

CHAPTER 4

CHINA'S GLOBAL AMBITIONS

SECTION 1: BEIJING'S "WORLD-CLASS" MILITARY GOAL

Key Findings

- In 2017, Beijing announced its goal to build the People's Liberation Army (PLA) into a "world-class" military, overcoming remaining shortfalls in the force's capabilities to establish China firmly among the ranks of the world's leading military powers. This objective is guided by Chinese Communist Party (CCP) leaders' view that China is approaching the "world's center stage" and represents the military component of a multifaceted goal to establish China's leading global position in every important element of national power.
- Beijing views a world-class PLA as achieving parity in strength and prestige with the world's other leading militaries, especially with the U.S. armed forces, and being capable of preventing other countries from resisting China's pursuit of its national goals. Deterring outside intervention will be especially important in the Indo-Pacific region, where China aims to resolve territorial disputes with a number of important U.S. allies and partners—including through the use of military force if necessary—but will also extend to China's overseas interests.
- Once focused on territorial defense, China's military strategy has evolved in recent years to encompass a concept PLA strategists refer to as "forward defense," which would create greater strategic depth by extending China's defensive perimeter as far as possible from its own shores. China is developing key capabilities necessary for force projection centered on a sophisticated blue-water navy that Chinese naval leadership plans to use to combat the U.S. Navy in the far seas.
- To support this strategy, Beijing is expanding its military presence inside and beyond the Indo-Pacific, including by building a network of overseas "strategic strongpoints" consisting of military bases and commercial ports that can support military operations. China established its first permanent overseas military presence in Djibouti in 2017 and Argentina in 2018, and reportedly has reached an agreement for the PLA to operate from a naval base in Cambodia. The PLA is increasingly training and fielding capabilities for expeditionary operations, including by developing a third aircraft carrier and improving its amphibious assault capabilities.

- The PLA continues to prioritize the modernization of its maritime, air, information warfare, and long-range missile forces, and is developing or has fielded cutting-edge capabilities in space, cyberspace, hypersonics, electronic warfare, and artificial intelligence (AI). Beijing is attempting to establish a leading position in the next global “revolution in military affairs” and is employing its “military-civil fusion” strategy to gain advantage in key emerging technologies. U.S. companies that partner with Chinese technology firms may be participants in this process.
- Notwithstanding its long-held policy of maintaining a “minimal nuclear deterrent,” Beijing is growing, modernizing, and diversifying its nuclear arsenal and delivery systems. China doubled the size of its nuclear arsenal over the last decade and U.S. officials estimate it will double it again in the next decade, while Beijing has increased the readiness and improved the accuracy of its nuclear forces.
- China continues to devote ample financial resources to its military modernization, with its officially-reported defense budget ranking second only to the United States since 2002. China’s overall defense spending has seen a nearly eight-fold increase over the past two decades, dwarfing the size and growth rate of other countries in the Indo-Pacific.

Recommendations

The Commission recommends:

- Congress direct the U.S. Department of Defense to incorporate an assessment in its *Annual Report on Military and Security Developments Involving the People’s Republic of China* of China’s progress toward achieving its goal to build a “world-class” military. The report should also include an explanation of how the department defines this term.
- Congress direct a classified assessment identifying where China has undertaken activities that may be aimed at establishing a military presence, operating location, or storage depot. This assessment would include Chinese state-owned enterprises or other commercial interests tied to the Chinese government investing in strategic assets, such as ports and airfields, and should suggest options that could be employed to dissuade host countries from agreeing to host a Chinese military presence.
- Congress direct the U.S. Government Accountability Office to conduct an assessment of the U.S. government’s ability to hire and retain Chinese-language-capable employees. The study would examine U.S. government agencies’ processes for determining Chinese-language-designated positions and hiring and clearing employees, assess the extent to which the agencies are meeting their language proficiency requirements for these positions, measure the effects of language proficiency and gaps on the agencies’ ability to perform their missions, and develop recommendations to address identified shortfalls.

- Congress direct the Office of the Director of National Intelligence to restore the unclassified Open Source Enterprise website to all of its original functions for U.S. government employees. Access to the Open Source Enterprise should also be expanded by making appropriate materials available to U.S. academic and research institutions.

Introduction

In remarks delivered before the CCP's 19th National Congress in October 2017, General Secretary of the CCP Xi Jinping pledged to build the PLA into a "world-class" force by the middle of the 21st century. He added that the PLA would become a fully mechanized force with a substantial increase in "strategic capabilities" by 2020 and a "basically modern" military by 2035.¹ Taken together, these milestones establish a timeline for and help define the goal of General Secretary Xi's sweeping ambition for growing China's military power—what he declared shortly after assuming power in 2012 as China's "Strong Military Dream."²

Chinese leaders have not yet provided concrete details of what exactly a world-class military would comprise, but the basic contours of this force are already discernible. Most fundamentally, a world-class military would fulfill Beijing's ambition to establish itself as a global leader in every important domain of national power and influence. It would be able to match in strength and deter the United States and other leading military powers while coercing its neighbors into accepting Beijing's expansive sovereignty claims and leadership position in the Indo-Pacific region. While remaining primarily focused on achieving China's regional goals, at least in the near term, the force would also be increasingly equipped to defend China's interests beyond the region and to expand Beijing's defensive perimeter far from China's shores. In short, the capabilities of a world-class PLA would support CCP leaders' efforts to place China at the center of world affairs as it completes its multidecade task of achieving "national rejuvenation."

This section explores the drivers and ambitions behind China's world-class military goal, the PLA's development of capabilities supporting this directive, and Beijing's strategy for employing this force to achieve its regional objectives and defend its global interests. It concludes by examining the implications of the PLA's continued modernization for the United States and its allies and partners both within and beyond the Indo-Pacific region. The section is based on the Commission's June 2019 hearing on the topic, the Commission's May 2019 trip to the Indo-Pacific, consultations with experts on the PLA and China's geopolitical ambitions, and open source research and analysis.

A Military to Match Beijing's Ambitions

A World-Class Military and Achieving Global Power Status

Since his assumption of power in 2012, General Secretary Xi has closely linked his efforts to increase China's military power to the CCP's broader ambition to restore what it perceives as China's historical and rightful role as a leading global power. This latter goal, what General Secretary Xi has declared to be "the China dream of

the great rejuvenation of the Chinese nation,” has since its inception contained an inseparable military component—China’s Strong Military Dream. The CCP has since further defined and clarified this military component of its overarching national goal.

At the CCP’s 19th National Congress, General Secretary Xi declared it to be China’s official policy to build a “world-class military” by 2049, a date he has also set as the deadline for achieving China’s national rejuvenation.³ General Secretary Xi, however, did not confine his use of this term to the PLA alone. In his 19th Party Congress address, he also outlined his desire to establish “world-class” Chinese enterprises, advanced manufacturing capabilities, universities, and scientists and technology.⁴ He framed these goals as the logical extension of China approaching the “world’s center stage”—a term repeated in China’s most recent defense white paper, released in July 2019.⁵ As such, a world-class PLA represents the military component of a multifaceted goal to establish China’s leading global position in every important element of national power.⁶

Defining a World-Class Military

Although Chinese leaders have not yet provided concrete details concerning the composition of a world-class military, the PLA’s leading strategists and academic institutions are already working to define the implications and requirements of this goal. At its core, according to these sources, a world-class military will be able to achieve parity in strength, sophistication, and prestige with the world’s other leading militaries. As described by one professor at the PLA’s National Defense University, such a force would have “the powerful strength and deterrent force to match the militaries of world powers”; according to another observer at the PLA Academy of Military Science, a world-class military would be able to “compete with world-class adversaries.”⁷

