanced swarming maneuvers, or modest present-day AI capabilities for narrow applications. China's development of commercial AI probably will benefit the PLA's cyberspace capabilities by enhancing certain aspects of both offensive and defensive operations. For example, as of 2024, Chinese state-affiliated cyber actors have leveraged AI to inform network reconnaissance, support social engineering, and refine operational commands.

Investment in Chokepoint Technologies with Dual-Use Potential

China executes an aggressive, whole-of-nation drive for global leadership in science and technology (S&T). Central to this drive is a focus on dominating a range of crucial, dual-use, emerging

technologies that includes AI, biotechnology, quantum technology, advanced semiconductors, and advanced energy generation and storage. Chinese planners believe a series of technological revolutions are underway that could allow the country to overtake other advanced nations, and Beijing has long mobilized its bureaucracies toward this goal. Over the last two decades, China's state S&T plans have stressed indigenous innovation, technological self-sufficiency, and military-civil fusion.

China believes that advances in AI technology will be critical to a new round of industrial change and the next revolution in military affairs. However, in 2024, China's AI sector remained constrained by its limited access to high-performance AI accelerators. China is attempting to overcome this technical chokepoint through at least five methods. First, China's AI industry is developing techniques to extract better performance from the lower-grade AI accelerators still available in the Chinese market. For example, in mid-2024, researchers at the Chinese AI company DeepSeek released a scientific paper describing more efficient software and hardware configurations that they claim substantially improved the performance of their A100 GPU cluster. Second, China's AI industry is stockpiling AI accelerators and other critical components to reduce the impact of any new export controls. For example, DeepSeek and its parent company High-Flyer stockpiled approximately 50,000 Hopper-series NVIDIA GPUs of various types, and Huawei stockpiled approximately a year's worth of high-bandwidth memory chips before export controls went into effect. Third, China's AI industry is attempting to use shell companies and intermediaries to circumvent export controls and continue acquiring foreign AI accelerators, including NVIDIA's latest generation of Blackwell AI accelerators. For example, after the imposition of export controls, Huawei used shell companies to procure approximately two million Ascend 910B logic dies from Taiwan's TSMC. Fourth, China is also investing in its domestic chip manufacturing industry in an effort to eliminate its reliance on foreign AI accelerators. According to Huawei founder Ren Zhengfei, a coalition of Chinese companies intends to indigenize 70% of the semiconductor value chain required to meet China's semiconductor demand by 2028, which aligns with Xi Jinping's broader campaign to improve China's self-reliance and reduce dependence on foreign science and technology. Fifth, China's government institutions are attempting to transfer talent and intellectual property from leading AI chip designers and manufacturers through licit and illicit means to help Chinese chip designers and manufacturers reverse engineer foreign AI chip technology.

Beijing has prioritized biotechnology R&D in state industrial plans for decades, and prominent PLA thinkers believe that biotechnology is poised to transform warfare. The *Made In China 2025* plan includes biotechnology among ten core industries in which Beijing seeks to achieve major scientific breakthroughs, build globally competitive companies, and replace foreign technologies with domestic alternatives. China's plans call for accelerated research and scientific breakthroughs across a list of fields that includes brain science, brain-computer interfaces, neuromorphic computing, biomanufacturing, new pharmaceuticals, and genomics. China designates biotechnology as a strategic emerging industry, and focuses on a whole-of-nation, top-down effort that brings together expertise, financing, government subsidies, and diplomatic support to generate biotechnology innovation. Beijing's biotechnology strategy seeks to increase collaboration between the government, academia, and industry. One way China wants to do this is by creating high-tech parks, which provide small companies and startups access to resources that may be otherwise hard to source, such as lab space, talent, and venture capital funding.

China continued to prioritize quantum-related technologies in 2024. President Xi Jinping's June 2024 speech to a nationwide S&T conference and China's Government Work Report both stressed the importance of advancing quantum technology and portrayed the field as crucial for future industry and

national security. Beijing and local governments introduced several quantum technology-related policies focused on talent cultivation, standardization of quantum information technology, supporting infrastructure, and the establishment of a quantum industry pilot zone. In recent months, China debuted a new superconducting quantum computer, the Zuchongzhi-3, that displayed advanced capabilities. A Chinese research group led by Professor Pan Jianwei also conducted a space-based quantum communications demonstration with South Africa.

China has been actively working to reduce its reliance on foreign semiconductor technology, investing heavily in domestic chip manufacturing and research to achieve self-reliance. In May 2024, Beijing initiated the third phase of its China Integrated Circuit Industry Investment Fund by providing \$47.5 billion to boost the country's semiconductor industry. China faces challenges such as technological limitations, geopolitical tensions, and dependence on legacy processes, but despite these challenges China is pushing forward with significant government support and strategic partnerships to reduce its dependence on foreign suppliers. China is aggressively investing in domestic production of legacy chips. It is also seeking to advance its capability by investing in R&D and focusing on specialized applications like AI, sensor, and communication chips. Additionally, China is researching new technologies like photonics, memristors, magnonics, and ultrawide bandgap materials to overcome its current technology limitations, with a goal of becoming a major player in the global semiconductor industry; however, it will need to overcome heterogenous integration packaging and other manufacturing limitations to transition R&D into mass production.

China's Arms Exports

As of December 2024, China remained the world's fourth-largest arms supplier, primarily using state-run organizations such as Aviation Industry Corporation of China (AVIC) and North Industries Corporation (NORINCO) for its exports. China sells major defense equipment in the air, land, and maritime domains category of conventional military equipment to its customers.

In addition, arms transfers are a component of China's foreign policy and complement assistance and initiatives that are part of the Belt and Road Initiative. Many developing countries, especially in Africa, purchase China's weapons systems because they are less expensive than Western systems. China recognizes that some potential customers view their arms as lower in quality or reliability, and thus offers financial incentives such as trade for minerals and flexible payment options.

Fixed-Wing Aircraft. China offers three combat aircraft for export, including the fifth generation FC-31 and the fourth generation J-10C multirole combat aircrafts, and the China-Pakistan co-produced JF-17 light combat aircraft. In addition to manned aircraft, China has supplied strike-capable Caihong and Wing Loong UAVs to Algeria, Egypt, Ethiopia, Indonesia, Iraq, Morocco, Myanmar, Pakistan, Serbia, and the UAE.

Fixed Wing Transfers since 2020

| EQUIPMENT | DELIVERIES | NEGOTIATIONS |
|--------------|---|---|
| FC-31 | As of May 2025: no sales | Interested clients include Egypt, Saudi Arabia, and the UAE. |
| J-10C | As of May 2025: delivered 20 units—their only J-10C exports --to Pakistan as part of two previous orders totaling 36 since 2020 | Egypt, Uzbekistan, Indonesia, Iran, Bangladesh have expressed interest. |
| JF-17 | As of May 2024, Azerbaijan, Burma, and Nigeria | As of 2024 is negotiating with Iraq. |

Land and Air Defense Systems. By 2024, Thailand had acquired China's amphibious tracked infantry fighting vehicles, main battle tanks, and 8×8 armored personnel carriers, making it one of the top recipients of China's military vehicles. Similarly, Bangladesh is a key customer of China's military vehicles and received the first exports of China's VT-5 light tank. In 2024, Serbia fielded the FK-3—the export variant of China's HQ-22 surface-to-air missile system—following an agreement signed in 2020, marking the first Chinese air defense system sold to a European country. The FK-3 missile system can target aircraft, air-to-ground and cruise missiles, drones, and helicopters, and has flying speeds up to 1,000 m/s at distances up to 100 km.

