

CHAPTER 2

MILITARY AND SECURITY ISSUES INVOLVING CHINA

SECTION 1: YEAR IN REVIEW: SECURITY AND FOREIGN AFFAIRS

Introduction

This section reviews aspects of China's national security and foreign affairs that have emerged since the Commission published its previous Annual Report in November 2013. It also addresses the People's Liberation Army's (PLA's) most significant activities of the year, and the evolving U.S.-China security relationship. The statements and assessments presented here are based on Commission hearings, briefings by U.S. and foreign government officials, the Commission's fact-finding trips to Asia, and open-source research and analysis. For a full treatment of China's military modernization, see Chapter 2, Section 2, "China's Military Modernization." For an in-depth discussion of how China's security and foreign policies impact East Asia, see Chapter 3, Section 1, "China and Asia's Evolving Security Architecture."

China's Major National Security and Foreign Policy Developments in 2014

Since the publication of the Commission's 2013 Annual Report, China's national security and foreign policy apparatuses have established several new institutions, norms, and policies designed to advance China's expanding and evolving interests.

China Establishes a "Central National Security Commission"

The Chinese Communist Party (CCP) Central Committee announced at its November 2013 Third Plenary Session that it would establish a Central National Security Commission to "perfect national security systems and strategies in order to ensure national security."*¹ The Central National Security Commission's status as an agency under the Central Committee makes it the most comprehensive security policy-making body in the Chinese government.

* China's Central National Security Commission is comparable to the United States' National Security Council insofar as both bodies deliberate and coordinate national security policies. A key difference between the two is that the former is a Party organization while the latter is a government organization. Further, China's Central National Security Commission appears to have a much broader mandate, particularly on domestic issues, than the U.S. National Security Council.

Chinese President Xi Jinping heads the Central National Security Commission, which convened for the first time in April 2014.

The Central National Security Commission's broad mandate allows it to establish and direct policy over a wide range of issues, which include political security, homeland security, military security, economic security, cultural security, societal security, science and technology security, information security, ecological security, resources security, and nuclear security.² Its four responsibilities with respect to each of these issues are "stipulating and implementing state security strategies, pushing forward the construction of the rule of law system concerning state security, setting security principles and policies, [and] conducting research."³

The Central National Security Commission's mandate covers both internal and external security issues; however, official Chinese statements, Chinese academics and policy experts, and Chinese state media indicate it likely will focus on the former.⁴ According to Fudan University Associate Dean Shen Dingli, the Central National Security Commission's internal focus suggests President Xi has determined "domestic factors [will] pose the most substantial challenge to [China's] national security for decades to come."⁵ For an in-depth discussion of China's internal security challenges, see Chapter 2, Section 3, "China's Domestic Stability."

By establishing the new Central National Security Commission, President Xi seeks to (1) improve the coordination of China's national security decision making, and (2) consolidate his control over China's national security agenda.

First, the Central National Security Commission's high-level status and its oversight of China's vast and convoluted security policy-making apparatus appear designed to overcome stovepiping, turf battles, and other bureaucratic obstacles to effective and efficient policy making.* President Xi, citing inadequate "security work systems and mechanisms," argued the Central National Security Commission was needed to "strengthen centralized, unified leadership over national security work."⁶

Second, and relatedly, the Central National Security Commission appears designed to improve President Xi's ability to personally control China's national security activities. Although much of the Central National Security Commission's composition is unknown to foreign observers, at least two of President Xi's political allies—Cai Qi and Meng Jianzhu—are rumored to hold prominent positions,† which they likely will use to support President Xi's security priorities. Placing his close associates on the Central National Security Commission also allows President Xi to minimize the influence of political rivals in the national security decision-making process.⁷

*The Central National Security Commission's portfolio of security issues overlaps with several of China's leading small groups. Leading small groups are the CCP's ad hoc policy and coordination working groups, the membership of which consists of Chinese political elites. The work and activities of the leading small groups are generally not transparent, and it is unclear whether or how the new Central National Security Commission will restructure, govern, or marginalize existing leading small groups for national security issues.

†Cai Qi is the former deputy governor of Zhejiang Province; Meng Jianzhu is a Politburo member and in 2012 succeeded Zhou Yongkang as secretary of the CCP's Central Politics and Law Commission, which oversees legal and law enforcement issues. The only confirmed members of the Central National Security Commission besides President Xi are two of his fellow Politburo Standing Committee members, Premier Li Keqiang and Chairman of the Standing Committee of the National People's Congress Zhang Dejiang.

In addition to providing the means to advance his control over China's national security policy, President Xi's ability to establish the Central National Security Commission in the first place is indicative of his remarkably swift consolidation of power since he became General Secretary of the Central Committee of the CCP in 2012. For at least ten years, Chinese leaders had tried and failed to establish similar national security bodies; it is, therefore, particularly meaningful that President Xi was able to secure support from the multiple stakeholders required to finally establish the Central National Security Commission.*

Xi Administration Signals a More "Active" Foreign Policy

Another indication of President Xi's consolidation of power is his success in articulating and directing a much more proactive foreign policy than his predecessors. In March 2014, Chinese Foreign Minister Wang Yi held a high-profile press conference on foreign policy issues during which he said, "'Active' is the most salient feature of China's diplomacy in the past year. . . . In 2014, China will continue to pursue an active foreign policy."⁸ Foreign Minister Wang's remarks are consistent with the Xi Administration's early steps to redefine China's relationship with the world, including its efforts to promote a "new type of major-country relationship" with the United States, which was a key theme of U.S.-China relations in 2013.†

China's foreign policy under President Xi appears to represent a break from former paramount leader Deng Xiaoping's foreign policy tenet to "hide capacities and bide time." "Hide and bide"—the idea that China should seek to develop its economy and society successfully, respond to global events calmly and humbly, and conceal its military capabilities—has served as the basis for China's foreign policy decision making since the early 1990s. President Xi's policy shift is driven by a confluence of factors, including China's expanding regional and global interests; China's growing number of foreign policy actors, some of whom favor a more active global role for China; and China's increasing confidence in its ability to use economic and military tools to achieve its foreign policy objectives.⁹

*In an interview for the *Wall Street Journal*, senior advisor and Freeman Chair in China Studies at the Center for Strategic and International Studies Christopher K. Johnson said of the Central National Security Commission's establishment, "I think this is huge. They've been talking about this forever and Xi Jinping has gone and done it in his first year in office. . . . He's showing that he controls all the levers of power." Jeremy Page, "China Deepens Xi's Powers with New Security Plan," *Wall Street Journal*, November 12, 2013. <http://online.wsj.com/news/articles/SB10001424052702304644104579193921242308990>. See also Marc Julienne, *How Far Will the NPC Go in Implementing Reform: The New Central National Security Commission* (European Council on Foreign Relations, March 2014), p. 6. http://www.ecfr.eu/page/-/ChinaAnalysis_March2014.pdf; and Yun Sun, "PacNet #81: China's New 'State Security Committee': Questions Ahead," *Pacific Forum CSIS*, November 14, 2013. http://csis.org/files/publication/Pac1381_0.pdf.

†Beginning in 2012 and increasingly throughout 2013, Beijing called for a "new type of major-country relationship" with the United States. Official Chinese statements claim the "new type" relationship intends to promote stable relations between China and the United States and avoid the kind of deleterious competition that typically plagues relationships between dominant powers and rising powers. The Obama Administration since late 2013 has sometimes invoked the concept (which it usually refers to as a "new model" of relations) when discussing bilateral ties with China. Caitlin Campbell and Craig Murray, *China Seeks a "New Type of Major-Country Relationship" with the United States* (U.S.-China Economic and Security Review Commission, June 25, 2013). http://origin.www.uscc.gov/sites/default/files/Research/China%20Seeks%20New%20Type%20of%20Major-Country%20Relationship%20with%20United%20States_Staff%20Research%20Backgrounder.pdf; U.S.-China Economic and Security Review Commission, *2013 Annual Report to Congress*, November 2013, p. 229; and U.S. Department of State Bureau of International Information Programs, "U.S., China Agree to 'New Model' of Relations, Kerry Says." <http://iip.digital.usembassy.gov/st/english/inbrief/2013/09/20130919283179.html>.

China's "Peripheral Diplomacy"

A key element of China's new, active foreign policy is the concept of "peripheral diplomacy." Peripheral diplomacy, which emphasizes China's relations with countries in its immediate neighborhood, was the topic of a high-level foreign policy meeting held in October 2013 by the Politburo Standing Committee and attended by other high-level officials.¹⁰ The event was the highest-level foreign policy meeting since 2006. In it, President Xi said China should "strive for obtaining an excellent peripheral environment for our country's development, bring even more benefits of our country's development to peripheral countries, and realize common development."¹¹ Beijing's emphasis on strengthening ties with neighboring countries has been ongoing since the first year of the Xi Administration, during which 12 of the 22 countries visited by President Xi and Premier Li Keqiang were China's close neighbors.¹²

China's focus on building positive relations with its neighbors has manifested in several new diplomatic initiatives, including the "Silk Road Economic Belt," the "21st Century Maritime Silk Road," and the "Bangladesh-China-India-Myanmar Economic Corridor."¹³ Notably, each of these three initiatives heavily emphasizes economic cooperation and integration. Although the initiatives are in their early stages, Beijing's enthusiasm and initial steps toward implementation indicate China's emphasis on peripheral diplomacy is not merely rhetorical.

Silk Road Economic Belt: During a trip to Kazakhstan in late 2013, President Xi proposed establishing a Silk Road Economic Belt from China through Central Asia to Europe for the purpose of enhancing regional economic and cultural integration (see Figure 1).¹⁴ Soon thereafter, representatives from 24 cities in China, Georgia, Iran, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey, and Turkmenistan signed an agreement to establish the Silk Road Economic Belt.¹⁵ According to President Xi, the Silk Road Economic Belt should seek to "build policy communication" in the region by having "full discussions on development strategies and policy response[s]"; "improve road connectivity" between the Pacific Ocean and the Baltic Sea; "promote unimpeded trade" by removing trade and investment barriers; "enhance monetary circulation" by settling trade in local currencies; and "increase understanding between our people" by encouraging people-to-people exchanges.¹⁶

China also likely intends for this new regional arrangement to facilitate access to Central Asian natural resources, particularly oil and natural gas,* and encourage economic development and stability in China's underdeveloped and restive Xinjiang Uyghur Autonomous Region.¹⁷ In addition, Beijing also likely seeks to emphasize to foreign observers its largely positive and peaceful relations with its western neighbors while diverting attention from its coercive actions against many of its East Asian maritime neighbors,

*China's quest for energy security is a primary driver of its engagement in Central Asia, a region rich in oil and natural gas. For a discussion of China's energy engagement with Central Asia, see House Foreign Affairs Subcommittee on Europe, Eurasia, and Emerging Threats, *Hearing on the Development of Energy Resources in Central Asia*, written testimony of Dennis Shea, May 21, 2014. http://origin.www.uscc.gov/sites/default/files/Shea_Testimony_China%E2%80%99s%20Energy%20Engagement%20with%20Central%20Asia%20and%20Implications%20for%20the%20United%20States_0.pdf.

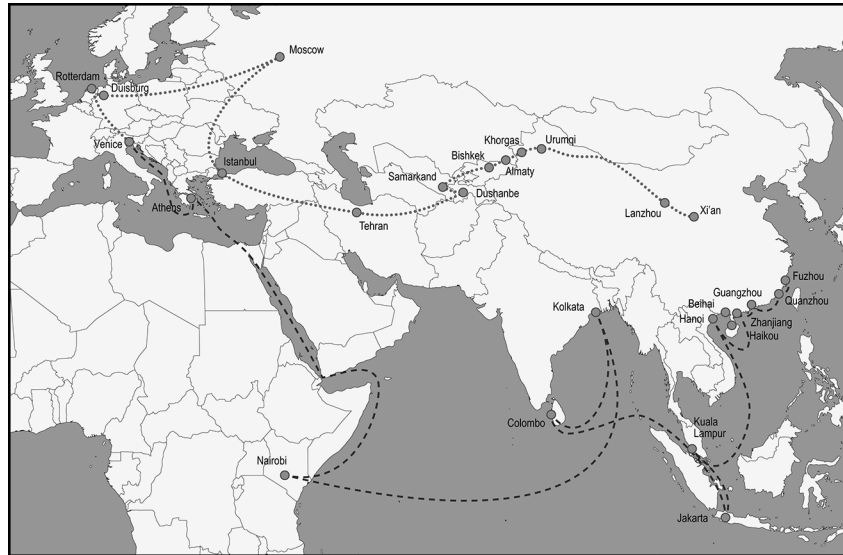
discussed below.¹⁸ Uncertainty about the impact U.S. withdrawal from Afghanistan will have on the region may be another factor behind Beijing's efforts to bolster its presence in Central Asia. China in recent years has steadily increased economic, political, and security engagement with Afghanistan and has indicated it intends to play a stabilizing role in Afghanistan in the future.*

21st Century Maritime Silk Road: Soon after President Xi proposed the Silk Road Economic Belt, he introduced its corollary, the 21st Century Maritime Silk Road, a maritime thoroughfare running from China's coast through maritime Southeast Asia and the Indian Ocean to Africa and the Mediterranean Sea (see Figure 1).¹⁹ Thus far, there is no agreement formalizing participation in the initiative. According to Chinese state-run media, a Chinese Ministry of Foreign Affairs spokesperson stressed that the 21st Century Maritime Silk Road is an "open" initiative and that China welcomes "suggestions from other countries to perfect it."²⁰

Projects associated with the Maritime Silk Road will focus on maritime transport infrastructure.²¹ The arrangement also likely will serve as a symbolic banner under which China and other countries along the route can extol cooperative efforts in the political realm and by which China can reassure its maritime neighbors—many of which have territorial disputes with China—that it seeks to play a cooperative, rather than confrontational, role in Asia's maritime commons.²²

* China has demonstrated a growing interest in stability and security in Afghanistan. For example, in 2012, Zhou Yongkang—then China's top security official—visited Afghanistan, where he signed economic and security agreements, including one to send 300 Afghan police officers to China for training. Mr. Zhou had been the highest-ranking official to visit the country in 46 years. More recently, China established a diplomatic position of Special Envoy for Afghan Affairs, "so as to step up the communication with Afghanistan and all parties concerned and safeguard lasting peace, stability and development of Afghanistan and the region." In the near term, however, China is unlikely to take on a military role in Afghanistan like that of the United States. China Ministry of Foreign Affairs, "Foreign Ministry Spokesperson Hong Lei's Remarks on the Foreign Ministry's Establishment of the Special Envoy for Afghan Affairs," July 18, 2014. http://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/t1175878.shtml; U.S.-China Economic and Security Review Commission, *2012 Annual Report to Congress*, November 2012, p. 320; and Michael Martina, "China Will Not Fill U.S. Void in Afghanistan: Official," Reuters, July 21, 2014. <http://www.reuters.com/article/2014/07/21/us-china-afghanistan-idUSKBN0FQ12I20140721>.

Figure 1: China's Proposed "Silk Road Economic Belt" and "21st Century Maritime Silk Road"



This map, adapted from one featured on the website of Chinese official media outlet Xinhua, traces China's proposed "Silk Road Economic Belt" (the northern section of the loop), and "21st Century Maritime Silk Road" (the southern section of the loop). Locations are not exact. For the original map, see Xinhua (English edition), "New Silk Road, New Dreams." <http://www.xinhuanet.com/world/newsilkway/index.htm>.

Bangladesh-China-India-Myanmar (BCIM) Economic Corridor: According to officials from participating countries, the BCIM Economic Corridor is meant to "advance multi-modal connectivity, harness the economic complementarities, promote investment and trade and facilitate people-to-people contacts."²³ Like the Silk Road Economic Belt, BCIM aims to bring economic development, mostly in the form of transport infrastructure, to rural regions in each of the participating countries.²⁴ Beijing and New Delhi in particular probably will seek to use BCIM as a way to cooperate and build trust to attempt to defuse simmering bilateral political and security tensions.

China Establishes Development Bank with Other BRICS Countries

To complement and reinforce its efforts to increase its influence in peripheral regions, China also is strengthening its global presence by contributing to the New Development Bank, which was established in July 2014 by BRICS countries (Brazil, Russia, India, China, and South Africa). The bank, meant to fund "infrastructure and sustainable development projects in BRICS and other emerging and developing countries,"²⁵ is headquartered in Shanghai and has an initial subscribed capital of \$50 billion, which later will be increased to \$100 billion.²⁶ (By comparison, the World Bank has \$232 billion in capital.)²⁷ China, having provided 41 percent of the initial \$50 billion in capital for the bank, likely will enjoy a higher degree of control over how money is spent than the other BRICS

countries. Several observers welcomed the creation of the New Development Bank and heralded its potential to fill infrastructure gaps in low- and middle-income countries. Others, however, have questioned the credibility of the institution (and the countries it represents) as a globally responsible leader.²⁸ For example, China's lending practices sometimes attract criticism for undermining good governance and environmental sustainability in recipient countries.²⁹

China's New Foreign Aid White Paper

When Foreign Minister Wang extolled China's "active" foreign policy in early 2014, he noted that one of its central characteristics was "playing the role of a responsible, big country."³⁰ One manifestation of China's efforts to play this role is its foreign aid programs. Although China has had such programs for decades, it appears to have made foreign aid a higher priority since 2011, when it released its first foreign aid white paper.* The white paper, China's most authoritative publication on the subject, noted China's total foreign aid through 2009 reached around \$40 billion and had increased by almost 30 percent year-on-year between 2004 and 2009.³¹ China's second foreign aid white paper, which was released in July 2014 and covers the years 2010 through 2012, during which China appropriated about \$14.4 billion in aid,† notes "China will continue to increase the input in foreign assistance" in the future. The paper does not, however, provide any details on China's future foreign aid budget.³²

The 2014 white paper identifies two objectives for Chinese foreign aid: improving people's livelihood (primarily through projects in the areas of agriculture, education, and public welfare) and promoting economic and social development (primarily through infrastructure development). Infrastructure development accounted for almost half (45 percent) of China's allocated foreign aid from 2010 to 2012.³³

China's foreign aid has been and will continue to be an important foreign policy instrument for Beijing. China's "no strings attached" giving, along with its emphasis on solidarity among developing countries, South-South cooperation,‡ and "win-win" relationships, appeals to recipient governments that often resent the conditionality typical of foreign aid from Western countries and lending institutions. China's particular brand of foreign aid bolsters its reputation among governments in the developing world, particularly in Africa, which received 52 percent of Chinese aid from 2010 to 2012.³⁴ Beijing almost certainly will continue to use foreign aid and

*The Chinese government has released dozens of white papers over the years on a variety of economic, foreign policy, political, military, and social issues. These papers serve both informational and propaganda purposes.

†Official Chinese statistics generally blur the distinction between development finance and aid, often referring to them both as "aid." Yun Sun, *China's Aid to Africa: Monster or Messiah?* (The Brookings Institution, February 2014). <http://www.brookings.edu/research/opinions/2014/02/07-china-aid-to-africa-sun>.

‡China's foreign policy in recent years has increasingly emphasized the importance of South-South cooperation, which the United Nations defines as "a broad framework for collaboration among countries of the South in the political, economic, social, cultural, environmental and technical domains. Involving two or more developing countries, it can take place on a bilateral, regional, subregional or interregional basis." United Nations Office for South-South Cooperation, "What Is South-South Cooperation?" http://ssc.undp.org/content/ssc/about/what_is_ssc.html.

other means to cultivate the perception that China is a friend to the developing world.³⁵

Though recipient governments have warmly welcomed China's foreign aid, human rights groups and local populations in recipient countries have been critical.³⁶ China has gained a reputation for using Chinese companies and workers for its foreign aid projects instead of empowering local businesses and people, and for not respecting labor, safety, or environmental regulations in the course of its foreign aid projects.³⁷ Whether the Chinese government is willing and able to improve upon this model will shed light on China's progress toward becoming a truly "responsible" global leader.

China's effort to project an image of itself "playing the role of a responsible, big country" is at odds with its increased aggressiveness toward its neighbors and willingness to flout international laws and norms. Further, its commitment to "playing the role of a responsible, big country" only seems to be a salient feature of China's foreign policy when "being responsible" is in Beijing's own narrow national interests.³⁸ Indeed, China's foreign policy rebranding obscures the fact that one of China's fundamental foreign policy objectives—to preserve China's economic growth and the continuity of CCP rule—has not changed. Foreign Minister Wang suggested as much when he said the primary purpose of China's foreign policy is to "serv[e] the efforts of comprehensively deepening reform in China," "creat[e] a more enabling external environment for domestic reform and development," and "creat[e] more favorable conditions for the transformation and upgrading of China's economy."³⁹

In the near term, China's foreign policy almost certainly will feature more robust external engagement, particularly with its neighbors in Asia. However, Beijing is unlikely to fundamentally reorient its external relations to take on greater responsibility for regional and global challenges. Instead, Beijing will continue to marshal its diplomatic capabilities to advance China's own interests, sometimes at the expense of other countries. Nowhere in China's external relations is this clearer than in China's management of its territorial disputes in the South and East China Seas.

Key Developments in China's Maritime Territorial Disputes in 2014

Since the Commission published its 2013 Annual Report, China has increasingly used coercion to consolidate control over its territorial claims in the South and East China Seas.* Although China's actions are consistent with a pattern of assertiveness in its maritime disputes since approximately 2009, Beijing until late 2013 often justified this assertiveness by claiming it was merely responding to rival claimants' efforts to secure territorial gains in disputed waters. For example, China defended its sharply increased air and maritime presence near the East China Sea's Senkaku Is-

* For the Commission's assessment of the economic implications of China's maritime disputes, see Chapter 1, Section 1, "Year in Review: Economics and Trade." For past Commission assessments of China's objectives, strategies, and behavior related to its territorial disputes in the South and East China Seas, see U.S.-China Economic and Security Review Commission, *2013 Annual Report to Congress*, November 2013, pp. 266–294; U.S.-China Economic and Security Review Commission, *2012 Annual Report to Congress*, November 2012, pp. 215–242; and U.S.-China Economic and Security Review Commission, *2011 Annual Report to Congress*, November 2011, pp. 166–172.

lands in 2012, claiming it was in response to Japan nationalizing the islands. Similarly, when the Philippines deployed a naval ship to the South China Sea in response to illegal Chinese fishing activities at Scarborough Reef in 2012, China responded opportunistically by establishing a near-constant maritime presence in and around the Reef. After the Philippine ships exited the Reef as part of a U.S.-mediated deal for both countries to simultaneously leave the area and reduce tensions, China apparently reneged on the agreement, keeping its ships at the Reef.⁴⁰ Since then, China has effectively controlled access to the Reef.⁴¹

Since late 2013, however, China has been more willing to advance its sovereignty claims without using a perceived provocation by a rival claimant to justify its actions. Ely Ratner, senior fellow and deputy director of the Asia Pacific Security Program at the Center for a New American Security, explained:

Although China began acting more assertively after perceiving its ascension to great power status in the wake of the global financial crisis, Beijing still felt compelled to justify its muscular movements in Asia as necessary reactions to the provocations of “troublemakers” in the region. Sure, China was standing strong, but arguably in response to the adventurism of others. It was more retaliatory than overtly belligerent.

As Beijing made a habit of tempering and justifying its behavior, leading Western analysts developed terms like “reactive assertiveness” and described Chinese revisionism as “cautious and considered.” ... [Since late 2013] however, China’s efforts to alter Asia’s geography have become unequivocally self-initiated. ... China is changing the status quo in Asia because it wants to and thinks it can. Xi Jinping is a confident and powerful leader with a high-priority to-do list, and he’s increasingly enabled with greater capabilities and the institutions to deploy them. Mix in an economic slowdown and a healthy dose of nationalism and you have a recipe for revisionism.⁴²

The three most significant manifestations of this new, even more assertive turn are China’s establishment of an Air Defense Identification Zone (ADIZ) in the East China Sea in November 2013; its relocation of an oil rig to waters disputed by Vietnam in the South China Sea in May 2014; and its ongoing attempts to prevent the Philippines from resupplying its military outpost at Second Thomas Shoal in the South China Sea.

China Establishes an ADIZ in the East China Sea: China’s Ministry of Defense in November 2013 declared an ADIZ over a portion of the East China Sea. The new East China Sea ADIZ is the boldest of China’s recent attempts to demonstrate control, sovereignty, and administration of disputed areas in the East China Sea. Beijing claims the ADIZ, which includes airspace over areas claimed by Japan and South Korea, is necessary to “[protect] state sovereignty and territorial and airspace security” in the East China Sea.⁴³

Putting China's ADIZ in Context

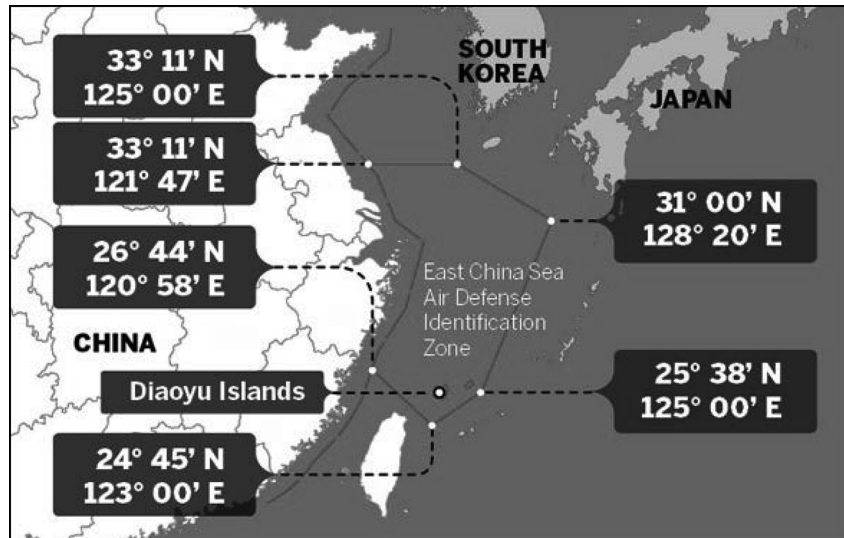
An ADIZ is a publicly-declared area established in international airspace adjacent to a state's national airspace in which civil aircraft must be prepared to submit to local air traffic control and provide aircraft identifiers and location. Its purpose is to allow a state the time and space to identify the nature of approaching aircraft prior to entering national airspace in order to prepare defensive measures if necessary.⁴⁴ The United States established the first ADIZ during the Cold War, and today several countries maintain ADIZs for security reasons.⁴⁵

ADIZs are not prohibited or otherwise explicitly addressed in international law.⁴⁶ This allows states significant flexibility in defining their own ADIZs. For example, unlike most (but not all) countries with ADIZs, China has stated it will apply its ADIZ regulations not only to aircraft intending to enter its sovereign airspace but also to foreign aircraft transiting or operating in the ADIZ that do not intend to enter its sovereign airspace.* The U.S. government opposes this expansive interpretation of the rights of a country to regulate activity in an ADIZ.⁴⁷

Because ADIZs have no explicit basis in international law, states are not legally obligated to comply with other countries' ADIZ requirements.⁴⁸ However, "states tend to recognize them because doing so can enhance security and safety by providing clear rules and areas for the operation and possible interception of aircraft near territorial airspace," according to Michael D. Swaine, senior associate at the Asia Program at the Carnegie Endowment for International Peace.⁴⁹

*According to Mark Stokes, executive director of the Project 2049 Institute, China's Air Force Shanghai Base likely will be the principal implementing body for the ADIZ, with the PLA Air Force Third Radar Brigade and the PLA Navy Second Radar Brigade providing ground-based radar surveillance in the northern and southern sections of the ADIZ, respectively. Mark Stokes, "China's ADIZ System: Goals and Challenges," *Thinking Taiwan*, April 24, 2014. <http://thinking-taiwan.com/chinas-adiz/>.

Figure 2: China's ADIZ in the East China Sea



Source: Xinhua (English edition), "Statement by the Government of the People's Republic of China on Establishing an East China Sea Air Defense Identification Zone," November 23, 2013. http://news.xinhuanet.com/english/china/2013-11/23/c_132911635.htm.

The United States, Japan,* South Korea, Australia, the European Union, and others criticized China's newly established ADIZ.†⁵⁰ According to Evan Medeiros, senior director for Asian Affairs at the U.S. National Security Council, "We [the United States] do not accept, we do not acknowledge, we do not recognize China's declared ADIZ."⁵¹ Nevertheless, in response to a question about China's ADIZ during a November 2013 press conference, the U.S. Department of State Office of the Spokesperson said, "The U.S. government generally expects that U.S. carriers operating internationally will operate consistent with NOTAMs (Notices to Airmen) issued by foreign countries. Our expectation of operations by U.S. carriers consistent with NOTAMs does not indicate U.S. government acceptance of China's requirements for operating in the newly declared ADIZ."⁵²

Beijing likely perceived several potential advantages to establishing an ADIZ:

*The United States and Japan submitted a letter to the United Nations' civil aviation regulator, the International Civil Aviation Organization (ICAO), requesting a review of whether China's ADIZ conforms to ICAO regulations on the safe passage of civilian aircraft. ICAO is expected to consider the letter but it is unclear whether it will respond. NHK Online (English edition), "Japan Asks UN Aviation Body about China's Air Zone," March 11, 2014. Open Source Center transcription. ID: JPR2014031130022028.

†The U.S. Senate also affirmed its opposition to the ADIZ in July 2014 when it passed a bipartisan resolution condemning "coercive and threatening actions or the use of force to impede freedom of operations in international airspace by military or civilian aircraft, to alter the status quo or to destabilize the Asia-Pacific region." Reaffirming the Strong Support of the United States Government for Freedom of Navigation and other Internationally Lawful Uses of Sea and Airspace in the Asia-Pacific Region, and for the Peaceful Diplomatic Resolution of Outstanding Territorial and Maritime Claims and Disputes, S. Resolution 412, 113th Cong., 2nd Sess., July 10, 2014.

- Establishing an ADIZ is a relatively low-cost, low-risk way to bolster China's territorial claim. An ADIZ requires relatively little financial investment, can be established unilaterally, is loosely defined and not explicitly addressed in international law, and provides China the opportunity to augment its growing collection of maps and legal documents that attempt to justify its maritime territorial claims.⁵³
- Establishing an ADIZ puts the onus on foreign countries and foreign aircraft operating in international airspace to decide whether to recognize and comply with China's ADIZ requirement and creates a situation in which foreign aircraft (especially passenger aircraft) are motivated to comply in an effort to mitigate safety risks. As noted above, even the United States, which does not recognize China's ADIZ, for safety reasons has indirectly advised U.S. commercial airlines to comply with it.*
- Beijing likely judges its ADIZ helps China achieve parity with Japan and to a lesser extent South Korea. Both Japan and South Korea have decades-old ADIZs in disputed airspace in the East China Sea and view entry by foreign military aircraft in their respective zones as triggering mechanisms for military responses.⁵⁴ Beijing almost certainly perceived this as advantageous for Japan and South Korea, and sought to "level the playing field" by establishing its own ADIZ.
- China likely views its ADIZ as a public relations tool. By publicizing data on "intrusions" into its ADIZ, China can paint itself as a victim rather than an aggressor.⁵⁵ Conversely, for every aircraft that complies with China's ADIZ requirements, China probably judges its body of evidence justifying its administration of airspace in the ADIZ grows.†

Since establishing its ADIZ, China appears to have dramatically increased its military and government air presence near disputed areas of the East China Sea. According to the Chinese Ministry of Defense website, China "controlled the flight activity of 800 foreign

*Japan does not recognize China's ADIZ, and the Japanese government in November 2013 requested that Japanese airlines refrain from submitting flight plans to Chinese authorities when operating in China's ADIZ. However, remarks by Japanese Foreign Minister Fumio Kishida in a December 2013 press conference suggest this request was somewhat flexible. He said, "Japan's commercial airplanes take necessary measures which facilitate the easy identification of the number of flights, location information, etc. These airplanes are equipped with two-way radio telephone apparatus, automatic answering equipment among other devices, which enables communication at any time." Tim Kelly, "Japanese Airlines to Stop Giving China Flight Plans through New Zone," Reuters, November 26, 2013. <http://www.reuters.com/article/2013/11/26/us-japan-airlines-china-idUSBRE9AP0US20131126>; Japan Ministry of Foreign Affairs, "Press Conference by Minister of Foreign Affairs Fumio Kishida," December 13, 2013. http://www.mofa.go.jp/press/kaiken/kaiken4e_000030.html.

† This approach has worked for Japan, a country that regularly documents noncompliant aircraft intrusions into its own ADIZ. According to Eric Heginbotham, a political scientist at the RAND Corporation, "Japan has used its ADIZ . . . as an effective public relations and diplomatic tool vis-à-vis China. The Japanese Ministry of Defense publishes detailed statistics on scrambles to intercept aircraft within its ADIZ, together with details of some of those events (such as aircraft tracks and photographs). In recent years, the Japanese Ministry of Defense has highlighted a steadily increasing number of intercept missions against Chinese aircraft in Japan's ADIZ." Eric Heginbotham, "The Foreign Policy Essay: China's ADIZ in the East China Sea," *Lawfare* (Blog), August 24, 2014. <http://www.lawfareblog.com/2014/08/the-foreign-policy-essay-chinas-adiz-in-the-east-china-sea/>.

war planes”* in the ADIZ in the month after the ADIZ was established, and sent surveillance, early warning, and fighter aircraft on 87 flights to patrol the ADIZ.⁵⁶ Japan Air Self-Defense Force (JASDF) fighter jet scrambles against Chinese patrols in Japan’s own ADIZ—an imperfect but useful indicator of China’s growing air presence above contested waters in the absence of reliable Chinese statistics—markedly increased after China established its ADIZ. JASDF fighter jets scrambled against China’s aircraft 138 times between October and December 2013, the highest ever number of scrambles against China and 58 more times than in the quarter preceding the establishment of the ADIZ.⁵⁷ Chinese air incursions around Japan in the six months between October 2013 and March 2014 increased 78 percent over the previous six-month period.⁵⁸

China’s ADIZ is problematic in several ways. First, the ADIZ announcement exacerbated the strained bilateral relationship between Japan and China during a period of heightened tension over the East China Sea. Second, China appears to have announced the ADIZ without prior consultation or coordination with other countries.⁵⁹ According to U.S. Secretary of Defense Chuck Hagel, this “adds to tensions, misunderstandings, and could eventually [lead to] dangerous conflict.”⁶⁰ Third, China’s expansive interpretation of a state’s right to establish and enforce an ADIZ (described above) and its willingness to establish an ADIZ above contested maritime territory demonstrate China’s inclination to contravene international norms intended to cultivate a safe environment for international flight in order to advance its own narrow interests. (This also raises questions about whether international aviation law is sufficiently developed to address sovereignty and other political disputes between countries.) Fourth, the Chinese government has not made clear how it would employ what it refers to as “defensive emergency measures” in its ADIZ.⁶¹ This lack of clarity over rules of engagement combined with existing geopolitical frictions elevates the risk of operational miscalculation or accidents among civilian and military aircraft, including those of the United States.

Two close encounters between the PLA Air Force and the Japan Self-Defense Force in China’s ADIZ in 2014 illustrate this last point. The first incident, which occurred in May, involved Chinese SU-27 fighter jets that flew within 170 feet of a Japan Maritime Self-Defense Force (JMSDF) OP-3C surveillance plane and within 100 feet of a JASDF YS-11EB electronic intelligence aircraft.⁶² A second incident occurred in June, when Chinese SU-27 fighter aircraft again flew within 100 feet of a JASDF YS-11EB and within 150 feet of a JMSDF OP-3C.⁶³

Beijing’s November 2013 announcement that it plans to establish additional ADIZs “at an appropriate time after completing preparations” led some observers to speculate China will declare an ADIZ in the South China Sea, where China has maritime disputes with Brunei, Malaysia, the Philippines, Vietnam, and Taiwan.⁶⁴ This

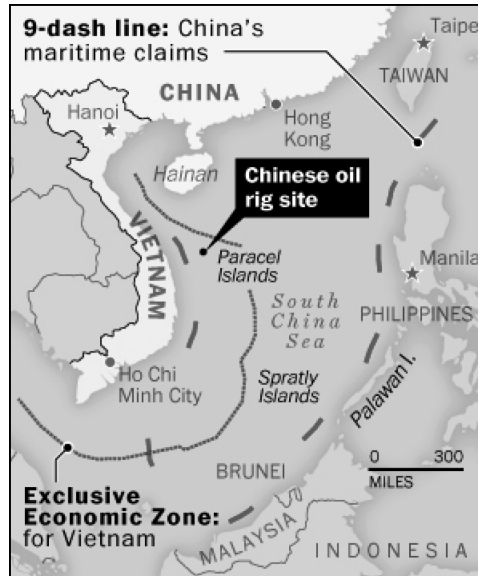
*The Chinese Ministry of Defense does not clarify what it means by “controlled,” but the term likely refers to monitoring and identification activities. Michael D. Swaine, “Chinese Views and Commentary on the East China Sea Air Defense Identification Zone (ECS ADIZ),” *China Leadership Monitor* 43 (March 2014): 22. <http://carnegieendowment.org/files/CLM43MSCarnegie013114.pdf>.

likely would yield fewer risks than in the East China Sea due to the smaller number of aircraft operating in the South China Sea. However, it would escalate tensions among the claimants and violate the Declaration on the Conduct of Parties in the South China Sea, a 2002 document in which China and the countries of the Association of Southeast Asian Nations (ASEAN) declare they will “exercise self-restraint in the conduct of activities that would complicate or escalate disputes and affect peace and stability.”⁶⁵ According to Dr. Medeiros, such a move would be viewed “as a provocative and destabilizing development that would result in changes in [the United States’] presence and military posture in the region.”⁶⁶

China Tows an Oil Rig into Disputed Waters near Vietnam: Between May and July 2014, Chinese state-owned oil company China National Petroleum Corporation towed China’s only ultradeepwater oil rig *Haiyang Shiyou 981* to locations 130–150 nautical miles (nm) off the coast of Vietnam into waters disputed by the two countries.^{* 67} This marked the first time China has deployed an oil rig to another country’s exclusive economic zone (EEZ) † without obtaining permission.⁶⁸ According to the government of Vietnam, over 100 escort vessels, including military ships, accompanied the rig. In the weeks after the rig was deployed, both China and Vietnam accused the other of harassing its vessels in the waters surrounding the rig, with Vietnam claiming China Coast Guard vessels rammed and fired water cannons at Vietnamese law enforcement vessels, injuring dozens of Vietnamese officers and sinking one Vietnamese fishing boat.⁶⁹ China subsequently sent three smaller rigs to the South China Sea, at least one of which also appears to have been towed into waters contested by Vietnam.⁷⁰

*Although China National Petroleum Corporation was operating the rig while it was stationed near Vietnam, the rig is owned by another Chinese state-owned oil company, China National Offshore Oil Corporation.

†According to the United Nations Convention on the Law of the Sea, a coastal state is entitled to an EEZ, a 200-nautical-mile zone extending from the coastline of its mainland and from the coastline of any territorial land features. Within this zone, the state enjoys “sovereign rights” for economic exploitation, (such as for oil and natural gas exploration and exploitation) but not full sovereignty. United Nations Convention on the Law of the Sea, “Article 56: Rights, Jurisdiction, and Duties of the Coastal State in the Exclusive Economic Zone.” http://www.un.org/depts/los/convention_agreements/texts/unclos/part5.htm; United Nations Convention on the Law of the Sea, “Article 121: Regime of Islands.” http://www.un.org/depts/los/convention_agreements/texts/unclos/part8.htm.

Figure 3: Location of China's Oil Rig in Vietnam's EEZ

Source: Adam Taylor, "The \$1 Billion Chinese Oil Rig that Has Vietnam in Flames," *Washington Post*, May 14, 2014. <http://www.washingtonpost.com/blogs/worldviews/wp/2014/05/14/the-1-billion-chinese-oil-rig-that-has-vietnam-in-flames/>.