Other sources describe the capabilities of world-class militaries. Cao Yimin, chief of staff of the ground forces for the PLA’s Western Theater Command, assesses a world-class military must possess “world-class operational theories, personnel, weapons and equipment ... combat power, and innovation abilities.”⁸ Other commentators agree with this assessment, contending such a force would possess “world-class military theories, military systems, weapons and equipment, personnel, and training levels.”⁹ Moreover, it would have deepened “military-civil fusion”—a process that seeks to break down all barriers between the civilian sector and China’s defense industrial base—and achieved the “composite development of mechanization, informationization, and intelligentization,” referring to the central importance of information technology and AI to achieving this goal.¹⁰

No other country features as prominently in China’s vision for its military modernization as the United States. Although PLA sources cite Russia, and to a lesser extent France and the United Kingdom, as other examples of countries possessing world-class military forces, they overwhelmingly recognize the United States as the premier example of a world-class military as well as the one most threatening to China’s own military ambitions.¹¹ In a typical example, the 2013 *Science of Military Strategy*—an authoritative book published by the

PLA's Academy of Military Science*—details at length a number of U.S. military capabilities, including those in the nuclear, space, and cyber warfare domains, that the PLA must develop itself in an era of “increasingly fierce international military struggle.”¹² As M. Taylor Fravel, professor of political science at the Massachusetts Institute of Technology, noted in his testimony to the Commission, for the PLA, “the implication of becoming world-class is clear: China would be in a position to match and deter the United States.”¹³ China's 2019 defense white paper reinforces this view of the United States as both the global military pacesetter and predominant military threat to Beijing. Expressing alarm at what it alleges is Washington's “technological and institutional innovation in pursuit of absolute military superiority,” it cites the United States as leading new global efforts to “seize the strategic commanding heights in military competition.”¹⁴

Central to Beijing's new military modernization goal is the view of top civilian and military leaders that the PLA continues to lag behind the United States and other leading militaries in many elements of military power. Put simply by Dr. Fravel, “Implicit and often explicit in these discussion [sic] of benchmarks is the assessment that the PLA currently falls short of what might constitute a world-class military.”¹⁵ This assessment is also reflected in China's 2019 defense white paper, which notes that although China has made “great progress” in improving its military capabilities, the PLA has yet to fully complete the modernization tasks assigned to it by the CCP and “still lags far behind the world's leading militaries.”¹⁶ A group of experts at the Academy of Military Science further illustrate some of these shortfalls, arguing, “Compared with the world's first-class militaries, our military is still in the historical stage of the composite development of mechanization and informationization and many ‘shortcomings’ for development exist.”¹⁷

Therefore, while the PLA's size and the quality of many of its combat systems confer it a significant advantage in fighting a regional conflict—especially should it prove successful in isolating its neighbors from U.S. support—it appears clear that top Chinese leaders continue to view the PLA as requiring further progress before it can qualitatively match its counterparts in the United States and other leading military powers. (For further discussion of senior Chinese leaders' perceptions of PLA shortcomings, see Chapter 2, “Beijing's Internal and External Challenges.”)

A Dominant Force in the Indo-Pacific and Global Military Challenger

Although Beijing has instructed the PLA to remain primarily focused on East Asia, it has increasingly set the force's sights on defending China's interests throughout the Indo-Pacific region and even farther overseas. Currently, the PLA's “main strategic direction” remains focused on China's east, requiring the force to focus

*In 2015, the PLA's National Defense University published its own version of the *Science of Military Strategy*, which is also an authoritative document on matters of PLA strategy and doctrine. Like the 2013 version published by the Academy of Military Science, the 2015 volume includes language that makes clear the PLA views the United States as the global military pacesetter. For example, it describes the United States as the “leader” of the air forces of developed countries, and notes the superiority of U.S. unmanned weapon systems. Xiao Tianliang, ed., *The Science of Military Strategy* (战略学), National Defense University Press, 2015, 370, 375.

its preparations for war on military contingencies directed at Taiwan.*¹⁸ The CCP has also instructed the PLA to increase preparations for conflicts elsewhere around China's periphery, including with the United States, Japan, India, and other countries in the region should a war break out over Taiwan or another Chinese territorial claim, a scenario referred to in *Science of Military Strategy* as a "chain reaction."¹⁹ In recent years, Beijing has used the PLA to assert China's claims in regional sovereignty disputes, even in the face of opposition from the United States and other regional actors. Moreover, Beijing is increasingly confident that most regional states are acquiescing to the Chinese position that "Asia-Pacific countries ... are members of a community with shared destiny"—CCP phraseology for an eventual Sino-centric order.²⁰

In the view of Chinese leaders, building the PLA into a world-class force would further strengthen Beijing's position in these disputes. Confronted with the prospect of facing a world-class adversary, countries in the Indo-Pacific would be compelled to submit to China's overwhelming military pressure. Meanwhile, the United States would be effectively deterred from intervening in a regional conflict it had little chance of winning, further diminishing the willingness of regional countries to confront Beijing.

At the same time, Beijing has given the PLA unambiguous guidance to increase its operations beyond the Indo-Pacific region. One goal of this strategy is to increase the difficulty the United States would face in intervening in a regional conflict. To this end, Chinese military leaders have spoken of a world-class PLA Navy "challenging and exchanging blows" with a "powerful enemy"—a term referring to the United States—in the far seas.²¹ Another goal is to defend China's overseas interests, which Beijing described in its 2019 defense white paper as of "crucial" importance and in recent years has elevated to a similar level of importance as defending its own territory.²² China has also argued that its national defense policy is of "global significance" and instructed the PLA to "actively participate in the reform of the global security governance system."²³ Taken together, these statements make clear that China views a world-class military as not only allowing it to achieve its regional goals but also supporting its global interests and ambitions.²⁴

Building a World-Class Military

Winning the Next Global "Revolution in Military Affairs"

In order to meet the requirements and missions the CCP has given it, the PLA has continued its decades-long military modernization drive. Beijing is focused on developing capabilities to advance its regional objectives, including deterring and denying U.S. military access to the region in a conflict, but has also in-

*The PLA's focus on East Asia has been reinforced by Beijing's last four military strategic guidelines, issued between 1988 and 2014. The military strategic guidelines constitute the PLA's instructions for preparing for war, and are seen as a way to delineate China's national military strategy. For more on the military strategic guidelines, see M. Taylor Fravel, *Active Defense: China's Military Strategy since 1949*, Princeton University Press, 2019; and David M. Finkelstein, "China's National Military Strategy: An Overview of the 'Military Strategic Guidelines,'" *Right Sizing the People's Liberation Army: Exploring the Contours of China's Military*, Strategic Studies Institute, 2007.

creased its efforts to develop expeditionary capabilities in support of its emerging mission to project force outside the region. Central to the PLA's modernization efforts is achieving a leading position in the next "revolution in military affairs," a transformation of warfare through the introduction of new technologies, doctrines, strategies, and tactics. The 2013 *Science of Military Strategy* notes that successful world powers are adjusting their strategies and capabilities to reflect the growing importance of new technology in the next global revolution in military affairs.²⁵ In this context, although many features of the PLA modernization program seek to emulate or match capabilities possessed by the U.S. military, Beijing is also attempting to offset U.S. advantages by developing advantages in its long-range missile, cyber, space, and electronic warfare capabilities. In addition, Beijing seeks to leapfrog the United States in a number of next-generation defense technologies, including hypersonic, directed energy, electromagnetic railgun, counterspace, and unmanned and AI-equipped weapon systems.²⁶