Naval Combatants. During the next five years, China probably will grow its naval export market, adding to a customer base that currently includes Bangladesh, Malaysia, Pakistan, and Thailand. In 2024, China accepted Thailand's proposal to purchase either two offshore patrol vessels or one frigate. As of April 2024, China had not delivered any Yuan submarines but 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.

Chinese Arms Imports

While China still relies on foreign suppliers for helicopter and aircraft engines, its arms imports have decreased by two-thirds in the past five years as domestic military technology improves. As of 2025, Russia is the largest foreign military materiel supplier to China. 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 China's inventory.

Aircraft Engines. As of 2024, China is reducing its historical dependence on Russian and Ukrainian aircraft engines by increasingly manufacturing its own engines for military aircraft and ships, compared to the last five years. Ukraine remained a large source of China's imports, supplying gas turbines

for destroyers and engines for China's L-15 trainer/light combat 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

China's intelligence services' espionage activities targeting the acquisition of U.S. proprietary information and technology probably is central to China's military-civil fusion strategy to integrate dual-use civilian technological advancements into PLA military applications. In 2024, China sought after a wide variety of cutting-edge technologies, including artificial intelligence, quantum computing, biotechnology and green energy, as well as proprietary military technology. Since at least 2024, China's intelligence services employed a network of private companies and individuals in China and the United States, including military members, to hack and steal proprietary information in a manner that obscured the Chinese government's involvement. Most often, China's intelligence services sought out Chinese nationals and U.S. citizens with a China nexus.

The PLA continues to develop and employ a vast array of intelligence collection capabilities to enhance its military readiness, systematically targeting U.S. intellectual property, defense technology, and other critical sectors. China has a multi-faceted approach to undermining the U.S. through covert operations clandestine actions, including economic espionage, cyber-intrusions, and the use of illegal agents. These activities, combined with China's substantial investments in its military and intelligence apparatus, reveal a long-term strategy of preparing to counter the United States.

In January 2024, a U.S. Navy sailor was sentenced for transmitting sensitive U.S. military information to a Chinese intelligence officer, in exchange for payments. The sailor transmitted sensitive, non-public information regarding U.S. Navy operational security, military trainings and exercises in the Pacific theater, a ground and air-based radar system located in Japan, and critical infrastructure. In 2024, the U.S. Attorney's Office issued arrest warrants for two malicious cyber actors who are Chinese nationals involved in hacks from 2011 to 2024. These hackers exfiltrated data from U.S.-based technology companies, think tanks, defense contractors, government municipalities, and universities and sold it to a customer with connections to the Chinese government. In late 2024, two active-duty U.S. Army soldiers were charged with conspiring to obtain and transmit national defense information to individuals in China. The information included SECRET and TOP SECRET hard drives, information on U.S. military weapon systems, and information on U.S. military readiness in the event of conflict with China.

China's Talent Recruitment Programs and Government Scholarship Organizations

China's talent recruitment efforts in 2024 probably were informed by a strategy of innovation-driven development and were implemented by top Chinese universities which represent 'innovation bases' located in high-tech development zones throughout China, and by the Chinese Scholarship Council academic program. China's talent recruitment efforts cover a spectrum of activity, from legal and overt activity to illegal and covert work to acquire dual-use technologies through theft and espionage. Throughout 2024, China continued to maintain numerous talent recruitment programs to acquire

foreign dual-use technologies needed to advance China's national, military and economic goals through theft and espionage. China operates more than 200 distinct talent programs, primarily targeting America's R1 and R2 research institutes—universities involved in the highest levels of academic research in the U.S. An R1 university conducts ‘very high research activity’, spends at least \$50 million annually on research and awards 70 or more research doctorates each year, while an R2 university conducts ‘high research activity,’ with lower funding and doctoral award thresholds.

China usually recruits foreign masters-level academics and scientists from specific career fields for similar positions in China; the recruited personnel must fulfill at least a two-year work experience requirement. However, in 2024, China removed its work experience requirement for its Beijing area universities to facilitate talent recruitment from top international universities. China also sought to academically repatriate students of Chinese origin studying abroad, particularly in the United States, with a new 2025 academic year recruitment drive offering accelerated pathways to enroll in Chinese doctoral programs. China’s talent funding programs sought academic collaboration to recruit researchers, scientists, and cleared contractors who might provide insight into proprietary software, AI and quantum technologies, and dual-use technologies of military value to the PLA, probably to overcome critical technological bottlenecks. In 2024, China also sought to recruit scientists and academics with clearances, and who possessed proprietary information about U.S. National Laboratories.



CHAPTER 5: SPECIAL TOPICS

Emerging Technological Developments

China seeks to dominate a range of advanced and emerging technologies that promise to be foundational for future military innovation. Just as China's leaders have called for the country's researchers to develop "assassin's mace" (silver bullet) technologies in the commercial arena, PLA leaders are striving to develop assassin's mace capabilities that can deliver decisive military victory and battlefield surprise. Commensurate with Beijing's economic focus on "new quality productive forces," the PLA seeks to field "new quality combat forces" enabled by emerging technologies. Despite a slowing economy, Beijing continues to direct major resources toward military modernization. In addition to driving the PLA's modernization, China's leaders view emerging technologies, such as artificial intelligence and big data analytics, as crucial tools for social control, and the country exports its version of digital authoritarianism globally.

Especially since Xi Jinping came to power, Beijing has prioritized the construction of a military-civil fusion (MCF) system to improve the two-way flow of technology and resources between the military and civilian sectors. This far-reaching system seeks to harness the innovative capacities of Chinese commercial entities, universities, and research laboratories to drive the PLA's modernization and create a "revolution in military affairs with Chinese characteristics." Xi elevated MCF to a national strategy in 2015, and in 2017 he placed himself at the head of the policy's main implementation body, the Central Commission for Integrated Civil-Military Development. The policy steers major financial investments in emerging technologies with the expectation of driving significant breakthroughs that can be leveraged for military applications. During its implementation, MCF has been subsumed within a larger concept of "integrated national strategic system and capabilities" that entails a whole-of-nation effort to advance China's military.

Chinese commercial enterprises and research institutions continue to acquire components from U.S. suppliers to support their research and development of critical dual-use technologies including artificial intelligence, biotechnology, quantum technology, advanced semiconductors, and advanced energy generation and storage. Some Chinese commercial technology developers also receive investment from U.S. and other foreign investors. Many of these Chinese entities also maintain connections to PLA, military-civil fusion, or state-sponsored initiatives, increasing the risk that U.S. technologies and investment is providing strategic benefit to the Chinese military.

China believes the next revolution in military affairs will occur when militaries transition to "intelligentized" warfare and fully integrate artificial intelligence, big data, advanced computing, and other technologies into the joint force. The PLA is still developing the military theory, doctrine, and operational concepts for intelligentized warfare and continued experimenting with different AI-enabled capabilities and concepts throughout 2024. The PLA is studying Russia's invasion of Ukraine and identifying transferrable lessons learned from both sides, including lessons related to the use of AI and unmanned systems which increasingly appear in PLA exercises and training. The PLA has also emphasized the need to increase its science and technology acumen through professional military education, training, and targeted recruitment. Throughout 2024, China continued to invest in AI technologies

for a range of military applications including unmanned systems, ISR collection and analysis, decision-making assistance, cyber operations, and information campaigns.