Vietnam stated China's behavior "seriously infringed Vietnam's sovereignty . . . and went against the spirit and wording of the Declaration on the Conduct of Parties in the [South China Sea] and related regulations in international law."⁷¹ Thousands of Vietnamese citizens responded by looting and setting fire to factories and businesses thought to be Chinese-owned in cities across Vietnam, resulting in several casualties.*⁷² The U.S. Department of State noted that "China's decision . . . is provocative and raises tensions. This unilateral action appears to be part of a broader pattern of Chinese behavior to advance its claims over disputed territory in a manner that undermines peace and stability in the region."⁷³ Others, including several foreign ministers from ASEAN countries, issued statements explicitly or implicitly condemning China's actions.⁷⁴

After drawing ire from Vietnam and the international community for two months, China unexpectedly announced *Haiyang Shiyou 981* had concluded its activities one month ahead of schedule after successfully finding oil and gas reserves and would relocate to waters approximately 68 nm from China's island province, Hainan.⁷⁵ China may have decided to remove the rig from disputed waters early in an effort to minimize criticism of China at the approaching August ASEAN Regional Forum.⁷⁶

* Reports on the number of casualties range from four to 21. Gregory B. Poling, *Recent Trends in the South China Sea and U.S. Policy* (Washington, DC: Center for Strategic and International Studies, July 2014), p. 5. http://csis.org/files/publication/140728_Poling_TrendsSouthChinaSea_Web.pdf; Kate Hodal and Jonathan Kaiman, "At Least 21 Dead in Vietnam Anti-China Protests over Oil Rig," *Guardian*, May 15, 2014. <http://www.theguardian.com/world/2014/may/15/vietnam-anti-china-protests-oil-rig-dead-injured>.

China's decision to deploy the rig to disputed waters demonstrates the Chinese government's willingness and ability to use state-owned oil companies to achieve political and national security objectives. In fact, *Haiyang Shiyou 981's* political and strategic purposes were foretold at its 2012 unveiling, when it was referred to by officials as "mobile national territory" and a "strategic instrument."⁷⁷

China Challenges the Philippines' Control over Second Thomas Shoal: China in March 2014 sought for the first time to block access by the Philippines to its military outpost on Second Thomas Shoal, a contested land feature in the South China Sea located approximately 120 nm from the Philippine coast and more than 800 nm from the Chinese coast.⁷⁸

In what the Philippines government called "a clear and urgent threat to the rights and interests of the Philippines," China Coast Guard ships prevented Philippine civilian supply ships from replenishing Philippine marines aboard the *Sierra Madre*, a warship the Philippines intentionally grounded in 1990 on Second Thomas Shoal.⁷⁹ After being blocked by the China Coast Guard ships, the Philippines was forced to airlift supplies to its outpost.⁸⁰ Three weeks later, Chinese ships again sought to block a resupply mission to the *Sierra Madre* by sailing close to the Philippine resupply ship and blocking its path. The supply ship eventually completed the mission by sailing through waters too shallow for the Chinese ships to enter.⁸¹ Since then, the Philippine Navy has regularly air-dropped supplies to the *Sierra Madre* via parachute.⁸² It is not clear whether additional attempts have been made to resupply the ship by boat. In addition to blocking access to the *Sierra Madre*, Chinese vessels also reportedly blocked or chased away Filipino fishermen from waters near Second Thomas Shoal at least eight times between December 2013 and March 2014,⁸³ and marines aboard the *Sierra Madre* observed what appeared to be three Chinese unmanned aerial vehicles hovering above the Shoal in July and August.⁸⁴

China's efforts to deny the Philippines access to the grounded vessel represent a new step in a now-familiar Chinese strategy to use Coast Guard and other nonmilitary vessels to establish a regular or constant presence in contested waters, intimidate other claimants, and gradually change the status quo. The PLA Navy backs up these operations from a distance, typically deploying destroyers and frigates 60 to 100 nm from China Coast Guard and other non-military ships.⁸⁵ Policy makers in Beijing probably were emboldened by China's success in effectively wresting control of Scarborough Reef from the Philippines in 2012 and seek to achieve a similar outcome at Second Thomas Shoal. China likely will persist in its activities near the Shoal with the objective of increasingly imposing costs on the Philippines' continued efforts to sustain the *Sierra Madre* and maintain control over the Shoal.

The presence of a Philippine Navy ship (albeit a grounded one) and Philippine Marines stationed at Second Thomas Shoal raises the stakes for both countries, as well as the United States. Should Chinese vessels seek to use force against the *Sierra Madre* and the marines stationed there, the United States could decide to inter-

vene on the behalf of the Philippines, with which it shares a mutual defense treaty. This treaty provides, among other things, that:

*Each Party recognizes that an armed attack in the Pacific Area on either of the Parties would be dangerous to its own peace and safety and declares that it would act to meet the common dangers in accordance with its constitutional processes. . . . [A]n armed attack on either of the Parties is deemed to include an armed attack on the metropolitan territory of either of the Parties, or on the island territories under its jurisdiction in the Pacific or on its armed forces, public vessels or aircraft in the Pacific.*⁸⁶*

The treaty's application to "armed forces, public vessels, or aircraft in the Pacific" is clearly relevant to the ongoing situation at Second Thomas Shoal. However, the treaty's language is purposefully vague in its prescription for a response to "an armed attack." For example, should Chinese government or military vessels attack the *Sierra Madre*, the United States could respond in any number of ways—diplomatic, military, or otherwise—to meet its treaty commitment of "act[ing] to meet the common dangers in accordance with its constitutional processes."⁸⁷

In addition to these particularly strident new demonstrations of assertiveness, China continued to gradually assert control and grow its physical presence in disputed waters in 2014 in the following ways:

- *China Ramps Up Land Reclamation in the South China Sea:* China in 2014 made significant progress on various land reclamation projects on Johnson South Reef, Johnson North Reef, Cuateron Reef, Gaven Reef, and Fiery Cross Reef, all of which are Chinese-controlled outposts in the disputed Spratly Islands (see Figure 4, below). In addition to dredging sand to make islands where there previously were none (see Figure 5, below), China appears to be expanding and upgrading military and civilian infrastructure—including radars, satellite communication equipment, antiaircraft and naval guns, helipads, and docks—on some of the islands.⁸⁸

*President Obama reaffirmed the mutual defense treaty during an April 2014 visit to the Philippines, saying, "For more than 60 years, the United States and the Philippines have been bound by a mutual defense treaty. And this treaty means that our two nations pledge . . . our 'common determination to defend themselves against external armed attacks, so that no potential aggressor could be under the illusion that either of them stands alone.' . . . In other words, our commitment to the Philippines is ironclad and the United States will keep that commitment, because allies never stand alone." Jim Garamore, "From Bataan to Typhoon, Obama Praises U.S.-Philippine Alliance," American Forces Press Service, April 29, 2014. <http://www.defense.gov/news/newsarticle.aspx?id=122141>.

Figure 4: China's Major Land Reclamation Projects in the South China Sea

Locations are not exact. Map adapted from James Hardy et al., "China Goes All Out with Major Island Building Project in Spratlys," *IHS Jane's 360*, June 20, 2014. <http://www.janes.com/article/39716/china-goes-all-out-with-major-island-building-project-in-spratlys>.

These land reclamation projects appear intended to bolster the legal standing of China's South China Sea claims ahead of an International Tribunal on the Law of the Sea ruling requested by the Philippines.⁸⁹ The Philippines has asked the tribunal to declare whether certain land features in the South China Sea are islands (which can generate full EEZs) or smaller land features (which can only generate territorial seas out to 12 nm).^{*} China may perceive that if it can demonstrate that the remote South China Sea outposts it occupies are true islands, rather than mere rocks or reefs, it will strengthen the legal and practical justification for its vast territorial claims (see Figure 5, below).[†]

^{*} According to the United Nations Convention on the Law of the Sea, "an island is a naturally formed area of land, surrounded by water, which is above water at high tide" and which may generate an EEZ. However, "rocks which cannot sustain human habitation or economic life of their own" cannot generate territory beyond territorial seas out to 12 nm. United Nations Convention on the Law of the Sea, "Part 8: Regime of Islands." <http://www.un.org/Depts/los/convention/agreements/texts/unclo/clos/indx.htm>.

[†] According to the United Nations Convention on the Law of the Sea, artificial islands are not considered true islands, and thus cannot generate their own territorial seas or EEZs. United

Moreover, these infrastructure improvements are enhancing China's ability to sustain its naval and maritime law enforcement presence in the South China Sea. This is particularly the case at Fiery Cross Reef, where a five-square mile project has been under construction intermittently since 1988. According to IHS Jane's, Chinese facilities there serve as "base" for conducting land reclamation projects elsewhere in the Spratly Islands and host communications equipment, a greenhouse, a wharf, a helipad, and coastal artillery.⁹⁰ Andrew S. Erickson, associate professor at the U.S. Naval War College, and Austin M. Strange, PhD student at Harvard University, suggest Fiery Cross Reef could eventually sustain a PLA Navy command and control center twice the size of Diego Garcia, a U.S. naval base in the Indian Ocean.⁹¹

China also appears to be constructing an airstrip at Johnson South Reef. The Philippines Department of Foreign Affairs in May 2014 released a series of photographs demonstrating the progress of Chinese land reclamation activities there (see Figure 5, below).

Although Vietnam, the Philippines, the United States, and other countries have criticized China's land reclamation projects, a Chinese Ministry of Defense spokesperson defended them, saying, "China's activities on relevant islands and reefs of the [Spratly] Islands fall entirely within China's sovereignty and are totally justifiable."⁹²

Nations Convention on the Law of the Sea, "Part 5: Exclusive Economic Zone." http://www.un.org/depts/los/convention_agreements/texts/unclos/part5.htm.

Figure 5: China's Land Reclamation Activities at Johnson South Reef, March 2012–March 2014



Photographs of China's land reclamation activities on Johnson South Reef, from top to bottom, taken in March 2012, February 2013, February 2014, and March 2014. Image adapted from Pia Lee-Brago, "Photos Reveal Stages of China Reclamation at Reef," *Philippine Star*, May 16, 2014. <http://www.philstar.com/headlines/2014/05/16/1323659/photos-reveal-stages-china-reclamation-reef>.

- *China Asserts Greater Control over Fishing Activities in the South China Sea:* In January 2014, the government of China's island province, Hainan, enacted new measures requiring all foreign ships to obtain approval from the Chinese government before entering "maritime areas" within the 770,000 square nm of Hainan's claimed jurisdiction.⁹³ In March, the Party Secretary for Hainan Province commented that Chinese authorities enforce the regulations "if not every day then at least once a week," noting that "the majority [of perceived incursions by foreign fishing vessels in China's claimed waters] are dealt with by negotiating and persuasion."⁹⁴ China does not regularly publicize arrests of foreign fishermen, but media reports

suggest Chinese authorities frequently arrest or otherwise harass foreign fishermen operating in Hainan's claimed waters.⁹⁵ It is unclear whether the new regulations have led to an increase from previous years in arrests of foreign fishermen in Hainan's claimed waters.

Although the new measures do not appear to set forth new policy, subtle linguistic differences from previous iterations of the regulations suggest Hainan is taking a more pronounced stance regarding perceived foreign infringements on China's "maritime rights and interests."⁹⁶ Whether Hainan's new regulations are the result of directives from the central government is unclear, but given the regulations' politically sensitive nature and implications for China's relationships with its neighbors, Beijing likely had a role in shaping the new measures.

Figure 6: Hainan Province's Claimed Maritime Jurisdiction



The shaded areas of the map represent Hainan Province's claimed maritime jurisdiction. Locations are not exact. Map adapted from Open Source Center, "China: Hainan Province Requires Foreign Fishing Vessels to Gain Permission before Entering Waters," December 20, 2013. ID: CHO2013122036238672.

- *China Continues Air and Sea Patrols around the Senkaku Islands in the East China Sea:* China continues to strengthen its military and law enforcement presence near the Senkaku Is-

lands with increased patrols by PLA Navy surface ships and PLA Air Force fighters in the East China Sea, the continuation (albeit at a lower rate than in 2013) of patrols by China's maritime law enforcement ships in disputed areas,⁹⁷ and the beginning of long-range air strike training in the East China Sea in late 2013.⁹⁸ China uses these highly visible operations to assert its territorial claims, deter Japan from challenging its claims, provide the PLA and maritime law enforcement agencies with valuable operational experience in the East China Sea, and hone China's military options in the event its strategy to consolidate its East China Sea claims through coercion fails.

Developments in Cross-Strait Relations

Relations between China and Taiwan remained stable in 2014 as the two sides tried to sustain progress on economic and other cooperation agreements. Despite the cross-Strait rapprochement, China's military modernization continues to focus on improving its capabilities for Taiwan conflict scenarios that include U.S. intervention.⁹⁹ This modernization program is designed to hedge against a failure of China's cross-Strait diplomatic strategy; deter Taiwan from taking steps toward *de jure* independence; signal to the United States that China is willing to use force against Taiwan if necessary; and enhance China's ability to deter, delay, or deny any U.S. intervention in a cross-Strait conflict. Meanwhile, Taiwan continues to struggle to maintain a credible deterrent capability.¹⁰⁰ For a thorough discussion of economic, political, diplomatic, and military developments in the cross-Strait and U.S.-Taiwan relationships, see Chapter 3, Section 3, "Taiwan."

PLA Exercises and Training

PLA exercises accomplish multiple objectives, which include training in core warfighting competencies, integrating new weapon systems and tactics, developing and refining integrated joint operations command structures and concepts, evaluating crew and platform proficiencies, and demonstrating to other countries that China can project power in Asia and beyond. From late 2013 to 2014, high-profile exercises and patrols included the following:

Mission Action 2013

From September to October 2013, China conducted a major exercise known as Mission Action 2013, which involved about 50,000 troops from China's ground, naval, and air forces as well as extensive civilian assets. The exercise is the latest in the Mission Action series, which began in 2010 and is designed to demonstrate and test the PLA's ability to mobilize large numbers of troops across large distances for power projection in a high-intensity, long-duration campaign.¹⁰¹

Based on the types of activities conducted, official Chinese media reporting, and the PLA units involved, Mission Action 2013 likely simulated a Taiwan invasion scenario. The exercise had three phases: the first and third phases concluded with multi-service amphibious landing operations and the second phase culminated in a long-range air assault. Mission Action 2013 was led by elements

from the Nanjing and Guangzhou military regions, which would be heavily involved in any potential military course of action against Taiwan, and the PLA Air Force. The exercise attests to more robust preparations for potential wartime contingencies.¹⁰²

Highlights of the exercise include the following: the use of advanced information systems, such as the “Information Command Platform,” to provide a near-real-time picture of battlefield conditions and allow commanders to issue orders rapidly to multiple units at the same time while on the move; long-range maneuvers by troops via road, rail, military and civilian air, and navy and ground force ships; two joint amphibious landing drills that were supported by civilian transport ships; and a joint long-range air assault drill with almost 100 aircraft.¹⁰³

Maneuver-5 Exercise

From October 18 to November 1, 2013, the PLA Navy held a sophisticated, large-scale training exercise that spanned China’s near seas and distant seas.* The PLA Navy’s largest blue water exercise to date, it marked the first time the PLA Navy has conducted coordinated combat drills in the Western Pacific with elements from all three of its fleets: the North Sea Fleet, East Sea Fleet, and South Sea Fleet.[†]¹⁰⁴

Operational highlights of the exercise include the following:

- *Interoperability between Fleets:* Maneuver-5 demonstrated the PLA Navy’s increasing ability to coordinate air, sea, and underwater elements from all three PLA Navy fleets.¹⁰⁵ During the exercise, the PLA Navy used China’s regional satellite navigation system, Beidou-2, to facilitate communication and provide guidance and tracking data to participating units.¹⁰⁶ In one instance, a shipboard helicopter provided over-the-horizon targeting information to a destroyer to enable simulated long-range strikes against a target ship.¹⁰⁷
- *Readiness in Realistic Combat Conditions:* Throughout the deployment, the PLA Navy used “ad hoc” scenarios to train shipboard commanders to react to events as they occurred. These scenarios were designed to enhance tactical commanders’ flexibility and responsiveness to changing conditions at sea.¹⁰⁸ PLA Navy Commander Admiral Wu Shengli said the exercise was designed to “[be] combat-realistic to the maximum extent, set combat-realistic scenarios to the maximum extent, [and test] the maximum performance effects of weaponry and equipment.”¹⁰⁹ Traditionally, PLA Navy tactical commanders during exercises have relied on a predetermined exercise script, strict rules of engagement, or explicit orders from higher echelons to guide their actions.¹¹⁰

* China typically defines its “near seas” as waters within the Yellow Sea, East China Sea, and South China Sea. China typically describes its “distant seas” as waters outside of its near seas.

† The PLA Navy’s three fleets are its principal operational and administrative command entities. The North Sea Fleet, headquartered in Qingdao, is responsible for the Yellow Sea and the Bohai. The East Sea Fleet, headquartered in Ningbo, is responsible for the East China Sea, including the Taiwan Strait. The South Sea Fleet, headquartered in Zhanjiang, is responsible for the South China Sea, including the contested Spratly and Paracel Islands.

- *Ability to Operate in Distant Seas and “Break Through” the First Island Chain:* The Maneuver-5 exercise was the eighth PLA Navy long-distance surface deployment of 2013 and showcased the PLA Navy’s growing ability to operate in distant seas.¹¹¹ Chinese media claimed the Maneuver-5 exercise marked “the first time the three PLA [Navy] fleets simultaneously [passed] through the first island chain* to carry out a joint exercise in the Western Pacific.”¹¹² PLA Senior Colonel Du Wenlong said, “The [PLA Navy] has cut up the whole island chain into multiple sections so that the so-called island chains are no longer existent.”¹¹³ Beijing almost certainly views its familiarity with and ability to operate in the Western Pacific as key to interdicting U.S. forces in a potential conflict.

PLA Navy Conducts First-Ever “Combat Readiness Patrol” in the Indian Ocean

In January and February 2014, a three-ship Chinese surface action group carried out a sophisticated training exercise spanning the South China Sea, eastern Indian Ocean, and Philippine Sea. The deployment marked the first time the PLA Navy has conducted what official Chinese sources refer to as a “combat readiness patrol,” or “blue-water training,” in the Indian Ocean. Although the PLA Navy has made forays into the region since at least 1985,¹¹⁴ its presence there has increased considerably over the last five years.¹¹⁵ The PLA Navy used the 23-day deployment to improve operational proficiencies for antisubmarine warfare, air defense, electronic warfare, and expeditionary logistics; train to seize disputed islands and reefs in the South China Sea; enhance its ability to conduct integrated and multi-disciplinary operations; and demonstrate to the Indo-Pacific region that China’s combat reach now extends to the eastern Indian Ocean.¹¹⁶

The surface action group consisted of the *Changbaishan* YUZHAO-class amphibious transport dock (LPD), the *Wuhan* LUYANG I-class guided-missile destroyer (DDG), and the *Haikou* LUYANG II-class DDG. At approximately 20,000 tons, the YUZHAO LPD is China’s largest indigenously built ship class.† During the deployment, the *Changbaishan* embarked China’s only

*The first island chain refers to a line of islands running from Japan, the Senkaku Islands, Taiwan, and the west coast of Borneo to Vietnam. The second island chain refers to a line of islands running from the Kurile Islands through Japan, the Bonin Islands, the Mariana Islands, the Caroline Islands, and Indonesia. PLA strategists and academics have long asserted the United States relies primarily on the “first island chain” and the “second island chain” to strategically “encircle” or “contain” China and prevent the PLA Navy from operating freely in the Western Pacific. Hai Tao, “The Chinese Navy Has a Long Way to Go to Get to the Far Seas,” *International Herald Leader*, January 6, 2012. Open Source Center translation. ID: CPP20120109671003.

†The YUZHAO LPD can carry up to four YUYI hovercraft, 20 amphibious armored vehicles, 800 marines, and at least four helicopters. Given the ship’s size, range, and ability to support over-the-horizon operations using helicopters and hovercraft, it is well suited for amphibious assaults against islands and reefs in the South China Sea and Taiwan-controlled islands in the Taiwan Strait, as well as for search and rescue, humanitarian assistance and disaster relief, and counterpiracy operations. See Chapter 2, Section 2, “China’s Military Modernization,” for more information on China’s YUZHAO specifically and China’s amphibious capabilities generally. U.S.-China Economic and Security Review Commission, *Hearing on PLA Modernization and Its Implications for the United States*, written testimony of Jesse Karotkin, January 10, 2014; IHS Aerospace, Defense, and Security, “Analysis: China’s Expanding Amphibious Capabilities,” October 2013; and Craig Murray et al., *China’s Naval Modernization and Implications for the United States* (U.S.-China Economic and Security Review Commission, August 26, 2013).

operational YUYI-class hovercraft, three helicopters, and one company of marines.¹¹⁷

Operational highlights of the exercise include the following:

- During the deployment, the PLA Navy conducted its first known transit through the Sunda, Lombok, and Makassar straits. These are international straits with regular flows of maritime shipping, albeit far less than the more economical route via the Straits of Malacca and Singapore. As with the Maneuver-5 exercise, these transits appear to be part of a concerted effort by the PLA Navy since 2013 to demonstrate its ability to “break through” the first island chain to operate in China’s “distant seas.”¹¹⁸
- Soon after the surface action group left port, it reportedly rendezvoused with multiple PLA Navy submarines for “submarine-vessel joint ‘enemy’ blockade breakout drills” in the South China Sea. It is unlikely the submarines accompanied the surface action group for the duration of the deployment. Official Chinese media coverage indicates increasing submarine involvement in PLA Navy surface deployments since at least 2010, signaling China is seeking to improve its ability to coordinate surface and submarine units at sea.¹¹⁹
- On January 22, the surface action group conducted amphibious assault training for small-island and reef seizures in the Paracel Islands in the South China Sea, several of which are contested by China, Taiwan, and Vietnam. The training included landing marines by shipborne helicopters and hovercraft. The PLA Navy’s use of YUZHAO LPDs in amphibious assault training since 2008 and the ship’s range and ability to support over-the-horizon assaults using helicopters and hovercraft suggest it would play a significant role in seizures of islands and reefs in the South and East China Seas or in an amphibious assault against Taiwan.¹²⁰

Separately, from December 2013 to February 2014, a SHANG nuclear-attack submarine conducted China’s first submarine combat readiness patrol to the Indian Ocean.¹²¹ China likely also used the deployment to test the submarine and its crew’s ability to operate for long durations at extended distances from China as well as to train for potential crises and wartime operations in the Indian Ocean. China informed Indian military officials that the submarine would be supporting the PLA Navy’s ongoing counterpiracy operations in the Gulf of Aden.¹²² In September 2014, a PLA Navy submarine made a port call in Colombo, Sri Lanka, which coincided with President Xi’s visit to the country.¹²³

PLA Conducts Series of Large-Scale Exercises from May to September 2014

From late May to late September 2014, the PLA held a series of large-scale exercises that involved the PLA ground, air, and naval

forces and all seven military regions.* A Chinese state-run newspaper said the exercises were “of a rare breadth and scale” and explained they were part of the PLA’s efforts to “hone its craft in simulating battles to prepare for potential challenges in a more convoluted international situation.”¹²⁴

- From late May to early September, the PLA held a cross-region mobility exercise, known as Stride-2014. The exercise featured seven separate parts, each led by a combined arms brigade from a different military region. Stride-2014 tested the participating forces’ ability to rapidly maneuver over long distances under simulated wartime conditions. Modes of travel included road, rail, and air.¹²⁵
- Beginning in late June, the PLA conducted a 100-day, two-part artillery exercise, known as Firepower-2014. Exercise participants included six artillery units from the Shenyang, Beijing, Jinan, and Guangzhou military regions; several PLA universities, including the Nanjing Artillery Academy and the Air Defense Forces Academy; multiple training bases; about 20,000 personnel from five military regions; and 1,000 pieces of main battle equipment.¹²⁶
- From late July to early August, the PLA Navy simultaneously conducted major exercises in at least three distinct maritime areas: the Gulf of Tonkin, which borders both China and Vietnam; the East China Sea; and the Yellow Sea. Although a Chinese Ministry of Defense spokesperson characterized the exercises as routine annual training, several official Chinese media articles cited military experts claiming the scale of the naval activity was unprecedented.¹²⁷

Due to PLA requirements for Chinese airspace during these exercises, Beijing ordered 12 airports in eastern China, including two of the country’s busiest airports in Shanghai, to reduce flights by 25 percent from July 20 to August 15, resulting in the cancellation of hundreds of flights.¹²⁸

PLA Participation in Major Joint and Multinational Activities

The PLA participated in more exercises and drills with foreign militaries in 2014 than in any previous year since 2005, according to the U.S. Department of Defense and other sources.¹²⁹ Growing PLA engagement with worldwide militaries complements and augments Beijing’s broader foreign policy efforts, bolsters China’s international image, helps the PLA identify and address specific shortfalls in PLA operational capabilities by observing and absorbing best practices from foreign militaries, and in some cases allows the PLA to field test equipment and obtain hands-on experience operating in unfamiliar environments. As the PLA modernizes and

* China is geographically organized into seven military regions, whose headquarters serve as the administrative centers for the army, navy, and air force units contained within their boundaries. They are, in protocol order: Shenyang, Beijing, Lanzhou, Jinan, Nanjing, Guangzhou, and Chengdu.

becomes more capable and confident, it likely will increase its engagement with foreign militaries.

RIMPAC

Most significant among the PLA's international engagements in 2014 was its participation for the first time in the U.S.-led multinational Rim of the Pacific (RIMPAC) naval exercise. The biennial exercise is the largest maritime exercise in the world, and this year included 49 surface ships, 6 submarines, more than 200 aircraft, and more than 25,000 personnel from 22 countries.¹³⁰ China contributed the second-largest contingent to the exercise (behind the United States).¹³¹ The PLA Navy's decision to send a LUYANG II-class DDG, a JIANGKAI II-class missile frigate, and the *Peace Ark* hospital ship to the exercise* showcases China's desire to use its modern, domestically produced vessels for high-profile missions and international engagements to highlight the PLA Navy's modernization.¹³²

China's participation in RIMPAC began with a ten-day group sail from Guam to Hawaii with naval ships from the United States, Singapore, and Brunei. During the group sail, contingents from the four countries participated in "a number of exercises involving personnel exchanges, weapons firing, ship handling and maneuvering drills and communications exercises," according to Captain Patrick Kelly, commanding officer of the U.S. task force.¹³³ According to media sources, once the RIMPAC participants arrived in the waters off Hawaii, the PLA Navy participated in the following bilateral and multilateral activities with other navies: live-fire drills; † drills for maritime replenishment, small boat assault, humanitarian assistance and disaster relief, tracking and surveillance of merchant vessels, multi-vessel interception and boarding, antipiracy, and maritime search and rescue;¹³⁴ military medical exchanges; and other bilateral and multilateral military and cultural activities.¹³⁵

According to the Chinese contingent's drill director, the PLA Navy had three goals for the exercise: to advance U.S.-China "new-type" military relations, to deepen cooperation and communication with participating navies, and to demonstrate the PLA's intent to protect and promote regional and global peace, security, and stability.¹³⁶

* Participation by the PLA Navy's *Peace Ark*, along with U.S. Navy hospital ship *Mercy*, marks the first participation of hospital ships in RIMPAC. The *Peace Ark* participated in medical subject matter expert exchanges, simulated disaster relief operations at sea, and hosted a military medical symposium attended by around 60 medical officials from participating countries. Hang Shaohu and Chen Weihua, "Visitors Tour Chinese Ships in Hawaii," *China Daily*, July 7, 2014. http://usa.chinadaily.com.cn/epaper/2014-07/07/content_17652596.htm.

† Official U.S. Department of Defense sources have characterized this activity as a "simple gunnery exercise" involving shooting large-caliber guns at targets. Responding to concerns about whether the gunnery exercise violates U.S. law prohibiting engagement in military-to-military activities with China that could "create a national security risk due to inappropriate exposure," (National Defense Authorization Act of 2000), Pentagon officials said, "Through many months of coordination, our expert planners and lawyers have ensured that China's participation in RIMPAC is in strict compliance with U.S. law" and concluded that "there's no violation of U.S. law, so no reason not to do it." *PLA Daily*, "The 'RIMPAC 2014' Exercise Carries Out Main Gun Firing Drills," July 15, 2014. Open Source Center translation. ID: CHR2014071525159222; Zhang Yunbi, "Timeline of China's RIMPAC 2014 Highlights," *China Daily*, August 4, 2014. http://www.chinadaily.com.cn/china/2014-08/04/content_18244900.htm; and Jeremy Page, "In Pacific Drills, Navies Adjust to New Arrival: China," *Wall Street Journal*, July 17, 2014. <http://online.wsj.com/articles/in-rimpac-naval-drills-off-hawaii-militaries-adjust-to-new-arrival-china-1405527835>.

China sent an uninvited intelligence collection ship to monitor and gather information on the exercise.* Although Admiral Samuel J. Locklear III, commander of U.S. Pacific Command, said deploying the intelligence ship inside the United States' EEZ "is within the law and it's [China's] right to do it," he admitted China's "introduction of the [intelligence ship] [was] ... a little odd."†¹³⁷ Indeed, the intelligence collection ship's presence was inappropriate and undermined the spirit of cooperation and transparency that RIMPAC seeks to cultivate.

China's deployment of the intelligence ship also runs counter to Beijing's insistence that foreign militaries provide notification and receive approval prior to operating in China's claimed EEZ. Beijing's naval presence in foreign EEZs indicates China's willingness to operate its military assets in a manner it currently protests. Beijing is unlikely to change its policy to one more aligned with that of the United States, and rather will continue to assert its authority to regulate U.S. military activities in its EEZ even as it increases its own military operations in foreign EEZs and disputed waters in the South and East China Seas.¹³⁸

Aside from its troubling decision to send an intelligence collection ship to the exercises, China's participation in RIMPAC enabled limited but meaningful progress in China's participation in regional security and U.S.-China military-to-military relations.¹³⁹ Michael O'Hanlon, senior fellow at the Brookings Institution, explained that "in isolation [China's participation] doesn't do a great deal of good of course, but it provides the basis for more [cooperation]." ¹⁴⁰ All RIMPAC participants are routinely invited back, so China likely will participate again in 2016.¹⁴¹

Humanitarian Assistance and Disaster Relief

The PLA contributed to major humanitarian assistance and disaster relief (HA/DR) efforts in the Asia Pacific twice in 2014: in response to Typhoon Haiyan in the Philippines and in the search for missing airliner Malaysia Airlines Flight 370. The PLA achieved a number of "firsts" with these two operations. As the PLA's HA/DR capabilities mature and as China seeks to portray itself as an effective leader in East Asia, China almost certainly will seek to play a more prominent role in responding to humanitarian crises and disasters in the region.‡

China provided limited HA/DR contributions to the Philippines in the aftermath of Typhoon Haiyan, which hit the Philippines in November 2013. China's *Peace Ark* arrived in the Philippines two weeks after the typhoon hit, marking the first time China sent a

* China had deployed a similar ship to observe RIMPAC in 2012, but China did not participate in that iteration of the exercise. Kimberly Hsu and Craig Murray, *China's Expanding Military Operations in Foreign Exclusive Economic Zones* (U.S.-China Economic and Security Review Commission, June 19, 2013), p. 1. http://origin.www.uscc.gov/sites/default/files/Research/Staff%20Backgrounder_China%20in%20Foreign%20EEZs.pdf.

† One civilian expert compared China's behavior to "inviting a friend over for dinner and then having their buddy break in your back door to rob you." Andrew S. Erickson and Emily de La Bruyere, "China's RIMPAC Maritime-Surveillance Gambit," *National Interest*, July 29, 2014. <http://nationalinterest.org/feature/china%E2%80%99s-rimpac-maritime-surveillance-gambit-10970>.

‡ During the RIMPAC exercises, the commander of China's *Peace Ark* hospital ship told reporters, "The Chinese Navy will take part in more ... international humanitarian rescues." Rosalind Mathieson, "China's Navy Offers Messages in Soft-Power Display in Hawaii," *Bloomberg*, July 28, 2014. <http://www.bloomberg.com/news/2014-07-27/china-s-navy-shows-off-massage-techniques-in-soft-power-display.html>.

naval vessel overseas for a medical HA/DR mission.¹⁴² The *Peace Ark*'s helicopter transferred sick and injured people to and from the ship for medical treatment, and Chinese media reported the *Peace Ark*'s naval doctors treated 2,208 patients over the 16-day long mission.*¹⁴³

Following the disappearance of Malaysia Airlines Flight 370 in March 2014, China deployed a large number of assets to conduct search and rescue operations. These assets included two IL-76 strategic airlifters, one Y-8 transport aircraft, two modern guided-missile frigates, two large amphibious ships, maritime law enforcement ships, and four helicopters.¹⁴⁴ China also tasked 21 satellites to assist in the operation.¹⁴⁵ The majority of passengers aboard the missing flight were Chinese citizens, and China's rapid response to the disaster likely reflected growing expectations in China for the PLA to protect Chinese citizens and commercial interests overseas.¹⁴⁶

During the search for the plane, China participated in several multinational and bilateral operations, providing China's untested HA/DR force with examples of best practices in the field. For example, the PLA Air Force detachment contributed to multinational air search operations under the coordination of the Royal Australian Air Force, with PLA Air Force aviators working with Australia's Headquarters Joint Operations Command to locate debris thought to be from the missing plane.¹⁴⁷ PLA Navy ships also coordinated their search efforts with those of other countries and for the first time cooperated at the tactical level with the Royal Australian Navy by embarking an officer on an Australian naval ship.¹⁴⁸ Additionally, a PLA Navy DDG conducted information and personnel transfers with an Australian naval ship.¹⁴⁹

Removal of Syrian Chemical Weapons

From January to June 2014, two PLA Navy JIANGKAI-II guided-missile frigates participated in 20 escort missions of the United Nations Organization for the Prohibition of Chemical Weapons to remove chemical weapons from Syria to international waters for neutralization. The escorts were the first time China provided marine transport support for chemical weapons destruction and were undertaken jointly with navies from Russia, Denmark, and Norway.¹⁵⁰ China also reportedly provided ten ambulances and surveillance cameras to assist operations to bring Syria's chemical weapons to port.¹⁵¹ The PLA Navy was well placed to join in the escort mission due to its experience conducting naval escorts in the Gulf

*The *Peace Ark*'s accomplishments were overshadowed somewhat by political tensions related to China's maritime territorial dispute with the Philippines. International media criticized Beijing's initial \$100,000 donation to the relief efforts as too modest, with some observers suggesting China's limited response was a reflection of increased political tensions between the two countries. Perhaps in response to this criticism, China later pledged an additional \$1.64 million in aid and supplies. Brian Spegele, "China Offers Modest Aid to Philippines after Typhoon Haiyan," *China Real Time Report* (Blog), November 12, 2013. <http://blogs.wsj.com/chinarealtime/2013/11/12/china-offers-modest-aid-to-philippines-after-typhoon-haiyan/>; Jane Perlez, "China Offers Relatively Modest Aid for Typhoon Victims," *Sinosphere* (New York Times blog), November 11, 2013. <http://sinosphere.blogs.nytimes.com/2013/11/11/china-offers-relatively-modest-aid-for-typhoon-victims/>; Hannah Beech, "China to Philippines: Here, Have a Measly \$100,000 in Aid," *Time*, November 13, 2013. <http://world.time.com/2013/11/13/china-to-philippines-here-have-a-measly-100000-in-aid/>; and "Typhoon Haiyan: China Gives Less Aid to Philippines than Ikea," *Guardian*, November 14, 2013. <http://www.theguardian.com/world/2013/nov/14/typhoon-haiyan-china-aid-philippines-ikea>.

of Aden since 2009. By virtue of this experience, PLA Navy ships involved in counterpiracy activities in the Gulf of Aden also have become familiar with the Mediterranean Sea through port calls and other activities.¹⁵²

From a political standpoint, China's role in the chemical weapons removal likely was motivated by Beijing's desire to demonstrate China's will and ability to play a positive role in addressing global security problems, particularly after being criticized by the international community in recent years for its refusal to condemn the Syrian government in the United Nations Security Council.¹⁵³

Counterpiracy Operations

Since January 2009, China has sustained a naval task group in the Gulf of Aden to conduct counterpiracy operations. This represents the PLA's largest overseas presence. As of August 2014, the PLA Navy had deployed more than 10,000 personnel in 18 successive two- or three-ship task groups over nearly six years. Chinese official media sources state the PLA Navy has protected more than 5,670 commercial ships from China and over 60 other countries over the course of more than 540 escorts. In the past year, PLA Navy special forces also conducted on-board escort missions for 18 ships and rescued one commercial vessel from a pirate attack.¹⁵⁴ In September 2014, the PLA Navy deployed a submarine to the Gulf of Aden to support its counterpiracy operations there.¹⁵⁵

In addition to its ongoing counterpiracy operations in the Gulf of Aden,* the PLA Navy has conducted antipiracy drills with several other countries in 2014. In March, the 16th escort task force to the Gulf of Aden conducted joint antipiracy drills—including taskforce maneuvering, maritime replenishment, light signaling,† and anti-ship firing—with the European Union Combined Task Force 465.¹⁵⁶ In May, as part of a joint China-Russia exercise in the East China Sea, the PLA Navy and Russian Navy simulated antipiracy rescue operations.¹⁵⁷ In June, before sailing back to China following the completion of its escort responsibilities in the Gulf of Aden, the PLA Navy's 16th escort task force visited eight African countries and for the first time conducted antipiracy drills with the Cameroon Navy in the Gulf of Guinea.¹⁵⁸ The PLA Navy and the U.S. Navy are scheduled to hold the third in a series of annual joint counterpiracy exercises in 2014.¹⁵⁹ As this Report went to print, this exercise had not occurred.

14th Western Pacific Naval Symposium

China hosted the Western Pacific Naval Symposium for the first time in April 2014.¹⁶⁰ The Symposium was established in 1988 and now includes 21 members and three observers.‡ According to its

*For an overview of China's counterpiracy operations in the Gulf of Aden since 2009, see U.S.-China Economic and Security Review Commission, *2013 Annual Report to Congress*, November 2013, pp. 215 and 231; U.S.-China Economic and Security Review Commission, *2012 Annual Report to Congress*, November 2012, pp. 136, 143, 301, and 318; U.S.-China Economic and Security Review Commission, *2011 Annual Report to Congress*, November 2011, pp. 162–163; and U.S.-China Economic and Security Review Commission, *2009 Annual Report to Congress*, November 2009, pp. 118–125.

†Light signaling refers to visual communication between ships using patterns of flashing lights.

‡The members of the Western Pacific Naval Symposium are Australia, Brunei, Cambodia, Canada, Chile, China, France, Indonesia, Japan, Malaysia, New Zealand, Papua New Guinea,

charter, the Symposium aims to “increase cooperation and the ability to operate together, as well as to build trust and confidence between Navies by providing a framework to enable the discussion of maritime issues of mutual interest, the exchange of information, the practice and demonstration of capabilities, and the exchange of personnel.”¹⁶¹

The most notable accomplishment of the two-day event, which was held in Qingdao, Shandong Province, was the unanimous approval of a Code for Unplanned Encounters at Sea (CUES). According to the U.S. Navy, CUES, which China had opposed at previous iterations of the Symposium,^{*} is a voluntary and legally non-binding “agreement upon which the participating nations have a standardized protocol of safety procedures, basic communications and basic maneuvering instructions to follow for naval ships and aircraft during unplanned encounters at sea.”¹⁶² If observed consistently, CUES could significantly reduce the risk of miscommunication, miscalculation, and accidents at sea. Regional navies warmly welcomed CUES’ approval. U.S. Chief of Naval Operations Admiral Jonathan Greenert remarked, “We’ve agreed to increase the standards that we will set at sea. We’ve agreed to establish proficiency in communications. We’ve agreed to establish common behavior at sea. We’ve agreed to prevent misunderstanding and miscalculations,” and Admiral Wu Shengli praised the agreement as a “milestone document.”¹⁶³

The Western Pacific Naval Symposium was not untouched by regional tensions, however. China declined to invite Japan to an international fleet review that it had planned to host in Qingdao following the Symposium. Although China maintained it was holding the review to celebrate the anniversary of the establishment of the PLA Navy, U.S. officials said China had invited the U.S. Navy to participate in the review as part of the Symposium, not as a separate event. In response to China’s snub of Japan, the United States decided not to send its own ships to the fleet review, and instead participated as an observer. China ultimately cancelled its international fleet review, ostensibly due to the “special circumstances and atmosphere” of the international search for missing Malaysia Airlines Flight 370.¹⁶⁴

Implications for the United States

With a few exceptions, the U.S.-China security relationship deteriorated in 2014. The rhetoric of a “new type of major-country relationship,” embraced by both countries in 2013, has not had a warming effect on bilateral ties and mutual suspicion and distrust persist.¹⁶⁵ This can be attributed in large part to the two countries’ competing visions for the future of Asia: whereas the United States seeks a stable and prosperous region in which it has a primary role in perpetuating the rules-based liberal order, China seeks to dis-

Peru, Philippines, South Korea, Russia, Singapore, Thailand, Tonga, the United States, and Vietnam. Bangladesh, India, and Mexico are observers.