The CCP's determination to enhance its technological capabilities stems from its view that technological backwardness has been at the root of much of China's military weakness in the modern era.* As Christopher A. Ford, Assistant Secretary of State for International Security and Nonproliferation, noted in testimony to the Commission, China recognizes it may have lost the last revolution in military affairs, "but it is determined to *lead* the next one" [emphasis original].²⁷ Dean Cheng, senior research fellow at the Heritage Foundation, noted in his testimony before the Commission that to this end, the PLA is focused on AI, big data, and cloud computing.²⁸ According to China's 2019 defense white paper, the rapid application of these and similar technologies—such as quantum technology and the Internet of Things—to militaries is contributing to military competition "undergoing historic changes."²⁹

In particular, the PLA views AI as critical in the evolution from informationized to intelligentized † warfare—which would leverage AI and its applications in combat—and has devoted considerable focus to this area.³⁰ China is seeking to become the world leader in AI application to traditional defense sectors such as aviation, aerospace, nuclear, shipbuilding, and ground systems, and also aims to set international norms for certain enabling technologies—including 5G and the Internet of Things—that will be critical to future AI-enabled warfare.³¹

*In the CCP's telling, China suffered at the hands of foreign powers—owing in large part to its ignorance of prior revolutions in military affairs—roughly from the Opium Wars in the mid-1800s through Japanese occupation and the Second World War until the founding of the People's Republic of China in 1949.

†According to Liu Guozhi, director of the Science and Technology Commission under China's Central Military Commission, "Artificial intelligence will speed up the process of military transformation, and it will bring about changes to force organization, operation modes, equipment systems, combat effectiveness models, etc." Wang Liang et al., "Lieutenant General Liu Guozhi, Deputy to the NPC and Director of the Science and Technology Commission at the Central Military Commission: Artificial Intelligence Will Accelerate the Process of Military Transformation" (人大代表、军委科技委主任刘国治中将：人工智能将加速军事变革进程), *China National Radio Military*, March 7, 2017. Translation. http://military.cnr.cn/ztc/h/ppc/yw/20170307/120170307_523641999.html.

Military-Civil Fusion Powering World-Class Ambitions

Beijing has allocated significant resources to develop the cutting-edge military technology it views as essential for realizing its world-class military goal, often through its strategy of military-civil fusion. Although Chinese leaders have long promoted integration between China's civilian and military sectors, General Secretary Xi in late 2013 elevated the military-civil fusion concept to a national strategy and expanded it beyond the defense industry to include all areas of the economy.³² China's pursuit of cutting-edge military technologies has also been supported by a booming defense industry. In 2019, six of the world's top 15 defense firms were Chinese.*³³

Assistant Secretary Ford stated in his written testimony to the Commission that military-civil fusion is central to China's strategy to modernize the PLA. He argued that Chinese universities are particularly important to this strategy and, citing the state-run *Xinhua* news agency, stated that the Chinese university system is the "front line" of military-civil fusion.³⁴ The Chinese government certifies universities to conduct classified research and development on military contracts and to participate in weapons production; to date, 80 Chinese universities have already been certified to undertake such research.³⁵ Assistant Secretary Ford also noted that state-owned defense enterprises often fund the education and living stipends for students in return for a service commitment to these enterprises, turning the students into de facto employees of the defense industry.³⁶

Foreign companies and universities that partner with Chinese technology firms could be contributing to military-civil fusion. As Assistant Secretary Ford noted, "China has focused relentlessly not just upon developing technology indigenously but also upon acquiring it abroad, by means both fair and foul, tilting the playing field in its favor at the expense of U.S. and global companies."³⁷ Several U.S. companies have contributed to or planned to contribute to the development of technology that could be used by the CCP to control information or police its citizens, and the same may occur with technology with military applications. For instance, Microsoft has collaborated with China's National University of Defense Technology—one of the PLA's premier defense research institutions—on AI research that may have military applications.³⁸ Similarly, California-based Teledyne Technologies, Inc. has partnered with Yunzhou Tech, a Chinese firm that has developed missile-equipped unmanned ships and has partnered with universities tied to the PLA.³⁹ In August 2019, one of Teledyne's subsidiaries was awarded a defense contract by the U.S.

*The Chinese firms that made the top 15 list are as follows: Aviation Industry Corporation of China (#5), China North Industries Group Corporation Limited (#8), China Aerospace Science and Industry Corporation (#10), China South Industries Group Corporation (#11), China Electronics Technology Group (#12), and China Shipbuilding Industry Corporation (#14). In the year prior, not a single Chinese company appeared on the top 100 list. It is possible that past rankings suffered from insufficient data—a common problem when analyzing Chinese companies. Ryan Pickrell, "China's Defense Industry Is Exploding onto the Scene As Its Top Arms Makers Push Past Western Powerhouses," *Business Insider*, July 23, 2019; "Top 100 for 2019," *Defense News*, 2019.

Military-Civil Fusion Powering World-Class Ambitions— Continued

Naval Undersea Warfare Center to develop autonomous underwater vehicles.⁴⁰

(See Chapter 3, Section 2, “Emerging Technologies and Military-Civil Fusion: Artificial Intelligence, New Materials, and New Energy,” for further discussion of military-civil fusion.)

Achieving Information Dominance

Guiding the PLA’s modernization efforts is the CCP’s directive for the PLA to prepare to fight “informationized local wars”—conflicts where dominance over the information domain is decisive to victory.⁴¹ Daniel K. Taylor, Acting Defense Intelligence Officer for East Asia at the Defense Intelligence Agency, noted in his testimony before the Commission that the PLA has long believed “dominance in the information domain is the first priority in modern conflict.”⁴² China’s 2019 defense white paper stresses, “War is evolving in form towards informationized warfare,” and the 2013 *Science of Military Strategy* states informationization “is the core of the world’s new military transformation.”⁴³ To this end, achieving information dominance would include “several key lines of operations, including electronic warfare, network warfare, and space warfare,” according to Mr. Cheng.⁴⁴

For the PLA, achieving information dominance in a modern conflict requires the development of offensive capabilities in the information domain. As Mr. Cheng testified, information dominance cannot be achieved by purely defensive measures. From the perspective of Chinese military strategists, offensive capabilities in the information domain are essential to protecting one’s networks and systems.⁴⁵ Indeed, according to an authoritative study guide commissioned by the Academy of Military Science, “it is more important to emphasize the offensive with regards to the information domain than it is in the traditional land, sea, and air domains.”⁴⁶

The PLA Strategic Support Force—created as a result of the PLA reorganization in 2016—is at the forefront of Beijing’s efforts to achieve information dominance.⁴⁷ Beijing’s goal is to build the Strategic Support Force into a force that can contest space, cyberspace, and the electromagnetic spectrum, while also supporting warfighting by other forces through the use of these domains to achieve the PLA’s operational objectives.⁴⁸ Beijing’s 2019 defense white paper singles out cyber capabilities as being of particular importance, stating China will “build cyber defense capabilities consistent with China’s international standing and its status as a major cyber country.”⁴⁹ The document goes on to highlight the Strategic Support Force as a “new type of combat force for safeguarding national security and an important driver for the growth of new combat capabilities.”⁵⁰ General Gao Jin, the former commander of the Strategic Support Force, has said that the force provides vital “support for safeguarding and raising up an ‘information umbrella’ for the military system, which will be integrated with the actions of our land, sea, and air forces and rocket forces throughout an entire operation, [and] will be the key force for victory in war.”⁵¹ The Strategic Sup-

port Force already has sophisticated capabilities, and according to U.S. analysts it is said “to field assets that cover the entirety of the ‘information chain,’ including space-based surveillance, satellite relay and communications, and telemetry, tracking, and navigation.”⁵²