In 2024, China's commercial and academic AI sectors made progress on large language models (LLMs) and LLM-based reasoning models, which has narrowed the performance gap between China's models and the U.S. models currently leading the field. LLMs and LLM-based reasoning models are useful for a range of military applications, including coding tasks to assist cyber operations, question-answering tasks to assist military decision-making, and synthetic content tailoring to assist influence operations. The PLA continues to use MCF mechanisms to ensure China's academic and commercial AI communities provide robust, continuous support to military research and development projects. In the AI sector, key MCF mechanisms include a set of conferences, research funding programs, industry associations, key state labs, and industrial parks. These mechanisms provide the PLA with an opportunity to incorporate recent private sector AI breakthroughs into military systems.

China's plans have called for disruptive breakthroughs in biotechnology and directed the implementation of major military-civil fusion projects in fields such as biology, brain science, pharmacology, marine science, and modern agriculture. The PLA's medical institutions have emerged as major centers for research frontiers of biotechnology, largely with a focus on developing dual-use technologies, including synthetic biology, biomimetic robotics, human performance enhancement technologies, and human-machine collaboration. One such technology, called brain computer interfaces (BCIs), a technology that allows humans and computers to exchange information through devices implanted in the brain or placed on the skull, has had an increase in clinical trials in recent years, bringing the Chinese BCI industry closer to a marketable product. While there are commercial and medical applications for BCIs, PLA scientists and military affiliated institutions collaborate with industry and academic institutions to investigate military applications of these technologies. For example, the Chinese BCI company Neuracle has collaborated with a PLA hospital conducting defense-related research.

In a June 2024 speech to a major Chinese S&T conference, Xi Jinping cited quantum technology as a key force for industrial transformation and praised the country's strength in this field. China's leaders also see quantum technology—and its sub-fields of computing, sensing, and communication—as important for national security and future warfare. China is developing post-quantum cryptography to defend against the potential threat of a future code-breaking quantum computer, and Chinese researchers are also exploring quantum sensing technologies for various military applications. China continues to aggressively build the ground and space-based infrastructure for a planned global quantum communication network that could have commercial and military users.

Xi Jinping has called for China to achieve self-sufficiency in semiconductors, and China's industrial plans have long placed a priority on the development of integrated circuits and their associated technologies and equipment. In 2024, for example, two of the most dominant players in China's drive for chip indigenization, Semiconductor Manufacturing International Corp (SMIC) and Huawei Technologies, were among the top recipients of local government semiconductor fabrication and development related funding from the tech-heavy Shanghai area.

The PLA's vision for the use of advanced and future microchips for military systems is the implied foundation of its ambition for an intelligentized combat force. Advanced and future microchips with faster computing, more power efficiency, and greater voltage handling will almost certainly underwrite the PLA's concept of unbridled sense-making and tailored combat responses through unmanned combat, ISR and communications vehicles, faster command decisions and hyper-proficient logistics

networks. Through 2024, China was behind the West in the most advanced GPU microchips with dual-use potential, but was attempting workarounds with future microchip technologies. In 2024, the Chinese Academy of Engineering Physics, which conducts R&D on ruggedized military-applicable photonic components, made key advancements for an on-chip laser component for a multi-material photonic chip. This improved developmental component could provide advanced chip performance and complex processing, yet remain compatible with legacy semiconductor fabrication—likely facilitating China’s use of future microchips for intelligentization and greater combat effectiveness.

China leads the world in researching and commercializing a variety of advanced energy technologies. Beijing has promulgated a variety of industrial plans and funds to guide advanced energy development, and last year implemented a law designed to incentivize advanced energy R&D. In addition to the sectors commercial prospects, China views advanced energy R&D as a key area for military-civil collaboration. Energy technologies such as advanced and novel battery types, solar panels, and hydrogen fuel cells have the potential to advance PLA capabilities across a broad range, from powering long endurance robotics and unmanned systems, to providing safe, resilient power sources for remote basing with lower sonic and heat signatures than internal combustion engines. Throughout 2024, multiple Chinese state- and state-backed institutes have tested UAVs using new energy technologies to achieve extended ranges or the ability to operate in extreme environments. In the same period, Chinese enterprises have progressed in the development of all solid-state batteries—higher in energy density, safer, and able to perform in more extreme temperatures than current lithium batteries—with one organization claiming to anticipate small-scale production of the batteries by 2027.

China’s Coercion Tactics, Techniques, and Procedures

Beijing has demonstrated its willingness to selectively employ coercive actions in the military, security, legal, and economic domains to advance its defense, policy, and global development interests. Throughout 2024, the PLA conducted coercive actions in the Asia-Pacific region to advance China’s foreign policy objectives. The PLA’s harassing and dangerous actions include unsafe, unprofessional, and other behaviors that have sought to intimidate, deter, disrupt, or deny the United States and other nations the ability to conduct lawful operations near areas where Beijing advances territorial or maritime claims. While the PLA’s coercion tactics, techniques, and procedures (TTPs) remained consistent over the past ten years, China has gradually refined its paramilitary forces’ TTPs to improve its proficiency in territorial dispute operations.

Military and Security Domains

Air Incidents. The previous 2021-2023 trend of highly elevated numbers of PLA intercepts against U.S. platforms appears lessened in 2024; however, China is continuing to conduct unsafe actions against allies. As of late 2024, China has conducted multiple unsafe, operationally dangerous actions near allied aircraft over the last year, including reckless maneuvers (i.e., acrobatic maneuvers in close proximity to aircraft), close approaches in the air or at sea, and inappropriately discharging countermeasures (i.e., chaff or flares) in front of or in close proximity to aircraft.

In May 2024, Australia accused a PLA fighter jet of unsafely intercepting an Australian naval helicopter operating in support of UN-imposed sanctions against North Korea in the Yellow Sea, dropping flares across its flight path. Then in June 2024, two PLA jets and a helicopter conducted unsafe

maneuvers when they approached a Dutch naval helicopter patrolling in international airspace over the East China Sea.

The PLA's coercive and unsafe maneuvers also extend to non-military aircraft. In August 2024, the Philippines reported that a PLA fighter jet deployed multiple flares at a Philippine Bureau of Fisheries and Aquatic Resources (BFAR) plane operating in the South China Sea, and came as close as 15 meters to the Philippine aircraft.

Throughout 2024, China also used military patrols to expand its operational presence close to U.S. and allied territories, and signal its ability to counterbalance the United States. In late July 2024, China and Russia conducted a combined bomber patrol over the Bering Sea for the first time; U.S. and Canadian fighters intercepted the patrol when it entered the Alaska Air Defense Identification Zone. In August 2024, a PLA aircraft breached Japanese airspace for approximately two minutes despite repeated warnings; Beijing claimed the air intrusion was caused by an unidentified “unexpected obstruction,” and was not a reaction to the July 2024 entry of a Japanese destroyer into China’s territorial sea. In November 2024, during a separate combined bomber patrol over the Sea of Japan, China’s and Russia’s military aircraft entered the Korean Air Defense Identification Zone.

Maritime Incidents. The PLAN, China Coast Guard and China Maritime Militia conduct coercive activities to advance Beijing’s military and political goals. Over the last ten years, China has gradually refined its China Coast Guard and China Maritime Militia tactics, techniques, and procedures to improve its proficiency in operations against South China Sea claimants. Throughout 2024, the China Coast Guard enforced its illegal maritime claims in the South China Sea using methods such as water cannons, noisemakers (i.e., long-range acoustic devices), and ramming. Over the past two years, China has increased its focus on the Philippines in particular, including at the disputed locations in the South China Sea. These tensions culminated in a 17 June 2024 confrontation that involved the China Coast Guard ramming and boarding Philippine boats attempting to deliver supplies to a Philippine outpost on Second Thomas Shoal, resulting in an injury to a Philippine sailor.