^{*}At the 2012 Western Pacific Naval Symposium, for example, China opposed endorsing CUES because it was concerned the word “code” implied that the agreement was legally binding. Megha Rajagopalan, “China won’t swallow ‘bitter pill’ of ceding sovereignty rights: military official,” Reuters, April 23, 2014. <http://www.reuters.com/article/2014/04/23/us-china-military-idUSBREA3M0YY20140423>.

place U.S. primacy in East Asia and the Western Pacific and promote a new regional security architecture led by China and in which the United States plays a more limited role. (For an in-depth discussion of China's vision for Asian security, see Chapter 3, Section 1, "China and Asia's Evolving Security Architecture.")

In addition to longstanding policy differences between the United States and China over fundamental security issues (such as Taiwan), the relationship was strained most obviously in 2014 by China's destabilizing, unilateral, and coercive actions in the South and East China Seas and China's willingness to engage the United States in confrontational and dangerous air and maritime encounters.

As noted previously, China has pursued a more assertive approach to its longstanding territorial disputes in the South and East China Seas since 2009. China's efforts to justify and consolidate its claims directly undermine the values guiding U.S. policy in Asia: peace, stability, and the rule of law. Washington has a particular interest in the peaceful resolution of China's disputes with Japan and the Philippines, both of which are U.S. treaty allies.

U.S. and Chinese officials frequently exchanged barbs over the disputes in 2014, usually following a pattern in which U.S. officials would express concern and Chinese officials would respond by asserting Washington should stay out of "regional matters." In March, for example, the U.S. Department of State referred to China Coast Guard vessels' efforts to intimidate Philippine ships in the South China Sea as a "provocation" and the Chinese Foreign Ministry responded by saying "The U.S. comments ignored the facts, ran against its status as a non-claimant, and violated its commitment to not taking sides over the dispute."¹⁶⁶ Later, in response to a U.S. State Department proposal to "freeze certain actions and activities that escalate disputes and cause instability" in the South China Sea, the Chinese Foreign Ministry stated, China "hopes that countries outside the region strictly maintain their neutrality, clearly distinguish right from wrong and earnestly respect the joint efforts of countries in the region to maintain regional peace and stability."¹⁶⁷

China's most strident attempts to change the status quo in the South and East China Seas in the past year—establishing an ADIZ in the East China Sea, placing an oil rig in Vietnam's EEZ, attempting to block the Philippines' access to Second Thomas Shoal, and its land reclamation activities in the South China Sea—challenge U.S. efforts to de-escalate ongoing tensions in the Asia Pacific. Calls, however strongly worded, from the United States and other governments for China to cease using intimidation and coercion to achieve its territorial objectives have not deterred Chinese behavior.

In addition to antagonizing U.S. allies in East Asia, PLA aircraft and ships have on several occasions since late 2013 confronted U.S. military aircraft and ships in international airspace and waters in East Asia. On each of these occasions, Chinese military personnel engaged in unsafe, unprofessional, and aggressive behavior.

- In December 2013, U.S. Navy guided missile cruiser *Cowpens* and a PLA Navy amphibious landing ship came close to colliding in international waters of the South China Sea when the

Chinese ship approached to within 300 feet of the *Cowpens* and blocked its path. The *Cowpens* was forced to take evasive action to avoid a collision. Secretary Hagel referred to the Chinese ship's actions as "unhelpful" and "irresponsible," and warned that such behavior "could be a trigger or a spark that could set off some eventual miscalculation."¹⁶⁸

- In August 2014, an armed Chinese J-11 fighter jet crossed several times beneath a U.S. Navy P-8 surveillance plane. The Chinese jet then barrel rolled over the U.S. plane, passing within 20 to 45 feet. U.S. defense officials called the maneuver, which occurred over international waters in the South China Sea, "aggressive," "unprofessional," and a "deeply concerning provocation."¹⁶⁹ The Pentagon disclosed that this was one of four similar incidents since March in which Chinese military aircraft intercepted U.S. planes.

It is unclear whether these actions were tactical-level decisions made by the pilots or the commanding officer of the ship, operational-level decisions made by unit commanders, or actions ordered by higher authorities in Beijing to send strategic signals. Regardless, the PLA has demonstrated a pattern of provocative, aggressive, and dangerous behavior aimed at the U.S. military in maritime East Asia that creates the risk of miscalculation, escalation, and loss of life.

Although confrontation over maritime issues was the biggest contributor to U.S.-China tensions in 2014, other major impasses in the bilateral relationship persisted. Most prominent among these were cybersecurity and North Korea, both of which are addressed elsewhere in this Report.* Regarding the former, longstanding tension between Washington and Beijing over cyber issues continued to plague the relationship in 2014 when China in May suspended a bilateral Cyber Working Group after the U.S. Department of Justice indicted five PLA personnel for cyber espionage.[†]¹⁷⁰ Similarly, China and the United States made no measurable progress in cooperating on North Korea, despite the North's ever-growing threat to East Asian security.

Despite the steady deterioration of the bilateral security relationship between China and the United States, the bilateral military-to-military relationship is becoming increasingly institutionalized. The most visible manifestations of improving relations are more frequent and higher-profile combined and joint naval exercises and increased military engagements at every level between the U.S.

* See Chapter 1, Section 1, "Year in Review: Economics and Trade," for a discussion of China's cyber-enabled commercial theft aimed at the United States. For an assessment of China's cyber policies and their implications for the United States, see U.S.-China Economic and Security Review Commission, *2013 Annual Report to Congress*, November 2013, pp. 243–265. For a discussion of China-North Korea relations and the role North Korea plays in U.S.-China relations, see Chapter 3, Section 2, "Recent Developments in China's Relationship with North Korea."

† Although U.S. Secretary of State John Kerry noted that conversations about cybersecurity at the 2014 U.S.-China Strategic and Economic Dialogue were "frank," it appears the United States made little progress convincing China to change its approach to cyberspace or deter Chinese cyber theft of U.S. intellectual property. In fact, the word "cyber" does not even appear on a 116-item list of "outcomes" of the Strategic and Economic Dialogue's Strategic Track discussions. U.S. Department of State, "U.S.-China Strategic and Economic Dialogue Outcomes of the Strategic Track," July 14, 2014. <http://www.state.gov/r/pa/prs/ps/2014/07/229239.htm>; Lesley Wroughton and Michael Martina, "China, U.S. to Boost Security Ties, but No Breakthroughs," Reuters, July 10, 2014. <http://www.reuters.com/article/2014/07/10/us-china-usa-idUSKBN0FF0Y520140710>.

Armed Forces and the PLA.¹⁷¹ Thus far, however, stronger military-to-military ties have done little to reduce distrust and tension in the broader relationship.

Selected U.S.-China Security-Related Visits and Exchanges

Presidents Obama and Xi meet at The Hague: Presidents Obama and Xi met on the sidelines of the Nuclear Security Summit at The Hague in March 2014. They discussed a wide array of issues. Regarding North Korea, President Obama stressed the need for China and the United States jointly to prioritize denuclearization on the Korean Peninsula. President Xi called for the United States to adopt an “objective and fair attitude” toward China’s maritime disputes, while President Obama “reiterated his support for the security of our allies, Japan and the Philippines.” President Obama underscored the need for the United States and China to work closely on issues of cybersecurity. In response to President Xi’s comments about a *New York Times* report suggesting that the U.S. National Security Agency hacked into the servers of Chinese company Huawei, President Obama assured President Xi that the United States does not engage in espionage to gain commercial advantage.¹⁷² The two leaders plan to meet again in Beijing in November 2014 on the sidelines of the Asia-Pacific Economic Cooperation (APEC) Economic Leaders’ Meeting.¹⁷³

U.S. Secretary of Defense Visits China: On his first trip to China in his current position, U.S. Secretary of Defense Chuck Hagel traveled to China (as well as Hawaii, Japan, and Mongolia) in April 2014 and met with President Xi, Minister of National Defense Chang Wanquan, and Central Military Commission Vice Chairman General Fan Changlong, among others. Secretary Hagel also toured China’s aircraft carrier (he was the first foreign military leader to do so) and delivered a speech at China’s National Defense University. The most tangible outcomes of the visit were announcements to establish a bilateral army-to-army dialogue and to begin an “Asia-Pacific security dialogue” within the year.¹⁷⁴

PLA Chief of General Staff Visits the United States: PLA Chief of the General Staff General Fang Fenghui visited the United States in May 2014, reciprocating Chairman of the Joint Chiefs of Staff General Martin Dempsey’s visit to Beijing in April 2013.¹⁷⁵ In San Diego, General Fang visited the aircraft carrier *Ronald Reagan* and the littoral combat ship *Coronado*. He also observed Marine training at Camp Pendleton and met with Admiral Locklear.¹⁷⁶ At the Pentagon, General Fang received the

**Selected U.S.-China Security-Related Visits
and Exchanges—Continued**

first full-honor arrival ceremony for any chief of defense since 2012.¹⁷⁷ During meetings at the Pentagon, General Dempsey and General Fang disagreed over China's South China Sea territorial claims but agreed to conduct more HA/DR exercises and to cooperate on counterterrorism and antipiracy. They also discussed "establishing a mechanism for mutual notification of major military activities and devising standards of behavior for air and sea military safety in a maritime domain."¹⁷⁸

Other Military Visits and Exchanges: More high-level U.S.-China military-to-military exchanges happened in 2014 than in each of the previous three years.¹⁷⁹ In addition to Secretary Hagel, U.S. officials who were scheduled to visit China in 2014 included the Chief of Staff of the Army, Chief of Naval Operations (who visited China twice), Commandant of the Marine Corps, Pacific Command Commander, and Northern Command Commander. Likewise, the PLA Navy Commander and the Nanjing Military Region Air Force Commander visited the United States. In addition to these high-level visits, 32 activities the Department of Defense characterizes as "functional exchanges," "academic exchanges," and "recurrent exchanges" were planned for the two militaries in 2014.¹⁸⁰

The growing tensions in the U.S.-China relationship, despite some isolated progress in military-to-military relations, reveal an important shift in the way China views the United States. President Xi's government appears willing to cause a much higher level of tension in the bilateral relationship than past administrations have. This may be a consequence of China's growing confidence in its economic and military power. It may also be part of a deliberate effort by China to apply pressure to the bilateral relationship to determine if and how the United States will "push back." In fact, several experts from the region told the Commission China's assertiveness in the South and East China Seas—particularly toward Japan and the Philippines—is actually meant to test the United States' commitment to its treaty allies and the region. China's pursuit of a more competitive relationship with the United States likely will continue to present obstacles to the bilateral relationship in the future.

Conclusions

- China has been aggressively advancing its security interests in East Asia. This has led to tension, confrontation, and near-crises with its neighbors and the United States and has fueled competition with the United States that increasingly appears to be devolving into a zero-sum rivalry. A central characteristic of this pattern is Beijing's effort to force the United States to choose between abandoning its East Asian allies to appease China and facing potential conflict with Beijing by protecting its allies from

China's steady encroachment. China's pattern of behavior is likely to persist.

- China's People's Liberation Army has undertaken provocative, aggressive, and dangerous behavior aimed at the U.S. military in maritime East Asia, which creates the risk of misperception, miscalculation, escalation, and loss of life.
- Having rapidly consolidated power, Chinese President Xi Jinping appears to have achieved a higher degree of control over China's national security and foreign policy than his predecessor and is pursuing a more active role for China in regional and international affairs. President Xi's proposed regional arrangements, the Silk Road Economic Belt, 21st Century Maritime Silk Road, and Bangladesh-China-India-Myanmar Economic Corridor, are designed to project a positive and "responsible" image of China to the region and the world, develop trade routes, and gain access to natural resources. These initiatives, couched in terms of cooperation and friendship, belie China's increasingly strident efforts to intimidate and coerce many of its neighbors.
- China's territorial dispute with Japan remains one of the region's most dangerous flashpoints. China's declaration of an Air Defense Identification Zone over contested waters in the East China Sea in late 2013 ratcheted up tensions with Japan and created an unsafe and unpredictable air environment in the region. On two occasions in 2014, Chinese and Japanese military aircraft activity in China's Air Defense Identification Zone led to close encounters which could have resulted in an accident and loss of life.
- China moved aggressively in asserting its claims in the South China Sea in 2014, using unilateral and destabilizing actions to advance its territorial ambitions. In March, it began attempts to block access to a Philippine military outpost in the South China Sea, Second Thomas Shoal. In May, it moved an oil rig into Vietnam's exclusive economic zone. Throughout the year, it continued work on various land reclamation projects in the South China Sea, including building military facilities on Fiery Cross Reef and potentially Johnson South Reef in the Spratly Islands. China's actions have introduced greater instability to the region and violate China's 2002 agreement with the Association of Southeast Asian Nations, which stipulates that all claimants should "exercise self-restraint in the conduct of activities that would complicate or escalate disputes and affect peace and stability."
- China's People's Liberation Army participated in more exercises and drills with foreign militaries in 2014 than in any previous year since 2005. In particular, China's participation in the U.S.-led Rim of the Pacific exercise illustrated the People's Liberation Army's intent to increase its participation in regional and global security affairs. However, China's decision to send an uninvited intelligence collection ship to the exercise seemed to belie its rhetoric of peaceful cooperation with its neighbors.
- Due largely to institutional and training reforms over the last decade, China's People's Liberation Army now is able to maintain higher day-to-day readiness rates and conduct longer-range and more frequent, robust, and realistic training. As these reforms

continue, the Chinese military gradually will become more proficient and confident operating its advanced weapons, platforms, and systems and conducting large-scale, sophisticated operations.

- China's naval operations within weapons range of U.S. bases and operating areas in the Indian Ocean region will become more frequent as China expands and modernizes its fleet of submarines and surface combatants. However, the Chinese navy in the near term likely will not seek to develop the ability to establish sea control or sustain combat operations in the Indian Ocean against a modern navy.

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SECTION 2: CHINA'S MILITARY MODERNIZATION

Introduction

This section examines China's evolving security perceptions; select inputs to China's military modernization; and current and future capabilities of China's naval, air, missile, and space forces. It concludes with a discussion of the implications of China's military modernization for the United States. The statements and assessments presented here are based on Commission hearings, briefs by U.S. and foreign government officials, consultations with nongovernmental experts on China's military,* the Commission's fact-finding trip to Asia, and open-source research and analysis.

China's Evolving Security Perceptions

In the early 1980s, the People's Liberation Army (PLA) began to transition from a large infantry-based peasant army designed to fight protracted wars to a smaller, well-trained, and technology-enabled force. For the next 15 years, China's military modernization was gradual, incremental, and focused primarily on overcoming the PLA's obsolescence, reflecting Beijing's view that a major war was unlikely and that China's economic development was the Chinese Communist Party's (CCP) most pressing strategic goal.

However, Taiwan's steady march toward democracy in the 1990s raised fears in Beijing that Taiwan's increasingly progressive government would produce a president who would pursue *de jure* independence from mainland China. This provided an impetus for the PLA to strengthen its capabilities for Taiwan conflict scenarios. Furthermore, the success of U.S. long-range, precision strikes and network-centric warfare during multiple U.S. and North Atlantic Treaty Organization (NATO) military operations in the 1990s and the U.S. deployment of two aircraft carrier battle groups during the Taiwan Strait Crisis in 1995–1996 demonstrated to Beijing that the United States might be willing to intervene in a Taiwan conflict involving China and could do so effectively. This led Beijing to accelerate its military modernization in the late 1990s and to focus on developing capabilities to counter U.S. naval and air intervention in a Taiwan contingency.¹

By the mid-2000s, the growth of China's export-driven economy and Beijing's recognition of the immense value and vulnerability of

* Commission staff interviewed or consulted the following nongovernmental experts during the drafting of this section; however, these experts do not necessarily agree with or endorse the Commission's assessments and statements contained herein: Ken Allen, Richard Bejtlich, Richard Bitzinger, Dennis Blasko, J. Michael Cole, Gabe Collins, Mark Cozad, Tai Ming Cheung, Ian Easton, Jeffrey Engstrom, Andrew Erickson, Richard Fisher, M. Taylor Fravel, Scott Harold, Terrence Kelly, Adam Liff, Jonathan McDowell, Joe McReynolds, Kevin Pollpeter, Michael Raska, Mark Rosen, Mark Stokes, Lloyd Thrall, and Peter Wilson.

sea lanes and resources in China's maritime periphery combined to incentivize China to develop the ability to protect regional and strategic sea lanes and preserve freedom of movement on the high seas. Faced with this emerging requirement, as well as the desire of CCP leaders to legitimize their regime by successfully asserting China's nationalistic ambitions, China hastened the development of maritime capabilities necessary to assert control over China's claims in the East China Sea and South China Sea and to protect China's access to marine resources.

In 2004, Beijing issued a directive to the PLA to prepare for non-traditional missions beyond China's immediate periphery, including humanitarian assistance/disaster relief, counterterrorism, and international peacekeeping operations. In Beijing's view, these missions are essential to China's development because they enhance China's diplomatic and political leverage in global affairs; bolster China's image as a great nation for domestic and international audiences; and protect China's expanding foreign economic assets and interests, which the CCP views as a cornerstone of the regime's legitimacy and a requirement for preserving the political system.² Linking China's economic and strategic interests abroad created a requirement for the PLA to be able to project power outside of Asia on a limited basis. As the PLA's operational capabilities have improved, its naval, air, and ground forces have begun to operate beyond China's immediate periphery to fulfill these new missions and demonstrate to the world its increasing ability to project military power throughout the Asia Pacific region and beyond.

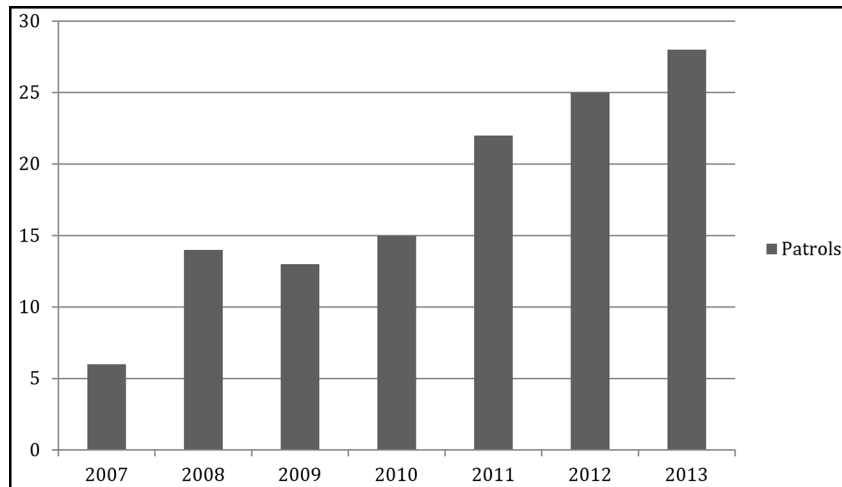
- The number of what official Chinese sources refer to as PLA Navy "combat readiness patrols," or "blue-water training" deployments, increased from six in 2007 to 28 in 2013, according to Commission analysis of U.S. government information and Commission discussions with U.S. and foreign government officials (see Figure 1).³ The PLA Navy now maintains a near-constant presence throughout the first and second island chains (see Figure 2).^{*} This activity currently is concentrated in the Philippine Sea, an area Beijing judges would be crucial to interdicting U.S. forces in a conflict,⁴ but is expanding gradually into the southern reaches of the South China Sea and the Indian Ocean. According to a senior U.S. Navy official, "the amount of time [PLA Navy surface task groups] train in the Philippine Sea now rivals that of the United States."⁵
- Since 2009, the PLA Navy has conducted counterpiracy operations in the Gulf of Aden to protect Chinese commercial shipping interests. Not including naval diplomacy, the initial Gulf of Aden mission represented China's first operational deployment of naval forces outside of China's regional waters. More recently, from January to June 2014, two successive PLA Navy

^{*}PLA strategists and academics argue the United States relies primarily on the "first island chain" and the "second island chain" to encircle strategically China and prevent China from "settling" its objectives vis-a-vis Taiwan, the East China Sea, and the South China Sea. The first island chain extends from Western Japan through the Ryukyus and Taiwan to the Philippines, and the second island chain stretches from the Kuriles through Eastern Japan and the Bonin Islands to Saipan and Guam in the Marianas. Although Western observers usually describe the "island chains" concept as a Chinese one, Chinese analysts claim the concept was developed by the United States following World War II to "surround" and "contain" the newly established People's Republic of China.

ships joined ships from Russia and Europe for 20 joint escorts of chemical weapons used in Syria's civil war from Syria into international waters for neutralization.⁶ The PLA Navy's activities in the Gulf of Aden and the Mediterranean Sea demonstrate its ability to conduct small-scale long-distance naval operations for extended durations despite China's lack of overseas military bases. For more on these PLA Navy operations, see Chapter 2, Section 1, "Year in Review: Security and Foreign Affairs."

- In 2010, China deployed fighter aircraft to Turkey for a joint China-Turkey air exercise that reportedly involved mock dogfights and other air-based maneuvers.⁷ During the Shanghai Cooperation Organization's Peace Mission exercise later in 2010, PLA Air Force bombers, escorted by fighter aircraft, carried out China's first simulated long-range air strike from air bases in western China. Following mid-air refueling, the aircraft rehearsed bombing ground targets in Kazakhstan.⁸ China's activities during these exercises demonstrated for the first time the PLA Air Force's ability to conduct long-range air strikes and air-ground operations.
- In 2011, the PLA Air Force and Navy deployed four cargo aircraft and one surface combatant, respectively, to support and protect the evacuation of 35,000 Chinese nationals from Libya in China's first overseas noncombatant evacuation operation. China's Ministries of Commerce, Foreign Affairs, and Public Security; the Civil Aviation Administration of China; Chinese companies operating in Libya; and Chinese shipping companies also participated in the evacuation and coordinated closely with the PLA. This operation enabled the PLA to demonstrate a commitment to the protection of Chinese citizens overseas and highlighted China's ability to rapidly mobilize civilian assets for military operations.⁹
- In 2013, the PLA contributed nearly 400 troops to the United Nations (UN) Multidimensional Integrated Stabilization Mission in Mali. This was Beijing's first deployment of infantry to support a peacekeeping operation since China began participating in UN missions in 1990. China previously had limited the PLA's participation in peacekeeping operations to noncombat troops—mainly military observers; staff officers; and engineering, medical, and transportation personnel.¹⁰ Additionally, China began to deploy 700 troops to the UN Mission in South Sudan in September 2014, marking Beijing's first contribution of an infantry battalion to a UN peacekeeping force.¹¹
- In early 2014, a PLA Navy surface task group carried out a sophisticated training exercise spanning the South China Sea, eastern Indian Ocean, and Philippine Sea. The deployment marks the first time the PLA Navy has conducted a surface combat readiness patrol in the Indian Ocean.¹² Furthermore, from late 2013 to early 2014, China conducted its first submarine combat readiness patrol to the Indian Ocean.¹³ For more on these PLA Navy deployments to the Indian Ocean, see Chapter 2, Section 1, "Security and Foreign Affairs Year in Review."

Figure 1: PLA Navy Surface and Submarine Combat Readiness Deployments, 2007-2013



Source: This figure reflects Commission estimates and judgments based on Commission analysis of U.S. government information and Commission discussions with U.S. and foreign government officials.

The CCP's 18th Party Congress work report, China's 2012 defense white paper, and official Chinese media indicate continuity in Beijing's assessments of the nature of future warfare and its immediate and long-term threat perceptions. This suggests the PLA's strategy and modernization priorities will remain focused on building offensive and defensive capabilities for long-duration, high-intensity regional conflicts, including those involving U.S. intervention.¹⁴

At the same time, President, CCP Chairman, and Central Military Commission (CMC)* Chairman Xi Jinping's speeches to the military and official PLA statements and documents indicate the PLA probably will increase its efforts to address longstanding, pervasive institutional and structural problems that could limit the PLA's actual ability to sustain combat operations, despite its impressive capability gains. CMC Chairman Xi has repeatedly called for the PLA to develop a strong, professional force that is "fully capable of fighting" and can "win every war" by increasing "combat realism" in training.¹⁵ Moreover, CMC Chairman Xi reportedly told a committee of CCP leaders in March 2014: "There cannot be modernization of national defense and the military without modernization of the military's forms of organization. There has to be thoroughgoing reform of leadership and command systems, force structure and policy institutions." According to David Finkelstein, vice president and director of China Studies of CNA China Studies, "Military reform is part of the larger program that Xi is putting in place to put his imprimatur on the Chinese party-state. ... "This

*The CMC—China's highest military decision-making body—ensures continued CCP control of the PLA, sets military policy and strategy, interprets CCP guidance for the military, and oversees the daily operations of the massive PLA bureaucracy. The CCP chairman since 1989 typically has served as CMC chairman.

time, we're serious' should be the subtext of this new tranche of reform. It will be five years before you see the fruits of it. But 10 years from now, you might see a very different PLA."¹⁶

Figure 2: China's First and Second Island Chains



Source: U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2012*, 2012, p. 40.

Furthermore, China's offensive missile force—the Second Artillery—may play an increasingly important role in China's military strategy and modernization priorities. Chinese state media reported that CMC Chairman Xi met with the Second Artillery in one of his first public meetings with the PLA since taking office in 2012. During the meeting, he reportedly called on the Second Artillery to “build a powerful and technological missile force” and said the missile force “is the core strength of China's strategic deterrence, the strategic support for the country's status as a major power, and an important cornerstone safeguarding national security.”¹⁷ Chairman Xi's promotion of Second Artillery Commander

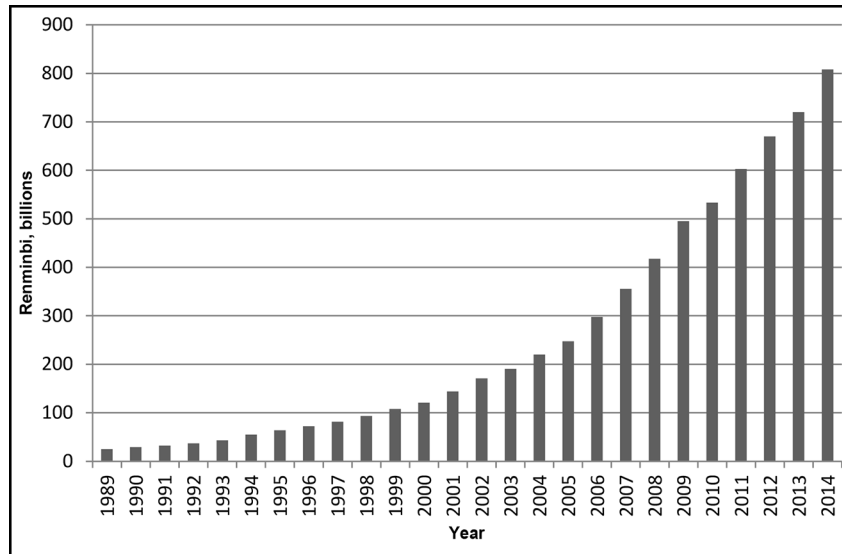
Wei Fenghe to full general shortly after Xi assumed office also may indicate the growing importance of China's missile force. This was the first PLA promotion over which Xi presided as the military's new leader.¹⁸

Select Inputs to China's Military Modernization

Military Spending

China's rapid economic growth has enabled it to provide consistent and sizeable increases to the PLA's budget to support its military modernization and gradually expanding missions. China's announced official projected defense budget increased from 720 billion RMB (approximately \$119.5 billion) in 2013 to 808 billion renminbi (RMB) (approximately \$131.6 billion) in 2014, a 12.2 percent increase. With the exception of 2010, China's official defense budget has increased in nominal terms by double-digits every year since 1989 (see Figure 3).¹⁹

Figure 3: China's Announced Defense Spending, 1989–2014



Note: These numbers represent China's announced official defense budgets, not actual aggregate defense spending. They do not account for inflation or appreciation in the value of China's currency.

Source: This figure reflects Commission judgments based on several sources. Each provides data for part of the period 1989–2014. The most recent source is used when these sources disagree. For 1989–93, David Shambaugh, *Modernizing China's Military: Progress, Problems, and Prospects* (Berkeley, CA: University of California Press, 2002), p. 189; for 1994–2001, Dennis J. Blasko et al., *Defense-Related Spending in China: A Preliminary Analysis and Comparison with American Equivalents* (The United States-China Policy Foundation, 2007), p. 19. <http://www.uscpf.org/v2/pdf/defensereport.pdf>; for 2002–12, Andrew Erickson and Adam Liff, "Demystifying China's Defense Spending: Less Mysterious in the Aggregate," *China Quarterly* (December 2013): 805–830; for 2013, Jeremy Page, "China Raises Defense Spending 12.2% for 2014," *Wall Street Journal*, March 5, 2014. <http://online.wsj.com/articles/SB10001424052702304732804579421021045941010>; and for 2014, Andrew Erickson and Adam Liff, "The Budget This Time: Taking the Measure of China's Defense Spending," *Asan Forum* 2:2 (March–April 2014). <http://www.theasanforum.org/the-budget-this-time-taking-the-measure-of-chinas-defense-spending/>.

China's actual aggregate defense spending* is higher than the officially announced budget due to Beijing's omission of major defense-related expenditures—such as purchases of advanced weapons, research and development programs, and local government support to the PLA—from its official figures. The Department of Defense (DoD) estimates China's actual defense spending in 2013 exceeded \$145 billion, approximately 21 percent higher than China's announced defense budget of \$119.5 billion;²⁰ the Stockholm International Peace Research Institute estimates China's actual defense spending in 2013 was \$188 billion, approximately 57 percent higher than China's announced defense budget.²¹

The definition of defense spending is intrinsically subjective and no major power includes all defense-related spending in its official defense budget. However, relative to the United States and other advanced industrial democracies at a comparable level of military development, China is exceptional in the extent and type of defense spending excluded and, most importantly, the fact that the relevant data generally are not publicly available elsewhere. Therefore, outside calculations of China's actual defense spending—at least those relying on open-source data—involve a significant amount of guesswork. Efforts to assess China's actual defense spending and to compare budgets over time also are hampered by changing official RMB–U.S. dollar (USD) exchange rates since 2005, a lack of consensus about appropriate RMB evaluation, the PLA's poor financial management practices, and the difficulty determining how China's purchasing power parity affects the cost of China's foreign military purchases and domestic goods and services.²²

The PLA focuses on advancing and defending its interests in the Asia Pacific while developing the capacity to project power elsewhere. Moreover, China's defense spending is increasing at a far greater rate than that of the United States as well as U.S. treaty allies and established and emerging U.S. security associates in the region.†

Andrew Erickson, associate professor at the U.S. Naval War College, testified to the Commission that China's defense spending levels provide the PLA with “sufficient funding to develop formidable military capabilities for use on its immediate periphery and in its general region.” Dr. Erickson also explained China's focus on developing regional capabilities has allowed the PLA to “rapidly exploit its geographical proximity and the vulnerabilities of its potential adversaries' military technologies and force structures, potentially placing them on the costly end of a capabilities competition.” He testified this acquisition strategy has provided China with “asymmetric capabilities that are disproportionately efficient in asserting its interests, even though its overall defense spending still remains a distant second to America's.”

*There is no international consensus on which items should or should not be included in a country's “official” defense budget. Every major power—including the United States and major allies—spends money on the military that is not captured in the country's official “defense budget.” For a discussion of several different definitions of total defense-related spending, see Dennis Blasko et al., *Defense-Related Spending in China: A Preliminary Analysis and Comparison with American Equivalents* (United States-China Policy Foundation, 2007). <http://www.uscpf.org/v2/pdf/defensereport.pdf>.

†U.S. treaty allies in the Asia Pacific are Australia, Japan, the Philippines, South Korea, and Thailand. “Established and emerging U.S. security associates” refers to Indonesia, Malaysia, New Zealand, Singapore, Taiwan, Vietnam, and India.

In a paper published by the Center for a New American Security, Captain Henry Hendrix (U.S. Navy) illustrates the efficacy and efficiency of China's asymmetric approach by comparing the cost of China's DF-21D antiship ballistic missile with the cost of the platform it is designed to strike, the U.S. aircraft carrier. Assuming China's DF-21D costs \$11 million per missile, the high-end of an estimate made by two Chinese analysts, and future U.S. aircraft carriers cost \$13.5 billion each, Captain Hendrix explains:

China could build 1,227 DF-21Ds for every carrier the United States builds going forward. U.S. defenses would have to destroy every missile fired, a tough problem given the magazines of U.S. cruisers and destroyers, while China would need only one of its weapons to survive to [achieve] a mission kill. Although U.S. Navy and Air Force leaders have coordinated their efforts to develop the means to operate in an anti-access/area denial environment by disrupting opposing operations, the risk of a carrier suffering a mission kill that takes it off the battle line without actually sinking it remains high.²³

China's defense spending increases appear sustainable. Even high-end foreign estimates put Beijing's actual aggregate defense spending at a moderate 2–3 percent of China's gross domestic product (GDP). Furthermore, increases to the official defense budget often have been exceeded by growing central government expenditures in other areas,²⁴ probably insulating Chinese leaders from potential criticism that they are spending too much on the military.

In a 2013 article in the *China Quarterly* journal, Dr. Erickson and Adam Liff, a postdoctoral fellow at Princeton University's Woodrow Wilson School and an assistant professor at Indiana University, explain the practical consequences of China's defense spending going forward:

The more sophisticated and technology-intensive [the PLA's] systems become, the less benefit the PLA can derive from acquiring and indigenizing foreign technologies, and the less cost-advantage China will have in producing and maintaining them. . . . Developing the capabilities necessary to wage high- or even medium-intensity warfare beyond China's immediate vicinity would require significant additional increases in the defense budget and heavy investment in new platforms, weapons and related systems; as well as training, operations and maintenance; not to mention some form of support infrastructure abroad. If China decides to develop significant power projection capabilities, its investments are likely to be increasingly inefficient and provide significantly less "bang" for a significantly larger "buck."²⁵

Defense Industry

In the late 1990s, China's leaders began to take concrete steps to strengthen the country's defense industry. Although the PLA has not fully overcome its dependence on foreign suppliers, China since then has increased the size and capacity of several defense sectors in support of the PLA's equipment modernization plans. According

to Tai Ming Cheung, director of the University of California's Institute on Global Conflict and Cooperation, "there are so many projects underway [in 2014] that the Chinese defense industry appears to be on steroids."²⁶

Ballistic and Cruise Missiles: China is able to rapidly develop and produce a diverse array of advanced ballistic and cruise missiles. China maintains the largest and most lethal short-range ballistic missile force in the world; fielded the world's first antiship ballistic missile in 2010; deployed its military's first long-range, air-launched land-attack cruise missile in 2012; and will widely deploy its military's first indigenous advanced, long-range submarine-launched antiship cruise missile in the next few years, if it has not already.* Furthermore, the PLA is developing hypersonic glide vehicles as a core component of its next-generation precision strike capability. Hypersonic glide vehicles could render existing U.S. missile defense systems less effective and potentially obsolete (see the text box, "China's Hypersonic Missile Program," later in this section).

Naval Shipbuilding: China has demonstrated it is capable of manufacturing a wide range of naval combatants, including patrol boats, frigates, destroyers, large amphibious ships, and conventional and nuclear submarines and is developing its first indigenous aircraft carrier. Jesse Karotkin, senior intelligence officer for China at the Office of Naval Intelligence (ONI), testified to the Commission that "during 2013 alone, over fifty naval ships were laid down, launched, or commissioned, with a similar number expected in 2014." China's shipbuilders already have surpassed their counterparts in Western Europe, Japan, and South Korea in terms of the number and types of ships they can produce; China's shipbuilders could reach the technical proficiency† of Russian shipbuilders by 2020 and approach the technical proficiency of U.S. shipbuilders by 2030.²⁷

Naval Technology: China is developing its own marine gas turbines and already has produced them domestically for its YUYI-class hovercraft. China likely will develop the ability to mass produce marine gas turbines for larger combatant ships in the next decade. Gas turbines will give PLA Navy ships better acceleration and combat maneuverability than steam turbines that power them today due to their high power-to-weight ratio, speed, fuel efficiency, and compact size. Gas turbines also will allow the PLA Navy to achieve higher readiness rates, because they do not require the start-up time of steam turbines.²⁸

Unmanned Aerial Vehicles: China is one of the world's leading unmanned aerial vehicles (UAV) producers, with dozens of models currently in production. According to a 2012 report by the Defense Science Board:

[China's] move into unmanned systems is alarming. The country has a great deal of technology, seemingly unlimited

*The PLA Navy already possesses an advanced, long-range submarine-launched antiship cruise missile, but it was acquired from Russia.

†"Technical proficiency" refers to the ability to develop, produce, and integrate advanced mechanical, electrical, cargo, habitability, and weapon systems into ships.

*resources and clearly is leveraging all available information on Western unmanned systems development. China might easily match or outpace U.S. spending on unmanned systems, rapidly close the technology gaps and become a formidable global competitor in unmanned systems.*²⁹

China thus far has focused on using UAVs for intelligence, surveillance, and reconnaissance (ISR) but has fielded units capable of delivering lethal weapons (such as missiles) and conducting electronic warfare.³⁰ Furthermore, China's UAV industry recently made advancements in unmanned combat aerial vehicle (UCAV) development. In November 2013, China conducted the inaugural test flight of its first stealth UCAV, the *Lijin*. According to a Chinese aerospace expert quoted in the state-owned *China Daily*, "the [*Lijin*] can be used for reconnaissance and an air-to-ground strike. . . . The size and technological capability of the *Lijin* [also] make it a suitable choice for the [PLA Navy] if it is to select an unmanned combat platform for its aircraft carrier."³¹ In addition to the *Lijin*, China in 2013 revealed it is developing two other UAVs that are designed to carry weapons.³²

China's Hypersonic Missile Program

In January 2014, China tested its first hypersonic missile vehicle, reportedly designated the WU-14. The test was acknowledged by China's Ministry of National Defense and later confirmed by DoD. After the WU-14 is deployed, the missile could enable China to conduct kinetic strikes anywhere in the world within minutes to hours.³³ According to Mark Stokes, executive director of the Project 2049 Institute, Chinese technical literature suggests that research into boost-glide weapons has been underway for some time and that China may seek to field a "boosted hypersonic glide missile capable of intercontinental strike" by 2020 and a "hypersonic scramjet-propelled cruise vehicle for global operations" before 2025.³⁴

China tested the WU-14 again in August, according to two media reports citing unnamed sources.³⁵ The test has not been acknowledged by China or confirmed by DoD. Although the test reportedly was unsuccessful,³⁶ Lora Saalman, an associate professor at the Asia-Pacific Center for Security Studies, explains, "The decision to conduct a second WU-14 test only a few months after its first test shows China's commitment to fast-tracking this program. . . . When compared with the yearly gaps between its [antisatellite] and [ballistic missile] tests in 2007, 2010, 2013, and 2014, the WU-14 accelerates China's developmental timeline exponentially."³⁷

China's Hypersonic Missile Program—Continued

The United States and Russia are the only other countries with developmental hypersonic weapons programs. Hypersonic vehicles create two challenges for existing missile defense systems, which are designed to counter slower, less maneuverable weapon systems. Hypersonic weapons travel at speeds of Mach 5 to Mach 10 (3,840 to 7,680 miles per hour). Furthermore, because hypersonic vehicles launched from ballistic missiles can travel at lower altitudes, they can evade quick detection.³⁸ Lee Fuell, technical director for force modernization and employment at the National Air and Space Intelligence Center (NASIC), testified to the Commission:

The Chinese have talked about a recent successful test of a hypersonic glide vehicle, which is basically a ballistic missile launch system that gets the target or gets the payload fast and high, pitches over, dives to hypersonic speed, and then basically just glides to the target. At this point, NASIC thinks that it is associated with [China's] nuclear deterrent forces. Of great concern would be if [China] was to apply the same technology and capability with a conventional warhead or even just without a warhead because of the kinetic energy that it has in combination with their theater ballistic missiles, you know, in a theater role.

The hypersonic vehicles of any kind, whether they are glide vehicles or cruise missiles, are extremely difficult to defend against because just the time is so compressed between initial detection, being able to get a track, being able to get a fire control solution, and then just being able to have a weapon that can intercept them in some way just because of the speed at which they're moving. If that is combined with more traditional ballistic missile attacks forcing a target to defend against very high aspect warheads coming in this way at the same time they have to defend against low altitude, very high speed targets coming in this way, it makes the defense problem orders of magnitude worse for the defender.³⁹

China's progress modernizing its defense industry is due in large part to China's substantial and sustained investment in defense research and development (R&D). China's large-scale, state-sponsored theft of intellectual property and proprietary information also has allowed China to fill knowledge gaps in its domestic defense and commercial R&D. This process has enabled China to save time and money on defense R&D. China probably allocates at least 5 percent and potentially up to 10 percent of its overall defense spending to R&D, making it second only to the United States in overall defense R&D spending.⁴⁰

Furthermore, according to Battelle's *2014 Global R&D Funding Forecast*:

[China] has increased its overall R&D investments by 12 percent to 20 percent annually for each of the past 20 years;

*while at the same time, U.S. R&D spending increased at less than half those rates. As a result, China's investment is now about 61 percent that of the United States, and continuing to close. At the current rates, China's commitment is expected to surpass that of the United States by about 2022, when both countries are likely to reach about \$600 billion in R&D.*⁴¹

Although this spending is not explicitly intended for use by the PLA, China since the late 1990s has promoted “civil-military integration” to facilitate the transfer of commercial technologies for military use. As part of this effort, China has encouraged civilian enterprises to participate in military R&D and production, sponsored research into dual-use science and technology, and developed common military and civilian technical standards.