An Emphasis on Naval and Air Power

General Secretary Xi has also placed a significant emphasis on the maritime and air domains, which CCP leaders have prioritized since at least the early 2000s. The PLA Army was traditionally considered China’s most important military service, but has received less attention in recent years. Beijing has increased its spending on the PLA Navy, PLA Air Force, and PLA Rocket Force at the expense of the PLA Army, furthering General Secretary Xi’s emphasis on winning modern wars in the maritime and air domains.⁵³

The transformation of the PLA Navy into a modern, blue water force is foundational to the larger goal of building a world-class military. According to an April 2019 article authored by Shen Jinlong and Qin Shengxiang, the commander and political commissar of the PLA Navy, respectively, “A modern, powerful navy is an important symbol of a world-class military.”⁵⁴ The article also repeated a phrase that General Secretary Xi used in a mid-2013 speech to the CCP Politburo: “The strongest nations are victorious at sea; those in decline are weak.”⁵⁵ Underscoring this emphasis, China’s 2015 defense white paper stated that the entire PLA is to focus on “maritime military struggle,” reflecting a new element of China’s military strategy.⁵⁶

To this end, the PLA Navy has prioritized the development of aircraft carriers and modernization of its submarine force, multimission surface forces, and amphibious assault capabilities. It deployed its aircraft carrier task group to the Western Pacific on multiple occasions beginning in 2016.⁵⁷ Another area of focus for the PLA Navy is subsurface operations. The PLA Navy has researched and developed advanced unmanned underwater vehicles that could potentially “swarm” submarines and launch stealth attacks. According to an October 2018 report in the *PLA Daily*, “Underwater offensive and defense operations constitute a major battle domain for the seizure of sea supremacy, and represent a major means of winning superiority in maritime operations.”⁵⁸ As China continues its rapid buildup of the PLA Navy, it will result in a blue water force projection capability as early as 2025, well ahead of the larger PLA modernization mandate to be completed by 2035, as the Commission has previously assessed.⁵⁹

The modernization priorities of the PLA Air Force and PLA Rocket Force also reflect Beijing’s emphasis on preparing for a conflict that could involve the United States. The PLA Air Force seeks to become a “strategic air force”—a force capable of projecting air power at a longer range—and continues to develop, acquire, and deploy increasingly advanced aircraft to project force into the Western Pacific.⁶⁰ The PLA Rocket Force is developing and testing new variants of missiles, such as hypersonic weapons with global strike capabilities and directed energy weapons, and is developing methods to counter ballistic missile defenses.⁶¹ During China’s celebration of its National Day in Beijing on October 1, the PLA showcased a number of advanced aerospace weapon systems including the hyper-

sonic DF-17 missile, DF-41 intercontinental ballistic missile, CJ-100 cruise missile, as well as stealth and supersonic unmanned aerial vehicles.⁶² Finally, the PLA Army also remains critical to missions such as defending China's borders and spearheading an invasion of Taiwan. It has focused in recent years on developing a "new-type army," which is smaller, more mobile, and suited for deployments abroad to protect China's global interests. The army could be deployed in conjunction with the PLA Navy Marines, who are also tasked with expeditionary operations.⁶³

Pushing the Bounds of a "Minimal Nuclear Deterrent"

China is taking steps that push the bounds of its long-held policy of maintaining a "minimal nuclear deterrent" by growing, modernizing, and diversifying its nuclear arsenal and delivery systems. U.S. Strategic Command estimates that China doubled its number of warheads in the last decade, and officials such as Defense Intelligence Agency director Lieutenant General Robert Ashley, Jr. and U.S. Strategic Command head of intelligence Rear Admiral Michael Brooks assess that China is on track to double its stockpile again over the next decade.⁶⁴ Lieutenant General Ashley further characterized this buildup as "the most rapid expansion and diversification of its nuclear arsenal in China's history."⁶⁵ David Santoro, director and senior fellow for nuclear policy at the Pacific Forum, noted in his testimony to the Commission that China now possesses an arsenal more capable of striking the U.S. homeland than ever before and has been making significant enhancements in its capabilities.⁶⁶

These enhancements include developing the road-mobile DF-41, equipping existing missiles with multiple-independently targetable-reentry vehicles, and testing hypersonic glide vehicle technology that would enable nuclear missiles to better evade an adversary's missile defenses.⁶⁷ The PLA may also be developing a nuclear-capable strategic bomber that would create a nuclear triad by adding an air-launched capability to China's existing land- and sea-based nuclear launch systems.⁶⁸ China does not release official data on its nuclear forces, but the U.S. government and other sources have consistently estimated in recent years that China possesses several hundred nuclear warheads, up from a Defense Intelligence Agency estimate of more than 100 in the late 1990s.*⁶⁹

Significant changes also may occur in China's nuclear policy and posture, due to the expansion of China's nuclear arsenal, the potential creation of a nuclear triad, and the elevation of the then-PLA Second Artillery Force from a branch to a service.⁷⁰ As China's 2019 defense white paper notes, China's nuclear forces are increasing their readiness posture to enhance the country's deterrence capabilities to "protect national strategic security and maintain international strategic stability."⁷¹ Dr. Santoro said that while Chinese

*Government and non-government entities have frequently diverged in the past over their estimates of China's total number of nuclear warheads. Estimates by the Federation of American Scientists, for example, have generally been lower than most U.S. government agencies. As of 2019, however, there appears to be a consensus between the Federation of American Scientists and the Defense Intelligence Agency that China's nuclear stockpile is in the low hundreds. U.S.-China Economic and Security Review Commission, *Hearing on A 'World-Class' Military: Assessing China's Global Military Ambitions*, oral testimony of Daniel K. Taylor, June 20, 2019, 35; Hans M. Kristensen, "DIA Estimates for Chinese Nuclear Weapons," *Federation of American Scientists*, May 31, 2019.

nuclear strategy continues to be focused on deterrence, it will entail “a more integrated deterrence posture,” possibly involving collaboration with the Strategic Support Force, which would be charged with supporting the nuclear forces with deterrence operations in the information, space, and cyber domains.⁷² General Secretary Xi has stated that the PLA Rocket Force needs to be prepared to conduct “comprehensive deterrence and warfighting,” which could imply that the force—including its nuclear component—will not be limited to strict deterrence functions, and could instead take on a more active posture.⁷³ Beijing could also change its posture for nuclear counter-attack by adopting a “launch-on-warning” posture; improvements to the PLA’s information and space-based early-warning system would make such a posture possible.⁷⁴ All of these developments could increase the chances of inadvertent escalation with the United States.