In late May through mid-June 2024, the PLAN conducted maritime exercises inside the Philippines’ Exclusive Economic Zone for the first time. The Philippines Navy claimed that the PLA’s drills, including in the vicinity of the contested Sabina Shoal, were illegal and not coordinated with the Philippines. The increase in China’s vessels occurred shortly before the 15 June 2024 implementation of a new regulation expanding the 2021 Coast Guard Law to authorize the China Coast Guard to detain ships and personnel trespassing in China’s claimed South China Sea waters.

U.S. allies also have raised concerns about Chinese commercial fishing vessels in disputed waters, and often increase the risk to both national security and natural resources. In April 2024, the South Korean government ordered the Korea Coast Guard to “sternly clamp down” on Chinese vessels’ illegal fishing activities in South Korea’s EEZ and waters near the Northern Limit Line. Within one week, the South Korean government captured five Chinese fishing ships and evicted approximately 36 vessels from the country’s waters. The South Korean government has also protested China’s installation of claimed fish farm structures in the Provisional Measures Zone of the Yellow Sea, a disputed area between the two countries where their Exclusive Economic Zones overlap and facility construction is prohibited.

Legal Domain

During 2024, Beijing pursued lawfare tactics to support its coercive actions to assert its South China Sea territorial claims. In November 2024, the Philippines signed the Maritime Zones Act and Archipelagic Sea Lanes Act into law to formalize the Philippines' jurisdiction over disputed waters and designate strategic maritime corridors for navigation. A China Foreign Ministry spokesperson said the signing of the measures infringed on China's territorial sovereignty and maritime rights and interests in the South China Sea. In response, China declared territorial sea baselines around Scarborough Reef, publishing updated maps, assigning administrative codes to disputed areas and naming islands and reefs under its jurisdiction with Chinese characters. These actions demonstrate Beijing's persistent determination to reinforce its South China Sea territorial claims through legal channels while continuing to reject the 2016 arbitral ruling.

Economic Domain

In 2024, China continued to use economic coercion to exert leverage over entities that oppose Beijing's global diplomatic objectives and to achieve its desired military and diplomatic objectives without resorting to military action. China uses various economic levers to do this, including granting or denying access to Chinese markets, and exploiting its influence over trade, investment, and supply chains, such as critical minerals, energy sources, and emerging technologies. In September 2024, Beijing announced tariffs on imports of certain Taiwan agricultural goods, citing provocative actions from Taipei. In May 2024, China used trade as a lever to pressure Guatemala to cut diplomatic ties with Taiwan, after Beijing announced a ban on its imports of Guatemalan macadamia nuts and coffee beans.

Evolution of Taiwan Pressure Campaign

From 2020 to 2024, China has increased the scope, scale, and frequency of its military pressure activities against Taiwan. During 2024, China continued to challenge Taiwan's de facto sovereign boundaries via routine air and maritime incursions. China's military pressure on Taiwan was highlighted by two named operations – JOINT SWORD-2024A and JOINT SWORD-2024B. The exercises demonstrated a lower threshold for military activity compared to previous years, but notably were not as severe as the PLA's named operation observed in August 2022 in response to the U.S. House Speaker's visit to Taipei. Both operations occurred on top of the increasing quantity of day-to-day PLA aircraft and ships patrolling around Taiwan and the steady cadence of near weekly joint patrols pressing Taiwan. China's two named 2024 exercises almost certainly reflect heightened sensitivity to Taiwan President Lai Ching-te, whom Chinese state-run media frequently blame for cross-Strait tensions. Both JOINT SWORD exercises were the first instances of the PLA publicizing military operations following speeches from the Taiwan Presidential Office. Previously, Beijing's only explicit response to similar speeches were public statements from China's Taiwan Affairs Office (TAO).

In May 2024, the PLA conducted JOINT SWORD-2024A, in response to President Lai's inaugural speech. During the exercise, the PLA surged approximately 20 PLAN combatants around Taiwan, as well as the integration of approximately 7 China Coast Guard ships for the first time. PLA air activity included 111 Taiwan ADIZ entries, 75 of which crossed the Taiwan Strait centerline.

JOINT SWORD-2024B in October 2024 was China's military response to President Lai's speech as part of Taiwan's annual National Day, and it consisted of similar total numbers of air and maritime activity compared to previous named operations but condensed to one day of activity. The PLAN deployed 14 ships around Taiwan during the exercise, and the inclusion of China Coast Guard with 12 ships deployed around Taiwan. PLA air activity consisted of approximately 153 PLA aircraft entering Taiwan's ADIZ, 111 of which crossed the centerline.

In April 2023 the PLA responded to then-Taiwan President Tsai Ing-Wen's transit of the United States with a three-day exercise, also named JOINT SWORD, by encircling the island. During the operation, at least 12 PLAN ships operated around Taiwan, and at least 133 PLA aircraft entered Taiwan's ADIZ, 83 of which crossed the centerline. PLAN J-15s deployed from CV-17 in the western Philippine Sea entered Taiwan's eastern ADIZ.

In December 2022, the PLA dispatched 7 PLAN ships and 47 PLA aircraft into Taiwan's ADIZ, approximately 37 of which crossed the Taiwan Strait centerline. The operation occurred shortly after the U.S. President signed the National Defense Authorization Act, which included increases to military aid and security cooperation with Taiwan.

In early August 2022, the Eastern Theater Command conducted an exercise in response to the U.S. Speaker of the House-led Congressional delegation to Taiwan. The operation included up to 14 PLAN ships operating around Taiwan and at least 182 aircraft entering Taiwan's ADIZ, 92 of which crossed the centerline. The PLARF fired multiple ballistic missiles into waters around Taiwan, including at least four missiles that overflew the island – an unprecedented act.

Routine PLA activity has increased significantly during the past four years in the air and maritime domains. In 2024, approximately 2,771 PLA aircraft had been detected in Taiwan's ADIZ, an increase from around 1,703 for all of 2023, 1,733 in 2022, and 972 in 2021. Similarly, PLA air activity erodes the Taiwan Strait centerline, with PLA aircraft centerline crossings accounting for more than 60% of the PLA's air activity around Taiwan in 2024. Comparatively, PLA aircraft centerline crossings accounted for approximately 20 to 40 percent of PLA air activity around Taiwan in 2023. In the maritime domain during 2024, the PLAN increased the daily number of deployed ships around Taiwan, with 5-9 vessels deployed for approximately 75% of days in 2024. Comparatively, the PLAN deployed 5-9 ships around Taiwan for 46% of days in 2023 and only 27% of days in 2022. In 2024, the PLA conducted a routine cadence of near-weekly joint combat readiness patrols, wherein the PLA conducted 38 such patrols around Taiwan.

PLA Activity During Response Operations

| | August 2022 | December 2022 | April 2023 | May 2024 | October 2024 |
|---|----------------|------------------|---------------|-------------|-----------------|
| Number of Days | 6 | 1 | 3 | 2 | 1 |
| PLA Navy Ships | 14 | 7 | 12 | 20 | 14 |
| China Coast Guard Ships | 0 | 0 | 0 | 7 | 12 |
| PLA Aircraft Entering Taiwan ADIZ | 182 | 37 | 133 | 111 | 153 |
| PLA Aircraft Crossing Taiwan Centerline | 92 | 47 | 83 | 75 | 111 |



Taiwan Strait Military Balance

Ground Forces

| | China | | Taiwan |
|-------------------------------------|-----------|---------------------|--------|
| | Total | Taiwan Strait Area* | Total |
| Total Ground Force Personnel | 1,040,000 | 427,000 | 89,000 |
| Group Armies/Army Corps | 13 | 5 | 3 |
| Combined Arms Brigades | 80 | 30 | 4 |
| Artillery Brigades | 15 | 5 | 3 |
| Army Aviation Brigades | 13 | 4 | 2 |
| Air Assault Brigades | 3 | 1 | 0 |
| Airborne Brigades | 6 | 6 | 0 |
| Marine Brigades | 11 | 5 | 2 |
| Tanks | 3,700 | 1,100 | 950 |
| **Fire Support Pieces | 8,100 | 2,400 | 1,300 |

* For the purposes of this document, “Taiwan Strait Area” includes the PLA’s Eastern and Southern Theaters.