The most important coordinating body for China's military R&D is the Central Special Committee, formally known as the National Defense Industry Special Committee. Established in the early 1960s and led through the decades by some of China's top political leaders, the Central Special Committee brings together Chinese civilian and military leaders and top technical experts to direct and coordinate high-priority strategic R&D programs for China's military modernization, such as China's nuclear weapons, nuclear submarines, ballistic missiles, and space weapons. The composition and role of the Committee under President and CMC Chairman Xi is unknown, but it likely is led by Premier Li Keqiang.⁴²

To manage China's investment in R&D, Beijing has promulgated a number of formal R&D plans, research funding programs, and policies that have ambitious goals and concrete timelines. China's R&D initiatives cut across the government, military, and private spheres by coordinating state-funded R&D efforts across them and placing a heavy emphasis on funding basic and foundational research with impacts on multiple fields.

- In its *National Medium- to Long-Term Plan for the Development of Science and Technology (2006–2020)*, approved in 2006, Beijing calls for the transformation of Chinese economy into a science and technology (S&T) powerhouse by 2020 and a global leader by 2050. This “grand blueprint of S&T development” is designed to bring about the “great renaissance of the Chinese nation.”⁴³
- *Document 37*, issued in 2010 by the State Council and CMC, directs the PLA to improve its defense industry by (1) strengthening political guidance and coordination; (2) encouraging the opening up and sharing of military-local resources, particularly for S&T; (3) promoting the mutual transfer of dual-use technology; (4) accelerating the development of national key laboratories that facilitate civilian-military integration; (5) bolstering joint research of dual-use technologies; (6) expanding the scope and intensity of civilian R&D work that civilian research institutions and enterprises conduct in military-use technologies; and (7) developing civil-military integration S&T parks, and civil-military dual-use technology innovation bases.⁴⁴

Comparing R&D in China and the United States, James Lewis, senior fellow and director of the Strategic Technologies Program at the Center for Strategic and International Studies, testified to the Commission:

China has engaged in a sustained investment in technology for thirty years while U.S. investments in science have too often come in fits and starts and been driven by fads. China's policy to maintain and increase economic growth has many flaws, but at least they have one, and the contrast is beginning to tell. A centrally-directed economy subject to heavy political interference can be remarkably inefficient in making investment decisions and in production, but China has compensated for this with heavy and sustained government spending to build capacity and by drawing upon an immense and underutilized talent pool.

Furthermore, Beijing reportedly is drafting a plan to incorporate military research institutes into listed state-owned enterprises, providing them access to capital markets. Currently, these military research institutes are funded entirely by the Chinese government and do not seek profits.⁴⁵ With expanded sources of funding, China's defense industry may improve both its ability to meet PLA requirements and to compete in the global arms market.

Foreign Acquisitions

China turns to foreign countries, mainly Russia, to purchase weapon systems and technologies that it cannot produce indigenously.* Although Moscow's concern over China's record of disregarding intellectual property rights by copying Russian weapon designs † has contributed to a decline in arms sales to China since the mid-2000s, the two sides reportedly are negotiating several sales of major weapon systems, including those designed specifically to counter the United States (for more information on potential Russian arm sales to China, see "China's Maritime Forces" and "China's Air Forces" later in this section).

China also continues to purchase weapon systems and technology from European Union (EU) countries, despite the limited arms embargo those countries imposed on China after its military massacred civilians in the 1989 Tiananmen Square crackdown. Unlike the United States, which enacted strict legislation prohibiting weapon sales to China, the EU embargo is nonbinding, and each member is permitted to interpret it in the context of their respective national laws and regulations.⁴⁶ According to Oliver Brauner, a researcher at the Stockholm International Peace Research Institute (SIPRI):

*Based on the numbers of contracts signed for licensed production and direct export, Russia from 2000–2013 significantly outstripped all other arms suppliers to China. During this same period, China imported smaller numbers of arms from France, Ukraine, Germany, the United Kingdom, Belarus, Israel, and Switzerland. Stockholm International Peace Research Institute, "The SIPRI Arms Transfers Database." <http://www.sipri.org/databases/armstransfers>.

† For example, after absorbing and mastering the technology and knowledge transfers that Russia provided for the Su-27 fighter aircraft, China reverse engineered the Su-27 to create the J-11. The J-11 features improvements over the Su-27, such as a reduced radar cross-section and a better fire-control radar, and has a Chinese-developed engine.

*The EU has so far failed to develop a strategic approach toward the potential security implications of transfers of European militarily sensitive technologies that goes beyond the existing arms embargo and currently lacks effective mechanisms to control the flow of such technologies to China. ... This is mainly because the EU-China relationship continues to be dominated by the economic interests of individual member states, both in trade and increasingly in investments. Furthermore, due to a lack of direct security interests in the Asia-Pacific, Europeans do not generally see China as a security threat or a strategic competitor.*⁴⁷

EU arms makers received licenses to export 3 billion euros (about \$3.8 billion) of military equipment from 2001–2011.* The most recent EU report on arms sales by member nations claims member countries approved licenses to export 173 million euros (about \$220 million) of military equipment in 2012. France accounted for more than 80 percent of these licenses by value, according to the EU report.⁴⁸ Perhaps more importantly, EU countries are exporting dual-use technology that in many cases can be sold without licenses. For example, most of China's indigenous diesel-electric submarines and several of its surface combatants are equipped with engines designed and manufactured by German and French firms.⁴⁹

With the emergence of a more modern and able domestic defense industrial base, China is gradually shifting its focus from purchasing complete foreign systems to procuring foreign military and dual-use subsystems and components via open sources, trade, and traditional and nontraditional espionage. Among China's most effective methods used to acquire sensitive U.S. technology are cyber espionage; witting and unwitting collection by Chinese students, scholars, and scientists; joint ventures; and foreign cooperation. These methods are discussed in this section.

Cyber Espionage: Since at least the mid-2000s, the Chinese government has conducted large-scale cyber espionage against the United States. China has compromised a range of U.S. networks, including those of DoD, defense contractors, and private enterprises. A 2012 Defense Science Board report identified dozens of critical system designs compromised by Chinese cyber actors, including the Patriot Advanced Capability-3 air defense system, the F-35 and the F/A-18 fighter aircraft, the P-8A reconnaissance aircraft, the Global Hawk UAV, the Black Hawk helicopter, the Aegis Ballistic Missile Defense System, and the Littoral Combat Ship. The report also revealed Chinese cyber actors have obtained information on various DoD technologies, including directed energy, the UAV video system, tactical data links, satellite communications, electronic warfare systems, and the electromagnetic aircraft launch system.⁵⁰ However, the actors seeking information on these weapon systems and technologies are not just stealing the designs themselves, but they also are targeting internal communications, program schedules, meeting minutes, and human resource records, among other documents.⁵¹

*The approval of a license to export does not necessarily translate into an actual export.

Dr. Lewis testified to the Commission that cyber espionage “has been and continues to be a godsend to China’s economic and technological modernization.” He explained:

Technological espionage has carried over into cyberspace, as the Chinese discovered that the Internet gave them unparalleled access to poorly secured western networks. Cyber espionage has given China access to defense-industrial databases, [which are] the record of previous weapons programs and an invaluable resource. These databases provide the historic experience of building weapons. They show design changes, modifications, how production problems were overcome, and testing results.

U.S. private cyber security firms such as FireEye have reported that China’s levels of cyber espionage activity have not substantially decreased in 2014,⁵² despite a concerted U.S. effort since 2013 to expose and stigmatize Chinese economic espionage.

China’s material incentives for continuing this activity are immense and unlikely to be altered by small-scale U.S. actions. According to Joe McReynolds, a research associate at Defense Group Inc.’s Center for Intelligence Research and Analysis:

Western analysts of the PLA often frame discussions of China’s expanding Computer Network Operations capabilities as a question of whether the Chinese will one day become a ‘status quo’ power in cyberspace, finding agreement with the United States on shared ‘rules of the road’ that do not privilege either party. Implicit in this thinking is the notion that cyberspace has a natural equilibrium, which the Chinese have temporarily disrupted through aggressive use of Computer Network Operations against military and commercial targets but will one day have a material interest in protecting. However, the emergence of China as a truly status quo power in cyberspace is unlikely. China accrues vast benefits from penetrating foreign networks, and China’s strategic thinkers see the status quo in cyberspace as leaving China intolerably vulnerable due to the United States’ asymmetric control of the Internet’s core infrastructure.⁵³

In February 2014, Admiral Locklear (U.S. Navy), commander of U.S. Pacific Command, explained, “the sooner we come to the realization that if we expect the Chinese to behave . . . well as a nation in cyberspace just because we ask them to, it is not realistic. I think we have to design into our own capabilities and our own systems things that protect our capabilities.”⁵⁴

Using Students, Scholars, and Scientists for Espionage: Chinese students attending U.S. universities have the potential to collect information, whether wittingly or unwittingly, on sensitive U.S. technology on behalf of the Chinese government and military. A 2011 study by the Federal Bureau of Investigation provides an example of how China may have attempted to obtain restricted information or products by targeting U.S. universities:

Despite university warnings on the restrictions on his research, University of Tennessee professor Reece Roth em-

ployed a Chinese and an Iranian student to assist in plasma research while working on a classified U.S. Air Force project that stipulated no foreign nationals could work on the project. Roth also traveled to China with his laptop computer containing export-restricted information and had a sensitive research paper emailed to him there through a Chinese professor's email account. Roth claimed the research was "fundamental" and not sensitive, but a jury concluded otherwise. . . . In September 2008, Roth was found guilty on 18 counts of conspiracy, fraud, and violating the Arms Export Control Act; he was later sentenced to four years in prison.

A country or company does not have to orchestrate the actual theft of the research in order to capitalize on it. It is unknown how the Chinese used the information they obtained from Roth, but because they invited him to visit China and he had a sensitive report emailed to him while there, it should be assumed they were interested in his research and planned to utilize it.⁵⁵

The Defense Security Service's annual report in 2013 also suggests China uses students and academics to acquire sensitive U.S. technology from cleared defense contractors:

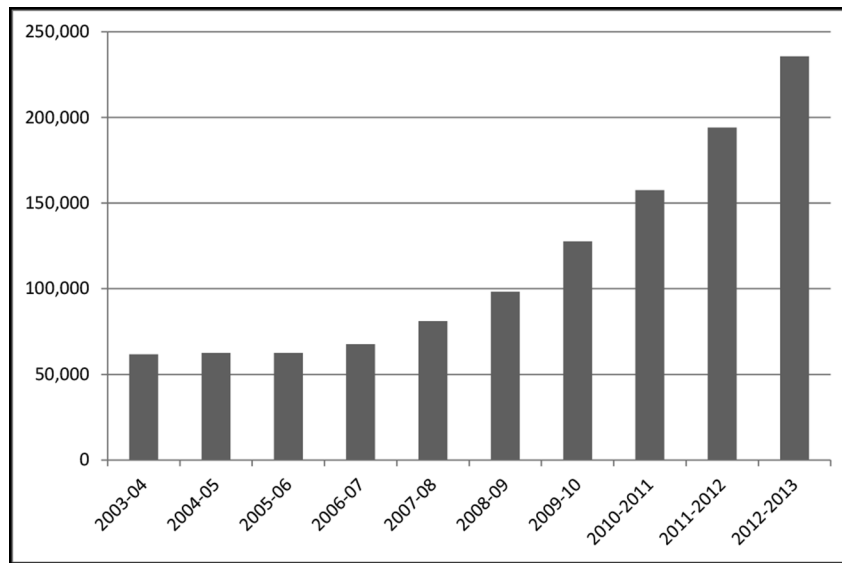
The Defense Security Service assesses [with high confidence] that many East Asia and the Pacific students and academics in the United States probably pose a counter-intelligence and technology transfer threat to cleared industry. While available information does not point to a direct connection between most, if any, academics and home-country intelligence services, such individuals and their sponsoring institutions likely view placement in U.S. facilities as supporting current R&D goals, some of which have military applications. Such placement opportunities are abundant in the United States, and East Asia and the Pacific students will almost certainly continue to seek them.⁵⁶

It has become difficult to discern Chinese traditional and non-traditional collectors from legitimate students as the number of Chinese students in the United States grows.⁵⁷ The number of students from China attending U.S. universities more than doubled from 2008–2009 to 2012–2013, from approximately 100,000 to 235,000 (see Figure 4). In 2012–2013, about 40 percent of these students were undergraduate students and 44 percent were graduate students; for all academic levels, the top fields of study were business/management (29 percent), engineering (19.2 percent), and math/computer science (11.2 percent).⁵⁸ According to a 2014 report by a Chinese organization subordinate to the Ministry of Education, the majority of these students return to China after conducting their studies abroad.⁵⁹ They bring with them advanced scientific knowledge and the tacit knowledge of research strategies and techniques not found in scientific journals.

Furthermore, many PLA universities have established partnerships with Chinese civilian universities. For example, in January 2013, seven PLA universities and seven Chinese civilian univer-

sities signed a “strategic partnership” to “cultivate personnel and explore new modes of military-civilian joint education,” according to Chinese state-owned press.⁶⁰ In addition to training the next generation of China’s defense scientists and engineers, these partnerships concentrate civilian S&T research on emerging military technologies and could provide PLA scientists and engineers with opportunities to interact with U.S. entities and networks to gather information on sensitive U.S. technology.

Figure 4: Students from China Attending U.S. Universities: Total Enrollment, 2003–2004 to 2012–2013 Academic Years



Source: Institute of International Education, *Open Doors: Report on International Educational Exchange*, November 2013. <http://www.iie.org/-/media/Files/Corporate/Open-Doors/Fact-Sheets-2013/Country/China-Open-Doors-Fact-Sheet-2013.ashx>.

Joint Ventures: Chinese companies that acquire advanced technologies through joint ventures with foreign companies are legally required—under Chinese state security laws—to share the technology with the PLA and Chinese intelligence services if requested. The *Law of the People’s Republic of China for Protection of State Secrets*, adopted in 1988, defined state secrets as all “matters that have a vital bearing on state security and national interests.” The law and its implementation guidelines were so broad and vague that they encompassed essentially all conceivable information. A new version of the law, passed in 2010, offers slightly refined but still remarkably unclear parameters for what constitutes a state secret.⁶¹

Furthermore, Chinese joint-venture partners often exploit the agreement by demanding more technology than their foreign partners originally intended. The physical access to proprietary information and technologies provided by a joint venture also enables Chinese partners to more easily steal technology via traditional theft from their foreign partners.⁶²

One instance of this occurred in China's developing rail industry. Japanese Kawasaki Heavy Industries, which had entered into a joint venture with China South Locomotive & Rolling Stock Corporation Ltd. (CSR), accused CSR of copying and selling its bullet train technology on both the domestic and global markets.⁶³ In another case, China-based cyber actors compromised a company shortly after it entered into a joint venture with a Chinese entity. The cyber actors targeted internal communications belonging to the company's executive leadership, who were involved in talks with their Chinese counterparts over a deal involving a specific project. FireEye assesses that the cyber actors then gave this information to the Chinese entity to provide it with an advantage in the negotiations, which, if successful, would provide the Chinese organization with exclusive access to the company's technologies and proprietary data. However, the cyber actors also targeted and stole information pertaining to several of the company's technologies and critical systems, which they likely gave to Chinese companies for use in developing an economic advantage in the industry.⁶⁴

Foreign Cooperation: Chinese state-owned companies are pursuing foreign cooperation to improve their commercial design and manufacturing capabilities. For example, in the late 2000s, a Chinese company signed a deal with a U.S. company for final assembly and testing of the CF34-10A engine in China.⁶⁵ The engine will be used to power China's first indigenous passenger jet aircraft. No open-source information exists on the extent to which current Chinese military programs are exploiting technologies and know-how gained through foreign cooperation on civilian projects, but such activity would be consistent with China's past behavior. China almost certainly views the benefit to military development from such transfers as outweighing the risk of censure for violating end-user agreements on technology transfer deals.

PLA Navy Modernization

In the late 1980s, China began a modernization program to transform the PLA Navy from a coastal force into a technologically advanced navy capable of projecting power throughout the Asia Pacific. China's acquisition of platforms, weapons, and systems has emphasized qualitative improvements, not quantitative growth, and centered on improving its ability to strike opposing ships at sea and operate at greater distances from the Chinese mainland. From 2000 to June 2014, China's aggregate number of submarines and surface ships increased slightly from 284 to 290, while its overall capabilities improved significantly as it rapidly replaced legacy platforms with modern ones equipped with advanced, long-range weapon systems and sensors. China's modern ships also tend to be larger than legacy platforms, allowing them to handle rougher seas, hold more fuel and supplies for long deployments, mount more weapons, and carry larger crews to support a broader set of missions.

As of June 2014, the PLA Navy had 5 nuclear attack submarines (SSNs); 4 nuclear ballistic missile submarines (SSBNs); 39 diesel attack submarines (SS); 12 diesel air-independent attack submarines (SSP); 1 aircraft carrier; 24 destroyers (DD) and guided-

missile destroyers (DDG); 63 frigates (FF), light frigates, and guided-missile frigates (FFG); about 85 missile-equipped patrol craft; and 57 medium and large amphibious ships.⁶⁶

Mr. Karotkin, ONI's senior China analyst, explained to the Commission the inherent difficulties of using Chinese and U.S. naval orders-of-battle for comparing Chinese and U.S. naval capabilities:

... key differences in the types of PLA Navy ships (in comparison to the U.S. Navy) make it extremely difficult to apply a common basis for comparing the order-of-battle. A comprehensive tally of ships that includes hundreds of small patrol craft, mine warfare craft, and coastal auxiliaries provides a deceptively inflated picture of China's actual combat capability. Conversely, a metric based on ship displacement returns the opposite effect, given the fact that many of China's modern ships ... are small by U.S. standards, and equipped primarily for regional missions.

Defining “Modern” Submarines and Surface Ships

In reference to China's submarine force, the term “modern” is used in this report to describe a second-generation submarine that is capable of employing antiship cruise missiles or submarine-launched intercontinental ballistic missiles. The following PLA Navy submarine classes are considered modern: SHANG SSN, YUAN SSP, SONG SS, KILO 636 SS, and JIN SSBN.⁶⁷

In reference to China's surface force, the term “modern” is used in this Report to describe a surface ship that possesses a multi-mission capability, is armed with more than a short-range air defense capability, and has the ability to embark a helicopter. The following PLA Navy surface ship classes are considered modern: LUHU DD, LUHAI DD, LUZHOU DDG, LUYANG I/II/III DDG, Sovremenny I/II DDG, JIANGWEI I/II FF, JIANGKAI I FF, and JIANGKAI II FFG.⁶⁸

The PLA Navy also has a large number of submarines and surface combatants that are not considered modern as well as amphibious warfare, mine warfare, and auxiliary ships with various roles. Including all types and sizes, the PLA Navy currently operates more than 720 ships.⁶⁹

Table 1: PLA Navy Orders-of-Battle, 2000–2020

<i>Type</i>	<i>2000</i>	<i>2005</i>	<i>2010</i>	<i>2014</i>	<i>2020</i>
Diesel Attack Submarines	60	51	54	51	59–64
Nuclear Attack Submarines	5	6	6	5	6–9
Nuclear Ballistic Missile Submarines	1	2	3	4	4–5

Table 1: PLA Navy Orders-of-Battle, 2000–2020—Continued

<i>Type</i>	<i>2000</i>	<i>2005</i>	<i>2010</i>	<i>2014</i>	<i>2020</i>
Aircraft Carriers	0	0	0	1	1–2
Destroyers	21	21	25	24	30–34
Frigates	37	43	49	63	83–97
Amphibious Ships	60	43	55	57	50–55
Coastal Patrol (Missile)	100	51	85	85	85
TOTAL	284	217	277	290	318–351

Note: “Frigates” refers to frigates, light frigates, and guided-missile frigates. The rapid construction of the JIANGDAO-class light frigate accounts for a large share of the anticipated sharp increase of total frigates in the PLA Navy from 2014 to 2020. Some sources classify China’s JIANGDAO ship as a “corvette” rather than a light frigate.

Source: This chart reflects Commission estimates and judgments based on unclassified briefs by U.S. and foreign government officials, discussions with nongovernmental experts on China’s military, consecutive versions of DoD’s annual *Report to Congress on Military and Security Developments Involving the People’s Republic of China*, and consecutive versions of the International Institute for Strategic Studies’ *The Military Balance*.

Modern Submarines

Over the last 14 years, the PLA Navy has increased its inventory of modern nuclear and conventional submarines from one in 2000 to nearly 40 in 2014. China has at least seven classes of modern submarines in use, in production, or under development: SHANG SSN, YUAN SSP, SONG SS, KILO 636 SS, JIN SSBN, Type-096 SSBN, and Type-095 guided-missile, nuclear powered submarine (SSGN).

- The PLA Navy’s SHANG SSN, YUAN SSP, and SONG SS are designed for antisurface warfare and ISR in the approaches to China’s maritime periphery and likely will escort future nuclear deterrent patrols and aircraft carrier task groups. Initially equipped with the subsonic, medium-range YJ–82 antiship cruise missiles (20 nm),* the PLA Navy likely will install the advanced, long-range CH–SS–N–13 antiship cruise missile (120+ nm) on these three classes in the near term, if it has not already.⁷⁰ The upgraded SHANG SSN, YUAN SSP, and SONG SS will complement the PLA Navy’s KILO 636 SS, which is equipped with the supersonic, long-range SS–N–27 antiship cruise missile (120 nm).
- By the end of 2014, the PLA Navy’s JIN SSBN probably will conduct its first patrol while armed with the JL–2 submarine-launched ballistic missile (see “China’s Offensive Missile Force” later in this section for more information). China also is developing its next-generation SSBN and submarine-launched ballistic missile, called the Type 096 SSBN and the JL–3, respectively. The new SSBN likely will feature improved stealth over its predecessor, the JIN, which is a very noisy submarine and could be vulnerable to U.S. and Japanese antisub-

*Throughout this section, the maximum range of cruise and ballistic missiles is indicated in parenthesis following the first reference of the missile.

marine capabilities. Additionally, the new submarine-launched ballistic missile probably will have a longer range and be more lethal than the JL-2.⁷¹

- China is pursuing a new class of nuclear attack submarines, the Type 095 SSGN. Although details of the program are unavailable in open sources, Mr. Karotkin testified to the Commission that the Type 095 may “provide a generational improvement in many areas such as quieting and weapon capacity” and carry the PLA Navy’s first submarine-launched land-attack cruise missile.

Furthermore, China is pursuing joint-design and production of four to six Russian advanced diesel-electric attack submarines containing Russia’s latest submarine sonar, propulsion, and quieting technology.⁷² The deal would improve the PLA Navy’s capabilities and assist China’s development of quiet submarines, thus complicating future U.S. efforts to track and counter PLA Navy submarines.

China’s expanding inventory of modern submarines has significantly enhanced China’s ability to strike foreign surface ships, including those of the U.S. Navy, near major sea lines of communication in the Asia Pacific. According to William Murray, associate research professor at the U.S. Naval War College:

Beijing’s ongoing investment in increasingly modern (and therefore progressively quiet) antiship-cruise-missile-firing diesel submarines reflects a determination to overwhelm and destroy surface ships operating within at least a hundred miles of shallow waters of [China’s] near seas, including Taiwan. This distance is greatly extended and reinforced by the DF-21D [antiship ballistic missile] and by [antiship cruise missiles] launched from surface warships and . . . aircraft. PLA reliance on large numbers of antiship cruise missiles as a means of deterring and defeating opposing surface naval forces represents a significant challenge for a potential adversary, and it suggests specifically that the U.S. Navy’s post-Cold War ability to conduct high-volume, uncontested, maritime strike operations from surface ships in the western Pacific has ended, at least temporarily.⁷³

Aircraft Carriers

China commissioned its first aircraft carrier, the *Liaoning*, in 2012 after approximately six years of renovation work on the Soviet-designed, Ukrainian-built hull and one year of sea trials, and is developing a carrier-based fighter aircraft, the J-15. At least six J-15 prototypes are being tested. China conducted the first test flight of the J-15 in 2009; the first takeoff from a land-based simulated ski jump in 2010; and the first take-offs and landings on the *Liaoning* in 2012. The J-15 had begun performing full-stops and take-offs with maximum weapon loads by September 2013.⁷⁴

Although the *Liaoning* is an important symbol for the Chinese government, Chinese citizens, and regional observers of China’s ever-increasing military power, the *Liaoning*’s military value cur-

rently is limited to humanitarian assistance/disaster relief, helicopter support to ground forces, antisubmarine warfare, airborne early warning, search and rescue, and presence operations. However, after China's first carrier-based aviation unit becomes operational, which is expected by 2016, the *Liaoning* could contribute significantly to the PLA's combat capabilities in the South China Sea, where the nation's airpower today is limited by the short ranges of China's fighter fleet (for more information on China's air combat range limitations, see "China's Air Forces" later in this section). In the South China Sea, China's aircraft carrier probably could quickly overwhelm potential adversaries such as the less capable naval and air forces of the Philippines and Vietnam. The *Liaoning* and its embarked aircraft likely would not represent much of an offensive strike threat against U.S. carrier strike groups operating in the South China Sea, though together they could conduct air defense and antisubmarine warfare in support of China's broader antiaccess/area denial operations against the United States.⁷⁵

The *Liaoning* and its embarked aircraft also could provide China with a potent expeditionary force. During the carrier's first-ever long-distance training deployment in early 2014, it reportedly exercised with at least 12 other ships, including submarines and amphibious ships, suggesting China is experimenting with multiple types of future carrier formations, including those resembling U.S. combined expeditionary groups.⁷⁶

China probably intends to follow the *Liaoning* with at least two and potentially as many as four indigenously-produced hulls⁷⁷ that will be larger than the *Liaoning's* 60,000 tons and feature design and engine improvements. Construction of China's first indigenous carrier has yet to be observed; however, modern ship construction methods allow sections of a ship to be constructed inside buildings long before a full ship is laid down in the dock, making it difficult to corroborate China's progress in this area. If the first of these indigenous carriers began construction in 2013, as U.S. analysts widely reported, it could reach initial operational capability by 2020.⁷⁸ Regarding China's aircraft carrier construction, Admiral Jonathan Greenert (U.S. Navy), the U.S. Chief of Naval Operations, in July 2014 said China is "moving on a pace that is extraordinary."⁷⁹

Modern Surface Combatants

Over the last 14 years, the PLA Navy more than tripled its inventory of modern destroyers and frigates, from less than 15 in 2000 to about 50 in 2014. China also continues to regularly upgrade legacy platforms with new weapon systems as they become available.

- The PLA Navy surface force has significantly enhanced its antisurface warfare capabilities since 2000 with the fielding of advanced long-range antiship cruise missiles and over-the-horizon targeting systems aboard the PLA Navy's newest destroyers and frigates. These antiship cruise missiles include the Russian SS-N-22 (130 nm) and the Chinese YJ-62 (150 nm), YJ-83 (95 nm), and YJ-8A (65 nm). China's newest destroyer,

the LUYANG III, which is expected to enter the force by the end of 2014, will be fitted with a new vertically-launched, long-range antiship cruise missile.⁸⁰

- Although naval air defense has historically been a weak area for the PLA Navy, its newest destroyers and frigates feature medium- or long-range surface-to-air missiles that enable PLA Navy ships to operate beyond land-based air defenses while still maintaining air defense coverage. These surface-to-air missiles include the Russian SA-N-20 (80 nm) and SA-N-7 (20 nm) and the Chinese HHQ-9 (55 nm) and HHQ-16 (40 nm). The new LUYANG III DDG will carry an extended-range variant of the HHQ-9 surface-to-air missile.⁸¹
- The PLA Navy does not have the ability to strike land targets with cruise missiles but likely will field its first sea-based land-attack cruise missile in the next five to ten years on the LUYANG III DDG and Type 095 SSGN. A future sea-based land-attack cruise missile, when combined with greater frequency of long-range combat readiness patrols, will complement the PLA's arsenal of other cruise and ballistic missiles, enhancing Beijing's flexibility for attacking land targets throughout the Asia Pacific, including U.S. facilities in Guam.⁸²
- China appears to be developing a new cruiser, potentially called the Type 055, which reportedly would displace approximately 10,000 tons and carry large numbers of antiship cruise missiles, surface-to-air missiles, and land-attack cruise missiles as well as potentially laser and rail-gun weapons.⁸³

The PLA Navy's expanding and modernizing fleet of combat ships has improved Beijing's ability to project power in the Taiwan Strait, the East China Sea, the South China Sea, and the Philippine Sea as well as to fulfill the PLA Navy's growing missions beyond the Asia Pacific, such as expeditionary warfare, defense of distant maritime trade routes, humanitarian assistance/disaster relief, and counterpiracy. Dr. Erickson explained the trajectory of the PLA Navy and its implications for the United States and the region:

While one of the world's largest, China's slightly-expanding surface fleet has grown far faster in quality. Chinese naval platforms display a growing multi-mission emphasis. Whereas previously antisurface warfare focus eclipsed competing priorities, now increasing emphasis is devoted to the over-the-horizon targeting necessary to support antisurface warfare, as well as to anti-air warfare. China's latest destroyers and frigates, which its large, increasingly advanced shipbuilding industry is building steadily, boast significant area air defense capabilities. With a developing aircraft carrier program, the possibility of land-attack cruise missiles being deployed in surface vessel vertical launch systems in the near future, and deployment of larger amphibious vessels including YUZHAO-class landing platform docks and Zubr air-cushioned landing craft, the PLA Navy may be starting to develop a force capable of

conducting strike operations ashore. As China's consolidating coast guard forces increasingly patrol disputed areas in the Yellow Sea, East China Sea, and South China Sea to advance China's claims there, PLA Navy ships are free to range further afield to bolster China's antiaccess/area denial envelope in the Western Pacific and expand its presence and influence in the Indian Ocean and beyond.⁸⁴

As the PLA Navy has strengthened its long-range capability, it also has bolstered its shorter-range forces with the introduction of 60 HOUBEI-class guided-missile patrol boats (PTGs) from the mid-to late-2000s and the ongoing deliveries of JIANGDAO-class light frigates, which began in 2012.⁸⁵

The HOUBEI PTG, equipped with eight long-range antiship cruise missiles and able to attain high speeds, has significant offensive potential against U.S. and allied forces operating within 200 nm of China's coast. John Patch, a U.S. intelligence analyst, explains the significant operational and tactical ramifications of the HOUBEI PTG for the U.S. Navy:

The HOUBEI PTG's size and partial stealth mean that the [U.S. Navy] may never locate with long-range sensors the firing platform . . . making prosecution by the [U.S. Navy's] surface-launched Harpoon [antiship cruise missile] difficult at best. . . . Air-launched Harpoons or aerial cueing may be solutions, but operating friendly aircraft or unmanned aerial systems within range of China's growing fourth-generation naval air defense raises the risks to these platforms. . . . Recent U.S. government assessments of the Littoral Combat Ship suggest that it too will not be up to the task of HOUBEI hunter-killer missions in high-threat waters.⁸⁶

The JIANGDAO light frigate is armed with several naval guns, torpedoes, and four long-range antiship cruise missiles and is able to support helicopter operations. In contrast to the HOUBEI PTG, the JIANGDAO light frigate appears to be designed primarily for patrol, surveillance, and sovereignty protection in the East China Sea and the South China Sea rather than rapid offensive strike missions. China to date has built 14 JIANGDAO light frigates and is expected to field 15–25 more units. The integration of the JIANGDAO light frigate into the force will free the PLA Navy's larger, more capable surface combatants to focus on operations farther from the Chinese mainland.⁸⁷

Replenishment Ships

The demands of the PLA Navy's expanding missions in distant seas—such as its Gulf of Aden counterpiracy deployments since 2009 and its search for missing Malaysia Airlines Flight 370 in 2014—have strained the capacity of the PLA Navy's logistics fleet, placing its small fleet of replenishment oilers on near-constant deployment status. To help improve the PLA Navy's ability to sustain high-tempo operations at longer ranges, China introduced two new oilers in 2013, bringing its total inventory of oilers to seven, and launched another in June 2014. There are indications China plans to build two additional oilers in the next one to two years and po-

tentially more units later in the decade. Oilers are very easy for China to build; they can be completed (keel to commissioning) in 12 to 18 months.⁸⁸

Amphibious Ships

Beginning in approximately 2006, the PLA Navy's amphibious acquisition shifted from small tank landing ships designed for a full-scale invasion of Taiwan toward larger multipurpose amphibious ships designed to provide the PLA Navy with greater flexibility in balancing its growing commitments to diverse missions. From 2007–2012, the PLA Navy commissioned three YUZHAO-class amphibious transport docks (LPD). China likely will build additional YUZHAO LPDs and may introduce a new landing helicopter assault ship, called the Type-081, in the next five years.⁸⁹

The YUZHAO LPD can carry up to four YUYI hovercraft,* 20 amphibious armored vehicles, and 800 combat troops and at least four helicopters. Given the ship's size, range, and ability to support over-the-horizon operations using helicopters and hovercraft, it is well-suited for amphibious assaults against the islands and reefs in the South China Sea and Taiwan-controlled islands in the Taiwan Strait, as well search and rescue, humanitarian assistance/disaster relief, and counterpiracy. Furthermore, the YUZHAO's LPD's recent deployment to the Indian Ocean and amphibious assault training suggest the PLA Navy is developing operational concepts and proficiencies for expeditionary missions, such as amphibious raids, direct action operations, airfield and port seizures, and personnel and materiel seizure/recovery.

The PLA continues to increase the size, sophistication, and frequency of its amphibious training. China's amphibious force consists of the 1st Amphibious Mechanized Infantry Division and an amphibious armored brigade in the Nanjing Military Region, the 124th Amphibious Mechanized Infantry Division in the Guangzhou Military Region, and the 1st and 164th marine brigades in the South Sea Fleet.⁹⁰

Maritime Law Enforcement Ships

China employs its maritime law enforcement ships to monitor, protest, and in some cases harass foreign vessels engaging in activities that it believes violate its maritime rights. Beijing almost certainly views this approach as less provocative than deploying its navy because it allows China to present the confrontation as a domestic law enforcement issue rather than a foreign defense issue requiring the military's intervention. Nevertheless, the PLA Navy still plays a role by backing up maritime law enforcement patrols from a distance; visibly training and transiting through disputed waters; and resupplying Chinese-controlled land features in the South China Sea.⁹¹

Prior to 2013, China had six chief Maritime Law Enforcement agencies, all with separate and sometimes overlapping missions.

*The YUYI LCUA—similar in size to the U.S.-designed landing craft air cushion—can carry approximately 60 tons and has space for one main battle tank. U.S.-China Economic and Security Review Commission, *Hearing on PLA Modernization and Its Implications for the United States*, written testimony of Jesse Karotkin, January 10, 2014; IHS Aerospace, Defense, and Security, "Analysis: China's Expanding Amphibious Capabilities," October 2013.

China in June 2013 officially consolidated four of these six agencies into the new China Coast Guard* in an effort to address long-standing shortcomings in its coordination of maritime policy and to centralize control of China's maritime law enforcement operations.⁹² The consolidation has allowed the China Coast Guard to more flexibly deploy patrol ships in response to perceived challenges to China's sovereignty and more easily patrol China's maritime claims.

Together, China's maritime law enforcement agencies operate over 100 ocean-going ships and over 1,000 patrol craft and smaller boats.⁹³ Some of these ships have light mounted-weapons but most are unarmed. However, all of them likely have a gun locker for personnel weapons. In some instances, newly constructed ships for the China Coast Guard have provisions for future fit of guns (for example, empty gun collars). According to Mr. Karotkin, future weapons, if installed, would be similar to other coast guards worldwide, including the U.S. and Japanese Coast Guards.

China's maritime law enforcement force, like the PLA Navy, is in the midst of a major modernization program and will expand significantly between now and 2020. Most of these units will be larger and more capable than previous ones, and some will have the ability to embark helicopters.⁹⁴

U.S. Force Posture in Asia

In August 2014, U.S. Pacific Command (PACOM) reported it has approximately 360,000 personnel, including 140,000 assigned to the Navy; 86,000 assigned to the Marine Corps; 29,000 assigned to the Air Force; 60,000 assigned to the Army; 38,000 DoD civilians; and 1,200 Special Operations personnel. PACOM's order-of-battle includes 200 ships, 50 of which are forward-stationed or forward-deployed in the Asia Pacific while the remaining 150 are stationed in the Eastern Pacific (from the West Coast of North America to the International Date Line); 1,500 aircraft (including those from the U.S. Navy, U.S. Marine Corps, and U.S. Air Force); and two Marine Expeditionary Forces.⁹⁵

The declared U.S. rebalance to Asia policy calls for increasing the forward presence of the U.S. Navy from about a 50/50 distribution between the Pacific and the Atlantic to a 60/40 distribution by 2020 and using these assets in new ways to enhance U.S. posture and partnerships. Under its submission to the President's Budget for Fiscal Year 2015, the U.S. Navy would increase its forward presence in the Asia Pacific from about 50 ships on average today to about 67 on average in 2020. The 2020 total includes an additional attack submarine in Guam, where three are stationed today. The U.S. Navy also plans to operate MQ-4C TRITON high endurance UAVs from Guam by 2018.⁹⁶

* China's former six chief maritime law enforcement agencies were China Maritime Surveillance, Fisheries Law Enforcement Command, China Coast Guard, Maritime Customs Service, Maritime Safety Administration, and China Rescue and Salvage. China consolidated the assets of all but the Maritime Safety Administration and China Rescue and Salvage into the new China Coast Guard.

U.S. Force Posture in Asia—Continued

However, budget uncertainty could impact PACOM's planned upgrades to its force posture, presence, and readiness. In March 2014, PACOM Commander Admiral Locklear explained:

Budget uncertainty has hampered our readiness and complicated our ability to execute long-term plans and to efficiently use our resources. These uncertainties impact our people, as well as our equipment and infrastructure by reducing training and delaying needed investments. They ultimately reduce our readiness, our ability to respond to crisis and contingency as well as degrade our ability to reliably interact with our allies and partners in the region.

... Due to continued budget uncertainty, we were forced to make difficult short-term choices and scale back or cancel valuable training exercises, negatively impacting both the multinational training needed to strengthen our alliances and build partner capacities as well as some unilateral training necessary to maintain our high-end warfighting capabilities. These budgetary uncertainties are also driving force management uncertainty. Current global force management resourcing, and the continuing demand to source deployed and ready forces from PACOM [area of responsibility] to other regions of the world, creates periods in PACOM where we lack adequate intelligence and reconnaissance capabilities as well as key response forces, ultimately degrading our deterrence posture and our ability to respond.⁹⁷

China's Air Forces

In the early 1990s, Beijing began a comprehensive modernization program to upgrade the PLA Air Force from a short-range, defensively-oriented force with limited capabilities into a modern, multi-role force capable of projecting precision airpower beyond China's borders, conducting air and missile defense, and providing early warning and dynamic situational awareness. This program has focused on weapon system acquisition and integration, infrastructure upgrades, tactics development, and more recently, training improvements.

Combat Aircraft

The PLA Air Force has approximately 2,200 operational combat aircraft. This total includes air defense and multi-role fighters, ground attack aircraft, fighter-bombers, and bombers (see Table 2). Of these combat aircraft, 330–500 operate from permanent bases in the eastern half of China, allowing them to conduct operations in and around Taiwan without aerial refueling. Moreover, China—using its robust military, civilian, and reserve airfield network—could forward deploy hundreds of additional combat aircraft on short notice in a conflict scenario.⁹⁸

Defining “Modern” Combat Aircraft

The definition of “modern” combat aircraft changes frequently as new technologies are proven and fielded. Combat aircraft can be characterized by their radar signatures, sensors, avionics, weapons, propulsion, controls, materials, and flight performance capabilities. Features and capabilities can be introduced piecemeal as an interim upgrade to an existing airframe, or via the rollout of an all new system.

In reference to China’s combat aircraft, the term “modern” is used in this report to describe the following aircraft, all of which feature advanced avionics and weapon systems: J-10, J-11, JH-7, Su-27, and Su-30. If and when they are acquired by China, the J-15, J-20, J-31, and Su-35 will be added to this list.