Although the term “world-class” has not been applied to China’s nuclear forces specifically, General Secretary Xi has emphasized the importance to China of possessing a strong nuclear capability. He has said the PLA Rocket Force will be “a strategic pillar for our country’s great power status, and an important cornerstone in protecting our national security.”⁷⁵ Beijing does not appear to be seeking quantitative parity with the United States for its nuclear force. Nevertheless, as Mr. Taylor testified before the Commission, due to the improvement in Beijing’s nuclear capabilities—including more precision strike-capable systems, the development of a nuclear triad, and growth in number of warheads—the CCP “will have more options in the nuclear realm” in the future.⁷⁶

Defense Budget Continues to Eclipse Neighbors

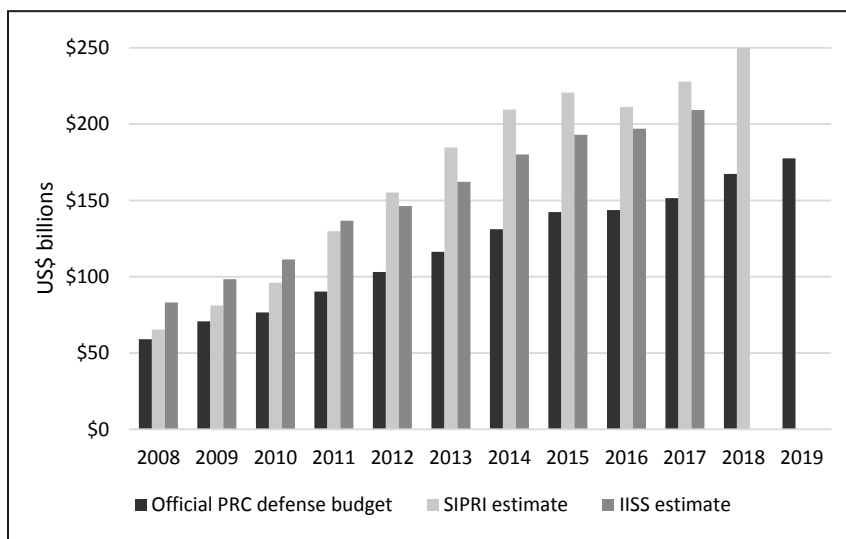
China has spent more on its military than any other country outside the United States since 2002, and its defense budget dwarfs those of its neighbors in the region. As the Center for Strategic and International Studies noted in a 2019 study, “China’s defense spending has seen a nearly eight-fold increase over the past two decades.”⁷⁷ China’s official 2019 defense budget amounted to \$177.61 billion, more than the combined official budgets of India, Japan, and South Korea.* The disparity in defense spending between China and its neighbors is also growing, with China’s 2019 defense budget representing an increase of 7.5 percent over 2018, while India and Japan’s 2019 defense budgets increased by 6.87 and 1.3 percent, respectively.†⁷⁸ Analysts also note the peculiarity of China’s military buildup—the most massive in absolute terms since World War II—at a time when its borders are secure and there is increasing demand for domestic spending.⁷⁹

*The 2019 budgets for select regional countries were as follows: India (\$49.7 billion), Japan (\$47 billion), South Korea (\$41.35 billion), and the Philippines (\$3.4 billion). Vivek Raghuvanshi, “India’s New Defense Budget Falls Way Short for Modernization Plans,” *Defense News*, February 5, 2019; Kim Minseok and Bradley Perret, “South Korean 2019 Defense Budget Up 8.2%,” *Aerospace Daily*, December 12, 2018; Jon Grevatt and Craig Caffrey, “Philippines Outlines 34% Defense Budget Increase,” *Jane’s Defense Weekly*, October 24, 2018.

†The gap in regional defense spending as a percentage of gross domestic product is also substantial. Since 1999, China’s annual overall defense expenditures have been steady at around 2 percent of gross domestic product. Japan and the Philippines, in comparison, spend about 1 percent of their gross domestic product on defense. India, by comparison, spent about 2.4 percent of its gross domestic product on defense in 2018, but this is from a much lower base than China. These percentages are estimated by the Stockholm International Peace Research Institute. Stockholm International Peace Research Institute, “SIPRI Military Expenditure Database.”

China's official budget is not transparent. Authoritative observers note that one cannot accept China's official figures at face value due to Beijing's provision of only top-line numbers and omission of major defense-related expenditures, such as research and development and foreign arms purchases.⁸⁰ For these reasons, Phillip C. Saunders, director of the National Defense University's Center for the Study of Chinese Military Affairs, estimated in testimony to the Commission that the actual budget is likely \$30 billion to \$50 billion more than officially reported.⁸¹ The Department of Defense added an additional 25 percent to China's official budget numbers from 2012 to 2017 in its report to Congress on China's military, and well-regarded think tanks have estimated China's military budget to be a full 40 to 50 percent larger than what the central government officially reports.⁸² According to the Stockholm International Peace Research Institute, China's estimated overall defense expenditure in 2018 was \$250 billion, larger than the combined sums of Saudi Arabia, India, and France (the world's third, fourth, and fifth top spenders, respectively).⁸³ This figure amounted to 1.9 percent of China's gross domestic product and 5.5 percent of government spending that year.⁸⁴

Figure 1: Official and Estimated Actual Chinese Defense Spending, 2008–2019



Source: Center for Strategic and International Studies China Power Project, “What Does China Really Spend on Its Military?” 2019; Members of Center for Strategic and International Studies China Power Project, interview with Commission staff, October 15, 2019.

Note: All values in nominal U.S. dollars. SIPRI stands for Stockholm International Peace Research Institute. IISS stands for International Institute for Strategic Studies. Estimated figures from IISS for 2018 and 2019 and from SIPRI for 2019 are not available.

Even accepting its official numbers, the growth of China's defense spending for 2019 will exceed its 2019 announced economic growth rate target of 6 to 6.5 percent—a figure some observers believe is itself overstated.⁸⁵ Whether calculated by official or estimated growth rates, China's defense spending has outpaced overall economic growth most years since General Secretary Xi assumed power—a

remarkable fact reflecting the high priority Beijing assigns to its military in the face of other demands on government resources.*⁸⁶ Dr. Saunders noted to the Commission that there already exists a competition between China's military services for resources; if the Chinese economy slows down further, it would exacerbate inter-service competition and could delay the production or fielding of high-end assets.⁸⁷

A World-Class Military in Its Region and Beyond

Expanding the Battlespace beyond China's Borders

In recent years, China's military strategy, once focused on territorial defense, has matched the evolving ambition of Beijing's geopolitical goals to increase its focus on expanding the battlespace as far beyond China's borders as possible. Authoritative PLA writings now refer to a concept described as "forward defense," which seeks to extend the PLA's operational reach beyond China's periphery in order to defend China's overseas interests.⁸⁸ According to the 2013 *Science of Military Strategy*, a key PLA goal is to realize the "expansion from home territory defense to forward defense," extending China's defensive perimeter to form an "arc-shaped strategic zone that covers the Western Pacific Ocean and the northern Indian Ocean."⁸⁹ It also discusses the imperative to "strike the enemy from as far range as possible" and to develop the capability to conduct "relatively large-scale joint operations beyond the first island chain" in order to achieve its objectives regarding its territorial disputes.⁹⁰

To this end, the CCP has tasked the PLA Navy to shift its focus from "offshore waters defense" to a combination of "offshore waters defense" and "open seas protection."⁹¹ This has included "speeding up the transition of [the PLA Navy's] tasks from defense on the near seas to protection missions on the far seas," a directive first given in China's 2015 defense white paper and described with greater urgency in its 2019 defense white paper.⁹² Notably, Chinese military leaders' discussion of the need for the PLA Navy to prepare for "challenging and exchanging blows" with the United States in the far seas suggests this new directive comprises both peacetime escort tasks as well as combat missions in a wartime environment.⁹³

Global Interests and Overseas Bases

The expansion of China's interests around the world is a key driver of the CCP's goal to build the PLA into a world-class military. China's 2015 defense white paper explains that "with the ceaseless expansion of China's national interests, its national security is more vulnerable to international and regional turmoil," adding that protecting the security of overseas interests such as energy and resources; sea lines of communication; and other institutions, personnel, and assets abroad has become an "imminent issue."⁹⁴ The 2019 white paper expands on this idea, stating that China's overseas interests are endangered by a variety of threats such as terrorism and "international and regional turmoil," and that the

*Analysts use different methods to assess how Beijing prioritizes military spending. For example, others believe that defense expenditure as a percentage of gross domestic product is a more significant metric than the relative rate of growth of defense spending as it reflects the overall priority a country places on defense issues compared to other national concerns.