** Fire support includes towed and self-propelled artillery, multiple rocket launchers, and mortars.

Naval Forces

| | China | | Taiwan |
|---|-------|---|--------|
| | Total | Eastern and Southern Theater Command Navies | Total |
| Aircraft Carriers | 3 | 1 | 0 |
| Amphibious Assault Ships | 3 | 3 | 0 |
| Cruisers | 8 | 4 | 0 |
| Destroyers | 42 | 30 | 4 |
| Frigates | 50 | 39 | 22 |
| Corvettes | 50 | 40 | 7 |
| Medium Landing Ships/Tank Landing Ships/ Amphibious Transport Dock | 58 | 44 | ~80 |
| Attack Submarines | 46 | 34 | 2 |
| Nuclear-Powered Attack Submarines | 6 | 2 | 0 |
| Nuclear-Powered Ballistic Missile Submarines | 6 | 6 | 0 |
| Coastal Patrol (Missile) | 60 | 60 | ~30 |
| Coast Guard Ships | 142 | N / A | ~30 |

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 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 Coast Guard and Maritime Militia ships to support military operations.

Air Forces

| | China | | Taiwan |
|--------------------------|------------------|------------------------------|-------------|
| | Total | Eastern and Southern Theater | Total |
| Fighters | 2,200* (3,100**) | 850* (900**) | 350 (500**) |
| Bombers/Attack | 550 | 300 | 0 |
| Transport/Tanker | 550 | 60 | 70 |
| Special Mission Aircraft | 300 | 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.

*Total includes combat capable trainer variants.

**Total includes all fighter trainers.

PLA Missile Order of Battle

| PLA Rocket Force | | | | |
|------------------|--------------------------------|-----------|----------|-----------------|
| Class | System | Launchers | Missiles | Estimated Range |
| ICBM | CSS-3 (DF-4) | | | |
| | CSS-4 Mod 2 (DF-5A) | | | |
| | CSS-4 Mod 3 (DF-5B) | | | |
| | CSS-4 Mod 4 | | | |
| | CSS-10 Mod 1 (DF-31) | 550 | 400 | >5,500 km |
| | CSS-10 Mod 2 (DF-31A, DF-31AG) | | | |
| | CSS-10 Mod 3 | | | |
| | CSS-20 (DF-41) | | | |
| | Silo | | | |
| IRBM | CSS-18 Mod 1 | | | |
| | CSS-18 Mod 2 | 300 | 550 | 3,000–5,500 km |
| | CSS-18 Mod 3 | | | |
| MRBM | CSS-5 Mod 2 (DF-21A) | | | |
| | CSS-5 Mod 4A (DF-21C) | | | |
| | CSS-5 Mod 5A (DF-21D) | | | |
| | CSS-5 Mod 5B | 300 | 1,300 | 1,000–3,000 km |
| | CSS-11 Mod 3 | | | |
| | CSS-22 (DF-17) | | | |
| SRBM | CSS-6 Mod 3 (DF-15B) | | | |
| | CSS-7 Mod 1 (DF-11) | | | |
| | CSS-7 Mod 2 (DF-11A) | 250 | 900 | 300–1,000 km |
| | CSS-11 Mod 1 (DF-16) | | | |
| | CSS-11 Mod 2 (DF-16A) | | | |
| GLCM | CH-SSC-9 Mod 1 | | | |
| | CH-SSC-9 Mod 2 | 150 | 300 | >1,500 km |
| | CH-SSC-13 | | | |