Table 2: China’s Combat Aircraft, 2000–2014

	2000	2005	2010	2014
Total (Approximate)	3,000	1,900	1,617	2,193
Modern (Approximate)	65	154	381	593
Percent Modern (Approximate)	2	8	24	27

Note and Source: Estimates of China’s inventory of total combat aircraft, including modern and legacy aircraft in the PLA Air Force and PLA Navy, vary across sources. This chart uses data from consecutive versions of the International Institute for Strategic Studies’ *The Military Balance*, which is the most demonstrably reliable and comprehensive source available.

Air Defense and Multi-role Fighters, Ground-Attack Aircraft, and Fighter-bombers: The PLA Air Force has approximately 2,100 air defense and multi-role fighters, ground attack aircraft, and fighter-bombers, including about 600 that are considered modern.

Complementing China’s new modern combat aircraft are a diverse array of beyond-visual-range air-to-air missiles; all of China’s fighters in 2000, with the potential exception of a few modified Su-27s, were limited to within-visual-range missiles. China over the last 15 years also has acquired a number of sophisticated short- and medium-range air-to-air missiles; precision-guided munitions including all-weather, satellite-guided bombs, antiradiation missiles, and laser-guided bombs; and long-range, advanced air-launched land-attack cruise missiles and antiship cruise missiles. Moreover, China has installed advanced electronic warfare systems on some its aircraft, improving their survivability and lethality and allowing them to jam or interfere with an adversary’s communications.⁹⁹

Comparing U.S. and Chinese trends in fighter modernization from 1995 to the present, David Shlapak, a senior policy analyst at the RAND Corporation, explains:

Now visualize a ... meeting ... in 1995. The U.S. pilot would most likely have been flying an F-15, F-16, or F/A-18—a sophisticated “fourth generation” fighter featuring

*cutting-edge radar and avionics, as well as advanced “fire and forget” air-to-air missiles. The PLA Air Force pilot, on the other hand, most likely would ... be flying a J-6, armed with a Chinese copy of a Soviet copy of a first-generation, short-range U.S. air-to-air missile. The U.S. pilot would have enjoyed an overwhelming qualitative advantage in aircraft, electronics, and weapons. Advance 20 years to the present day. The United States would most likely be represented by the same F-15 equipped with somewhat updated versions of the same sensors, avionics, and missiles. The PLA Air Force, meanwhile, could meet it with a J-10 or J-11, both modern fighters comparable in performance to the fourth-generation U.S. jets. The Chinese pilot would likewise have at its disposal weapons and other equipment that reflect rough parity with those found on the typical U.S. fighter.*¹⁰⁰

With the J-10, J-11, Su-27, and Su-30, China likely would be able to sustain air combat operations along the Taiwan Strait and over the Senkaku Islands, even in the face of U.S. intervention. During a conflict with Japan or Taiwan, China’s quantitative advantages over those countries, combined with the proximity of China’s air bases to the prospective war zones, would allow for a short logistics chain, high sortie rates, and extensive aircraft availability and help to facilitate integrated air defense and command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR). Furthermore, the upgraded JH-7 attack aircraft, introduced in the mid-2000s, provides China with potent air intercept and maritime strike capabilities. During a conflict, this platform would allow China to protect its territorial airspace and coastal airspace as well as attack foreign surface forces operating throughout much of the first island chain.

Nevertheless, most of China’s fighter and attack aircraft lack the combat range to conduct air operations in the Philippine Sea and the southern reaches of the South China Sea. Until the PLA Navy’s first carrier-based aviation wing becomes operational, China must use air refueling tankers to enable air operations at these distances from China. However, China’s current fleet of air refueling aircraft, which consists of only about 12 1950s-era H-6U tankers, is too small to support sustained, large-scale, long-distance air combat.¹⁰¹ Furthermore, the H-6U tanker has a limited capacity to hold transferable fuel, China has inadequate support infrastructure on the ground, and most of China’s fighters do not have the equipment necessary to refuel in the air.¹⁰²

To augment its H-6U tankers, China purchased as many as 10 IL-78 tankers from Russia in the mid-2000s. Production issues have prevented Russia from delivering any of the IL-78 tankers to date. Some indications, however, suggest deliveries could begin by the end of 2014. Furthermore, China reportedly acquired a small number of tankers from Ukraine in 2013–2014¹⁰³ and may build a large number of new tankers using the Y-20 transport aircraft’s airframe when it becomes available (for more information on the Y-20, see “Strategic Airlift” later in this section).¹⁰⁴

Over the next five years, China is expected to continue to develop and modernize its fleet of fighter and attack aircraft with variants

of its existing platforms. China also is on track to introduce two fifth-generation fighters, the J-20 and the smaller J-31. China's fifth-generation fighters probably will have low visibility, high maneuverability, and large internal weapons bays and feature advanced sensors, radars, and datalinks. The J-20 and J-31 are expected to reach initial operational capability between 2017–2019.

- China continues to produce variants of the J-10 and J-11 fighters. Future aircraft may feature the more powerful Chinese WS-10A turbofan engine, new radars, new cruise missiles, and design modifications. Among the J-11 variants in production, the J-16 is the most notable because it could have significantly improved range, payload capacity, and maneuverability compared to China's current inventory. China likely will initially use the J-16 to augment the JH-7 and Su-30 in the PLA Air Force and PLA Navy. Depending on its performance and the status of other aircraft programs, the J-16 may eventually replace these fighters.¹⁰⁵
- The PLA Air Force conducted the first test flight of the J-20 in January 2011 and continues to build and test prototypes of the aircraft. The third and fourth prototypes, which flew in March and July 2014, respectively, feature a number of important design modifications, suggesting China continues to improve its stealth technology.¹⁰⁶ The J-20 fighters will be more advanced than any other fighter currently deployed by Asia Pacific countries, adding to China's military leverage against Taiwan, Japan, and South China Sea counterclaimants. Furthermore, according to Mr. Shlapak, the J-20 "will confront the U.S. military with, in effect, the dilemma that the U.S. Air Force has for 20 years been imposing on adversaries—how to defend against low-observable aircraft."¹⁰⁷
- China conducted the first flight test of the J-31 in October 2012 and may have as many as three prototypes in production.* The J-31's intended use remains unknown to foreign observers. A PLA Navy official in 2013 claimed the aircraft is designed for export to China's friends and allies that are unable to purchase the F-35; however, another PLA Navy official in 2013 said the J-31 will serve as the basis for China's next-generation carrier-based aircraft.¹⁰⁸ China also could field the smaller stealth fighter to complement the J-20.

Furthermore, China appears to be in the final stages of purchasing Russian Su-35 fighter aircraft. The Su-35 is a versatile, highly capable aircraft that would offer significantly improved range and fuel capacity over China's current fighters. The aircraft thus would strengthen China's ability to conduct air superiority missions in the Taiwan Strait, East China Sea, and South China

*The J-31 appears to share similarities to Lockheed Martin's F-35 and F-22 fighters. Credible reporting indicates Chinese cyber operators stole data on the design, performance, and other characteristics of the F-35 from the Western defense firms. Trefor Moss, "China's Stealth Attack on the F-35," *Diplomat*, September 27, 2012. <http://thediplomat.com/2012/09/the-fake-35-chinas-new-stealth-fighter/>; Australian, "Security Experts Admit China Stole Fighter Jet Plans," March 12, 2012. <http://www.theaustralian.com.au/news/world/security-experts-admit-china-stole-secret-fighter-jet-plans/story-fnb64oi6-1226296400154?nk=d041d43ecbce5fdb831ea5201b29dee9#>.

Sea as well as provide China with the opportunity to reverse engineer the fighter's component parts, including its advanced radar and engines, for integration into China's current and future indigenous fighters.¹⁰⁹

Bombers: China operates approximately 100 bombers, more than any other country in the world except for the United States and Russia. The current inventory is comprised of multiple variants of the H-6 bomber. China gained the newest and most capable version, the H-6K, in 2013. The H-6K has improved survivability over China's existing bomber fleet and can carry China's new long-range land-attack cruise missile, the CJ-20. The H-6K/CJ-20 weapon system provides the PLA Air Force with the ability to strike Guam, which previously had been out of its range.¹¹⁰ Although the CJ-20 land-attack cruise missile appears to be designed primarily for conventional strikes, the U.S. Air Force Global Strike Command claims it can carry a nuclear warhead.¹¹¹

China's current bomber fleet gives it the ability to hold at risk targets on Taiwan, Japan, Vietnam, and the Philippines, as well as U.S. forces in Japan, South Korea, and Guam. However, China's paucity of air refueling tankers and their limited capacity to offload fuel (discussed previously in this section) could require China's bombers to conduct long-range strike missions without fighter escorts, potentially decreasing their effectiveness in some regional strike missions. Moreover, China's bombers, all of which are derived from a 1950s-era Soviet air-frame, probably require frequent maintenance and have low engine life expectancies. China is developing a new long-range stealth bomber that could address these issues and strengthen the PLA Air Force's ability to project power regionally.¹¹² According to Richard Fisher, senior fellow at the International Assessment and Strategy Center, "Many Chinese sources note [Xian Aircraft Corporation's] new bomber will be a 'flying wing' design similar to the U.S. Northrop-Grumman B-2 Spirit bomber. Xian's design effort has benefited from espionage, especially from the disclosures made by former Northrop engineer Noshir Gawadia."¹¹³ Furthermore, China and Russia are discussing the joint development of an advanced bomber, according to a Russian official quoted in Taiwan media.¹¹⁴

Strategic Airlift

In January 2013, China conducted the first test flight of its indigenously-built jet cargo aircraft, designated the Y-20. China previously was unable to build heavy transports so has relied on 10-15 Russian IL-76 aircraft for strategic airlift since the 1990s.

Aircraft specifications provided by official Chinese media indicate the Y-20 can carry 66 tons, about twice the cargo load of the PLA's only operational jet cargo aircraft, the IL-76, and three times the cargo load of the U.S. C-130. Such a cargo capacity would allow the Y-20 to deploy China's heaviest armored vehicle, the Type 99A2 main battle tank, or about 90 paratroopers. Although the Y-20 currently is powered by Russian D-30KP-2 engines, China ultimately plans to replace these with a Chinese engine, potentially the WS-20, which could feature better fuel efficiency and thrust-to-weight ratio.¹¹⁵ If and when the Y-20 is mated with a Chinese

engine, the airframe could become the basis for a new generation of support planes for the PLA for missions such as air refueling, airborne early warning, command and control, and electronic warfare.¹¹⁶

China probably will operationally deploy its first Y-20 transports within the next two years. A report by China's National Defense University published in 2014 recommends that the PLA build 400 Y-20s.¹¹⁷ Such a large fleet of Y-20s would significantly improve the PLA Air Force's ability to mount and sustain large-scale air operations. In particular, the Y-20 will enhance the PLA's ability to rapidly move cargo, troops, and heavy equipment to Taiwan during an invasion; to China's far western territories for a conflict against India or internal stability operations; and to offshore locations, such as Hainan Island. The Y-20 also will provide PLA commanders with increased flexibility during international peacekeeping and humanitarian assistance operations.¹¹⁸

C4ISR Aircraft

China is developing and fielding a variety of dedicated C4ISR aircraft to provide high-fidelity and time-sensitive tracking for China's air and maritime forces. Lacking airborne early warning and control (AEW&C) aircraft in 2000, the PLA Air Force today deploys 12 of them, split between two models: the KJ-2000 and the KJ-200. The KJ-2000, which China uses primarily for long-range C4ISR operations, "employs radar technology two generations ahead of that used by the U.S. Air Force's E-3C [aircraft]," according to Dr. Carlo Kopp, an Australia-based military analyst and editor of *Air Power Australia*.¹¹⁹ China's smaller KJ-200 complements the KJ-2000 by performing shorter-range C4ISR operations. Dr. Kopp assesses the KJ-200's technology is "two generations ahead of the mechanically steered technology used by the United States."¹²⁰ China likely will continue to steadily field additional KJ-2000 and the KJ-200, potentially doubling its force of AEW&C aircraft over the next five years.

In addition to its two dedicated AEW&C platforms, China over the past decade has fielded more than a dozen specialized C4ISR aircraft, most of which are based on the Y-8. Notably, China recently began to develop a Y-8 variant for antisubmarine warfare.¹²¹ China's current inventory of only a few large, fixed-wing antisubmarine warfare aircraft—the cornerstone of open-ocean antisubmarine warfare for other leading world navies, including the United States and Japan—prevents China from fully realizing the potential of its growing inventory of modern surface combatants and could limit the PLA Navy's ability to conduct antiaccess/area denial operations.

The PLA also is steadily incorporating UAVs into its air forces to supplement manned C4ISR aircraft. Strategic reconnaissance UAVs—such as the BZK-005, deployed in 2010—are designed for long-duration C4ISR at extended distances from the Chinese mainland, allowing them to provide over-the-horizon targeting for the PLA's long-range antiship cruise missiles and antiship ballistic missiles. In particular, they could be useful for detecting, locating, and tracking high-value fixed and mobile targets—such as U.S. and

Japanese naval ships—throughout the East China Sea, northern portions of the South China Sea, and the Philippine Sea. UAVs like the BZK-005 probably will become some of China's most valuable ISR assets in managing maritime disputes and asserting maritime claims. The BZK-005 reportedly conducted its first ISR mission over the East China Sea in September 2013.¹²² According to Mr. Fisher, "Given their low cost, about \$1 million for a UAV the size of the BZK-005, China could soon inundate Japan's ADIZ with UAVs that might overwhelm [Japan's air forces]."¹²³

China also is developing smaller, tactical reconnaissance UAVs designed to provide ISR on fixed and mobile targets on Taiwan and in the Taiwan Strait and to test operational concepts for UAV use. Depending on their basing and range, some of these UAVs also could conduct ISR in portions of the East China Sea and South China Sea.¹²⁴

Land-Based Air Defense

Previously comprised mostly of variants of the 1950s-era SA-2 surface-to-air system, the PLA Air Force's air defense capabilities have significantly improved since 2000. China now has one of the most robust air defense forces in the world.¹²⁵

China in the mid-2000s fielded several new types of indigenous surface-to-air missiles to augment the advanced, long-range surface-to-air missiles it purchased from Russia in the mid-1990s. China's surface-to-air missile systems—which are concentrated along the Taiwan Strait and China's southeastern coast—include the Chinese HQ-9 (124 miles) and the Russian SA-10 (56+ miles), SA-20A (93 miles), and SA-20B (124 miles). China has at least eight and potentially up to 16 SA-20B battalions. The SA-20B is the most advanced surface-to-air missile system sold by Russia.¹²⁶ Complementing the purchase and development of these new systems are improvements in China's national air defense network, which since 2007 has spanned the entire country. Together, these improvements enable the PLA Air Force to extend air defense coverage over the Taiwan Strait and northeastern Taiwan and provide overlapping, integrated air defenses for important Chinese military, industrial, and population centers.¹²⁷

In 2014, Russia approved in principle the sale of its next-generation surface-to-air missile system, the S-400, to China, according to Russian media reports. Such a sale has been under negotiation since at least 2012.¹²⁸ The S-400 would more than double the range of China's air defenses from approximately 125 to 250 miles—enough to cover all of Taiwan, the Senkaku Islands, and parts of the South China Sea¹²⁹—and feature an improved ballistic missile defense capability over China's existing surface-to-air missile systems.¹³⁰ As China pursues the S-400, it also is developing its next-generation indigenous surface-to-air missile, the HQ-19, which likely will have features and range similar to the S-400.¹³¹

China's Offensive Missile Force

Since the mid-1990s, China's offensive missile force—the Second Artillery—has added significant conventional strike capabilities; previously, the force had been comprised of only nuclear ballistic

missiles. During this period, the Second Artillery has developed and fielded a robust and modern short-range ballistic missile force. The force also has introduced conventional medium-range ballistic missiles, intermediate-range ballistic missiles, antiship ballistic missiles, and ground-launched land-attack cruise missiles designed to counter key aspects of U.S. military power. Meanwhile, China has gradually modernized and expanded its nuclear strike capability by deploying its first road-mobile intercontinental ballistic missiles and its first credible sea-based nuclear deterrent capability.¹³²

According to DoD, the Second Artillery has at least 1,330 and potentially more than 1,895 ballistic and cruise missiles, which includes 1,000–1,200 short-range ballistic missiles, 75–100 medium-range ballistic missiles, 5–20 intermediate-range ballistic missiles, 50–75 intercontinental ballistic missiles, and 200–500 ground-launched land-attack cruise missiles.¹³³ A more precise estimate of the number of missiles in the Second Artillery’s inventory is hindered by DoD’s omission of detailed missile orders-of-battle in its annual report to Congress on China. According to Hans Kristensen, director of the Nuclear Information Project at the Federation of American Scientists, “Up until 2010, the annual DoD reports included a table overview of the composition of the Chinese missile force. But the overview gradually became less specific until it was completely removed from the reports in 2013. The policy undercuts the Administration’s position that China should be more transparent about its military modernization by indirectly assisting Chinese government secrecy.”¹³⁴

Conventional Strike

Short-Range Ballistic Missiles (less than 621 miles): In 2002, China had 350 short-range ballistic missiles. After a rapid expansion, China today has the world’s largest short-range ballistic missile force, with 1,000–1,200 missiles. The force also has become more lethal as China has gradually replaced older missiles lacking a true precision-strike capability with new short-range ballistic missiles and variants of existing short-range ballistic missiles that feature longer ranges and improved accuracies and payloads.¹³⁵

China’s short-range ballistic missile force consists mainly of multiple variants of the DF–11 and DF–15. All of these missiles are solid-propelled and road-mobile; most variants have a maximum range of more than 373 miles, allowing them to strike targets throughout Taiwan.¹³⁶ Moreover, the Second Artillery in 2010–2011 fielded a new short-range ballistic missile, the DF–16. The DF–16 reportedly has a higher reentry velocity than the DF–11 and DF–15 and an extended range of 621 miles. In addition to increasing China’s ability to penetrate Taiwan’s missile defenses, the DF–16 for the first time allows the Second Artillery to target large sections of the East China Sea with short-range ballistic missiles.¹³⁷

China also is developing several new road-mobile short-range ballistic missiles: the CSS–9, the CSS–14, the CSS–X–15, and the

CSS-X-16.* These missiles have maximum ranges of between 93–174 miles¹³⁸ and presumably feature greater accuracy and precision than previous models. According to Mr. Fisher, “China’s development of new classes of short-range ballistic missiles is prompted by the requirement to strengthen its ability to coerce or attack Taiwan, but also by commercial pressures to offer better short-range ballistic missiles to capture export markets. Short-range ballistic missiles are produced at two, possibly three Chinese factories, and it is Chinese government policy to promote vigorous competition between them and to support export efforts.”¹³⁹

During a conflict with Taiwan, China likely would use its short-range ballistic missiles to strike critical military infrastructure and command and control nodes as well as key political and economic centers. Chinese military doctrine suggests the Second Artillery would fire large salvos from multiple axes to confuse, overwhelm, and exhaust Taiwan’s ballistic missile defenses. The Second Artillery has been conducting increasingly larger missile exercises; to date, its live-fire exercises have included salvos of at least ten missiles.¹⁴⁰ Mr. Murray testified to the Commission that China’s expanding and modernizing missile force could rapidly defeat Taiwan’s defenses, despite Taipei’s significant investments in ballistic missile defenses.

Theater-Range Ballistic Missiles (621 miles to 3,418 miles): † In 2008, the PLA fielded its first conventional theater-range ballistic missile, the DF-21C medium-range ballistic missile. With a range of more than 1,087 miles, the DF-21C gives China the ability to target U.S. forces in Japan and South Korea. China also may have deployed a second conventional medium-range ballistic missile in 2010–2011: a DF-16 variant with a maximum range of 746 miles.¹⁴¹

China plans to deploy a new conventional intermediate-range ballistic missile that can strike land targets out to at least 1,864 miles and potentially as far as 3,418 miles.¹⁴² This missile, which probably will be operationally deployed in the next five years, could allow China to threaten U.S. forces in Guam, Northern Australia, and Alaska, and U.S. bases in the Middle East and the Indian Ocean, depending on its ultimate range. Moreover, according to Ian Easton, research fellow at the Project 2049 Institute, “If the PLA’s conventional intermediate-range ballistic missile program is successful, it is possible that China could develop the means to threaten Hawaii and the West Coast of the United States with a conventional intermediate-range ballistic missile by sometime in the early-to-mid 2020s.”¹⁴³

*These are the NATO designators provided by the U.S. National Air and Space Intelligence Center; the Chinese designators for these short-range ballistic missiles are unknown to foreign observers at this time.

† Theater-range ballistic missiles are comprised of medium-range ballistic missiles (621–1,864 miles) and intermediate-range ballistic missiles (1,864–3,418 miles).

Table 3: China's Conventional Ballistic Missiles

Chinese Designator and Missile Type	NATO Designator	Deployment Mode	Approximate Maximum Range (Miles)
DF-11 SRBM	CSS-7 Mod 1	Road Mobile	186
DF-11A SRBM	CSS-7 Mod 2	Road Mobile	373
DF-15 SRBM	CSS-6 Mod 1	Road Mobile	373
DF-15A SRBM	CSS-6 Mod 2	Road Mobile	528+
DF-15B SRBM	CSS-6 Mod 3	Road Mobile	450+
DF-16 SRBM	CSS-11 Mod 1	Road Mobile	621
DF-16 MRBM	Unknown	Road Mobile	746
DF-21C MRBM	CSS-5 Mod 3	Road Mobile	1,087+
DF-21D ASBM	CSS-5 Mod 5	Road Mobile	932+

Sources: Commission judgments and estimates based on analysis by nongovernmental experts on China's military, consecutive versions of the annual U.S. DoD *Report to Congress on Military and Security Developments Involving the People's Republic of China*, a 2013 report by the U.S. National Air and Space Intelligence Center, and U.S. and Asian media reporting.

Antiship Ballistic Missiles: In 2010, China deployed the world's first antiship ballistic missile, the DF-21D. The DF-21D has a maximum range of more than 932 miles and is armed with a maneuverable warhead, providing China with the ability to threaten U.S. Navy aircraft carriers operating east of Taiwan from secure sites on the Chinese mainland. China may be developing an even longer-range antiship ballistic missile capable of striking ships operating in maritime areas as far as Guam.¹⁴⁴ The Second Artillery appears to have already formed two antiship ballistic missile brigades—not testing or training units—in Qingyuan City (southeastern China)¹⁴⁵ and Laiwu City (northeastern China).¹⁴⁶ The antiship ballistic missile brigade in Qingyuan reportedly conducted one of its first major field training exercise in spring 2011.¹⁴⁷

Ground-Launched Land-Attack Cruise Missiles: In 2007–2008, the Second Artillery introduced its first ground-launched land-attack cruise missile, the CJ-10. China's large inventory of CJ-10s—200–500 missiles deployed on 40–55 road-mobile launchers¹⁴⁸—suggests the missile plays a central role in China's regional strike strategy. The CJ-10 reportedly features a stealthy design and has a maximum range over 932 miles, giving the PLA the ability to hold at risk U.S. forces in Japan and South Korea.¹⁴⁹ Although it appears to be primarily intended for conventional missions, a 2013 NASIC report suggests the missile also could carry a nuclear warhead.¹⁵⁰ Mr. Fuell explained the potential utility of China's emerging land-attack cruise missile capabilities to the Commission:

Combining long stand-off distances with high accuracy makes cruise missiles an excellent tool to reach targets difficult to engage with many other classes of weapons. Because there is an overlap in the kinds of targets China is likely to engage with either ballistic missiles or cruise mis-

siles, land-attack cruise missiles provide key operational and planning flexibility. These weapons are likely to reduce the burden on ballistic missile forces, as well as creating somewhat safer strike opportunities for Chinese aircrew, allowing them to engage from much longer distances and/or from advantageous locations of their own choosing. This in turn will complicate their adversary's air and missile defense problem. Combining cruise missiles with ballistic missile attacks on the same target further complicates the defensive problem. Fundamentally, land-attack cruise missiles are yet another component of China's complex arsenal, and could be used as a flexible tool for engaging a range of targets.

Nuclear Strike

China's official pronouncements about its nuclear policies and strategies are short, rare, and vague. For example, China's 2012 Defense White Paper only says that "if China comes under a nuclear threat, the nuclear missile force will act upon the orders of the Central Military Commission, go into a higher level of readiness, and get ready for a nuclear counterattack to deter the enemy from using nuclear weapons against China."¹⁵¹ Previous defense white papers and other official Chinese statements convey that "China consistently upholds the policy of no first use of nuclear weapons, adheres to a self-defensive nuclear strategy, and will never enter into a nuclear arms race with any other country." However, China's so-called "no first use" policy is subject to interpretation, and some doctrinal evidence suggests exceptions to the policy exist. For example, according to a Second Artillery doctrinal publication, "under our predetermined nuclear guidelines, in general cases China would retaliate only after being hit first."¹⁵² The text does not explain under which circumstances China would conduct a first strike. Other PLA writings suggest China might deem an enemy first strike to have occurred when Beijing believes an enemy nuclear attack is imminent or judges an enemy is threatening the destruction of China's nuclear deterrent capability with conventional weapons.¹⁵³ For planning purposes, Chinese strategists consider the United States as the principal threat.¹⁵⁴

High-confidence assessments of the numbers of Chinese nuclear-capable ballistic missiles and nuclear warheads are not possible due to China's lack of transparency about its nuclear program. China's official statements about its nuclear forces and nuclear capabilities are short, rare, and vague in order to maintain "strategic ambiguity."

DoD has not released detailed information on China's nuclear program, only noting in 2013 that "China's nuclear arsenal currently consists of approximately 50–75 intercontinental ballistic missiles,"¹⁵⁵ and that "the number of Chinese intercontinental ballistic missile nuclear warheads capable of reaching the United States could expand to well over 100 within the next 15 years."¹⁵⁶ DoD also has not provided an unclassified estimate of China's nuclear warhead stockpile since 2006, when the Defense Intelligence Agency said China had more than 100 nuclear warheads.¹⁵⁷ Estimates of China's nuclear forces by nongovernmental experts and

foreign governments tend to be higher. Dr. Kristensen and Robert Norris, senior fellow for nuclear policy at the Federation of American Scientists, assess “China has approximately 250 [nuclear] warheads in its stockpile for delivery by nearly 150 land-based ballistic missiles, aircraft, and an emerging ballistic submarine fleet,”¹⁵⁸ while Taiwan’s Ministry of National Defense asserts China has “over 200 nuclear warheads.”¹⁵⁹ Some analysts assess China may be obscuring a much larger nuclear effort and have much larger stockpiles.*

Despite the uncertainty surrounding China’s stockpiles of nuclear missiles and nuclear warheads, it is clear China’s nuclear forces over the next three to five years will expand considerably and become more lethal and survivable with the fielding of additional road-mobile nuclear missiles; as many as five JIN SSBNs, each of which can carry 12 JL-2 submarine-launched ballistic missiles; and intercontinental ballistic missiles armed with multiple independently targetable reentry vehicles (MIRVs) (for an overview of China’s nuclear ballistic missiles, deployment modes, and maximum ranges, see Table 4). At the same time, China likely will continue to improve its silo-based nuclear force; harden its nuclear storage facilities, launch sites, and transportation networks; and expand its already extensive network of underground facilities.¹⁶⁰

Table 4: China’s Nuclear Ballistic Missiles

Chinese Designator and Missile Type	NATO Designator	Deployment Mode	Approximate Maximum Range (Miles)
DF-3A IRBM	CSS-2	Transportable	1,864
DF-4 ICBM	CSS-3	Transportable	3,418+
DF-5A ICBM	CSS-4 Mod 2	Silo	8,078+
DF-5B ICBM	CSS-4 Mod 3	Silo	8,078+
DF-21 MRBM	CSS-5 Mod 1	Road Mobile	1,087+
DF-21A MRBM	CSS-5 Mod 2	Road Mobile	1,087+
DF-31 ICBM	CSS-10 Mod 1	Road Mobile	4,474+
DF-31A ICBM	CSS-10 Mod 2	Road Mobile	6,959+
JL-1 SLBM	CSS-NX-3	SSBN	1,056
JL-2 SLBM	CSS-NX-14	SSBN	4,598+

Note: China likely is in the process of phasing out the DF-3A IRBM.

Source: Commission judgments and estimates based on analysis by nongovernmental experts on China’s military, consecutive versions of the annual U.S. DoD *Report to Congress on Military and Security Developments Involving the People’s Republic of China*, a 2013 report by the U.S. National Air and Space Intelligence Center, and U.S. and Asian media reporting.

* For example, Georgetown University professor Phillip Karber has suggested China may have 3,000 or more nuclear weapons. This assertion apparently follows from extrapolations of historical Western reports and analysis of the elaborate underground tunnel complexes China uses for nuclear weapons storage and transportation. These methods have received criticism from other arms control experts and scholars, who place greater emphasis on suspected nuclear materials stockpiles and delivery systems.

Road-Mobile Nuclear-Capable Ballistic Missiles: China deployed the DF-31 intercontinental ballistic missiles in 2006 and the more advanced DF-31A intercontinental ballistic missiles in 2007. China apparently has ceased production of the DF-31 but continues to field additional DF-31As.¹⁶¹ Unlike the rest of the Second Artillery's intercontinental ballistic missile force, the DF-31 and DF-31A are road mobile, allowing for faster launch times and making them much more difficult for an adversary to locate and attack. Furthermore, the new missiles use solid fuel instead of liquid fuel, increasing portability and service life while reducing maintenance costs. The DF-31A has a maximum range of at least 6,959 miles, allowing it to target most of the continental United States.¹⁶²

Sea-Based Nuclear Deterrent: China has commissioned three JIN SSBNs since 2007 and likely will introduce two additional units by 2020.¹⁶³ The JIN SSBN's intended weapon, the JL-2 submarine-launched ballistic missile, appears to have reached initial operational capability¹⁶⁴ after approximately ten years of R&D, giving China its first credible sea-based nuclear deterrent.* The JL-2's range of approximately 4,598 miles gives China the ability to conduct nuclear strikes against Alaska if launched from waters near China; against Alaska and Hawaii if launched from waters south of Japan; against Alaska, Hawaii, and the western portion of the continental United States if launched from waters west of Hawaii; and against all 50 U.S. states if launched from waters east of Hawaii.¹⁶⁵

A November 2013 article in a Chinese newspaper sponsored by the CCP hails the arrival of China's JIN SSBN and JL-2 submarine-launched ballistic missile and illustrates a notional employment scenario against the United States:

*After a nuclear missile strikes a city, the radioactive dust produced by 20 warheads will be spread by the wind, forming a contaminated area for thousands of kilometers. The survival probability for people outdoors in a [746 to 870 mile] radius is basically zero. Based on the actual level of China's one million tons TNT equivalent small nuclear warhead technology, the 12 JL-2 nuclear missiles carried by one JIN nuclear submarine could cause the destruction of five million to 12 million people, forming a very clear deterrent effect. There is not a dense population in the United States' midwest region, so to increase the destructive effect, the main soft targets for nuclear destruction in the United States will be the main cities on the west coast, such as Seattle, Los Angeles, San Francisco, and San Diego.*¹⁶⁶

The same article includes a graphic depicting the potential destructive effect of a Chinese intercontinental ballistic missile attack on Los Angeles (see Figure 5). The graphic evokes then Lieutenant General Xiong Guangkai's assertion to Chas Freeman, a former

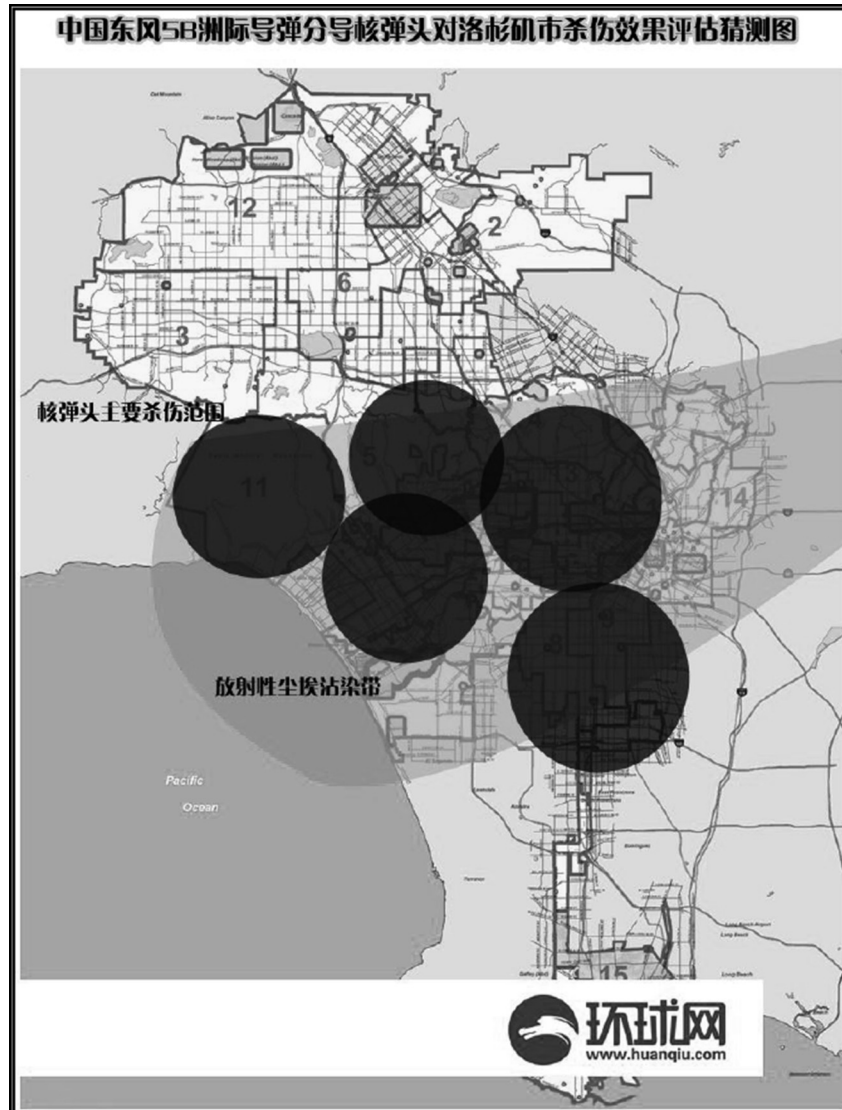
*The PLA Navy has operated one SSBN/SLBM weapon system with the XIA-class SSBN and the JL-1 SLBM since the late 1980s; however, the U.S. Department of Defense does not consider it to be a credible threat. U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2013*, May 2013, p. 6; U.S. Office of Naval Intelligence, *The People's Liberation Army Navy: A Modern Navy with Chinese Characteristics*, 2009, p. 23.

U.S. assistant secretary of defense, that “Americans care more about Los Angeles than they do about Taiwan” during the Taiwan Strait Crisis in 1995–1996. Lieutenant General Xiong, who at the time was a deputy chief in the PLA office that is responsible for intelligence and international matters, was suggesting China could use its intercontinental ballistic missile force to target the United States for intervening on behalf of Taiwan in a cross-Strait conflict.¹⁶⁷

MIRVs: In December 2013, China reportedly conducted the second flight test of a new road-mobile intercontinental ballistic missile, the DF-41. The DF-41, which could be deployed as early as 2015, may carry up to 10 MIRVs and have a maximum range as far as 7,456 miles, allowing it to target the entire continental United States.¹⁶⁸ In addition, some sources claim China has modified the DF-5 and the DF-31A to be able to carry MIRVs.¹⁶⁹ Moreover, China in late September reportedly conducted the first flight test of a new DF-31 variant, the DF-31B, which may be able to carry MIRVs.¹⁷⁰ China could use MIRVs to deliver nuclear warheads on major U.S. cities and military facilities as a means of overwhelming U.S. ballistic missile defenses. Mr. Fuell testified to the Commission:

Mobile missiles carrying MIRVs are intended to ensure the viability of China’s strategic deterrence. MIRVs provide operational flexibility that a single warhead does not. Specifically, they enable more efficient targeting, allowing more targets to be hit with fewer missiles, more missiles to be employed per target, or a larger reserve of weapons held against contingency. China is likely to employ a blend of these three as MIRVs become available, simultaneously increasing their ability to engage desired targets while holding a greater number of weapons in reserve.

Figure 5: Chinese Media Depiction of the Potential Destructive Effect of a MIRV-Capable Intercontinental Ballistic Missile on Los Angeles



Source: Pei Shen, "China Has Undersea Strategic Nuclear Deterrent against United States for the First Time," *Global Times*, October 13, 2013. Open Source Center translation. ID: CHR2013100762536387.

China's Space and Counterspace Programs ***Expanding Space-Based C4ISR Capabilities***

The PLA in the mid-1990s began an extensive C4ISR modernization program to improve its ability to command and control its forces; monitor global events and track regional military activities;

and increase the range at which it can place U.S. ships, aircraft, and bases at risk with conventional missile systems. Mr. Karotkin explained to the Commission the “formidable challenge” for China of building and disseminating a picture of all air and maritime activities in the Asia Pacific:

China must build a maritime and air picture covering nearly 875,000 square nautical miles (sqnm). The Philippine Sea, which could become a key interdiction area in a regional conflict, expands the battlespace by another 1.5 million sqnm. In this vast space, many navies and coast guards converge along with tens of thousands of fishing boats, cargo ships, oil tankers, and other commercial vessels.

China’s initial efforts focused on developing a robust and secure network of fiber optic cables, mobile radios, datalinks, and microwave systems. However, China in the mid-2000s shifted the emphasis of its C4ISR modernization program to expanding and enhancing its space-based infrastructure. China now has approximately 100 active satellites in orbit,* compared to about 10 in 2000 and 35 in 2008.† Although these satellites conduct a wide array of missions, many serve C4ISR functions for the PLA, and those satellites that are capable of contributing to a military mission likely do so.¹⁷¹

Maritime ISR: China is fielding increasingly sophisticated space-based electro-optical, synthetic aperture radar, and electronic reconnaissance satellites. Combining these varying capabilities is crucial, as satellite instruments face tradeoffs in achieving high resolution in spatial, spectral, radiometric, and temporal categories.

China’s current maritime ISR satellite coverage likely is concentrated in the first island chain to support PLA operations in potential conflicts against Taiwan, Japan, or South China Sea counterclaimants but almost certainly will expand to the Philippine Sea and Indian Ocean in the next five to ten years as China fields additional ISR and data relay satellites. Mr. Stokes explained the implications of this development to the Commission:

As its persistent sensor and command and control architecture increases in sophistication and range, the PLA’s ability to hold at risk an expanding number of targets throughout the western Pacific Ocean, South China Sea, and elsewhere around its periphery is expected to grow. A survivable space-based sensor architecture, able to transmit reconnaissance data to ground sites in China in near-real time, fa-

*This number excludes Chinese satellites that are in orbit but assessed to no longer be active. Including those that are both active and inactive, China has 146 satellites in orbit. Jonathan McDowell, “China Satellite Update: 2014,” *Jonathan’s Space Report*, June 2014. <http://planet4589.org/space/papers/china2014.pdf>; Jonathan McDowell (Astrophysicist, Harvard-Smithsonian Center for Astrophysics), e-mail interview with Commission staff, June 15, 2014.

†For comparison, the United States has between 500 to 550 active satellites in orbit and Russia has approximately 130 active satellites in orbit. Jonathan McDowell, “China Satellite Update: 2014,” *Jonathan’s Space Report*, June 2014. <http://planet4589.org/space/papers/china2014.pdf>; Jonathan McDowell (Astrophysicist, Harvard-Smithsonian Center for Astrophysics), e-mail interview with Commission staff, June 15, 2014; and Union of Concerned Scientists, “UCS Satellite Database.” http://www.ucsusa.org/nuclear_weapons_and_global_security/solutions/space-weapons/ucs-satellite-database.html.

ilitates the PLA's ability to project firepower at greater distances and with growing lethality and speed.