PLA must protect them.⁹⁵ An earlier expression of this sentiment is found in the 2013 *Science of Military Strategy*, which states that China's interests are no longer confined to its territory but are "extending toward global public domains, including oceans, space, and electromagnetic space."⁹⁶

In recent years, China has made initial steps to establish a permanent military presence in locations around the world to anchor its expanding defensive perimeter and sustain its overseas operations. In 2019, Beijing signaled it intended to expand this presence, stating that as a matter of national policy the PLA "builds far seas forces and develops overseas logistical facilities ... to address deficiencies in overseas operations and support."⁹⁷ In 2017, the PLA opened its first permanent overseas base in Djibouti,^{*} despite having said in its 1998 defense white paper that "China does not station any troops or set up any military bases in any foreign country."[†]⁹⁸ Shortly thereafter, the PLA opened a satellite and space mission control station in the Patagonia region of Argentina, establishing its first permanent presence in the Western Hemisphere.[‡]⁹⁹ Beijing has a 50-year lease on the land, and experts assess that the facility, which is operated by the Strategic Support Force, could be used to collect intelligence on U.S. and other foreign satellites, missile launches, and drone movements. It could also interfere with or compromise communications, electronic networks, and electromagnetic systems in the Western Hemisphere.¹⁰⁰ In March 2018, then-commander of U.S. Africa Command General Thomas D. Waldhauser testified before the House Armed Services Committee that "the port in Djibouti is not the last port that China will build [in Africa]."¹⁰¹ In February 2019, he reiterated the possibility of more Chinese bases being stood up on the continent during a question and answer session before the Senate Armed Services Committee.¹⁰² Some analysts have pointed to Walvis Bay in Namibia as an example of a potential future PLA base in Africa.¹⁰³

China has also begun expanding its military presence outside its borders in the Indo-Pacific region. According to media reports, the Chinese People's Armed Police, a paramilitary force under the PLA's command, has operated from outposts in Tajikistan for at least three years. The troops, which are based about 10 miles from the border with Afghanistan, are ostensibly on a counterterrorism mission, although Beijing denies reports of their presence outside China's borders.¹⁰⁴ Most recently, according to U.S. officials, Beijing has reached an agreement for the PLA to operate from a naval base in Cambodia. Phnom Penh reportedly would allow China to use the base for 30 years—with automatic renewals every 10 years after

^{*}The PLA refers to its Djibouti installation as a "support facility" rather than a "military installation," likely for political reasons.

[†]This language was repeated in China's 2000 defense white paper but taken out of defense white papers beginning in 2002. China's State Council Information Office, *China's 2002 National Defense*, December 2002; China's State Council Information Office, *China's National Defense*, July 1998.

[‡]The Chinese government operates a number of other overseas facilities, including some linked to the PLA, which it could use for military purposes. For instance, China operates satellite stations in Chile, Namibia, and Sweden. Stephen Chen, "China Launches Its First Fully Owned Overseas Satellite Ground Station Near North Pole," *South China Morning Post*, June 12, 2017; Brook Larmer, "Is China the World's New Colonial Power?" *New York Times*, May 2, 2017; Jeremy Page, "China, U.S. Use Same Tracking Base," *Wall Street Journal*, November 17, 2011; *Globalsecurity.org*, "Swakopmund, Namibia."

that—where it would be authorized to post military personnel, store weapons, and berth warships.¹⁰⁵

China has also reportedly sought to establish a military presence in Vanuatu—which has endorsed the Belt and Road Initiative (BRI)—and many analysts believe China plans a second naval base near Gwadar Port in Pakistan, although the Chinese government denies having intentions to do so.¹⁰⁶ China also is currently building its fifth facility in Antarctica, which will feature China's first permanent airfield on the continent.¹⁰⁷ There is no evidence of Chinese military presence or military involvement in these facilities to date, but it is possible they could support missile tracking and targeting or be used as cover for a clandestine military or intelligence collection presence.¹⁰⁸

The Potential Militarization of the Belt and Road Initiative

China's BRI has emerged as the clearest organizing concept behind the PLA's expanding overseas presence, although the PLA's exact role in providing security for BRI is not yet known.¹⁰⁹ In January 2019, General Secretary Xi called for China to build a “system of security guarantees” for BRI, echoing language used in 2018 by Chinese Minister of Defense Wei Fenghe announcing the PLA's interest in working with Pakistan to provide a security guarantee for BRI projects.¹¹⁰

In publications in military journals, the PLA has described BRI as an effort to expand China's strategic depth, which has generated new requirements and options for Beijing to use and station military forces overseas.¹¹¹ In an article by several PLA Air Force officers, for example, the authors reveal the existence of a military “going global” strategy that requires the PLA to routinize military activities outside China's borders while encouraging the use of BRI investments—especially in ports, airports, and railways—to support overseas power projection.¹¹² In an article published in 2018, a high-ranking PLA Navy officer similarly described BRI as a justification for China to increase its overseas military presence and expand its strategic depth, including by establishing additional overseas military bases.¹¹³ Also in 2018, the PLA Navy South Sea Fleet's commander stated that the force must “closely coordinate with BRI ... and ensure that strategic capabilities can extend and radiate wherever China's interests develop.”¹¹⁴ More recently, in 2019 at a China-hosted forum for the heads of the militaries of Caribbean and South Pacific countries, Minister Wei repeated the idea that BRI serves as a useful platform for military cooperation, calling for military “exchanges and cooperation under the framework of the BRI.”¹¹⁵ According to a PLA journal article published in May 2019, the frequency and scope of PLA overseas operations “must inevitably increase” to protect China's overseas interests, especially BRI projects.¹¹⁶

Protecting China's interests associated with BRI could require further deployments of PLA capabilities overseas, although in the meantime Beijing could rely on private and host nation security forces to fill in the gaps.¹¹⁷ Chinese companies abroad are increasingly procuring security services from Chinese private security contractors rather than U.S. or European counterparts. An estimated

20 Chinese private security companies—often staffed by former PLA officers with close ties to Beijing—now operate overseas and employ 3,200 security personnel in countries such as Iraq, Pakistan, and Sudan.¹¹⁸ Given Chinese laws allowing the CCP to exert a significant degree of control over Chinese enterprises for national security purposes, it seems likely Beijing could use these forces as a tool of national policy in peacetime or during a crisis.¹¹⁹

Over the past decade, in part through BRI, China's investment in overseas commercial ports has increased dramatically, which has raised concerns that Beijing could convert economic stakes into bases or other strategic outposts.¹²⁰ As of 2019, Chinese state-owned enterprises either owned equity in or had an operating lease at approximately 70 ports outside of China.¹²¹ Reservations about Chinese intentions grew when Beijing converted outstanding debt into a controlling equity stake and a 99-year lease for Hambantota port in Sri Lanka in 2017.¹²² Analysts from the U.S.-based Center for Advanced Defense Studies studied Chinese port investments and authoritative Chinese publications discussing the rationales for these investments, finding that they “are generating political leverage, increasing Beijing's military presence, and reshaping the strategic operating environment in China's favor—often at the expense of the recipient country.”¹²³