PLA Forces Data

Major Ground Units



Major Naval Units



Major Marine Corp Units



Major Air Units



Major PLAAF Airborne Corps Units



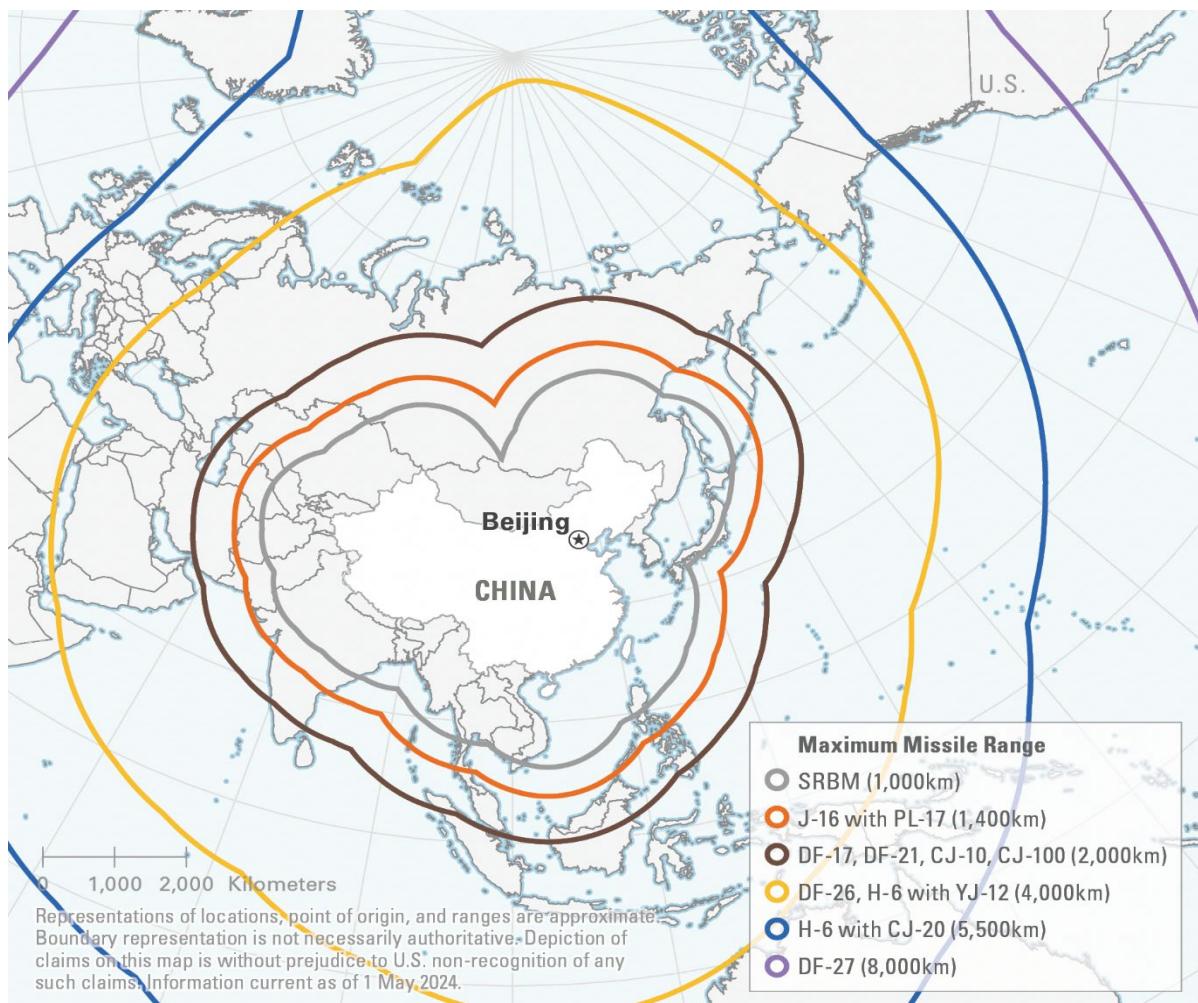
Major PLARF Installations



Major Support Forces Installations



Fielded Conventional Strike

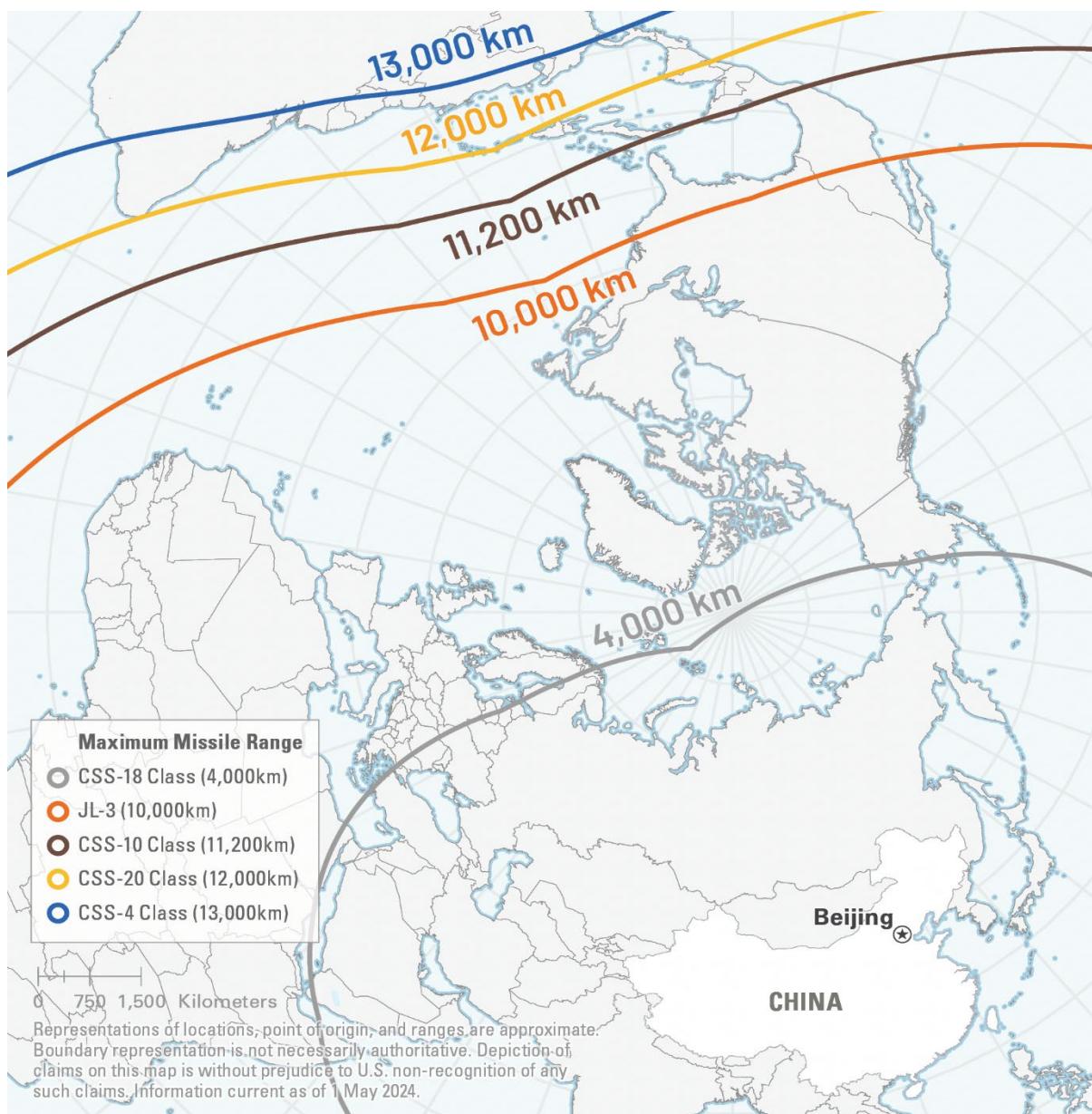


*Map displays maximum ranges of systems listed in the table

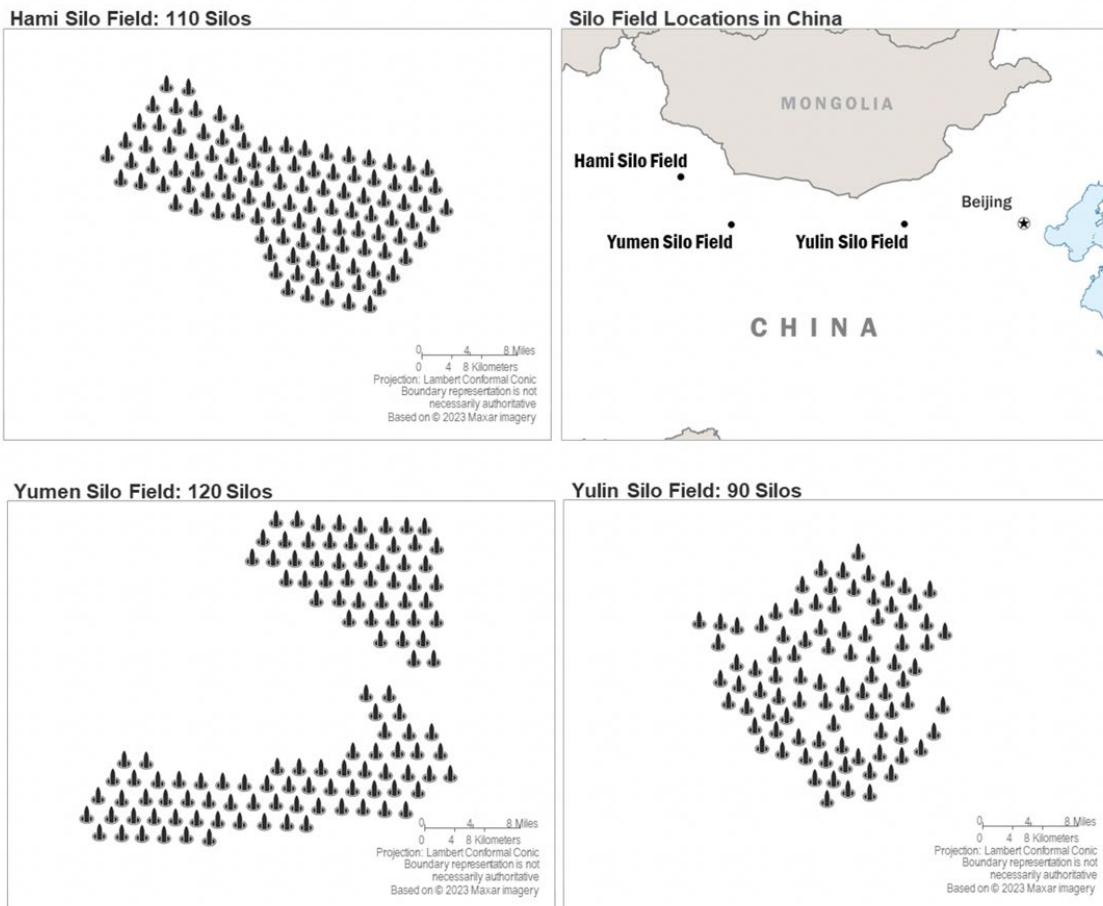
| DESIGNATOR | CLASS | RANGE (KM) | TARGET |
|------------------------------|-----------|-------------|-----------------------|
| DF-11A, DF-15 DF-16 | SRBM | 300 - 1000 | Land attack |
| DF-17, DF-21 | MRBM | 1500 - 2000 | Land attack/Anti-ship |
| CJ-10, CJ-100 | GLCM | 1500 - 2000 | Land attack/Anti-ship |
| DF-26 | IRBM | 3000 - 4000 | Land attack/Anti-ship |
| DF-27 | ICBM | 5000 - 8000 | Land attack/Anti-ship |
| J-16 with PL-17 | AAM | 1400 | Anti-air, HVAA |
| H-6 with YJ-12, YJ-83 | ALCM | 3100 - 4000 | Anti-ship |
| H-6 with YJ-21, CJ-20 | ALCM/ALBM | 4000 - 5500 | Land attack |