China's most important space-based ISR asset is the Yaogan series of advanced electro-optical, synthetic aperture radar, and electronic reconnaissance satellites. Although purportedly civilian in mission, the technical and orbital characteristics of the Yaogan series suggest it is intended to provide overlapping, near-persistent, medium-resolution ISR of military targets,¹⁷² such as U.S. carrier strike groups, as far as China's second island chain.¹⁷³ China to date has launched at least 26 Yaogan satellites, including some that form a constellation similar to the U.S. Navy's state-of-the-art electronic intelligence satellite system, the Naval Ocean Surveillance System.¹⁷⁴ China's Shijian series and Gaofen series of satellites also probably play vital roles in the PLA's ISR infrastructure. The Gaofen series, which was launched in 2013 and ultimately is expected to consist of five to seven satellites, features China's first high-resolution satellites.¹⁷⁵

Regional Satellite Navigation: In December 2012, China's Beidou regional satellite navigation system became fully operational. Using 16 satellites and a network of ground stations, Beidou provides subscribers, including the PLA, with 24-hour regional precision, navigation, and timing services as well as a short messaging service for messages up to 120 characters. The system thus gives China's military an operational alternative to foreign navigation systems, such as Global Positioning System (GPS), for the first time. According to official Chinese press, the PLA already is using Beidou extensively during exercises to track its forces and communicate. Additionally, the availability of Beidou would allow China to attack an adversary's access to GPS or other foreign systems without disrupting the PLA's own capabilities. Beijing plans to expand Beidou to provide global coverage by 2020.¹⁷⁶

Data Relay: In July 2012, China launched a Tianlian data relay satellite into orbit, completing China's first global data relay satellite constellation.¹⁷⁷ As China fields more relay-capable ISR satellites, the Tianlian constellation will enhance the accuracy and timeliness of the PLA's ISR by reducing the time the PLA must wait before receiving intelligence data.¹⁷⁸ Without a data relay system, Chinese satellites must wait until they orbit into view of China before sending ISR information, potentially causing a time lag and thus reducing the PLA's ability to collect time-sensitive intelligence on mobile targets.

Space-Launch Capabilities

China continues to expand and improve its ability to launch civil, military, and commercial satellites, despite enduring technological deficiencies in China's industrial base. China conducted 52 known space launches from 2011–2013, only three less than the United States during this period (see Table 5).¹⁷⁹ China likely will expand its space-based C4ISR architecture with the launch of approximately 35–50 additional satellites through 2015.¹⁸⁰ This growth will be facilitated by planned improvements to China's ground-based space infrastructure and launch vehicles.

Table 5: Chinese versus U.S. Space Launches, 2011–2013

	2011	2012	2013
Chinese Launches (Satellites Deployed)	19 (18)	19 (25)	14 (17)
U.S. Launches (Satellites Deployed)	19 (38)	16 (31)	20 (82)

Source: Jonathan McDowell, “China Satellite Update: 2014,” *Jonathan’s Space Report*, June 2014. <http://planet4589.org/space/papers/china2014.pdf>; Jonathan McDowell (Astrophysicist, Harvard-Smithsonian Center for Astrophysics), e-mail interview with Commission staff, June 15, 2014.

Ground-Based Infrastructure: Space operations require a substantial terrestrial footprint, including launch, telemetry, control, and tracking. China has three dedicated launch sites (Jiuquan, Xichang, and Taiyuan) and plans to open a new space launch facility in Hainan Island, in the southernmost province of China, by the end of 2014.¹⁸¹ This site likely was chosen for its proximity to sea-ports, the open ocean, and the equator. China also continues to build telemetry, control, and tracking facilities across the nation. Furthermore, because domestic tracking stations are unable to track satellites and manned space vessels around the world, China operates at least three space-tracking naval ships in the Pacific and Indian Oceans (under PLA control) and has established at least five overseas tracking stations in Namibia, Pakistan, Chile, Kenya, and most recently, Australia.¹⁸²

Launch Vehicles: China’s next-generation LM–5 space launch vehicle may conduct its first flight as early as 2015 if China’s space industry is able to overcome challenges to building the vehicle. Once operational, the rocket will more than double the size of payloads China can send into geosynchronous orbit,¹⁸³ allowing it to launch more advanced C4ISR satellites, modules of China’s planned space station, and potentially reusable orbital vehicles.

Furthermore, in September 2013, China launched a satellite using a new solid-fueled orbital launch vehicle called the “Kuaizhou.” China also is developing a second solid-fueled launch vehicle, the LM–11, which China is expected to test launch by as early as the end of 2014. Solid-fueled rockets lack the payload capacity of liquid-fueled rockets but are cheaper, simpler to operate, transportable, and can be released with less preparation. Although Chinese media have highlighted the use of these launch vehicles in “natural disaster monitoring,” China likely is developing the Kuaizhou and LM–11 to put microsattellites* into orbit on short notice. Such a capability would allow the PLA to rapidly replace or augment its satellites in the event of any disruption in coverage during a conflict.¹⁸⁴

*In 2000, China began to launch microsattellites. Although their small size often limits their capabilities, microsattellites are significantly cheaper and easier to develop than larger satellites that serve similar functions. Microsattellites also have lower observable signatures than larger satellites, making them harder for an adversary to track in space. Mark Stokes and Dean Cheng, *China’s Evolving Space Capabilities: Implications for U.S. Interests* (Project 2049 Institute, April 26, 2012), pp. 37–39. http://project2049.net/documents/uscc_china-space-program-report_april-2012.pdf.

Pursuing a Multifaceted Counterspace Program

The PLA is pursuing a broad counterspace program to challenge U.S. information superiority in a conflict and disrupt or destroy U.S. satellites if necessary. Beijing also likely calculates its growing space warfare capabilities will enhance its strategic deterrent as well as allow China to coerce the United States and other countries into not interfering with China militarily.¹⁸⁵

- In July 2013, China launched a LM-4C rocket carrying three satellites, one of which is equipped with a robotic arm for grabbing or capturing items in space.¹⁸⁶ Once in orbit, one of the satellites fired onboard thrusters to adjust its speed and trajectory, and then it passed near two other Chinese satellites in static orbit.¹⁸⁷ Although publicly available information is insufficient to definitely assess the nature of this event, the movement of the satellite and the potential involvement of a satellite equipped with a robotic arm suggest China may have been testing a new space-based counterspace weapon designed to attack satellites in orbit. Co-orbital antisatellite (ASAT) systems can employ multiple attack methods, such as grabbing, damaging, or colliding with another satellite, or jamming or disrupting a target satellite's communication, guidance, or electrical systems.¹⁸⁸
- In May 2013, China fired a rocket into nearly geosynchronous Earth orbit, marking the highest known suborbital launch since the U.S. Gravity Probe A in 1976 and China's highest known suborbital launch to date. Beijing claims the launch was part of a high-altitude scientific experiment; however, available data suggest China was testing the launch vehicle component of a new high-altitude ASAT capability. If true, such a test would signal China's intent to develop an ASAT capability to target satellites in an altitude range that includes GPS and many U.S. military and intelligence satellites.¹⁸⁹
- In 2011, China's unpiloted Shenzhou 8 spacecraft and Tiangong-1 orbiting space lab completed the country's first- and second-ever dockings in orbit. China followed with its first- and second-ever piloted dockings in 2012 and a more advanced piloted docking in 2013.¹⁹⁰ These dockings are significant achievements that will facilitate proximity operations critical for future manned space missions and contribute to the development of ASAT and other military technologies.
- In 2010 and 2013, China carried out its first and second land-based missile intercept tests.¹⁹¹ These tests have not been definitively tied to China's ASAT program but probably were designed to help China assess the performance of homing technologies that it could use to target satellites in low Earth orbit.¹⁹² In July 2014, official U.S. and Chinese sources confirmed China conducted its third land-based missile intercept test. In a statement to *Space News*, a U.S. Department of State spokesperson said, "We call on China to refrain from destabilizing actions—such as the continued development and testing of destructive anti-satellite systems—that threaten the

long term security and sustainability of the outer space environment, on which all nations depend.”¹⁹³

- In January 2007, China destroyed an aging Chinese weather satellite with an ASAT kinetic kill vehicle, demonstrating China’s ability to put at risk satellites in low Earth orbit, such as remote sensing satellites. The impact produced vast amounts of orbital debris, generating worldwide criticism and threatening NASA and international space activities in low Earth orbit.¹⁹⁴
- China likely has developed ground-based satellite communications jammers, which the PLA could potentially employ to degrade or deny U.S. access to some satellite communications and GPS within line of sight of China.¹⁹⁵
- Chinese military doctrine and the integration of cyber operations, electronic warfare, and counterspace reflected in certain Chinese military organizations and research programs suggest the PLA would attempt to conduct computer network attacks against ground-based facilities that interact with U.S. satellite systems.¹⁹⁶

In January 2014, Ashley Tellis, senior associate at the Carnegie Endowment for International Peace, assessed the implications of China’s counterspace program for the House Armed Services Subcommittee on Strategic Forces and the Subcommittee on Seapower and Projection Forces:

The immensity of the burdens associated with securing this information dominance in an era when all U.S. ISR, communications, and other combat support systems will be under persistent attack—even if they are not physically destroyed—cannot be underestimated. Even if Beijing eschews kinetic attacks on U.S. space systems and their ground segments in the early phases of a Chinese counterspace campaign, U.S. military forces will have to apply enormous effort toward: defeating Chinese deception and denial operations; mitigating the Chinese jamming of all critical U.S. space systems to include the Global Positioning System constellation and its terrestrial receivers, space-based synthetic aperture radars, major satellite communication systems, and the links that ensure the effectiveness of the electro-optical and infrared surveillance systems; protecting all satellites from laser dazzling and damage; and, warding off cyber attacks on the space control networks and eventually against the space systems themselves. Thus, even if kinetic attacks against satellites and their ground segments by direct-ascent, co-orbital, nuclear and missile weapons, and special forces are excluded from consideration, the challenges confronting the U.S. military in regard to sustaining the information dominance it has traditionally enjoyed—in the face of current and prospective Chinese counterspace capabilities—will be enormous. Furthermore, given that kinetic counterspace attacks cannot be ruled out at any point in the event of a conflict, the U.S. military will have to simply prepare for all eventualities, irrespective of what Chi-

nese space warfare theorists contend is either plausible or desirable.

The United States is eminently capable of dealing with the threats posed by Chinese counterspace investments through both defensive and offensive counterspace responses of its own, but these will necessarily require significant financial resources if they are to be successfully brought to fruition. . . . Suffice it to say that because protecting U.S. information dominance is vital not only to securing success in war but also to procuring that victory at the lowest cost in terms of lives and effort expended, both the administration and the Congress should not stint in funding all the mitigation efforts required to defeat China's counterspace initiatives—the term “defeat” in this context understood as enabling the U.S. military to successfully complete its missions despite opposition.¹⁹⁷

Later in 2014, General William Shelton (U.S. Air Force), Commander, U.S. Air Force Space Command testified to the Senate Armed Services Subcommittee on Strategic Forces that due to China's investment in counterspace technologies, among other factors, the United States is at a “strategic crossroad in space.” He explained:

In space, our sustained mission success integrating these [satellite] capabilities into our military operations has encouraged potential adversaries to further develop counterspace technologies and attempt to exploit our systems and information. . . . We are so dependent on space these days. We plug into it like a utility. It is always there. Nobody worries about it. . . . You do not even know sometimes that you are touching space. So [to lose U.S. space capabilities] it would be almost a reversion back to . . . industrial-based warfare.¹⁹⁸

Implications for the United States

China's rapid military modernization is altering the military balance of power in the Asia Pacific in ways that could engender destabilizing security competition between other major nearby countries, such as Japan and India, and exacerbate regional hotspots such as Taiwan, the Korean Peninsula, the East China Sea, and the South China Sea.

Moreover, China's growing antiaccess/area denial capabilities increasingly will challenge the ability of the United States to deter regional conflicts, defend longtime regional allies and partners, and maintain open and secure access to the air and maritime commons in the Asia Pacific. While the United States currently has the world's most capable navy, its surface firepower is concentrated in aircraft carrier task forces. China is pursuing a missile-centric strategy with the purpose of holding U.S. aircraft carriers at high risk if they operate in China's near seas and thereby hinder their access to those waters in the event of a crisis. Given China's growing navy and the U.S. Navy's planned decline in the size of its fleet, the balance of power and presence in the region is shifting

in China's direction. By 2020, China could have as many as 351 submarines and missile-equipped surface ships in the Asia Pacific. By comparison, the U.S. Navy, budget permitting, plans to have 67 submarines and surface ships stationed in or forward deployed to region in 2020, a modest increase from 50 in 2014. Furthermore, Frank Kendall, undersecretary of defense for acquisition, technology, and logistics, testified to the House Armed Services Committee in January 2014 that concerning "technological superiority, DoD is being challenged in ways that I have not seen for decades, particularly in the Asia Pacific region. . . . Technological superiority is not assured and we cannot be complacent about our posture."¹⁹⁹ Evan Braden Montgomery, senior fellow at the Center for Strategic and Budgetary Assessments, adds that "because the United States has grown accustomed to opponents that are too weak to seriously threaten its overseas bases, air and naval forces, and information networks, a confrontation with [China] would represent a major departure from the types of conflicts it has fought and prepared for during the unipolar era."²⁰⁰

The United States would need to quickly and safely deploy military forces across great distances during a regional conflict.* This "tyranny of distance" would pose significant challenges to U.S. logistics and C4ISR, potentially exacerbating any U.S. capability and technology gaps. China's large-scale cyber campaign against the United States† could further impede U.S. wartime operations in the Asia Pacific. The Senate Armed Services Committee released a report in September 2014 that provides evidence China is conducting a cyber campaign against the networks of key U.S. Transportation Command contractors.²⁰¹ The nature of this activity and PLA writings suggest the goal of these peacetime cyber intrusions is to enable the PLA during wartime to disrupt U.S. networks, including satellite networks, that support the mobilization and movement of U.S. forces toward China and that link forward-deployed U.S. forces with rear-area command and logistics units.²⁰² The Commission in its 2011 Annual Report highlighted this potential vulnerability when it recommended that "relevant Congressional committees investigate the adequacy of security for the Department of Defense's logistics data system, the time-phased force deployment data system, to ensure that the data therein are secure from cyberattack."²⁰³

Growing Chinese confidence in the PLA's expanding capabilities also increases the risk China's leaders will seek to compensate for declining economic growth and rising social unrest by encouraging and relying on popular nationalism. Promoting a sense of grievance among the Chinese people and creating diversionary tensions in the region would carry real risks of escalation and create the potential for the United States to be drawn into a regional conflict.

Perhaps of even greater concern is the increasing number of opportunities Beijing will have to provoke incidents at sea and in the air that could lead to a crisis or conflict as China's maritime and air forces expand their operations beyond China's immediate pe-

* For context, Taiwan is about 7,000 miles from San Diego.

† For more information on China's cyber operations against the United States, see "China's Cyber Activities" (Chapter 2, Section 2) in the Commission's 2013 Annual Report, and "China's Cyber Activities" (Chapter 2, Section 2) in the Commission's 2012 Annual Report.

riphery. China already has initiated dangerous encounters at sea on several occasions. In December 2013, a U.S. Navy ship was forced to maneuver to avoid a collision with a PLA Navy ship that had intentionally stopped in front of it. Both ships were operating in international waters. Later in 2014, a China Coast Guard ship rammed a Vietnamese coast guard ship following China's placement of a state-owned deep-sea drilling platform inside Vietnam's exclusive economic zone, and a Chinese fighter flew within 30 feet of a U.S. Navy reconnaissance aircraft in international airspace. DoD characterized the latter incident as a "very, very close, very dangerous" intercept that "posed a risk to the safety and well-being of the [U.S.] air crew and was inconsistent with customary international law."²⁰⁴

Regarding crisis management, regional crisis stability mechanisms remain underdeveloped (including U.S.-China mechanisms), and Beijing remains hesitant to invest substantively in mechanisms for incidents at sea and in the air. Although U.S.-China military-to-military ties have increased somewhat during the last two years, Beijing has been reluctant to engage in substantive military diplomacy with the United States.

Based on (1) the changing balance of military power, (2) the continued strength of regional and Chinese nationalism, (3) increasing Chinese assertiveness in the Asia Pacific, and (4) the relatively nascent state of crisis stability mechanisms, the potential for security miscalculation in the region is rising. Regarding conventional deterrence and the regional military balance, U.S. and Chinese analysts likely hold differing beliefs about how a military conflict would conclude and which side would be victorious. As highlighted by RAND's Lloyd Thrall:

Great power warfare, particularly in the air and sea domains, remains rare, and its operational underpinnings are both highly technical and highly secretive. It is therefore unsurprising that the history of great power warfare is fraught with strategic and operational surprise. In practice, confidently calculating the balance of power is a difficult and contingent science; we should acknowledge that the perceptions of military capability and national will underpinning conventional deterrence are likely to differ. As suggested by Pearl Harbor, it is possible for either side to confidently reach wrong conclusions.²⁰⁵

Fundamental U.S. interests are at stake in the evolving geopolitical situation in East Asia and the Western Pacific. China's rise as a major military power in the Asia Pacific challenges decades of air and naval dominance by the United States in a region in which Washington has substantial economic and security interests.

Conclusions

- As a result of China's comprehensive and rapid military modernization, the regional balance of power between China, on the one hand, and the United States and its allies and associates on the other, is shifting in China's direction.

- China's accelerated military modernization program has been enabled by China's rapid economic growth; reliable and generous increases to the People's Liberation Army's (PLA's) budget; gradual improvements to China's defense industrial base; and China's acquisition and assimilation of foreign technologies—especially from Russia, Europe, and the United States—through both purchase and theft.
- Since 2000, China has significantly upgraded the quality of its air and maritime forces as well as expanded the types of platforms it operates. Together with the fielding of robust command, control, communications, computers, intelligence, surveillance and reconnaissance capabilities, these improvements have increased China's ability to challenge the United States and its allies and partners for air and maritime superiority in the Asia Pacific. China's power projection capability will grow rapidly between now and 2020 with the addition of up to approximately 60 new submarines and surface ships; China's first carrier-based aviation wing and second aircraft carrier; and 600 new modern combat aircraft, including China's first fifth-generation fighters.
- After over a decade of research, development, and production, many of China's regional strike capabilities have matured. China's ballistic and cruise missiles have the potential to provide the PLA with a decisive military advantage in the event of a regional conflict and are contributing to a growing imbalance in the regional security dynamic. China now is able to threaten U.S. bases and operating areas throughout the Asia Pacific, including those that it previously could not reach with conventional weapons, such as U.S. forces on Guam.
- China's nuclear force will rapidly expand and modernize over the next five years, providing Beijing with a more extensive range of military and foreign policy options and potentially weakening U.S. extended deterrence, particularly with respect to Japan.
- China is becoming one of the world's preeminent space powers after decades of high prioritization and steady investment from Chinese leaders, indigenous research and development, and a significant effort to acquire and assimilate foreign technologies, especially from the United States. Qualitatively, China now produces near-state-of-the-art space systems for certain applications, such as intelligence, surveillance, and reconnaissance satellites to support China's long-range cruise missiles. Quantitatively, China's numerous active programs continue to increase its inventory of satellites and other space assets.
- Based on the number and diversity of China's existing and developmental counterspace capabilities, China likely will be able to hold at risk U.S. national security satellites in every orbital regime in the next five to ten years.
- Fundamental U.S. interests are at stake in the evolving geopolitical situation in East Asia and the Western Pacific. China's rise as a major military power in the Asia Pacific challenges decades of air and naval dominance by the United States in a region

in which Washington has substantial economic and security interests.

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SECTION 3: CHINA'S DOMESTIC STABILITY

Introduction

Twenty-five years after the Tiananmen Square massacre, many of the same underlying causes of unrest persist today. Land seizures, labor disputes, wide-scale corruption, cultural and religious repression, and environmental degradation have led to hundreds of thousands of localized protests annually throughout China since 2010. The Chinese leadership has consistently responded to increased unrest with repression, censorship, and, occasionally, limited accommodation. Over the past year, ethnic unrest escalated in response to excessive force by China's internal security forces and the growing radicalization of disenfranchised Uyghurs in the Xinjiang Uyghur Autonomous Region. Militant Uyghur separatists also shifted their tactics from attacking Chinese authorities to targeting civilians and public spaces.

President Xi Jinping, like his predecessors, has made the preservation of Chinese Communist Party (CCP) rule and domestic stability his top priorities. He has issued a series of policy directives and institutional changes to centralize the domestic stability maintenance apparatus under his personal oversight and to expand its scope and capabilities.

The growth of Internet connectivity and social media in China has provided Chinese citizens with new tools to express grievances and organize larger, more numerous, and better coordinated protests. To contain this rising threat to authority, President Xi has instituted new constraints on Internet criticism of the CCP, launched high-profile judicial cases against popular online commentators and advocates, and further tightened news media and Internet controls.

This section—based on a Commission hearing in May 2014 on China's domestic stability and briefings by U.S. and foreign government officials and outside experts throughout 2014—examines the economic, political, and social tensions that contribute to unrest in China; China's response to its internal security challenges; and China's use of media and information controls to contain domestic unrest and manage public opinion. The section concludes with a discussion of the implications of China's domestic stability and information controls for the United States.

Unrest in China

Because the Chinese government suppresses information about unrest, official statistics on the number of protests in China are difficult to obtain, dated, and often unreliable.¹ Murray Scot Tanner, senior research scientist at CNA, noted in his written statement at the Commission's May hearing, "In recent years the picture has been harder to track, as Chinese authorities have made it harder

to obtain [this] data, even within their law enforcement system.”² Despite these limitations, a review of information released by China’s Ministry of Public Security (MPS), state-affiliated academic institutions, and official Chinese press reports shows broad trends. Based on figures from the MPS, the number of “mass incidents”^{*} grew in number from 8,700 in 1993 to more than 120,000 in 2008.³ Growth in the number of incidents occurred despite major increases in domestic security budgets and personnel to suppress unrest.⁴ More recent data from state-related academic institutions underscore the high level of unrest. Zhu Lijia, director of the public research department of the Chinese Academy of Governance, stated the number of “mass incidents” doubled from 2006 to reach 180,000 in 2010.⁵ In 2012, the Chinese Academy of Social Sciences found “mass incidents” regularly exceed 100,000 per year.⁶ Based on data of other social unrest indicators from the MPS, Dr. Tanner found that after a sustained increase of two decades, unrest remains at a high level but “may have plateaued somewhat in the past 3–4 years.”⁷

Restrictions on Protests in China

In response to domestic unrest, local governments employ a mixture of repression and concessions. The Chinese government suppresses public protests and dissent through use of internal security forces, legal and extralegal measures, and censorship. (For more information on these measures, see “China’s Responses to Unrest” later in this section). Local governments also use direct bargaining, co-optation of protest leaders and participants, and bureaucratic measures such as the imposition of excessive paperwork to register protests.⁸ Since 2008, local governments increasingly buy stability through cash payments to protestors and employment opportunities for protest leaders.⁹ As a result of local governments’ suppression of unrest and concessionary tactics, “an estimated 80 percent of incidents of large scale unrest from 1995 to 2006 were resolved entirely at the subnational level,” Steve Hess, assistant professor of political science at University of Bridgeport, told the Commission at its May hearing.¹⁰

Protests in China

Most “mass incidents” remain local, issue-specific, and temporary forms of unrest. According to Dr. Hess, “these actions are: framed around material and issue-specific grievances; lack broad and coordinated coalitions of social actors who are based in diverse societal and economic sectors and geographic localities; and target particular local officials.”¹¹

Lawsuits and petitioning are two official channels for Chinese citizens to redress grievances, but these efforts are largely unsuccessful. Public interest lawyers have cited laws and regulations to

^{*}The term “mass incidents” was coined in 2005 by Zhou Yongkang, then Minister of Public Security, as “any kind of planned or impromptu gathering that forms because of ‘internal contradictions,’ including mass public speeches, physical conflicts, airing of grievances or other forms of group behavior that may disrupt social stability.” This broad definition varies across provinces and incorporates sit-ins, strikes, marches, and rallies, participation in cults or organized crime, and gambling, among other things. Will Freeman, “The Accuracy of China’s ‘Mass Incidents,’” *Financial Times*, March 2, 2010. <http://www.ft.com/intl/cms/s/0/9ee6fa64-25b5-11df-9bd3-00144feab49a.html#axzz30qzHoNaC>; EastSouthWestNorth, “Statistics of Mass Incidents,” http://www.zonaeuropa.com/20061115_1.htm.

advocate for deeper changes in the legal system and strengthen citizens' rights.¹² Here, too, success is limited. In the few trials that have occurred, local CCP officials with interests in the outcome of a particular case often advised the presiding judge on the trial's verdict.¹³

Official petitioning, derived from Chinese Imperial rule, provides citizens an avenue to register formal complaints through local petition offices. However, local officials are at times the offending party or complicit with the offender. In response, petitioners often attempt to appeal to national authorities in Beijing, but local officials, whose career advancement in the CCP partly depends on their record promoting domestic stability, often detain citizens in "black jails"* before they can reach central government officials.¹⁴ In April 2014, the Chinese government announced changes to the national petitioning system to ban non-Beijing residents from submitting petitions to Beijing. This ban restricts one of the main channels petitioners use to seek redress and may further increase frustration.†

The lack of satisfactory channels for redress has led some disgruntled citizens to take direct action against local government officials. Chinese citizens are increasingly organizing larger, more numerous, and better coordinated demonstrations, sometimes involving tens of thousands of protesters. According to Xi Chen, political science professor at the University of North Carolina, these dissatisfied citizens have been able to extract gains from the government by using "troublemaking" tactics: gathering in large numbers, disrupting government operations, marching, conducting sit-ins, and displaying banners with slogans.¹⁵ The success of these tactics remains dependent on the publicity and size of the demonstration, resulting in the common maxim, "Big disturbance, big resolution; small disturbance, small resolution; no disturbance, no resolution."¹⁶

The growth in Internet connectivity and social media has provided dissatisfied citizens a new organizational tool and venue for airing grievances to a broader audience.¹⁷ Social media lowers organizational and communication costs, accelerates transmission of information, and broadens disgruntled citizens' exposure to information outside of official state media channels while expanding their reach.¹⁸ In January 2013, a report by the state-run *Legal Daily* ‡ found that citizens used Weibo,§ a social media tool, to organize protests in approximately 13 percent of "mass incidents" in 2012.¹⁹ In March 2014, citizens harnessed social media to call attention to protests, involving more than 10,000 people, over the expansion of a paraxylene (PX) ¶ factory in Maoming, Guangdong

*Black jails are unofficial detention centers used to house individuals, mainly petitioners, indefinitely without trial. Human Rights Watch, "An Alley in Hell: China's Abusive 'Black Jails,'" November 2009. www.hrw.org/sites/default/files/reports/china1109web_1.pdf.

† In April 2014, another change to the petition system included the promise of an online petition system by the end of 2014, but similar efforts in recent years have failed. Xinhua (English edition), "China to Build National Online Petitioning System," http://news.xinhuanet.com/english/china/2014-04/11/c_133255772.htm.

‡ The *Legal Daily* is under the CCP's Central Politics and Law Commission.

§ Weibo, a microblogging service launched by Sina in August 2009, was one of the first major social media platforms in China.

¶ Paraxylene is a chemical used in manufacturing plastic bottles and polyester clothing. The U.S. Environmental Protection Agency found that long-term exposure to paraxylene can harm the respiratory, cardiovascular, kidney, and central nervous systems. Chevron Phillips, "Paraxy-

Province, and subsequent violent crackdown.²⁰ Although eventually censored, posts of the Maoming protests became one of the most discussed topics on social media, leading to smaller sympathetic protests in other cities in Guangdong.²¹

The ability to translate online dissent into action remains limited by citizens' unwillingness to risk their job, family, or personal safety to protest. Gao Zhisheng, a human rights lawyer who China's Ministry of Justice named one of the top ten Chinese lawyers in 2001, was recently released from a nine-year jail sentence, where he faced torture, solitary confinement, and malnutrition, for advocating on behalf of Falun Gong practitioners.²² In addition, authorities threatened his children, leading him to confess to subversion charges in 2006; authorities harassed and kept him and his family under 24-hour surveillance until his family's escape to the United States in 2009.²³

The Chinese leadership still fears the potential for a sudden national movement and closely monitors and censors social media and the Internet (see "Internet and Social Media Censorship Controls" later in this section). The recent crackdown on Chinese citizens' pro-democracy remarks and online support for protests in Hong Kong, known as the Umbrella Revolution, demonstrates the CCP's concern.²⁴ Social media and Internet monitoring provides the Chinese government with the identity, location, and network of activist citizens and the leadership of any movement.²⁵ More recently, the Chinese government reportedly released a sophisticated phishing attack through a fake application to gain access to Hong Kong protestors' personal data, phone calls, messages, and location.²⁶

Protestors who express pro-democracy sentiments, share strategies, or attempt to organize demonstrations outside of local or provincial jurisdictions face censorship, arrest, and imprisonment. For example, the Chinese government detained Zhang Zhiru, a prominent Chinese labor activist, for attempting to assist striking workers at Yue Yuen Industrial Holdings, and arrested his colleague, Lin Dong, for communicating with Yue Yuen workers about another strike through QQ, one of China's most popular instant messaging services.²⁷

Underlying Causes of Unrest

Following the Tiananmen Square massacre, the CCP made an implied "grand bargain" with its citizens to reestablish its legitimacy—economic development and a higher quality of life in exchange for relinquishing political freedom.²⁸ Since then, the Party has sought to institutionalize this bargain through policies focused on driving economic growth and a patriotic education campaign.* In the last year, several high-level officials have reiterated the CCP's central role in government. President Xi cautioned that China should not pursue alternative government structures "be-

lene," <http://www.epchem.com/bl/aromatics/en-us/Pages/Paraxylene.aspx>; U.S. Environmental Protection Agency, "Xylenes (A) (Mixed Isomers)," Technology Transfer Network—Air Toxics website, January 2000. <http://www.epa.gov/ttn/atw/hlthef/xylenes.html>.

* Launched in 1992, this campaign promotes the uniqueness and legitimacy of China's political system; the historical links between pre-communist rule under the Qing Dynasty and current CCP rule; the CCP as the defender of China's national interests; and national unity against ethnic nationalism.

cause it would not fit us and it might even lead to catastrophic consequences.”²⁹

High economic growth rates since the 1980s have raised more than 600 million Chinese citizens out of poverty.³⁰ This rapid economic growth has contributed to a burgeoning and more mobile middle class, an increasingly active and educated young population, and rising public expectations for enhanced quality of life and employment. Simultaneously, China’s changing demographic composition and aging labor force are placing strains on workers, employers, families, and the economy.

Heightened public awareness combined with the growth of Internet connectivity has spurred demonstrations seeking fair compensation for seized land, enforcement of basic labor rights and safe working conditions, equal access to government services, and greater ability to worship. In addition, understanding of the public health risks from severe pollution has contributed to the recent growth in environmental protests. Pervasive corruption exacerbates these concerns.

Although estimates differ, Chinese academics and the U.S. government agree that the two most common causes of “mass incidents” are disputes over labor and land.³¹ Based on a review of media reports, the U.S. government’s Open Source Center found land and labor disputes accounted for 46 percent of publicly reported “mass incidents” in 2013 and 52 percent in the first half of 2014.*³² A 2014 report by the Chinese Academy of Social Sciences similarly found labor disputes and land seizures were the largest causes of “mass incidents”† from January 2000 to September 2013.³³

Demographic Challenges

China’s one-child policy that was enacted a generation ago has resulted in a rapid drop in birth rates and the appearance of a new family structure. The “4–2–1” families—consisting of four grandparents, two parents, and one child—have contributed to a rise in household spending on education.³⁴ This family structure, along with insufficient social safety nets, shifts financial burdens eventually to the youngest generation to support their retired parents and grandparents.³⁵ By 2050, approximately a third of China’s population will be 60 years or older—compared with 27 percent in the United States.³⁶ In addition, the one-child policy has distorted gender ratios as Chinese mothers have decided to carry more males than females to full term. By 2020, China will have 30 million more men than women.³⁷ This excess of young, unmarried men has contributed to increases in crime, prostitution, mail-order marriages, and human trafficking.³⁸

Finally, the emergence of a middle class over the last two decades has resulted in more voices pushing for clean air and water, safe food and drugs, and better employment for their children.³⁹ Grandparents and parents have heavily invested in their children’s

* Open Source Center figures underestimate the scale of unrest because “mass incidents” in China are largely unreported in rural areas and censored by local governments. Despite this limitation, the similar findings of both the Open Source Center and Chinese Academy of Social Sciences suggest broad trends.

† In this particular report, “mass incidents” were defined as protests involving more than 100 people.

education over the last ten years, creating a more educated and skilled workforce. The number of university graduates grew from less than a million in 1999 to nearly 7 million in 2014.⁴⁰ At the same time, the job market for these aspirants has not kept pace with this shift, creating a glut of low-income university graduates. Too proud or embarrassed to work in factories, these graduates face higher unemployment and lower wage growth than migrants.⁴¹ A 2014 Peking University survey found more than one-third of recent Chinese graduates rely on their parents for financial support after graduation.⁴²

In part to address these issues, the CCP pledged to relax China's one-child policy in the Third Plenum of the 18th CCP Central Committee in November 2013 and allow select families to have a second child.⁴³ However, relaxation of the one-child policy is a long-term solution and will not address the near-term financial burdens of an aging population.

Land Seizures

Compulsory seizures or acquisitions of land remains one of the most common and contentious sources of unrest. Throughout the country, localized disputes occur over inadequate compensation, forced demolition of ancestral homes, and the diversion of money into the pockets of local officials. Land disputes accounted for roughly 25 percent of unrest between January 2013 and June 2014, according to Open Source Center analysis of Chinese and overseas Chinese media.⁴⁴ Local governments under the guise of furthering economic development seize land at reduced prices and then resell at a higher rate to factory owners or real estate developers. The price difference is either skimmed by local officials or directed into the local government's treasury.⁴⁵ These sales generate roughly 60 percent of local government budgets.⁴⁶ According to the 2010 Nationwide Survey on Rural Land Rights, farmers were unsatisfied in 58 percent of reported land seizures due to low compensation or an unfair process.* These seizures occurred despite a central government policy that no overall reduction of agricultural land is allowed and compensation to farmers is to be fair and equitable. A 2014 report by the World Bank found that farmers' compensation was generally 15 to 20 percent of the market price.⁴⁷ Despite attempts by the central government to rein in these seizures through audits and directives, land sales grew 45 percent between 2012 and 2013, reaching an estimated renminbi (RMB) 4 trillion (approximately \$645 billion).⁴⁸ A 2014 report by the Central Commission for Discipline Inspection (CCDI), the CCP's anticorruption agency, found illegal land seizures and real estate corruption in 20 of the 21 provinces visited, accounting for 95 percent of all inspections.⁴⁹

Labor Disputes

Independent labor unions, which might be expected to advocate on behalf of workers and farmers, do not exist in China. Weak enforcement of basic rights and safe working conditions, the absence

* This survey, conducted by Landesa, China Renmin University, and Michigan State University, interviewed 1,564 rural households in 17 major agricultural provinces. Jeffrey Riedinger and Zhu Keliang, *Chinese Farmers' Land Rights at the Crossroads—Findings and Implications from a 2010 Nationwide Survey* (World Bank, April 18, 2011). <http://siteresources.worldbank.org/INTIE/Images/475494-1294353056366/ZhuLandRightsPres4.pdf>.

of collective bargaining and freedom of association, and the inaction of the state-run All-China Federation of Trade Unions (ACFTU) have fostered worker unrest in China.⁵⁰ Chinese workers remain largely unable to resolve disputes with employers over low compensation, wage and benefit arrears, factory closures or relocations, and poor working conditions.⁵¹ Migrants from rural areas are particularly vulnerable to exploitation.⁵² The ACFTU, an organization under direct CCP control, oversees all representational activity. Workers and most labor experts view the ACFTU as largely ineffective in representing workers' grievances due to appointment of ACFTU officials by employers and strong CCP control.⁵³ Attempts to organize outside of the ACFTU are largely suppressed.⁵⁴ Local governments are reluctant to step in to protect workers' rights, which could impact economic growth, employment, and investment.⁵⁵ As a result, local governments force negotiated settlements through a mixture of threats of imprisonment,* detention,† or violence.⁵⁶ The China Labor Bulletin, a Hong Kong-based nongovernmental labor rights organization, found that police intervened in approximately 20 percent of the 1,171 recorded wildcat strikes and protests between January 2012 and December 2013, with a noticeable increase in the second half of 2013.⁵⁷ Negotiated settlements generally improve compensation for workers but provide little protection for strike leaders, who are generally sacked shortly after the dispute is settled.⁵⁸

Despite tight restrictions, Chinese workers have increasingly held strikes and protests, emboldened by their ability to harness social media and the passage of labor-related legislation in 2008 and 2010.⁵⁹ Social media provides a new tool to mobilize and share information on employment conditions and opportunities, allowing workers to compare their conditions and to pursue higher wages.⁶⁰ Public debates prior to the passage of legislation in 2008 and 2010 educated the labor force on their legal rights.⁶¹ Furthermore, growing labor shortages caused by the decline in the absolute number of working-age people in China since 2012 have strengthened workers' bargaining power.⁶² As a result, the number of labor disputes reported by the Chinese government increased 50 percent since 2008 (see Figure 1).⁶³ In April 2014, 40,000 workers at Yue Yuen Industrial Holdings, a supplier for Nike, Adidas, and other international companies, held a two-week strike over retirement benefits and low wages, representing one of the largest labor protests since the 1970s.⁶⁴ While these protests are generally unsuccessful,‡ continued labor shortages, soaring living costs, and expectations for

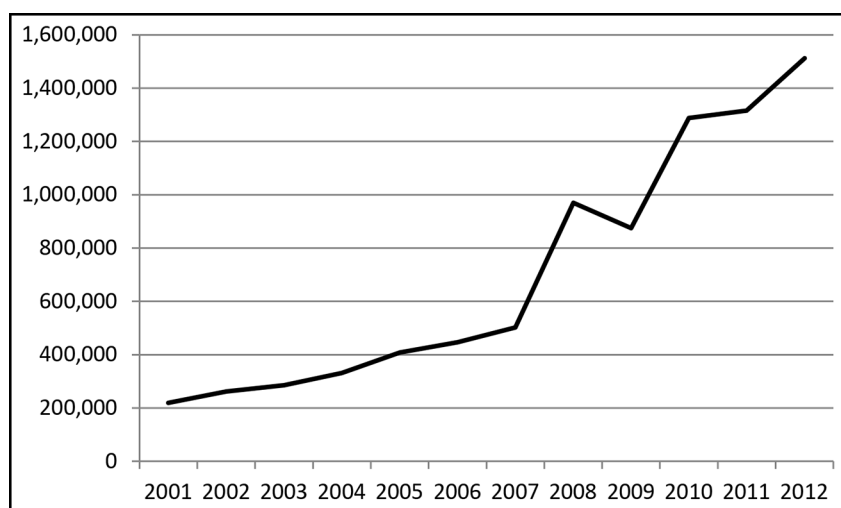
* Strikers can face up to five years of imprisonment for having "disturbed social order." Tom Mitchell and Demetri Sevastopulo, "China Labor Activism: Crossing the Line," *Financial Times*, May 7, 2014. <http://www.ft.com/intl/cms/s/0/bb0f1c3a-c953-11e3-99cc-00144feabdc0.html#axzz3CpfayWjq>; China Labor Bulletin, "Labor Activist Wu Guijun Detained for One Year: China's Workers More Determined Than Ever," May 23, 2014. <http://www.clb.org.hk/en/content/labour-activist-wu-guijun-detained-one-year-china%E2%80%99s-workers-more-determined-ever>.

† For example, the Chinese government detained Wu Guijun for a year after his involvement in leading a mass protest in Shenzhen over compensation regarding the relocation of a foreign-owned factory. Geoffrey Crothall, "In China, Labor Activism Is Waking Up," *South China Morning Post* (Hong Kong), May 1, 2014. <http://www.scmp.com/comment/insight-opinion/article/1500831/china-labour-activism-waking>.

‡ The China Labor Bulletin estimates that of the estimated 1,515 strikes and protests between January 2011 and August 2014, only 5 percent were successful. China Labor Bulletin, "Strike Database," <http://www.numble.com/PHP/mysql/clbmap.html>.

enhanced retirement benefits as the first wave of migrant workers reaches middle age could spur more disputes.⁶⁵

Figure 1: Total Labor Disputes Handled in China, 2001–2012



Source: Mary Gallagher, “China’s Workers Movement and the End of the Rapid-Growth Era,” *Daedalus* 143:2 (Spring 2014): 81–95.