Ports Chinese firms invest in can also have dual-use military functions; for example, the requirements in China's 2017 National Defense Transportation Law to “embed military in civilian” suggest commercial ports could be utilized by military personnel if Beijing were to decide it was in its interests to do so.¹²⁴ Beijing has also reached agreements for the PLA Navy to use commercial ports in which Chinese enterprises have no commercial stake, including at the Port of Salalah in Oman, for a range of support functions to military operations including refueling and liberty calls.¹²⁵ Accordingly, Isaac B. Kardon, assistant professor at the U.S. Naval War College, noted in testimony to the Commission that although China may not focus exclusively on establishing additional formal military basing agreements—such as those with a status of forces agreement—the “PLA will avail itself of a network of commercial facilities without any formal or overt agreements for military use.”¹²⁶ Such agreements will likely be secured due to the fact that Chinese state-owned enterprises are among the world's leading port operators globally.¹²⁷

Another important concept guiding the growth of the PLA's overseas presence is what Beijing calls its “strategic strongpoint” model. According to this model, Chinese-invested or controlled ports, which range from commercial ports in which Chinese state-owned firms own a controlling stake to outright military bases, such as the one in Djibouti, would be mutually-supporting and facilitate the PLA's overseas operations, including through replenishment and other support services.¹²⁸ The 2013 *Science of Military Strategy* explains that strategic strongpoints will move the PLA in the “direction of the two oceans” (the Pacific and the Indian oceans), act as forward operating bases or otherwise support military operations, and exert influence in the surrounding region.¹²⁹ According to Dr. Kardon, Chinese strategists consider China's naval base in Djibouti as well as the ports at the artificial islands Beijing has built in the South

China Sea to be strategic strongpoints and part of an effort to develop a “large-area maritime defense system.”¹³⁰

Of the two oceans discussed in the *Science of Military Strategy*, Conor Kennedy of the U.S. Naval War College asserts that Beijing is currently prioritizing the Indian Ocean—which links Djibouti and the South China Sea—for the further development of strategic strongpoints as it is the most important passageway for China’s oil imports and other seaborne trade.¹³¹ At the same time, Chinese strategists discuss the potential for establishing strategic strongpoints in the Pacific Ocean, and Beijing’s expanding security cooperation with Pacific Island countries and reported attempts to establish a military presence in the region, such as in Vanuatu, could support this effort.¹³² According to Dr. Kardon, “The addition of a single, more capable ‘base’ in the central Indian Ocean (say at Hambantota, where much speculation abounds about Chinese intentions), on the west coast of Africa, and in the South Pacific, would shorten supply intervals such that the [PLA Navy] could sustain certain expeditionary operations throughout the Indian Ocean region, the South Atlantic, and the Western Pacific, respectively.”¹³³

PLA Expeditionary Capabilities Improving

The PLA has made substantial progress in developing and fielding capabilities for force projection overseas.¹³⁴ The PLA Navy is developing its third aircraft carrier, but its most significant development of force projection capability has been its steady commissioning of amphibious assault ships. Christopher D. Yung, then-Donald Bren Chair of Non-Western Strategic Thought at the Marine Corps University, testified to the Commission that it was the procurement of new amphibious ships that “truly heralded the arrival of China’s naval expeditionary capability.”¹³⁵ These ships include large amphibious transport docks, hovercraft-style landing craft, and a new, larger class of ship that reportedly can carry more than 25 helicopters.¹³⁶ The first ship of the latter class was officially launched in September 2019, though *Jane’s Defense Weekly* assesses that sea trials may not commence for a year.¹³⁷

In addition, China has doubled the size of its marine corps, which is under the command of the PLA Navy, from a force of 20,000 to an estimated 40,000 marines.¹³⁸ The missions of the PLA Navy Marines are also expanding. While the primary mission of the PLA Navy Marines has traditionally been to seize and hold Taiwan’s offshore islands and islands and reefs in the East and South China seas, it is now being described as a “new-type combat force” capable of operating from land, air, and sea and conducting operations in maritime, urban, jungle, tropical, desert, and cold environments.¹³⁹ In the PLA Air Force, China’s new Y-20 strategic heavy-lift aircraft entered service in 2016 and its AN-225 strategic heavy-lift aircraft is in production, both of which will enhance the PLA’s expeditionary capabilities.¹⁴⁰ The PLA Army is also seeking to enhance its suitability for expeditionary operations beyond China’s territorial boundaries, including by strengthening special operations, helicopter, and light mechanized capabilities.¹⁴¹

The PLA’s development of expeditionary capabilities could increase China’s confidence in using force outside its borders. Dr. Yung

assessed the PLA's first out-of-area combat operation will likely be as part of a coalition of countries in the Shanghai Cooperation Organization (SCO), of which China is a founding member, responding to a security crisis such as a terrorist attack or insurgency in a member country.¹⁴² The PLA has been preparing for such an operation through regular combined exercises focused on counterterrorism and internal security threats it has conducted with other SCO militaries since the mid-2000s, which include Russia and the Central Asian states.¹⁴³ Both Dr. Yung and Dr. Kardon assessed the PLA has the transport capability to deploy troops for such an operation and that Beijing, which is sensitive to concerns among foreign countries about its overseas military presence, might feel such an operation would be seen as legitimate due to its being under the auspices of an international organization.¹⁴⁴ Dr. Kardon argued that Beijing might view such an operation as enjoying greater legal justification due to legal provisions in the SCO's agreement governing military exercises among member states, which some Chinese scholars cite as providing a model for future overseas bases.¹⁴⁵

The PLA's deployment of new naval expeditionary capabilities could further alter regional or even global security dynamics. According to Dr. Yung, it is "inevitable" that within 10 to 15 years China will deploy an amphibious ready group—a group of warships that carries a landing force equipped for amphibious operations—beyond its periphery, potentially commencing regular patrols in the Indian Ocean or elsewhere in the region.¹⁴⁶ He argued that such deployments would allow China to quickly respond to an emerging crisis or achieve other geopolitical objectives.¹⁴⁷ The deployment of this type of force could also provide Beijing a significant new tool to increase military coercion of its neighbors, presenting Japan, Taiwan, the Philippines, and others with the prospect of up to thousands of Chinese marines ready to rapidly seize disputed territory in the East and South China seas.

PLA Increasing Overseas Deployments

In recent years, the PLA has increased the frequency and complexity of its overseas operations in peacetime, allowing it to gain valuable operational experience for a potential future overseas military crisis.¹⁴⁸ Most significantly, the antipiracy task groups the PLA Navy has sent to the Gulf of Aden for more than ten years have come to constitute a near-constant PLA presence in the Indian Ocean.¹⁴⁹ These task groups have included submarines since 2013, providing the PLA with opportunities to improve its undersea warfare capabilities far from China's shores, and have been viewed with alarm by regional states such as India.¹⁵⁰ Since 2012, the PLA has also participated in over 100 international joint exercises with multiple different countries and organizations.¹⁵¹

Other key PLA deployments overseas have been for humanitarian assistance and disaster relief (HA/DR) operations and UN peacekeeping operations (PKO). Since 2013, the PLA has conducted ten HA/DR operations abroad and is currently involved in seven PKOs, which have provided the PLA the opportunity to deploy throughout the Indo-Pacific and in Africa and the Middle East.*¹⁵² While the

*This number does not include goodwill visits by the PLA's *Peace Ark* hospital ship.