*Air-launched systems: Ranges represent total operational reach, combining missile capabilities and the J-16 (~1,000km) or H-6K/N bomber (~3,500km) combat radius. Actual operational range varies based on mission profile, payload, and refueling capabilities.

Fielded Nuclear Ballistic Missiles



Expanding Silo Fields



PLA Operational Structure

Eastern Theater Command

The Eastern Theater Command is responsible for operations in the East China Sea and against Taiwan. Much of China's conventional missile firepower is also based within the Eastern Theater Command to support Taiwan contingency operations and would be allocated to the Eastern Theater Command at CMC direction. PLA units located within the Eastern Theater Command include the 71st, 72nd, and 73rd Group Armies; two PLAAF bases, two destroyer flotillas, four frigate flotillas, a landing ship flotilla, two submarine flotillas, and one PLARF base.

Activities in the Eastern Theater Command in 2024 focused on training for and operational tasks that sustain the PLA's pressure campaign against Taiwan, which featured named operations in response to perceived Taiwan political provocations, near-weekly joint patrols, and an increased baseline air and naval presence around Taiwan.

Eastern Theater Command Leadership

All names and positions are current as of December 31, 2024.

Commander— General Lin Xiangyang [林向阳]

Previous Position: Commander, Central Theater Command

DOB: October 1964

Age: 60

Birthplace: Fuzhou, Fujian Province

Education: Nanchang Army Academy; Studied abroad in Russia; Attended a class at PLA NDU for Young- and Middle-aged Cadres

Bio: Since January 2022, Gen Lin Xiangyang has served as the commander of the Eastern Theater Command responsible for planning and leading operations related to Taiwan, Japan, and the East China Sea. Lin probably was appointed because of his extensive operational experience in the Eastern Theater Command and his possible ties to President Xi Jinping.

Political Commissar— Admiral Liu Qingsong [刘青松]

Previous Position; Political Commissar, Northern Theater Command

DOB: November 1963

Age: 61

Birthplace: Jinan, Shandong Province

Education: Unknown

Chief of Staff— Lt General Hong Jiangqiang [洪江强]

Previous position: Commander, 80th Group Army, Northern Theater Command Army

DOB: 1965

Age: ~60

Birthplace: Zhangzhou, Fujian Province

Education: Unknown

Eastern Theater Command



Southern Theater

The Southern Theater Command is responsible for operations in the South China Sea and support to the Eastern Theater command during a Taiwan contingency. The Southern Theater Command also is responsible for securing unlawful maritime claims to waters in China's claimed "dashed line" that circumscribes the vast majority of the South China Sea. PLA units located within the Southern Theater Command include the 74th and 75th Group Armies; two PLAAF bases, aircraft carrier, two destroyer flotillas, three frigate flotillas, a landing ship flotilla, two submarine flotillas, a submarine base, and two PLARF bases. In the last decade, China has bolstered its occupied outposts in the South China Sea with the deployment of air, maritime, and ground-based capabilities to support and sustain its military and paramilitary operations in the region. Many of its key outposts are featured on the Spratly and Paracel Islands.

Activities in the Southern Theater Command in 2024 focused on the South China Sea and Beijing's continued employment of military and paramilitary forces to deter and respond to claimant activity near disputed features in the South China Sea, attempting to create a significant maritime force advantage to intimidate other regional actors. The Southern Theater Command has also leveraged its access in the Spratly Islands to support response operations against Philippine resupply missions at the Second Thomas and Sabina Shoals.

Southern Theater Command Leadership

All names and positions are current as of December 31, 2024.

Commander— General Wu Yanan [吳亞男]

Previous position: Commander, Central Theater Command

DOB: August 1962

Age: 62

Birthplace: Shijiazhuang, Hebei Province

Education: Unknown

Bio: Gen Wu Yanan was appointed commander of the Southern Theater Command in July 2024, probably because of his extensive experience commanding joint operations across multiple theaters. As Southern Theater Command commander, Wu is responsible for defending China's land borders with Vietnam, Laos, and Burma; protecting its maritime claims in the South China Sea; and supporting the Eastern Theater Command in a Taiwan contingency. Wu oversees PLA operations on China's southern border and in support of CCP territorial claims in the South China Sea, while also assisting the Eastern Theater Command in response to Taiwan contingencies.

Political Commissar— General Wang Wenquan [王文全]

Previous position: Political Commissar, PLA Joint Logistics Support Force

DOB: December 1962

Age: 62

Birthplace: Xinzhou County, Hubei Province

Education: Unknown

Chief of Staff– Lt Gen Jia Jiancheng [贾建成]

Previous position: Director, Operations Bureau, CMC Joint Staff Department

DOB: 1963

Age: 61

Birthplace: Yiyang, Hunan Province

Education: Unknown

Southern Theater Command



Western Theater Command

The Western Theater Command is geographically the largest theater command within China and is responsible for responding to conflict with India, border interactions with Central Asian states, and what China refers to as the “three evil forces” of terrorism, separatism, and extremism in Tibet and Xinjiang. 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, and two PLARF bases.

Exercises in the Western Theater Command in 2024 focused on PLAA ground and aviation forces conducting live fire and mobility exercises within high-altitude, low-oxygen environments to prepare for mountainous conflict contingencies. Training events also incorporated opposition forces to enhance training realism consistent with overall 2024 PLA training guidance.

Western Theater Command Leadership

All names and positions are current as of December 31, 2024.

Commander— General Wang Haijiang [汪海江]

Previous position: Commander, Xinjiang Military District

DOB: July 1963

Age: 61

Birthplace: Ziyang, Sichuan Province

Education: Unknown

Bio: Gen Wang Haijiang was appointed commander of the Western Theater Command (WTC) in September 2021 and is responsible for overseeing PLA operations in western China and on the China-India border. Wang has spent his entire career in western China postings, with prior experience in Xizang and Xinjiang Military Districts.

Political Commissar— General Li Fengbiao [李凤彪]

Previous position: Commander, Strategic Support Force

DOB: October 1959

Age: 65

Birthplace: Baoding, Hebei Province

Education: Xinyang Army Infantry School; Received a Master’s degree in strategic studies from National Defense University

Chief of Staff— Lt General Zhang Jian [张践]

Previous position: Commander, Southern Theater Command Army

DOB: 1963

Age: 61

Birthplace: Yiyang, Hunan Province

Education: Unknown

Western Theater Command



Central Theater Command

The Central Theater Command's primary responsibility is to defend the capital and the Chinese leadership while providing a strategic reserve to the other theater commands. It is centrally located, and borders all four other 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, PLAAF Airborne Corps, Wuhan and Datong Bases, and the Shijiazhuang Flying Academy; and one PLARF base.