Rural-Urban Divide

China is undergoing the world’s largest rural to urban migration, placing further strains on families. Over the last three decades, 260 million migrants have moved from rural to urban areas, responding, in part, to government programs that seek to boost growth through urbanization.⁶⁶ However, cities have not developed programs to care for the new city-dwellers due to China’s residency permit system, the *hukou*.^{*} The *hukou* system is hereditary and establishes eligibility for employment opportunities, compensation, and access to government services such as education, healthcare, and housing. Changing the location of one’s *hukou* is very difficult, thereby linking migrants perpetually to the rural areas from which they originated.⁶⁷ Currently, 54 percent of China’s population resides in urban areas but only 36 percent of the population has an urban residency permit.⁶⁸ Urban residents without a permit have limited access to government services, creating a permanent underclass and worsening the rural-urban divide. In some cases, children are left with grandparents or on their own as their parents live and work far away.⁶⁹

Then President Hu Jintao aggressively sought to reduce this rural-urban divide and increase economic opportunities by shifting economic development to inland provinces, eliminating the agricultural tax for farmers, building rural health clinics and subsidized

^{*}For more information on the *hukou* system, see U.S.-China Economic and Security Review Commission, Chapter 2, Section 5, “China’s Internal Dilemmas,” *2011 Annual Report to Congress*, November 2011, pp. 115–119.

housing, and supporting more lenient policies toward migrant workers.⁷⁰ For example, the Chinese government made significant strides in reducing the healthcare disparity between rural and urban areas, but the government has not been able to overcome soaring medical costs and overcrowding at large hospitals. (For more information, see Chapter 1, Section 3, “China’s Health Care Industry, Drug Safety, and Market Access for U.S. Medical Goods and Services.”) In July, the Chinese government under the leadership of President Xi issued a proposal to loosen *hukou* restrictions with a goal of reallocating 100 million rural residents to urban areas by 2020.⁷¹ But the plan faces pushback from municipal governments and urban residents, who are concerned over an erosion of service quality and additional costs from an influx of millions of migrants into the system.⁷²

Religious Repression

Since its inception in 1999, the U.S. Commission on International Religious Freedom has found systematic and egregious violations of religious freedom in China.⁷³ The Chinese government maintains tight restrictions on Islam, Tibetan Buddhism, Falun Gong, Catholicism and Protestantism, through harassing leaders, arresting and detaining practitioners, destroying property, and restricting the dissemination of religious materials.⁷⁴ In May 2014, China’s first national security “blue book”* designated religion as a serious threat to its national security.

Islam: In Xinjiang, Chinese officials regulate the appointment of religious leaders, conduct surveillance of mosques and practitioners,† and detain and arrest practitioners. They also restrict overseas pilgrimages, forbid the observance of Ramadan,‡ and prohibit minors from entering mosques.⁷⁵ In 2014, the Chinese government strengthened its ban on men growing long beards, women wearing face-covering veils, and the education of children in religious schools.⁷⁶ Since August, the CCP has claimed that it “rescued” nearly 300 children from religious education and detained at least 85 people in connection with the religious schools.⁷⁷

Tibetan Buddhism: The Chinese government maintains sole authority for the selection and education of Tibetan Buddhist lamas, regularly denigrates the Dalai Lama, Tibet’s spiritual leader, ar-

*The “blue book” outlined four major national security threats: Western democratic values, Western cultural hegemony, information inflows through cyberspace and the foreign media, and underground religious activities. Lanxin Xiang, “China’s National Security Blue Paper a Worrying Throwback to the Cold War.” *South China Morning Post* (Hong Kong), May 20, 2014. <http://www.scmp.com/comment/article/1516132/chinas-national-security-blue-paper-worrying-throwback-cold-war>.

† In Kashgar prefecture, Chinese officials maintained registrations of Muslim households with detailed information on their religious behaviors, start of Quran instruction, and dress, such as whether women wear veils. Qiao Long, “China Registering the Religious in Xinjiang.” *Radio Free Asia*, May 2, 2013. <http://www.rfa.org/english/news/uyghur/registration-05022013112851.html>; Congressional Executive Commission on China, *2013 Annual Report to Congress*, October 10, 2013.

‡ The Chinese government compels Party members, civil servants, students, and teachers not to observe Ramadan by threatening to expel or dismiss violators. To ensure compliance, the Chinese government required them to eat instead of fasting in front of colleagues and classmates and scheduled classes or work during Friday prayers. Simon Denyer, “China’s Clampdown on Islam Stokes Resentment and Violence.” *Washington Post*, September 20, 2014. http://www.washingtonpost.com/world/chinas-war-on-terror-becomes-all-out-attack-on-islam-in-xinjiang/2014/09/19/5c5840a4-1aa7-4bb6-bc63-69f6bfa07e9_story.html.

rests and detains practitioners, and restricts overseas travel and observance of religious festivals or ceremonies.⁷⁸ In addition, the Chinese government interferes with Tibetan Buddhist religious study to include: assigning government and CCP officials to monastery management, locating police stations or security offices on or near monasteries, restricting movement of nuns and monks between monasteries,* and forcing participation in “patriotic education”† campaigns.⁷⁹

Falun Gong: The Chinese government maintains a nationwide campaign‡ to curb the growth of the Falun Gong, a meditation-based spiritual movement, through arbitrary detention, torture, psychiatric abuse, and arrest of practitioners as well as harassment of lawyers who attempt to represent them.⁸⁰

Christianity: In the last year, the Chinese government implemented more restrictions on Christianity, which it had previously tolerated through informal understandings and self-censorship between officials and practitioners.⁸¹ Estimates in 2011 placed the number of Christians in China at 60 million with the largest Christian concentrations in Anhui, Fujian, Henan, Jiangsu, and Zhejiang provinces.⁸² In April, Professor Fenggang Yang at Purdue University claimed the number of Christians in China will reach 247 million by 2030, making it the largest Christian population in the world.⁸³ The Chinese government has sought to rein in the public profile and growth of Christianity since early 2014 by demolishing 163 churches and removing crosses or other signs of Christian faith in Zhejiang Province.§⁸⁴ Catholics have reported church demolitions in Anhui and Henan provinces.⁸⁵ In August, the State Administration for Religious Affairs announced that it will construct its own Christian belief system to “adapt to China’s national condition and integrate with Chinese culture.”⁸⁶ With the rapid growth of Christianity in China, standoffs between practitioners and officials likely will increase.

*A cornerstone of Tibetan Buddhist religious education is receiving training from theological experts in various monasteries and religious sites, but restrictions on movement limit the quality and continuity of monastic study.

†“Patriotic education” in Tibet involves the denunciation of the Dalai Lama, support of the CCP leadership and the socialist system, and allegiance to the 11th Panchen Lama, who is recognized by the Chinese government but unapproved by the Dalai Lama. Bureau of Democracy, Human Rights, and Labor, *International Religious Freedom Report for 2013*, U.S. State Department, July 28, 2014. <http://www.state.gov/jdrl/rls/irf/religiousfreedom/index.htm#wrapper>.

‡In 1999, following a large-scale protest involving 10,000 participants in Tiananmen Square over harassment of practitioners, the Chinese government launched a nationwide campaign against the Falun Gong, labeling the Falun Gong as an ‘evil cult’ in July 1999 and arresting more than 30,000 Falun Gong practitioners by 2001. John Pomfret and Michael Laris, “China Outlaws Nonconformist Spiritual Sect,” *Washington Post*, July 23, 1999. <http://www.washingtonpost.com/up-srv/inatl/longterm/china/stories/sect072399.htm>; Adam Brookes, “Falun Gong: Living in Fear,” *BBC*, April 26, 2000. <http://news.bbc.co.uk/2/hi/asia-pacific/726895.stm>.

§Zhejiang province is a center for Christianity in China. In Wenzhou, a city known as “China’s Jerusalem,” Christians make up approximately 15 percent of the 9 million inhabitants. Andrew Jacobs, “China Moves Against 2 Churches in Campaign against Christianity,” *New York Times*, July 28, 2014. <http://www.nytimes.com/2014/07/29/world/asia/china-moves-against-2-churches-in-campaign-against-christianity.html>; China Aid Association, “Updated: China Aid Received Compilation of Persecuted Zhejiang Churches,” *China Aid News*, July 14, 2014. <http://www.chinaaid.org/2014/05/china-aid-receives-compilation-of-64.html>; and Brice Pedroletti, “China’s Christians Fear New Persecution after Latest Wave of Church Demolitions,” *Guardian*, July 4, 2014. <http://www.theguardian.com/world/2014/jul/05/china-christianity-wenzhou-zhejiang-churches>.

Environmental and Health Concerns

Greater public awareness of the effects of severe environmental degradation and threats to public health from food and pharmaceutical impurities has led Chinese citizens to demand greater governmental action. Recent official reports, including the first nationwide survey on soil pollution, found that one-fifth of China's arable land and 60 percent of the country's water is polluted.⁸⁷ The Yale 2014 Environmental Performance Index found Chinese citizens' exposure to fine particulate matter (PM2.5)* the highest in the world, ranking last in a list of 178 countries.⁸⁸ Furthermore, the Ministry of Environmental Protection found that only 9 out of 161 cities met the new urban air quality standards for the first half of 2014.⁸⁹ This degradation contaminates land, water, and air, posing significant health risks for Chinese citizens. (For an in-depth background on food and health safety challenges in China, see Chapter 1, Section 3, "China's Healthcare Industry, Drug Safety, and Market Access for U.S. Medical Goods and Services.")

Public alarm over these health risks and ineffective mechanisms to address these concerns has led to online activism and large-scale protests involving thousands of participants from various socioeconomic classes. The Open Source Center found that the number of environmental protests grew from at least 47 incidents in 2013 to 72 incidents in just the first half of 2014.⁹⁰ This increase is partially attributed to a series of environmental protests† against construction of PX factories.‡

Public anger at hazardous levels of air pollution reached a tipping point in 2013 and forced the Chinese government to dedicate additional resources and to allow wider coverage of the issue by official media.⁹¹ The 12th Five-Year Plan on Environmental Protection allocated RMB 3.4 trillion (approximately \$546.3 billion) for environmental protection, and the State Council dedicated RMB 1.7 trillion (nearly \$277 billion) to reduce air pollution by 2017.⁹² Furthermore, Premier Li Keqiang "declared war" on pollution in March 2014 at the National People's Congress.⁹³ In April, the National People's Congress passed amendments to the Environmental Protection Law, which increase penalties for violations, strengthen environmental agencies' enforcement capability, and hold local governments accountable for their jurisdiction's environmental quality.⁹⁴

However, environmental and health damage will remain an issue due to lax enforcement and restrictions on the creation of cross-provincial or national environmental nongovernmental organizations (NGOs).⁹⁵ Local officials are reluctant to implement environmental laws and regulations that reduce economic growth or otherwise hinder officials' promotion prospects within the CCP.⁹⁶ In addition,

*PM2.5 is made up of metal, organic chemical, acid, soil or dust, and allergen particulates measuring 2.5 micrometers or smaller in diameter. Excessive exposure to PM2.5 aggravates existing heart and lung disease and is linked to higher incidences of heart attacks, asthma attacks, and bronchitis. U.S. Environmental Protection Agency, "Basic Information," <http://www.epa.gov/airquality/particlepollution/designations/basicinfo.htm>.

† Protests against the construction of PX factories have occurred in Xiamen in 2007, Dalian in 2011, Ningbo in 2012, Kunming in 2013, Pengzhou in 2013, and Maoming in 2014.

‡ These figures are based on limited Chinese, Hong Kong, and other media reporting, which likely underestimate the scale of environmental protests in China due to censorship and the remote location of such protests. Open Source Center, *China: Anti-PX Protests Raise Social Tension, Impede PX Production*, April 16, 2014. ID: CHR2014041629988268.

local environmental regulators not only lack significant personnel and financial resources but also rely on local governments rather than the Ministry of Environmental Protection for funding, thus creating a weak regulatory system vulnerable to political pressure.⁹⁷ Citizens who attempt to increase public oversight of polluting firms risk harassment or arrest.⁹⁸ Furthermore, restrictions on registering and funding NGOs hamper the development of national or regional environmental NGOs, limiting the ability of the public to challenge vested state and industry interests.⁹⁹

Wide-Scale Corruption

Wide-scale corruption continues to erode the CCP's legitimacy to its citizens. Small-scale profiteering has been augmented by the exploitation of critical economic factors such as land, promotions, investment funds, loans, permits, and construction. This profiteering is increasingly seeping into everyday life for Chinese citizens. Bribes are becoming a prerequisite for access to social services, entry into the best schools, and care in public hospitals. In Beijing, the best public education costs more than double the average annual salary—despite regulations guaranteeing free public education.¹⁰⁰ The frequency of embezzlement and bribes in new infrastructure projects has resulted in poor construction.* According to a statement by Qiu Baoxing, vice minister of the Ministry of Housing and Urban-Rural Development, in 2010, the average life expectancy † of a Chinese building is 25–30 years compared with 74 years in the United States.¹⁰¹ Furthermore, increases in defense spending have created more opportunities for illicit activity by military units responsible for procurement, logistics, and fiscal management.¹⁰²

Patronage within the military has become institutionalized with lower level officials providing gifts and business deals to higher level officials in return for promotions and assignments.¹⁰³ In 2014, recruits generally paid between RMB 50,000 and 100,000 (roughly \$8,000 to \$16,000), depending on their family's connections, to ensure an entry-level position in the People's Liberation Army that paid an annual salary of around RMB 20,000 (approximately \$3,000).¹⁰⁴ Consideration for higher level positions requires bribes worth hundreds of thousands of dollars.¹⁰⁵ Once in these higher level positions, officials expect to receive millions of dollars in bribes for promotions and appointments of subordinates, kickbacks from procurement, and the embezzlement of public funds.¹⁰⁶ Xu Caihou, former vice chairman of the Central Military Commission, reportedly received RMB 35 million (an estimated \$6 million) for promotions from his subordinate Gu Junshan, then People's Liberation Army deputy logistics chief.¹⁰⁷ Gu Junshan benefited from these promotions, receiving RMB 120 billion (roughly \$20 billion)

* Shoddy construction contributed to the collapse of school buildings that killed 20,000 children in the 2008 Sichuan earthquake, a major railway crash in 2011, and the collapse of at least six bridges from 2011–2012. Eve Cary, "China's Dangerous Tofu Projects," *Diplomat*, February 10, 2012. <http://thediplomat.com/2012/02/chinas-dangerous-tofu-projects/>; Jacey Fortin, "Bridges Falling Down—China's Embarrassing Infrastructure Problem," *International Business Times*, August 24, 2012. <http://www.ibtimes.com/bridges-falling-down-chinas-embarrassing-infrastructure-problem-757205>.

† Building life expectancy "refers to the durability of housing without substantial renovation." China Economic Review, "China's Housing Sector Is Crumbling—Literally," April 21, 2014. <http://www.chinaeconomicreview.com/china-housing-shoddy-building-quality-energy-incentives-GDP>.

in kickbacks for selling military-owned land in Shanghai for commercial development and distributing more than 400 homes, including more than 10 apartments in an expensive neighborhood in Beijing, as gifts to friends and allies.¹⁰⁸

In response, President Xi launched an anticorruption campaign shortly after taking office in 2012. Although leadership transitions in the past have often led to anticorruption crackdowns, recent developments demonstrate that President Xi's campaign is wider in breadth and larger in scope than previous campaigns in the last three decades.¹⁰⁹ In 2013, 182,000 party officials of the roughly 80 million CCP members were investigated.* In 2014, the CCDI more aggressively expanded investigations. From January to May 2014, the CCDI disciplined nearly 63,000 officials, a 35 percent year-on-year increase.¹¹⁰

'Fire Chief Wang'— Leading China's Anticorruption Campaign

At the helm of Xi Jinping's anticorruption campaign is the head of the CCP CCDI and member of the Politburo Standing Committee, Wang Qishan. Known colloquially in China as "Fire Chief Wang" for his frequent role as crisis manager, Wang holds a reputation in China "as a leader who is capable and trustworthy."¹¹¹ For example, in 2004, Wang was appointed to serve as mayor of Beijing to help address the severe acute respiratory syndrome (SARS) crisis.¹¹²

Wang's background indicates he is a powerful figure aligned with President Xi. Cheng Li, director of the John L. Thornton China Center at The Brookings Institution, estimates that Wang is the second most powerful figure in China after Xi Jinping.¹¹³ Li notes that Wang Qishan and Xi Jinping have been close friends for over 40 years. The two were classmates and study partners as early as 1979.¹¹⁴ In terms of Wang's politics, Brookings' biography of Wang describes him as "likely [to] promote the development of foreign investment and trade, the liberalization of China's financial system, and tax-revenue reforms."¹¹⁵ Brookings' analysis cites Wang's leadership roles in key Chinese banks and financial regulatory bodies prior to and during the 1997 Asian financial crisis. Wang served as vice governor of the People's Bank of China (PBOC) and governor of China's Construction Bank. From 2000 to 2003, Wang also served as the director of the State Council General Office of Economic Reform.¹¹⁶

*To put the anticorruption campaign in context, of the 5,000 officials ranked vice minister or above only 35 have been arrested, representing 0.7 percent of high-ranking officials. Cheng Li and Tom Orlik, "China's Corruption Crackdown More Than Factional Politics, Says Cheng Li," *Bloomberg Brief*, July 31, 2014. <http://www.brookings.edu/~media/research/files/interviews/2014/07/31%20china%20corruption%20crackdown%20li/brief%20cheng%20li.pdf>; Lingling Wei and Bob Davis, "China's Top Graft Buster, Wang Qishan, Probing Thousands," *Wall Street Journal*, August 20, 2014. <http://online.wsj.com/articles/chinas-top-graft-buster-probing-thousands-1408588202>.

**‘Fire Chief Wang’—
Leading China’s Anticorruption Campaign—Continued**

During his administration of the CCDI, Wang has shown that the current leadership in China is serious about cracking down on corruption, at least among Xi’s political enemies. In what was considered his boldest move, Wang successfully proposed a controversial policy to allow investigation of current and retired members of the Politburo Standing Committee.¹¹⁷ The change seemed to be a prerequisite for Wang and the CCDI to target the former Politburo Standing Committee member Zhou Yongkang, who is a key political adversary to Xi Jinping.¹¹⁸ While Wang’s actions may be construed to mean that he is paving the way for Xi to implement the true economic reforms he has promised, some analysts speculate that Wang’s own history as a princeling through marriage* and his strong ties with major state-owned enterprises indicate that he may favor state monopoly over a greater role for the market in China’s economy.¹¹⁹

Further diverging from previous anticorruption campaigns, the current campaign has targeted greater numbers of high-level officials within the CCP, military, and state-owned enterprises to include: Zhou Yongkang, former Politburo Standing Committee member and secretary of the CCP’s Central Politics and Law Commission;† Xu Caihou, vice chairman of the Central Military Commission under then President Hu; and Jiang Jiemin, the former chairman of China National Petroleum Corporation (CNPC).¹²⁰ Zhou, highly influential in the petroleum sector and domestic security apparatus, became the first current or retired member of the Politburo Standing Committee to be investigated in over three decades.¹²¹ Xu, the most powerful uniformed military official under President Hu, became the highest-ranking PLA officer to be expelled from the CCP in nearly three decades.¹²² Both Zhou and Xu are linked to the disgraced Chongqing party boss Bo Xilai, who was expelled from the CCP and sentenced to life in prison in 2013.¹²³

The anticorruption campaign has also targeted high-level officials at powerful state-owned enterprises, such as the CNPC, China’s largest national oil company. China’s National Audit Office uncovered 35 cases of bribery and embezzlement at various state-owned enterprises earlier this year and in June reported fraud in 11 state-owned enterprises.¹²⁴ Shortly after, the CCP expelled Jiang Jiemin, the former chairman of CNPC, and Wang Yongchun, the former vice general manager of CNPC.¹²⁵ In total, the CCDI has found 67

* Wang Qishan is the son-in-law of former Politburo Standing Committee member and vice premier Yao Yilin. Kerry Brown, *The New Emperors: Power and the Princelings in China* (New York, NY: I.B. Tauris & Co. Ltd., 2014), pp. 150–158; Brookings Institution, “Wang Qishan: One of China’s Top Future Leaders to Watch,” http://www.brookings.edu/about/centers/china/top-future-leaders/wang_qishan.

† The CCP’s Central Politics and Law Commission oversees China’s domestic security and legal apparatus encompassing police, prosecutors, and judges. Cheng Li, *China’s Top Future Leaders to Watch: Biographical Sketches of Possible Members of the Post-2012 Politburo (Part 3)* (The Brookings Institution, August 16, 2012). http://www.brookings.edu/~media/research/files/papers/2012/8/16_china_top_leaders_3_li/china_leaders_three.pdf; Jeremy Page, “China Reins in New Security Boss’s Clout,” *Wall Street Journal*, November 20, 2012. online.wsj.com/news/articles/SB10001424127887323622904578128683521454390?mg=reno64-wsj.

high-level officials at state-owned enterprises guilty of corruption, including 38 executives.¹²⁶

Additionally, the Chinese government has widened the anticorruption campaign to target “naked officials,” who remain in China while sending their children or spouses, usually along with ill-gotten assets, abroad.¹²⁷ The Chinese Academy of Social Sciences estimated that between 1995 and 2008, 20,000 officials fled abroad with \$130 billion in assets.¹²⁸ In January, the Organization Department of the CCP’s Central Committee* issued regulations that prohibited “naked officials,” who are viewed as a flight risk, from promotions within the CCP.¹²⁹ In July, Wang Qishan directed CCDI investigators to pursue “naked officials” and dispatched inspection teams in July to ten provinces to identify such officials as part of its broader corruption investigations.¹³⁰ Later that month, the Guangdong provincial government identified 2,190 “naked officials,” resulting in the removal of 866 officials from their posts.¹³¹

In September, Cao Jianming, the Procurator-General of the Supreme People’s Procuratorate, announced a six-month campaign in pursuit of suspects of corruption who fled abroad through extradition, repatriation, and persuasion.¹³² The Chinese government in 2013 extradited 762 suspects and recovered \$1.7 billion in property and funds.¹³³ This year, more than 400 suspects of corruption were either extradited or volunteered to return to China to turn themselves in.¹³⁴ Chinese official media reported that more than 150 corrupt Chinese officials and citizens currently reside in the United States.¹³⁵

President Xi is attempting to build public support and consolidate power by addressing corruption within the Party and eliminating the power bases of prominent members of different CCP factions that threaten his leadership. In late July, official Chinese media reported that the CCDI was sending a large task force to investigate corruption allegations of CCP members in Shanghai, an enduring stronghold of former President Jiang Zemin.¹³⁶ These moves further suggest that President Xi’s anticorruption campaign is designed at least in part to eliminate potential political threats to his leadership.

Some analysts suggest the anticorruption campaign could help bolster the CCP’s legitimacy in the eyes of the public with the dismissals of high-ranking officials. It could also improve official behavior—at least in the short-run—with reductions in luxury consumption and provide the necessary political capital for President Xi to implement broader institutional reforms in the future.¹³⁷ For analysis on the anticorruption campaign’s potential impact on future economic reform, see Chapter 1, Section 1, “Year in Review: Economics and Trade.”

The campaign is having an effect on the sales of tobacco and liquor, traditional luxury gifts given to Chinese officials in exchange for political favors.¹³⁸ For example, Diageo, the world’s largest liquor firm, experienced a 79 percent drop in 2014 net sales of its high-quality Chinese liquor.¹³⁹ Diageo CEO Ivan Menezes estimates that one-fifth of its high-end Chinese liquor market is attrib-

*The Organization Department of the CCP’s Central Committee is in charge of the selection, promotion, and assignments of CCP officials.

uted to gift giving and government entertaining.¹⁴⁰ In addition, the campaign is harming the VIP gambling market* in Macau, which relies on gaming revenue for nearly 90 percent of its government revenue.¹⁴¹ The revenues from VIP gambling by Chinese government officials and wealthy business executives in Macau dropped 17 percent year-on-year in June.¹⁴² In Hong Kong, sales of luxury goods such as jewelry and watches dropped 28 percent in June, declining for the fifth straight month in a row.¹⁴³

Nonetheless, profiteering opportunities remain endemic in the CCP's patronage structure. Without systematic legal and political reforms such as free media and an independent judicial system, the anticorruption campaign will have limited long-term effectiveness.¹⁴⁴ The recent crackdowns on anticorruption activists such as the New Citizens Movement† and continued secrecy of CCDI investigations suggest the government is not ready for such reforms.¹⁴⁵

Ethnic Unrest

In the past year, the Chinese government increased its already tight control in the autonomous regions of Xinjiang and Tibet, providing residents there few outlets to resolve grievances ranging from land seizures and demolitions to religious repression.‡ Unrest in these regions remains a highly sensitive issue for the CCP because protests attract considerable international attention and sympathy, challenge CCP and Chinese government rule over the regions where they are located, and reflect what the CCP considers the “three evils” (separatism, extremism, and terrorism).¹⁴⁶ Exact figures on ethnic unrest are difficult to obtain in Xinjiang and Tibet.§ The Chinese government maintains “widespread, arbitrary, and unexplained” restrictions on independent reporting,¶ severely

*The VIP gambling market accounts for nearly two-thirds of gambling revenues in Macau. Demetri Sevastopulo, “Macau’s High-Rolling Casinos Suffer amid China Anti-Graft Storm,” *Financial Times*, September 26, 2014. <http://www.ft.com/intl/cms/s/0/79e893dc-4552-11e4-9b71-00144feabdc0.html#slide0>.

†The New Citizens Movement is a loosely organized civil society organization that advocates for freedom, justice, equality, and rule of law, specifically the disclosure of government officials’ assets. In 2014, the Chinese government launched a crackdown on the group, arresting many of its members. While its total membership is unknown, the CCP views the group as a threat. Human Rights Watch, “China: End Nationwide Crackdown on Activists,” June 29, 2014. <http://www.hrw.org/news/2014/06/29/china-end-nationwide-crackdown-activists>.

‡In 2009, the Chinese government announced plans to demolish 85 percent of the Old City of Kashgar and redevelop with new construction, but similar to Han Chinese concerns over land seizures, local Uyghur residents report a lack of consultation or transparency and worry over the quality of new construction. Congressional Executive Commission on China, *2013 Annual Report to Congress*, October 10, 2013; Joshua Hammer, “Demolishing Kashgar’s History,” *Smithsonian Magazine*, March 2010. <http://www.smithsonianmag.com/history/demolishing-kashgars-history-7324895/all>.

§Access to Tibet and other Tibetan areas in nearby provinces for foreign journalists, human rights researchers, and tourists remains highly restricted—even more than in Xinjiang—severely limiting the amount of information available. Freedom House, *Freedom in the World 2014* (January 23, 2014). www.freedomhouse.org/report/freedom-world/freedom-world-2014; Stephen McDonnell, “Inside Xinjiang: China Clamps Down on Dissent in Restive Uighur Homeland,” *Australian Broadcasting Corporation*, September 30, 2014. <http://www.abc.net.au/news/2014-09-30/journalists-blocked-from-reaching-areas-in-xinjiang/5776086>.

¶Australian Broadcasting Corporation (ABC) China correspondent Stephen McDonnell faced intense surveillance and constant interference by Chinese officials while filming an investigative report in Xinjiang. In September, Chinese embassy officials warned the ABC in Sydney that screening their report on Xinjiang would have “wider implications,” likely referring to ABC’s business relationships with CCTV and Shanghai Media Group. Stephen McDonnell, “Inside Xinjiang: China Clamps Down on Dissent in Restive Uighur Homeland,” *Australian Broadcasting Corporation*, September 30, 2014. <http://www.abc.net.au/news/2014-09-30/journalists-blocked-from-reaching-areas-in-xinjiang/5776086>; “Chinese Embassy Warns of ‘Wider Implications’ over Foreign Correspondent Story on Xinjiang Conflict,” Australian Broadcasting Corpora-

punishes locals who share information on unrest with foreign news media, and aggressively censors online and social media platforms.*¹⁴⁷ Following ethnic riots in Tibet in 2008† and in Xinjiang in 2009,‡ the Chinese government implemented martial law in these regions that is still largely in effect today.

To counter ethnic dissent, the Chinese government pursues a dual track strategy of a heavy security presence and economic investment.¹⁴⁸ On average, spending on public security from 2007 to 2012 increased annually in Tibet by 28 percent and in Xinjiang by 27 percent.¹⁴⁹ Authorities maintain strict controls on political, religious, and cultural expression and further tighten these controls around sensitive anniversaries such as the CCP's "peaceful liberation" of Tibet in May, the CCP's founding in July, and the 2009 Urumqi ethnic riots in July. Measures include severe limitations on religious practices and institutions;§ short-term shutdowns of media and Internet access;¶ restrictions on international and domestic travel; arbitrary detentions, harassment, and imprisonment of Tibetans and Uyghurs; forcible repatriation of ethnic Uyghurs; and compulsory bilingual education.#

The Chinese government also dedicates billions of dollars toward development projects to increase living standards and spur double-digit economic growth.¹⁵⁰ For example, China is planning to build 808 miles of railway lines and 68,351 miles of roadways in Tibet by 2020.¹⁵¹ Similarly, the Chinese government in 2011 dedicated RMB 2 trillion (roughly \$300 billion) on infrastructure in Xinjiang

tion, October 1, 2014. <http://www.abc.net.au/news/2014-09-30/abc-warned-of-wider-implications-from-china-story/5779218>.

* In August, a Uyghur man who wrote online about the violence in July 2014 was arrested for spreading "rumors." Nectar Gan, "China Arrests Man for Allegedly Spreading Rumours about Deadly Xinjiang Attack," *South China Morning Post* (Hong Kong), August 12, 2014. <http://www.scmp.com/news/china/article/1571316/china-arrests-man-allegedly-spreading-rumours-about-deadly-xinjiang>.

† In March–April 2008, peaceful protests in Lhasa spread throughout Tibet and quickly turned violent, resulting in as many as 220 deaths, 1,300 injured, and nearly 7,000 detained or imprisoned. Robert Barnett, "The Tibet Protests of Spring 2008: Conflict between the Nation and the State," *China Perspective*, March 2009. <http://chinaperspectives.revues.org/4836?file=1>; Edward Wong, "China Tightens Security in Tibet," *New York Times*, March 9, 2009. <http://www.nytimes.com/2009/03/10/world/asia/10tibet.html>.

‡ A conflict between Uyghur and Han in Guangdong province that led to the death of two Uyghur workers triggered large-scale, violent ethnic riots that resulted in 1,700 injuries, 197 deaths, and 1,400 arrests. Amnesty International, "China: 'Justice, Justice: The July 2009 Protests in Xinjiang, China,'" July 2, 2010.

§ For example, in August, local officials in Karamay, Xinjiang, instituted a temporary ban on men with beards and women with headscarves riding public transportation during a sports competition. Ben Blanchard, "China Charges Prominent Uighur Professor with Separatism," Reuters, February 25, 2014. <http://www.reuters.com/article/2014/02/25/us-china-xinjiang-academic-idUSBREA1015420140225>; Alexa Olesen, "In One Xinjiang City, Beards and Muslim Headscarves Banned from Buses," *Foreign Policy*, August 5, 2014. http://www.foreignpolicy.com/articles/2014/08/05/karamay_bans_beards_muslim_headscarves_from_public_buses_xinjiang.

¶ Authorities have regularly shut down the Internet in parts of Xinjiang and Tibet for several days or weeks in response to unrest to include at least twice in 2009, two times in 2012, once in 2013, and twice in 2014. Tania Branigan, "China Cut Off Internet in Area of Tibetan Unrest," *Guardian*, February 3, 2012. <http://www.theguardian.com/world/2012/feb/03/china-internet-links-tibetan-unrest>; Index on Censorship, "China Celebrates Dalai Lama's Birthday by Cutting Communications in Tibetan Region," July 10, 2012. http://www.ifex.org/china/tibet/2012/07/10/communications_cut/; Madeline Earp, *Throttling Dissent: China's New Leaders Refine Internet Control* (Freedom House, July 2013). http://www.freedomhouse.org/sites/default/files/resources/Throttling%20Dissent_FOTN%202013_China_0.pdf; Li Jing, "Police Shoot Dead Dozens of Attackers during Mob Violence in Xinjiang," *South China Morning Post* (Hong Kong), July 29, 2014. <http://www.scmp.com/news/china/article/1562211/dozens-killed-mob-violence-xinjiang-terror-attack>; and Jeremy Page and Ned Levin, "Web Preaches Jihad to China's Muslim Uighurs," *Wall Street Journal*, June 24, 2014. <http://online.wsj.com/articles/web-preaches-jihad-to-chinas-muslim-ughurs-1403663568>.

For in-depth analysis on Xinjiang and Tibet, see Congressional Executive Commission on China, *2014 Annual Report to Congress*, October 9, 2014.

from 2010 to 2015 to include: six airports, 5,200 miles of railways, and 4,446 miles of roadways.¹⁵²

These infrastructure projects aid extraction of natural resources, attract additional Han migration and tourism, and facilitate rapid deployment of Chinese military troops to China's western borders.¹⁵³ In Tibet, the expansion of the railways has improved the accessibility and extraction of Tibet's mineral reserves, valued at RMB 600 billion (an estimated \$98 billion). Natural resource extraction is expected to grow from 3 percent of the region's GDP in 2010 to account for one-third by 2020.¹⁵⁴ However, these mining projects come at the expense of local Tibetans, who must live with severe environmental degradation resulting from mining activities. Local Tibetans also lack royalties or other forms of compensation from these projects—largely overseen by state-owned mining firms with Han Chinese migrant laborers.¹⁵⁵ Additionally, the windfall from tourism largely benefits Han Chinese who provide nearly all the services for Chinese tourists, including hotels, restaurants, and transportation.¹⁵⁶ Uyghurs face similar issues. One Uyghur scholar noted, "The resources from Xinjiang are going one way, and people from the mainland are coming the other way."¹⁵⁷

Simultaneously, the Chinese government promotes assimilation by providing incentives for interethnic marriages and encouraging Han Chinese migration to ethnic areas to dilute the population of Tibetans and Uyghurs, who are the majority. Under President Xi, the Chinese government is encouraging more interethnic marriages, a policy first implemented in Tibet and recently expanded to Xinjiang.¹⁵⁸ Interethnic couples from Tibet and Xinjiang receive cash incentives and preferential access to medical, schooling, and housing benefits.¹⁵⁹ As ethnic tension has risen, these benefits have increased. In one Uyghur-dominated province in Xinjiang, couples are eligible for an annual RMB 10,000 (approximately \$1,600) subsidy for up to five years as well as up to RMB 20,000 (roughly \$3,250) in medical expenses and RMB 5,000 (around \$800) per year for their children attending a state-approved Chinese school.¹⁶⁰ When combined, these benefits are roughly five times the average annual income for rural residents.¹⁶¹ Additionally, the quasi-military, quasi-commercial Xinjiang Production and Construction Corps* announced plans in August to build seven new cities in the next few years to integrate Uyghurs in Xinjiang's restive southern region † into Chinese society.¹⁶²

Despite these attempts to further integrate Tibetan and Uyghur minorities, discriminatory hiring practices ‡ continue to expand the

*The Xinjiang Production and Construction Corps is a unique quasi-military, quasi-commercial that maintains its own administrative, judicial, and enforcement bodies. It is also an important economic driver in Xinjiang, accounting for 17 percent of Xinjiang's GDP in 2013. Chen Yang, "Xinjiang to Build Cities from Scratch in Restive Regions," *Global Times* (China), July 3, 2014. <http://www.globaltimes.cn/content/868764.shtml>; *Economist*, "Circling the Wagons," May 25, 2014. <http://www.economist.com/news/china/21578433-region-plagued-ethnic-strife-growth-immigrant-dominated-settlements-adding>.

† Ethnic minorities, mainly Uyghurs, compose 80 percent of the population in southern Xinjiang. Chen Yang, "Xinjiang to Build Cities from Scratch in Restive Regions," *Global Times* (China), July 3, 2014. <http://www.globaltimes.cn/content/868764.shtml>.

‡ For example, Uyghurs are prevented from becoming truck drivers because they cannot obtain the necessary license to haul fuel over concerns that oil and gas tankers could become weapons. Andrew Jacobs, "Uighurs in China Say Bias Is Growing," *New York Times*, October 7, 2013. <http://www.nytimes.com/2013/10/08/world/asia/uighurs-in-china-say-bias-is-growing.html?pagewanted=all>.

income disparity between these minority groups and Han Chinese, exacerbating tensions.¹⁶³ State-owned enterprises continue to hire Han Chinese predominantly. Local governments have reportedly provided subsidies for Han farmers, separating Uyghurs and Tibetans from the economic opportunities of this investment.¹⁶⁴ For example, a RMB 534 billion (approximately \$87 billion) investment by the Xinjiang Production and Construction Corps in its agricultural farms designated 30 percent of the positions at these farms for ethnic minorities with the remaining 70 percent left for Han Chinese.¹⁶⁵ In July, Chinese officials announced RMB 20 billion (an estimated \$3.2 billion) in funding for Xinjiang's textile sector* to create 800,000 new jobs, but it is unclear how many of these jobs will be designated for Uyghurs.¹⁶⁶

Tibet

Self-immolation became a dramatic form of protest against CCP rule following the ethnic riots in 2008. According to Human Rights Watch and Tibetan exile groups, 132 self-immolations have occurred since 2009.¹⁶⁷ In response, the Chinese government increased its surveillance in 2012 through the construction of 600 police posts and expansion of volunteer security groups.¹⁶⁸ In 2013, the Chinese government further bolstered its presence by stationing 60,000 new officials and Party members in Tibet to conduct political reeducation programs, establish security units for surveillance, and promote economic development.¹⁶⁹ The cost and size of this campaign accounts for more than a quarter of the regional budget and the largest proportion of provincial-level officials sent to the countryside since 1949.¹⁷⁰ In addition, local governments enacted collective punishment on communities and family members to combat the spread and increasing frequency of self-immolation.¹⁷¹ In the predominantly Tibetan Ruergai County in Sichuan Province, forms of punishment included three-year bans on family members' application for loans, business licenses, or government employment; mandatory financial deposits by communities with return dependent on no self-immolations; halt of investment projects for villages and districts where self-immolations occurred; and isolation and financial auditing of monasteries.† Similar guidelines have been found in other counties.¹⁷² These actions have contributed to the decline in the number of self-immolations in the last year. Under President Xi, restrictions remain severe.¹⁷³

Xinjiang

Since 2013, attacks by militant Uyghurs against Han Chinese in Xinjiang have escalated and evolved. Chinese state-run media claims at least 373 people, mainly Uyghurs, have died in Xinjiang-related violence since April 2013, while Uyghur exile groups and the U.S.-government-funded Radio Free Asia report much higher death tolls.¹⁷⁴ See Table 1 for a timeline of this violence.

*Xinjiang Production and Construction Corps, whose workforce is nearly 90 percent Han Chinese, dominates cotton production in Xinjiang. *Economist*, "Circling the Wagons," May 25, 2014. <http://www.economist.com/news/china/21578433-region-plagued-ethnic-strife-growth-immigrant-dominated-settlements-adding>; James Leibold, *Xinjiang Work Forum Marks New Policy of 'Ethnic Mingling'* 14:12 (Jamestown Foundation China Brief, June 19, 2014).

† For additional information on this policy, see Congressional Executive Commission on China, *2014 Annual Report to Congress*, October 9, 2014, pp. 176–178.

Table 1: Timeline of Recent Reported Major Attacks in China

Date	Location	Explanation
October 28, 2013	<i>Tiananmen Square Car Bombing</i> Beijing, Beijing Municipality	A car bomb was driven into the gate of Tiananmen Square killing five and injuring approximately 40 people. The East Turkestan Islamic Movement (ETIM) claimed responsibility.
March 1, 2014	<i>Knife Attack</i> Kunming, Yunnan	A group of eight knife-wielding attackers, rumored to be Uyghur separatists, killed 29 people and wounded more than 143 in the Kunming train station.
April 30, 2014	<i>Train Station Bombing</i> Urumqi, Xinjiang	Shortly after President Xi's trip to the province, a bombing at the Urumqi train station killed three and injured 79 people. Chinese officials blamed ETIM; the Turkestan Islamic Party (TIP) claimed responsibility.
May 22, 2014	<i>Market Bombing</i> Urumqi, Xinjiang	Two cars drove through a Han vegetable market and set off handmade explosive devices, killing 43 people and injuring 94.
July 28, 2014	<i>Violent Clashes</i> Shache County, Xinjiang	Violent clashes between Chinese police and Uyghurs reportedly led to the deaths of 35 civilians and 59 terrorists and the arrest of 215 people. Chinese officials waited a day to report the violence and blamed the bloodshed on ETIM and the influence of foreign terrorist organizations. The number is likely higher with one Han resident claiming more than 1,000 people were killed, and the World Uyghur Congress claiming at least 2,000.
September 21, 2014	<i>Multiple Bombings</i> Bugur County, Xinjiang	Several bombs detonated in a shop, open market, and two police stations. Chinese official media initially reported 2 deaths and revised its figures five days later to 50 deaths, including 40 'rioters' and 54 injured. Radio Free Asia disputes these figures with reports from eyewitnesses of over 100 people injured.