PLA has significantly improved its ability to deliver relief supplies abroad and deploy more capabilities and personnel on these missions over the past 15 years, these deployments have also allowed the PLA to gain useful experience that could support future overseas deployment of combat troops.¹⁵³ For instance, HA/DR missions provide the PLA with opportunities to practice and improve operational capabilities such as command and control, small unit leadership, engineering, helicopter operations, and the logistics necessary to project and sustain forces abroad (especially strategic lift, medical aid, and long-range supply and sustainment), though offering no real experience in the demands of combat itself.¹⁵⁴ The PLA has used UN PKOs to gain similar experience; in December 2017, for example, a PLA Army helicopter unit deployed to Sudan to support a UN PKO, marking the PLA's first sustained operational overseas deployment of its army aviation capabilities.¹⁵⁵

Routine deployments of Chinese naval and air forces abroad also help improve these services' ability to operate overseas. The PLA Navy regularly makes port calls and conducts exercises with other navies far afield, including in the Mediterranean Sea, Baltic Sea, Gulf of Aden, and the waters off Australia. The PLA's port calls and participation in exercises with other militaries in the Western Hemisphere in recent years, most recently deploying a hospital ship to Venezuela as part of a goodwill visit in September 2018, further demonstrate the PLA Navy's growing global presence.¹⁵⁶ The PLA Air Force has also gained experience with overseas deployments in recent years, sending H-6K strategic bombers and Y-9 transport aircraft to participate in the International Army Games competition in Russia in 2018, marking the first time Beijing had deployed these key power projection aircraft overseas.¹⁵⁷ More recently, a H-6K bomber deployed again to Russia, this time to participate in the "Aviadarts 2019" competition, indicating these deployments may become routine.¹⁵⁸ (See Chapter 4, Section 2, "An Uneasy Entente: China-Russia Relations in a New Era of Strategic Competition with the United States," for further discussion of China-Russia relations.)

Still, significant weaknesses remain in the PLA's expeditionary capabilities, as the force lacks a fully-developed doctrine, robust command and control and logistics, and the forward-deployed medical, maintenance, and repair capabilities required for sustained expeditionary operations beyond China's periphery.¹⁵⁹ Nevertheless, Dr. Yung told the Commission that lessons learned from the overseas operations the PLA has already conducted, in particular its antipiracy operations, have led to improvements in the PLA's ability to conduct and sustain expeditionary operations.¹⁶⁰ The PLA also derived important lessons on overseas operations from its previous experiences evacuating Chinese citizens from unstable countries, including from Libya in 2011 and Yemen in 2015.¹⁶¹ These operations are not combat, nor are they a near substitute for combat, but they do provide the PLA with opportunities to practice and improve capabilities that could be applied to a range of future missions, including combat operations.

Implications for the United States

Beijing's ambition to build the PLA into a world-class military will create challenges for the interests of the United States and its allies and partners in the Indo-Pacific region and beyond. The development of a force that is truly world-class in technology, training, and personnel would likely allow Beijing to prevail in a military conflict with any regional adversary and could increase the willingness of Chinese leaders to employ the PLA to coerce China's neighbors into forfeiting their territorial claims and other sovereign interests. The PLA is already engaged in routine coercion of its neighbors below the threshold of military conflict, which increases the likelihood Beijing would use a more capable PLA even more assertively.

Possessing a world-class PLA would increase Beijing's confidence in its ability to decisively resolve its sovereignty disputes in the region through the use of force. China has major territorial disputes with two U.S. treaty allies in Japan and the Philippines, and views Taiwan, a key U.S. security partner, as a renegade province. Beijing could decide to initiate a military conflict even if it calculated the United States would intervene due to its confidence it would be able to effectively deter or defeat intervening U.S. military forces.

A Chinese military presence outside the Indo-Pacific would present an additional challenge to U.S. intervention as the PLA could use its network of overseas strongpoints to delay or otherwise frustrate the arrival of U.S. forces to the primary regional battlefield. Should the PLA prove able to rapidly achieve its battlefield objectives—not an unlikely prospect given the probable limited scope of a conflict over sovereignty disputes—the United States could be presented with a military *fait accompli*. As Elbridge Colby, then-director of the defense program at the Center for a New American Security, argued in his statement for the Commission's June 2019 hearing, "The foremost danger we face is that China has a *world-class* military that it can put to regional uses, not a global one [emphasis original]."¹⁶²

Advances in the application of AI by the PLA may also lower barriers to military conflict. Derek Grossman, senior defense analyst with the RAND Corporation, wrote in a statement for the Commission's 2019 hearing, "As it begins to rely on autonomous vehicles within a system-of-systems approach to warfare, Beijing is likely to perceive the risk of escalation to decline. In other words, attacking unmanned drones or the computer systems they rely upon will not pose an immediate risk to human life, and thus will be contextualized simply as robotic warfare."¹⁶³ Mr. Grossman also asserts that with the PLA's increased reliance on AI, "the human factor—common sense, emotion, morality, and ethics—might be replaced by cold mathematical computations—increasing the likelihood for miscalculation and war escalation."¹⁶⁴

U.S. commercial or academic collaboration with China on developing cutting-edge technology could make the United States an accomplice to the PLA's efforts to become a world-class force. Military-to-military cooperation that improves the PLA's operational capabilities and officer training could likewise contribute to this outcome. While many U.S.-China military-to-military exchanges serve to stabilize the broader relationship, others are used by the PLA as

opportunities to improve its operational skills and officer training and personnel management programs.

Even without armed conflict between China and the United States, Beijing could use its overseas military presence to influence policies or events in countries outside the Indo-Pacific. Abraham M. Denmark, director of the Asia program at the Woodrow Wilson International Center for Scholars, testified to the Commission, “For countries less concerned about China’s strategic ambitions, China is seen as a potential partner for providing humanitarian assistance and disaster relief, military assistance, and potentially domestic security support.”¹⁶⁵ The CCP already provides support to a number of countries around the world that pursue policies injurious to U.S. interests; a more robust overseas military presence would provide Beijing additional tools to enable the regimes behind these actions. A world-class PLA almost certainly will be an even more appealing security partner for many countries, increasing Beijing’s influence in more corners of the world, even where it cannot project force and sustain combat operations.

Today, the PLA’s capabilities and increasing global presence already pose challenges to the U.S. government and military, and these challenges will only increase as the PLA progresses toward becoming a truly world-class fighting force. As Thomas G. Mahnken, president and CEO of the Center for Strategic and Budgetary Assessments, stated in his testimony to the Commission, China no longer poses a challenge only in its own region. Now, “China poses a challenge—political, economic, and military—that crosses the boundaries of the Defense Department’s geographic combatant commands and the State Department’s regional bureaus.”¹⁶⁶

ENDNOTES FOR SECTION 1

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2. U.S.-China Economic and Security Review Commission, *Hearing on A 'World-Class' Military: Assessing China's Global Military Ambitions*, written testimony of M. Taylor Fravel, June 20, 2019, 1; *PLA Daily*, December 13, 2012, 1; *PLA Daily*, March 1, 2013, 1; Li Dianren, "The Rich Meaning and Significance of Xi Jinping Strong Military Thought" (习近平强军思想的丰富内涵和重大意义), *Qiushi*, December 2, 2017. Translation. http://www.qstheory.cn/2017-12/02/c_1122048010.htm.

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9. U.S.-China Economic and Security Review Commission, *Hearing on A 'World-Class' Military: Assessing China's Global Military Ambitions*, written testimony of M. Taylor Fravel, June 20, 2019, 5; Xiao Tiefeng, "Seeking the Stone of Jade from the Development Experience of the Armed Forces of the World" (从世界各国军队的发展经验中寻找攻玉之石—探索建设世界一流军队的特点规律), *PLA Daily*, February 27, 2018, 7. Translation.

10. U.S.-China Economic and Security Review Commission, *Hearing on A 'World-Class' Military: Assessing China's Global Military Ambitions*, written testimony of M. Taylor Fravel, June 20, 2019, 5; Xiao Tiefeng, "Seeking the Stone of Jade from the Development Experience of the Armed Forces of the World" (从世界各国军队的发展经验中寻找攻玉之石—探索建设世界一流军队的特点规律), *PLA Daily*, February 27, 2018, 7. Translation.

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