In 2024, troops from the Central Theater Command conducted at least two exercises with foreign partners, including PEACE-UNITY in Tanzania, and EXERCISE COOPERATION with Singapore in China.

Central Theater Command Leadership

All names and positions are current as of December 31, 2024.

Commander– General Wang Qiang [王强]

Previous position: Commander, Northern Theater Command (NTC)

DOB: ~1963

Age: ~62

Birthplace: Probable Rong County, Zigong, Sichuan Province

Education: N/A

Bio: Gen Wang Qiang was appointed commander of the Central Theater Command in August 2024 and is responsible for the central defense of Beijing and providing support to other theaters. Wang was the first PLA Air Force officer appointed as Northern Theater Command commander. Following his experience in leadership positions at Western Theater Command and Northern Theater Command, Wang is knowledgeable on joint operations as well as border defense.

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: 61

Birthplace: Chengdu, Sichuan Province

Education: Unknown

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

Previous position: Deputy Commander, Northern Theater Command

DOB: February 1959

Age: 66

Birthplace: Tangshan, Hebei Province

Education: The PLA Air Force's Fourth Aviation Academy

Central Theater Command



Northern Theater Command

The Northern Theater Command includes China's provinces bordering Mongolia, Russia, North Korea, and the Bohai Gulf and Yellow Sea. It is responsible for operations along China's northern periphery and border security associated with North Korea, Russia, and Mongolia. PLA units located within the Northern Theater Command include the 78th, 79th, and 80th Group Armies; the Northern Theater Navy an aircraft carrier, two destroyer flotillas, two frigate flotillas, two submarine flotillas, a

submarine base and its four marine brigades; two operational PLAAF bases, one special mission aircraft division, one transportation search and rescue brigade, and one flying academy; and one PLARF base.

The Northern Theater Command Navy defends China's northern maritime approaches to northern China and can also deploy mission-critical assets to support for naval operations outside of Northern Theater Command's area of responsibility in various contingencies. Northern Theater Command Air Force is likely responsible for providing support in the air domain in a conflict related to the Korean Peninsula and to secure approaches to northern China over the Yellow Sea. In 2024, Northern Theater Command forces conducted various joint and single service training activities including a dynamic naval exercise and an air force air defense exercise. Notably, in August 2024, the Northern Theater Command Army's 78th Group Army deployed one thousand soldiers and a forward command post to conduct disaster relief amid a typhoon.

Northern Theater Command Leadership

All names and positions are current as of December 31, 2024.

Commander– General Huang Ming [黃銘]

Previous position: Chief of Staff, PLA Army

DOB: 1963

Age: 62

Birthplace: Yixing, Jiangsu Province

Education: Unknown

Bio: Gen Huang Ming was appointed commander of the Northern Theater Command in August 2024 probably because of his extensive Northern Theater Command experience, leadership experience across multiple theaters, and expertise in informatized warfare. As Northern Theater Command commander, Huang is responsible for PLA operations in northeast China and along the North Korean, Mongolian, and Russian borders.

Political Commissar– General Zheng Xuan [郑璇]

Previous position: Political Commissar, Northern Theater Command Army; Deputy Political Commissar, Northern Theater Command

DOB: ~November 1964

Age: 60

Birthplace: Minhou County, Fujian Province

Education: Unknown

Chief of Staff– Vice Admiral Jiang Guoping [姜国平]

Previous position: Assistant to the Chief, Joint Staff Department, CMC

DOB: ~October 1962

Age: 62

Birthplace: Weihai, Shandong Province

Education: Dalian Naval Ship Academy

Northern Theater Command



Glossary

| | |
|-------|--|
| AAM | Air-to-Air Missile |
| ADIZ | Air Defense Identification Zone |
| AEW&C | Airborne Early Warning and Control |
| AI | Artificial Intelligence |
| ALBM | Air-Launched Ballistic Missile |
| ALCM | Air-Launched Cruise Missile |
| ASAT | Antisatellite |
| ASEAN | Association of Southeast Asian Nations |
| AUKUS | Australia, United Kingdom, United States |
| AVIC | Aviation Industry Corporation of China |
| BCI | Brain Computer Interface |
| BFAR | Philippine Bureau of Fisheries and Aquatic Resources |
| C2 | Command and Control |
| C4ISR | Command, control communications, computers, intelligence, surveillance, and reconnaissance |
| CCP | Chinese Communist Party |
| CMC | PLA Central Military Commission |
| CNNC | China National Nuclear Corporation |
| CONUS | Continental United States |
| CPPCC | Chinese People's Political Consultative Conference |
| DEW | Directed Energy Weapons |
| DTL | Defense Telephone Link |
| EEZ | Exclusive Economic Zone |
| ELINT | Electronic Intelligence |
| EWCS | Early Warning Counterstrike |
| GEO | Geostationary Orbit |
| GLCM | Ground-Launched Cruise Missile |
| ICBM | Intercontinental Ballistic Missile |
| ICEF | Information Communication and Electronic Force |
| ILRS | International Lunar Research Station |
| IOC | Initial Operational Capability |
| IRBM | Intermediate-Range Ballistic Missile |
| ISR | Intelligence, Surveillance, and Reconnaissance |
| JILC | Joint Island Landing Campaign |
| JOCC | Joint Operations Command Center |

| | |
|---------|---|
| LAC | Line of Actual Control |
| LEO | Low Earth Orbit |
| LLM | Large Language Model |
| LOW | Launch On Warning |
| LPAR | Large Phased-Array Radars |
| MCF | Military-Civil Fusion |
| MDPW | Multi-Domain Precision Warfare |
| MND | Taiwan Ministry of National Defense |
| NCSIST | National Chung Shan Institute of Science and Technology |
| NDU | National Defense University |
| NFU | No First Use |
| NGO | Non-Governmental Organizations |
| NORINCO | North Industries Corporation |
| NPC | National People's Conference |
| NTC | Northern Theater Command |
| OIMC | Office of International Military Cooperation |
| OUSD(P) | Office of the Under Secretary of Defense for Policy |
| PAP | People's Armed Police |
| PIC | Pacific Island Countries |
| PLA | People's Liberation Army |
| PLAAF | People's Liberation Army Air Force |
| PLAAF | People's Liberation Army Army |
| PLAN | People's Liberation Army Navy |
| PLARF | People's Liberation Army Rocket Force |
| PLEO | Proliferated Low Earth Orbit |
| PWD | Political Work Department |
| R&D | Research and Development |
| ROK | Republic of Korea |
| S&T | Science and Technology |
| SATCOM | Satellite Communications |
| SIGINT | Signals Intelligence |
| SLV | Space Launch Vehicle |
| SMIC | Semiconductor Manufacturing International Corp |
| SOF | Special Operations Forces |
| SRBM | Short-Range Ballistic Missile |
| STC | Southern Theater Command |
| TAO | Taiwan Affairs Office |

| | |
|-------------|-------------------------------------|
| TJS | Tonxun Jishu Shiyan |
| TTP | Tactics, Techniques, and Procedures |
| UAE | United Arab Emirates |
| UAV | Unmanned Aerial Vehicle |
| USINDOPACOM | U.S. Indo-Pacific Command |
| VTVL | Vertical Takeoff, Vertical Landing |
| WoSDR | Whole of Society Defense Resilience |
| WTC | Western Theater Command |