Source: "China Says Islamist's Holy War Message Proves Terror Threat," Reuters, November 25, 2013. <http://www.reuters.com/article/2013/11/25/us-china-xinjiang-idUSBRE9A00B520131125>; Shannon Tiezzi, "Who Is Fighting China's War on Terror?" *Diplomat*, November 26, 2013. <http://thediplomat.com/2013/11/who-is-fighting-chinas-war-on-terror/>; BBC, "China Kunming Knife Attack: Three Suspects Captured," March 3, 2014. <http://www.bbc.com/news/world-asia-china-26420863>; AFP, "Kunming Knife Gang 'Tried to Leave China' before Attack," *Telegraph*, March 5, 2014. <http://www.telegraph.co.uk/news/worldnews/asia/china/10677244/Kunming-knife-gang-tried-to-leave-China-before-attack.html>; Christopher Bodeen, "Attacks Show Bolder Terror Threat Growing in China," Associated Press, May 2, 2014. <http://www.washingtontimes.com/news/2014/may/2/attacks-show-bolder-terror-threat-growing-in-china/>; Michael Martina and Megha Rajagopalan, "Islamist Group Claims China Station Bombing: SITE," Reuters, May 14, 2014. <http://www.reuters.com/article/2014/05/14/us-china-xinjiang-idUSBREA4D07H20140514>; Edward Wong and Chris Buckley, "32 Terrorist Groups Smashed in Xinjiang, China Says," *New York Times*, June 23, 2014. <http://www.nytimes.com/2014/06/24/world/asia/32-terrorist-groups-smashed-in-xinjiang-china-says.html>; Alexa Olesen, "In One Xinjiang City, Beards and Muslim Headscarves Banned from Buses," *Foreign Policy*, August 5, 2014. http://www.foreignpolicy.com/articles/2014/08/05/karamay_bans_beards_muslim_headscarves_from_public_buses_xinjiang; Xinhua, "37 Civilians Killed, 13 Injured in Xinjiang Terror Attack," *China Daily*, August 3, 2014. http://www.chinadaily.com.cn/china/2014-08/03/content_18237292.htm; Shohret Hoshur and Qiao Long, "At Least 2,000 Uyghurs Killed' in Yarkand Violence: Exile Leader," Radio Free Asia, August 5, 2014. <http://www.rfa.org/english/news/uyghur/yarkand-08052014150547.html>; Xinhua, "40 Ri-

oters Dead in Luntai Country Violence in Xinjiang,” September 25, 2014. http://news.xinhuanet.com/english/china/2014-09/25/c_127035563.htm; and Shohret Hoshur and Eset Sulaiman, “Official Death Toll in Xinjiang’s Bugur Violence Climbs to 50,” Radio Free Asia, September 25, 2014. <http://www.rfa.org/english/news/uyghur/bugur-09252014210804.html>.

Official Chinese media and government sources labeled these incidents as terrorist attacks and have regularly blamed Uyghur terrorists with ties to the East Turkestan Islamic Movement (ETIM)* and Turkestan Islamic Party (TIP) for any violence in Xinjiang.¹⁷⁵ However, many analysts argue that the current influence and reach of Uyghur terrorists within Xinjiang has remained small.¹⁷⁶ Michael Clarke, research fellow at the Griffith Asia Institute, argues that TIP is limited by lack of resources, small membership, and a base of operations in Uzbekistan.¹⁷⁷ Furthermore, Dilxat Rexit, a spokesperson for the World Uyghur Congress, highlighted China’s exaggeration of terrorism in Xinjiang stating, “This so-called charge of terrorism is a way for the government to avoid taking responsibility for the use of excessive force that causes so many casualties.”¹⁷⁸ For example, in May, protests by hundreds of disenfranchised Uyghurs over the arrest of several middle school girls and women wearing headscarves ended in the death of at least two protestors and detention of more than 100 Uyghurs.¹⁷⁹ A complete and rigorous analysis of the scope and nature of the violence in Xinjiang is difficult because Beijing tightly controls travel and media reporting in the region. As a result, available information is fragmented or poorly corroborated.

In addition to rising levels of violence between disaffected Uyghurs and police, the nature of the attacks by Uyghur militants has changed. Whereas Uyghur militants had usually targeted government officials and buildings in Xinjiang, they are now attacking civilians and soft targets in the region. Dr. Clarke explains:

*The pattern of the recent attacks does suggest an escalation or even radicalization of Uighur opposition to Chinese rule. In contrast to past episodes of low-level violence in Xinjiang, which have been characterized by low technology and opportunistic attacks on representatives of the state (e.g., police, public security personnel or government officials), the current spate of violence through its targeting of public spaces is clearly designed to be indiscriminate and mass impact in nature.*¹⁸⁰

Moreover, these militants may be employing tactics and strategies learned through their association with other international organizations. In a paper for *Strategic Studies Quarterly*, Philip Potter, an assistant professor of public policy and political science at the University of Michigan, explains, “China’s ongoing security crackdown in Xinjiang has forced the most militant Uyghur separatists into volatile neighboring countries, such as Pakistan, where they are forging strategic alliances with, and even leading, jihadist factions affiliated with al-Qaeda and the Taliban.”¹⁸¹

* ETIM is a Uyghur terrorist group seeking an independent Islamic state in Xinjiang. It was designated in 2002 as a terrorist organization on the UN’s 1267 list and the U.S. Department of State’s Terrorist Exclusion Act. Most analysts believe ETIM operated briefly from the late 1990s to the early 2000s, collapsing after the death of its leader in 2003. It was largely replaced by the Turkestan Islamic Party (TIP) in 2005, leading the U.S. Department of State to remove ETIM from their list.

To help rein in rising unrest in Xinjiang, the Chinese government has stepped up economic development programs and enacted stronger social and religious restrictions to promote stability and to further assimilate the Uyghurs into China's majority ethnic Han society. In February, the Xinjiang government announced that over the next two years, it would expand its local presence by stationing 200,000 high-level Party members within the region to conduct outreach, increase surveillance, and promote economic development.¹⁸² Instead of easing tension, these restrictions along with pervasive discrimination are increasingly radicalizing Uyghur opposition within Xinjiang.¹⁸³

In addition, President Xi in May 2014 launched a year-long counterterrorism campaign that has led to numerous arrests, public mass sentencing of suspects, new rules for bus carry-on items, and expansion of surveillance. Since the campaign began, Chinese officials have dismantled more than 40 organizations labeled by Beijing as terrorist groups and arrested more than 600 people in Xinjiang.¹⁸⁴ In a show of force, authorities held a public mass sentencing at a stadium in Xinjiang for 55 people and handed out three death sentences for terrorism, separatism, and murder.¹⁸⁵ In July, the Chinese government raised the level of security checks in Urumqi on public transportation and issued stricter rules for bus carry-on items—similar to airlines—that ban liquids, cigarette lighters, and even yogurt.¹⁸⁶ In September, officials in Urumqi sought to further expand surveillance by raising rewards for information on terrorism or religious extremism up to RMB 1 million (roughly \$163,000).¹⁸⁷ Approximately RMB 100,000 (nearly \$16,000) in rewards was handed out to each of six informants in Hotan in August.¹⁸⁸

China's Responses to Unrest

The CCP has historically maintained domestic stability by relying on internal security forces and closely monitoring unrest. Since the late 1990s, rising social unrest has led to increasing public security budgets and personnel dedicated to suppressing dissent. President Xi has further expanded and enhanced China's domestic stability maintenance apparatus. These changes have implications for freedom of expression and rule of law in China, as well as U.S. economic and security interests.

The CCP's Stability Maintenance Apparatus

The set of tools China uses to address social instability cuts across powerful, overlapping institutions, involving the political, security, and legal arms of the Chinese government and CCP—from the national through the local levels. China's internal security structure includes its three main internal security forces—the Ministry of Public Security (MPS), People's Armed Police (PAP), and People's Liberation Army (PLA)—along with the Ministry of State Security,* other state law enforcement organs, state and private se-

*The Ministry of State Security (MSS) is one of China's leading civilian intelligence entities responsible for both foreign and domestic intelligence work. It is subordinate to the State Council. Among other responsibilities, the MSS collects intelligence on dissenters in China and reportedly targets Chinese dissidents and prodemocracy groups abroad. For more information, see U.S.-China Economic and Security Review Commission, *2009 Annual Report to Congress*, November 2009, pp. 150–151.

curity contractors, and citizen volunteers. The legal body of China's stability maintenance apparatus involves petition offices, courts, procuratorial bureaus, and China's vast network of legal and extra-legal detention facilities. Finally, the stability maintenance apparatus includes the Party's Central Propaganda Department, which is responsible for censoring media to prevent discussion of topics that could lead to calls for change, and the Internet censorship apparatus.¹⁸⁹

Prior to President Xi, then Politburo Standing Committee member Zhou Yongkang, now under investigation for corruption, largely controlled China's domestic stability maintenance apparatus by virtue of his position as Secretary of the CCP's Central Politics and Law Commission. The Central Politics and Law Commission at the time oversaw the political-legal committees across the Chinese government that have jurisdiction over the courts, prosecutors, police, and surveillance. Since coming to power in 2012, President Xi has taken control of the domestic security apparatus by demoting the Central Politics and Law Commission Secretary seat from the Politburo Standing Committee to the regular Politburo, along with creating and chairing the new Central National Security Commission and the Central Internet Security and Informationization Leading Group (see "Internet and Social Media Censorship Controls" later in this section). For a discussion of the Central National Security Commission and its focus on domestic security, see Chapter 2, Section 1, "Year in Review: Security and Foreign Affairs."

As chair of these new policy bodies, President Xi directly oversees the most important actors and components of China's domestic stability maintenance apparatus, superseding the Central Politics and Law Commission. The stability maintenance apparatus now has higher level and more centralized leadership under President Xi, potentially enabling China to more effectively and efficiently anticipate and respond to social unrest. Dr. Tanner testified to the Commission that "[President] Xi may be the first Party chief since 1949 to personally head a top committee overseeing domestic security and may be on his way to becoming the most hands-on leader with regard to social control in China's history."¹⁹⁰

China's Internal Security Forces

Over the last decade, China strived to improve its ability to suppress "mass incidents" by adding resources to and adjusting the structure and missions of the MPS, PAP, and PLA. These forces now have higher-quality equipment and arms and conduct more realistic training, allowing for faster, more robust, and more lethal responses to sudden outbreaks of unrest.

Ministry of Public Security: According to the CCP, the MPS—along with national and local state security, judicial, and procuratorial bureaus—serve as China's "first line" of internal security.*

*According to CCP writings, the MPS serves as the first line of internal security, the PAP functions as the second line, and the PLA occupies the third line. Murray Scot Tanner, "Chapter 3: How China Manages Internal Security Challenges and its Impact on PLA Missions," in Roy Kamphausen, David Lai, and Andrew Scobell, *Beyond the Strait: PLA Missions Other Than Taiwan* (Carlisle, PA: U.S. Army War College, April 2009), p. 45.

The ministry, which is subordinate to the State Council, was formed in 1954. The MPS deploys approximately 1.9 million police officers to local Public Security Bureaus that are spread across China.¹⁹¹

China supplements MPS officers with additional law enforcement and other personnel, who are mainly supplied by private Chinese security firms, to assist with the challenges of responding to sudden outbreaks of unrest. In a September 2011 speech, then domestic security czar Zhou Yongkang mentioned that 3,000 security companies and a total of over 4.2 million personnel—more than double the number of MPS police officers—assist law enforcement efforts.* In addition, cities employ urban management law enforcement officers † charged with enforcing a broad group of city regulations, such as performing forced evictions. Many cases depict these officers violently suppressing dissent, and as a result, citizens often view them unfavorably.¹⁹²

According to its official website, the ministry's main responsibilities are local law enforcement and "maintenance of social security and order."¹⁹³ Local police under the MPS often are the first responders to civil disturbances, dispersing crowds and, alongside local government officials, negotiating settlements with protesters.

In response to a string of violent attacks against civilians since 2013—such as the knife attack at the Kunming train station in March 2014—and rising levels of violence and attacks on police officers in China more broadly, the MPS has increased routine patrols in urban areas.¹⁹⁴ These patrols are focused particularly on high-traffic areas, such as train stations, airports, schools, hospitals, and tourist attractions.¹⁹⁵ Although most MPS officers on routine patrols historically have been unarmed, possessing only non-lethal means to quell unrest (such as pepper spray and clubs), a new policy announced in April 2014 allows officers to carry revolvers while patrolling in major cities and sensitive regions.‡ Reports of accidental shootings by MPS officers in China already have occurred, suggesting a lack of adequate MPS police training for operating firearms. Continued accidental shootings could fuel greater levels of unrest by increasing public resentment of Chinese authorities.¹⁹⁶

The MPS also has expanded its surveillance and monitoring presence in major cities in an effort to combat terrorism. Security checks at train and subway stations in Beijing and other cities have increased.¹⁹⁷ In addition, the MPS enlisted 850,000 volunteers to monitor suspicious activity in Beijing; other provinces and municipalities have followed. The Beijing Municipal Public Security Bureau began providing awards of up to RMB 40,000 (approx-

*Dr. Tanner adds that this figure may not include hundreds of thousands of private security personnel not affiliated with the forces Zhou Yongkang mentioned. Murray Scot Tanner, "Internal Security," in Chris Ogden, *Handbook of China's Governance and Domestic Politics* (London: Routledge, 2013), pp. 90–91.

†Urban management law enforcement officers are commonly referred to as *chengguan*. For more background on these officers and their common use of violence to address unrest, see Human Rights Watch, "Beat Him, Take Everything Away," May 23, 2012. http://www.hrw.org/sites/default/files/reports/china0512ForUpload_1.pdf.

‡The new armed patrols are being conducted in Xi'an, Shanghai, Qingdao, Changsha, and Kunming, among other cities, and in the autonomous regions of Xinjiang and Tibet. Associated Press, "Chinese Police Begin Carrying Guns During Patrols," April 21, 2014. <http://bigstory.ap.org/article/chinese-police-begin-carrying-guns-during-patrols>.

mately \$6,500) for any “substantial information on threats,” while Liaoning and Sichuan, among other provinces, have announced awards up to RMB 500,000 (approximately \$81,000).¹⁹⁸

Over the last decade, the MPS has strengthened its ability to conduct law enforcement and stability maintenance operations by creating “special police” units in major cities across China that specialize in antiriot and counterterrorism operations;¹⁹⁹ improving the ministry’s intelligence collection and dissemination capabilities through an emphasis on “informationization”;^{*} and constructing additional extrajudicial detention facilities.²⁰⁰

People’s Armed Police: The PAP is China’s “second line” of internal security. It falls under the direction of the Central Military Commission and State Council. Formed in 1982, the paramilitary police force consists of over 660,000 personnel.[†] Almost two-thirds are assigned to local governments for internal security or to PAP headquarters in Beijing, while most of the remaining personnel are assigned to the MPS for border defense.²⁰¹

There are generally two types of PAP units responsible for internal security: strategic PAP divisions and provincial PAP units. The 14 strategic PAP divisions are converted PLA infantry divisions.[‡] These divisions are available to respond to internal disturbances—including riots, terrorist attacks, and emergency operations—anywhere in China and would support the PLA during wartime.[§] The 30 provincial PAP units are subordinate to provinces, autonomous regions, and centrally-administered cities.²⁰² These units usually are the first reinforcements for the local public security bureau during “mass incidents.” PAP units generally are armed with automatic rifles and full riot gear, and operate armored personnel carriers.²⁰³ Some elite PAP subunits possess sniper rifles, silenced submachine guns, and assault rifles.²⁰⁴

The PAP’s ineffective response to the 2009 Xinjiang riots, one of the deadliest incidents of unrest in China in the last decade with almost 200 deaths, provided Beijing with the impetus to accelerate PAP modernization. During the riots, the Xinjiang PAP units failed to provide sufficient warning of the approaching violence and could not stop the attacks without calling in strategic PAP units for reinforcement.²⁰⁵ Since the 2009 Xinjiang riots, the PAP has taken

*“Informationization” refers to the forces’ ability to use C4ISR (command, control, communications, computers, intelligence, surveillance, and reconnaissance) capabilities to accomplish missions. Peter Mattis, *Informatization Drives Expanded Scope of Public Security* (Jamestown Foundation China Brief, April 12, 2013).

†PAP estimates vary to as high as one million, but the official government figure is 660,000. Anthony H. Cordesman, *Chinese Military Modernization and Force Development: Chinese and Outside Perspectives* (Center for Strategic and International Studies, July 2, 2014), p. 164; International Institute for International Studies, *The Military Balance* (London: Routledge, February 2014), p. 239; and Dennis J. Blasko, *The Chinese Army Today: Tradition and Transformation for the 21st Century* (London: Routledge, February 2012), pp. 27–28.

‡No PAP units are stationed in Hong Kong or Macau. Dennis J. Blasko, *The Chinese Army Today: Tradition and Transformation for the 21st Century* (London: Routledge, February 2012), pp. 109–111.

§The PAP consists of three unit groupings: (1) internal security units under PAP headquarters; (2) security guard, border defense, and firefighting units managed by provincial and county-level departments, and MPS bureaus; and (3) hydropower, gold mine, transportation, forestry, and construction units with oversight from PAP headquarters and various ministries. Cortez A. Cooper III, “Chapter 4: ‘Controlling the Four Quarters’: China Trains, Equips, and Deploys a Modern, Mobile People’s Armed Police Force,” in Roy Kamphausen, David Lai, and Travis Tanner, *Learning by Doing: The PLA Trains at Home and Abroad* (Washington, DC: National Bureau of Asian Research, November 2012), p. 137.

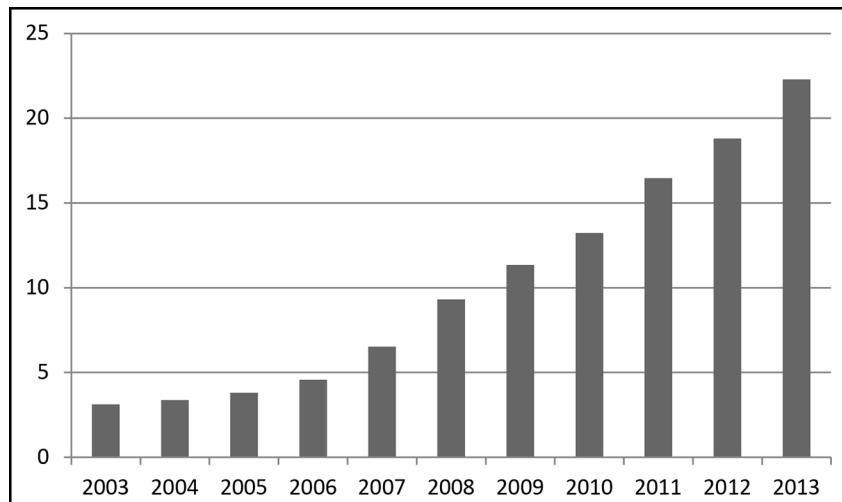
measures to enhance information sharing and disseminate intelligence within and across units and to high-level leadership in Beijing. The PAP also has increased its ability to rapidly move forces to priority areas by upgrading its facilities in Xinjiang and Tibet; forward-deploying elements of an elite PAP unit to Xinjiang; and improving its capabilities through more realistic and frequent training.²⁰⁶

Beijing's dissatisfaction with the PAP's response to the 2009 Xinjiang riots also led the government to make a major change to the PAP's bureaucratic structure. The 2009 People's Armed Police Law for the first time clearly delegated authority over the PAP, re-assigning bureaucratic control over deploying the PAP from county officials to provincial officials and explicitly outlining its missions.²⁰⁷ Although the People's Armed Police Law sought to clarify which officials are allowed to mobilize the PAP in the event of an incident, Dr. Tanner noted to the Commission there is still a bureaucratic struggle between law enforcement and military officials over delegating authority to local officials.²⁰⁸

To facilitate the PAP's incremental upgrades of its facilities and units, Beijing has increased the PAP budget by over 10 percent every year since 2005 (see Figure 2). The PAP budget has more than doubled in the last five years, from RMB 63.4 billion (approximately \$9.3 billion) in 2008 to RMB 136.2 billion (approximately \$22.3 billion) in 2013. China did not publicly announce its 2014 PAP budget in March during the annual National Party Congress meeting as it has in past years.

Figure 2: China's Official Budget for the PAP, 2003–2013

(US\$ billions)



Note: These numbers represent China's official PAP budgets, not actual aggregate spending. All budgetary figures are converted from RMB into U.S. dollar (USD) based on China's year-end nominal exchange rate.

Source: China's Ministry of Finance, <http://yss.mof.gov.cn/zhengwuxinxi/caizhengshuju/>.

President Xi's calls for more realistic training in the PAP and frequent visits to PAP units in 2014 following successive violent attacks on civilians in China indicate his greater emphasis on China's counterterrorism efforts and on developing PAP forces prepared for real-world missions.²⁰⁹ President Xi's plans for broader PAP reform, however, are unclear. The Third Plenum Decision called for streamlining the structure of China's internal security forces, but Beijing has not publicized any subsequent policy decisions.²¹⁰

People's Liberation Army: The PLA serves as China's third and final "line" of internal security, and one of its primary missions is to maintain domestic stability and defend Party control. It falls under the direction of the Central Military Commission. The PLA consists of about 2.3 million total active personnel and roughly 510,000 reserve forces.²¹¹ The majority of PLA personnel are subordinate to China's seven geographically organized military regions and garrisoned near or in major Chinese cities.²¹²

Although the PLA increasingly has emphasized external missions beyond China's borders since 1989, the PLA's main mission remains to preserve the CCP regime. Beijing can deploy the PLA for internal security missions as necessary. For example, the PLA can provide transportation, logistics, and intelligence support for the MPS and PAP and assist local internal security forces with the protection of key facilities and infrastructure during crises.²¹³

Since the mid-2000s, the PLA also has assumed broader domestic responsibilities to include humanitarian assistance and disaster relief (HA/DR).²¹⁴

- According to Chinese state media, the PLA in 2014 has nine national teams consisting of 50,000 troops and 45,000 provincial personnel for HA/DR.²¹⁵ In response to the August Yunnan earthquake that killed almost 600 people, the PLA deployed around 10,000 troops and 10 helicopters for rescue operations. The increased frequency and human impacts of national disasters, such as the 2008 Sichuan earthquake that killed 87,150 people, have pushed China to improve domestic readiness and place greater emphasis on HA/DR as a key PLA peacetime activity.²¹⁶

Counterterrorism is another area in which the PLA has assumed greater responsibilities over the last decade.²¹⁷

- In March 2014, Saimati Muhammad, major general and deputy commander of the Xinjiang Military Area Command, said "Xinjiang has been upgrading supplies for border troops and stepped up counter-terrorism training to armed forces."²¹⁸ In addition, the PLA has increased training with the MPS and PAP to improve coordination for offensive counterterrorism operations and border defense.²¹⁹
- The PLA has expanded the frequency and scope of joint counterterrorism training with foreign militaries. In August 2014, China participated in "Peace Mission-2014," a counterterrorism exercise conducted in Inner Mongolia with over 7,000

troops from all Shanghai Cooperation Organization (SCO)* member countries, marking the largest joint SCO military exercise to date.²²⁰ China has participated in previous Peace Mission iterations since 2007, sending only basic support personnel and conducting basic training with other SCO units.²²¹ In this year's exercise, China sent new PLA personnel and equipment for the first time, including more specialized Chinese logistics and reconnaissance personnel and an armed drone.²²² In addition, this year's exercise focused on incorporating information-based conditions and conducting joint operations across SCO countries.²²³

U.S.-China Cooperation on Counterterrorism

In July 2014, the United States and China jointly held the U.S.-China Counterterrorism Dialogue as part of the U.S.-China Strategic and Economic Dialogue. Human Rights Watch criticized the decision of the United States to hold the event, as it could be viewed by Beijing as U.S. acceptance of China's repressive treatment of Uyghurs as part of its counterterrorism campaign.²²⁴ Since April 2013, Chinese state media has reported at least 323 deaths in Xinjiang alone—internal security forces were responsible for almost half of the casualties and most were killed with little reported evidence the accused assailants were indeed terrorists.²²⁵

According to Amy Chang, research associate at the Center for a New American Security, the United States should be careful engaging with China on counterterrorism:

The Counterterrorism Dialogue could have been an opportunity for the United States to moderate China's harsh counterterror activities, but U.S. officials should be concerned that its cooperation is not misconstrued for endorsement of China's stance. The United States has previously made this mistake: after the September 11 attacks, China capitalized on U.S. vulnerability to terrorism to paint its own domestic ethnic-religious problems as a substantive terrorist issue. In 2002, this resulted in the designation of East Turkestan Islamic Movement (ETIM) as a foreign terrorist organization, granting a carte blanche for China to pursue severe counterterrorist policies without judicious oversight.†

Although U.S. cooperation with China on counterterrorism poses many challenges, it also has the potential for positive engagement if exchanges are limited to areas of common concern—such as Middle East jihadist groups and piracy.

*The Shanghai Cooperation Organization formed in 2001 and consists of six core member countries, including China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. Shanghai Cooperation Organization, <http://www.sectsc.org/EN123/index.asp>.

†Several years after designating ETIM as a terrorist organization, the United States removed ETIM's terrorist designation. Amy Chang, "Can America 'Just Say No' to China?" *National Interest*, August 18, 2014. <http://nationalinterest.org/feature/can-america-just-say-no-china-11090?page=2>.

China's Legal Mechanisms to Repress Dissent

China has expanded its stability maintenance capabilities by enhancing legal mechanisms to repress dissent. After more than two decades of promising legal reforms—albeit slowly and unevenly implemented—Beijing since the mid-2000s has sought to weaken these legal measures and reassert the Party's control.²²⁶ President Xi's early speeches and official appointments led some observers to be hopeful he would pursue broader legal reforms. However, the wide-scale crackdown on rights advocates and lack of measured progress to strengthen rule of law leave reform in doubt. CCP officials have indicated they will maintain close management of the Chinese legal system, preventing any challenges to the Party.²²⁷

One of the Chinese government's methods of repressing dissent is the pervasive practice of pressuring judges to resolve civil disputes through Maoist-era mediation instead of trials decided by law. By doing so, China hinders citizens' access to legal counsel and a fair trial. According to Carl Minzner, associate professor of law at Fordham University, mediation sessions involving cases that could generate social unrest are “primarily political conferences aimed at coordinating responses between government bureaus (including the judiciary) and crafting solutions to ward off protest.”²²⁸ Such disputes often do not result in fair compensation for litigants and tend to do little to prevent future citizen complaints and unrest. In some cases, the sessions can be held outside of legal channels, and the parties involved in the dispute can be barred from participating.²²⁹

In the limited trials that do occur, lawyers in China, particularly those handling public interest cases, face more pressure from the Chinese government. For example, lawyers representing politically sensitive individuals often experience regular harassment, the threat of detention, and, in some cases, the revocation of their license or practice.²³⁰ Continuing a trend from the latter years of then President Hu, President Xi is reining in lawyers advocating for justice based on the Chinese constitution.²³¹ In January 2014, President Xi emphasized that “all political and legal workers should maintain absolute loyalty to the Party.”²³²

The CCP also restricts the ability of Chinese citizens to obtain redress for their grievances by detaining critics through extralegal means. For example, extralegal detention allows officials to put citizens expressing dissent into “black jails” and to forcibly admit them into psychiatric and drug rehabilitation facilities* and “legal education classes.”† “Legal education classes,” often held in poor conditions, are designed to “educate” dissenters about relevant laws and regulations.²³³ In these extralegal detention facilities, citizens lack access to a lawyer and can be held indefinitely.²³⁴

In a potentially positive development, China recently announced legal reforms meant to remove some tools used by local officials to

* Although China in 2013 enacted its first Mental Health Law, requiring most patients admitted to psychiatric facilities to be made voluntarily, petitioners are still forcibly admitted. Radio Free Asia, “Chinese Activists Continue to Be ‘Mentally Ill’ in Spite of New Law,” November 14, 2013. <http://www.rfa.org/english/news/china/law-11142013172615.html>.

† Police also use “soft detention,” or de facto house arrest, on dissidents, rights activists, and others who threaten “social stability.” Congressional-Executive Commission on China, *Annual Report 2013*, October 10, 2013, p. 79.

arbitrarily imprison Chinese citizens. One of these reforms was the abolition of the reeducation through labor (RTL) system following the Third Plenum in November 2013.²³⁵ RTL is an extrajudicial, administrative detention system of sentencing for up to three years, with a possible fourth year extension, imposed by police officials against political dissidents and petitioners seeking redress for grievances.²³⁶ China's new leadership likely seeks to be seen as responding to public outrage over a string of high-profile abuses that have been covered extensively in recent years in official and unofficial media in China and discussed by Chinese Internet users.

Although Chinese state media claims tens of thousands of prisoners had been released from RTL facilities by February 2014, local governments retain methods to detain government critics either extralegally or through the current legal system. Short-term criminal detentions have already increased significantly in the wake of the RTL system's closure, and other forms of extralegal detention appear to be on the rise.²³⁷

Local governments also may have economic incentives to continue operating RTL facilities despite central government directives. The Chinese government has long viewed the RTL system as an important source of economic production. As of 2013, an estimated 160,000–260,000 prisoners produce a wide-range of products, some of which China exports to the United States.²³⁸ These RTL facilities are a valuable source of income for local officials and would be difficult to replace.²³⁹

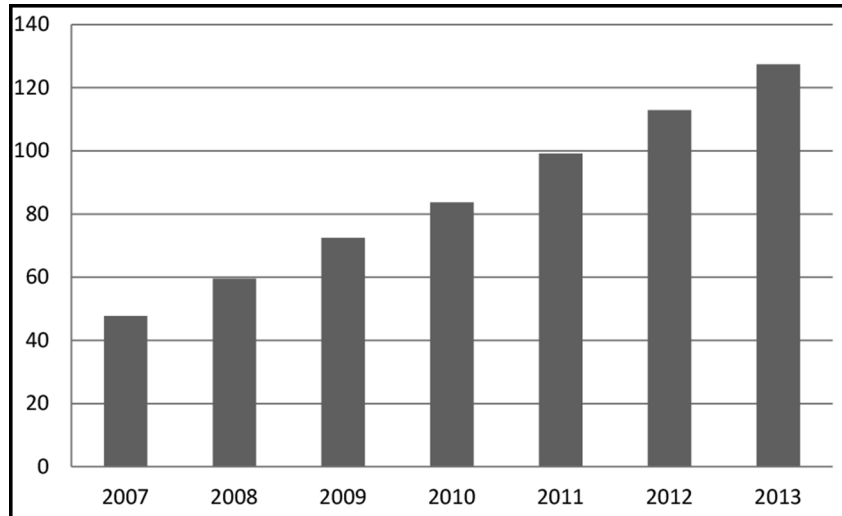
China's Public Security Budget

The CCP provides China's stability maintenance apparatus with ample funding to support its expanding missions and capabilities. The official public security budget includes funds for China's internal security forces, legal apparatus, and censorship regime. In addition, the budget includes other areas that do not apply specifically to stability maintenance, such as public infrastructure, safety, and traffic control.²⁴⁰

China's publicly acknowledged public security spending* in 2013 was RMB 778.7 billion (approximately \$127.4 billion). Official public security spending increased more than RMB 67 billion (roughly \$14 billion) in 2013 from 2012, exceeding national defense spending for the fourth year in a row (see Figure 3). (For more information on China's national defense budget, see Chapter 2, Section 2, "China's Military Modernization.") China's central government public security budget (not including provincial and local spending) rose 8 percent faster than the official national defense budget from 2007 to 2013, according to data from China's Ministry of Finance.²⁴¹ Nicholas Bequelin, researcher at Human Rights Watch, explains that this trend "shows the party is more concerned about the potential risks of destabilization coming from inside the country than outside, which tells us the party is much less confident."²⁴²

* Observers assert the actual public security budget is far greater than China's announced figure. Edward Wong, "Beijing Goes Quiet on Rise of Local Security Budgets," *New York Times*, March 6, 2014. <http://sinosphere.blogs.nytimes.com/2014/03/06/beijing-goes-quiet-on-rise-of-local-security-budgets/>.

Figure 3: China's Official Spending on Public Security, 2007–2013
(US\$ billions)



Note: All data is extracted from budget execution figures, reflecting the official year-end funds outlaid. All budgetary figures are converted from RMB into USD based on China's year-end nominal exchange rate. China's Ministry of Finance does not provide specific national "public security" budgetary data prior to 2007.

Source: China's Ministry of Finance, <http://yss.mof.gov.cn/zhengwuxinxi/caizhengshuju/>.

In 2014, China for the first time did not publicly disclose its full public security budget after the annual session of the National People's Congress, only reporting the central government budget (RMB 205.1 billion or approximately \$33.3 billion).²⁴³ China's decision not to release this figure could be due in part to the sensitive timing of the Party session following multiple violent attacks on Chinese civilians. Dr. Xie Yue, political science scholar at Tongji University and expert on China's public security budget, asserted, "Once the stability maintenance fund gets too big, especially in comparison with the defense budget, it's likely to raise concerns among the international community and domestic public. I think [Beijing is] sidestepping the issue on purpose."²⁴⁴

Crackdown on Dissenters under President Xi

President Xi has implemented a campaign not seen in China since the 1970s against individuals expressing dissent. Aside from targeting outspoken dissidents, President Xi has cracked down on popular online commentators and advocates calling for reform under Chinese law. Since President Xi took office, dozens of individuals across civil society—lawyers, writers, activists and others—have been sentenced to one- to four-year jail terms.²⁴⁵ Dr. Sophie Richardson, China director of Human Rights Watch, testified to the Commission that "people are now being [criminally charged] for activities that previously would have resulted in a mere chat with the

authorities.”²⁴⁶ Some of the most notable arrests this year include the following:

- In January, police arrested Ilham Tohti, a Uyghur rights activist and economics scholar, despite his peaceful calls for equal rights to Uyghur minorities. Six months later, Xinjiang prosecutors charged Mr. Tohti with separatism, a charge that carries a potential death sentence.²⁴⁷ In September, Mr. Tohti was given a life sentence in prison, and all of his assets were seized by court order.²⁴⁸ Notably, in July, Elliot Sperling, a U.S. scholar on Tibet and Indiana University professor, was denied entry to China, likely due to his ties to Mr. Tohti.²⁴⁹ Dr. Sperling is part of a growing number of U.S. academics barred from China as a result of their professional work on topics China deems sensitive or their relationships with certain Chinese citizens.*
- In January, Xu Zhiyong, lawyer and founder of the New Citizens Movement, was arrested and received a criminal sentence of four years in prison. He was charged with “gathering a crowd to disturb public order.”²⁵⁰ Dr. Richardson, after the April arrests of New Citizens Movement members for anticorruption protests, said, “Ironically, it was in part Xi Jinping’s [anticorruption campaign]—as well as Xu Zhiyong’s [ideas] and others—that inspired these activists to take to the streets to peacefully support the official campaign.”²⁵¹

In addition, the 25th anniversary of the Tiananmen Square massacre in 2014 marked the largest crackdown on public expression yet. According to Human Rights in China, a New York-based non-profit organization, 136 individuals were either detained or arrested, faced restricted movements, or disappeared due to their purported involvement or feared participation in 25th anniversary activities.²⁵² Nearly a month before the anniversary, Chinese authorities detained Pu Zhiqiang, a well-known human rights lawyer, the day after he attended a private Beijing seminar of 16 liberal academics, lawyers, and others, revisiting the official verdict of the Tiananmen Square massacre. Along with the arrest of Mr. Pu, 12 of the meeting participants spent weeks in detention before eventually being released the day after the anniversary.²⁵³ The Chinese government formally arrested Mr. Pu in June on charges of “picking quarrels and provoking troubles” and “illegally obtaining personal information.”²⁵⁴ As of the publication of this Report, the Chinese government has not announced his sentence.

* In addition to Dr. Sperling, other prominent examples of U.S. scholars banned from China include: the so-called “Xinjiang 13,” a group of U.S. scholars who wrote a book on Xinjiang published in 2004, and Perry Link and Andrew Nathan, co-editors of *The Tiananmen Papers*, a 2002 collection of leaked Chinese government documents on Beijing’s deliberations surrounding the Tiananmen Square massacre. Dr. Link, professor at University of California-Riverside, asserts the most concerning impact of China’s blacklist is its pressure on U.S. scholars to self-censor; for more information see Perry Link, “The Long Shadow of Chinese Blacklists on American Academe,” *The Chronicle of Higher Education*, November 22, 2013. <http://chronicle.com/blogs/worldwise/the-long-shadow-of-chinese-blacklists-on-american-academe/33359>; Daniel Golden and Oliver Staley, “China Banning U.S. Professors Elicits Silence from Colleges Employing Them,” *Bloomberg*, August 10, 2011. <http://www.bloomberg.com/news/2011-08-11/china-banning-u-s-professors-elicits-silence-from-colleges.html>.

In September, the Chinese government responded to Chinese citizens' support for Hong Kong's Umbrella Revolution with a crackdown on sympathizers and wide-scale censorship. (For more information on the demonstrations in Hong Kong, see Chapter 3, Section 4, "Hong Kong.") Some Chinese citizens assembled sympathy protests, and others shaved their heads and held umbrellas, distributing these images on microblogs to show unity with their compatriots.²⁵⁵ In response, the Chinese government has detained more than 40 individuals for distributing images and news of the demonstrations on microblogs, participating in sympathy protests, and attending a poetry reading inspired by the Umbrella Revolution.²⁵⁶ For example, a Chinese poet was arrested and sentenced to three years in prison for posting a photograph of himself with his head shaved and holding an umbrella in front of a Taiwan flag.²⁵⁷ In order to prevent images of the protests being shared online, the Chinese government heavily censored news from Hong Kong. For the first time, Beijing reportedly blocked Instagram, a popular mobile photograph sharing application.²⁵⁸ See "Internet and Social Media Censorship Controls" later in this section for more information on the tightening of information controls in China.

China's Media and Information Controls

China's media and information controls also have been tightened since President Xi took office, particularly China's censorship of private communications and social media. This tightening appears to be driven by a number of factors, including: the expanding reach of domestic media, more extensive foreign investigative reporting in China, the growing number of Chinese Internet users, and the rise of domestic social media platforms. The CCP views these dynamics as threatening its control over information and causing instability. China's media and information controls have direct implications for U.S. economic interests through its impact on U.S. company operations and profits both within China and abroad.

China's Domestic Media Controls

Although China already has one of the most restricted media environments in the world, President Xi has increased the government's censorship of domestic media, especially on the Internet. This censorship is designed to prevent negative coverage and to promote content that follows the CCP's established narrative of a particular story.²⁵⁹ The Chinese government can restrict domestic media coverage on virtually all topics but focuses on eliminating content related to autonomy in Xinjiang and Tibet, the Falun Gong spiritual group, writings of political dissidents, Taiwan independence, as well as unfavorable coverage of CCP leaders. Freedom House analysis of leaked state media censorship directives published by *China Digital Times*, a U.S.-based bilingual China news portal, shows President Xi, like his predecessor, has extensively applied this tactic.²⁶⁰

Chinese media over the last decade has increasingly challenged Beijing's tight grip on the media by pushing the government-instituted limits, particularly with its expanded investigative reporting

on sensitive topics. Largely due to the increased challenges posed by the proliferation of new media and Internet users driving conversations away from Beijing's preferred narrative, President Xi has employed more extensive controls on Chinese media personnel than did his predecessor.

For example, in June and July of this year, China's top media regulator, the State Administration of Press, Publication, Radio, Film and Television, issued a series of directives intended to further centralize and strengthen the CCP's control over domestic media outlets. One new rule forbids Chinese journalists from publishing critical news stories without official approval or outside of their assigned topics or regions.²⁶¹ Another regulation restricts any use of undefined state and commercial secrets, as well as "unpublicized" information the Party has not already released.²⁶² A third rule bans any cooperation between Chinese journalists and foreign news agencies.²⁶³ Finally, the Chinese government now requires journalists to sign a secrecy agreement with their employer to obtain press credentials.²⁶⁴ A single violation of any of these new rules could result in the loss of media credentials and employment. The regulation on cooperation with non-Chinese media personnel reflects the CCP's growing concerns with the role of foreign media in China obtaining and reporting on news China considers sensitive, such as the wealth of high-level Party officials.

Western organizations that track freedom of press issues worldwide find Chinese restrictions are becoming more stringent and more pervasive both within and outside mainland China.²⁶⁵ As of the publication of this Report, 30 journalists and 74 netizens* are imprisoned in China, according to Reporters Without Borders.²⁶⁶ China now ranks 175 out of 180 countries on Reporters Without Borders' 2014 World Press Freedom Index, two places behind Iran. The report also warned this year that "China's growing economic weight is allowing it to extend its influence over the media in Hong Kong, Macau and Taiwan, which had been largely spared political censorship until recently."²⁶⁷ In particular, media freedom in Hong Kong has deteriorated in 2014. Hong Kong journalists have faced increased intimidation, physical abuse, and cyber attacks from mainland China.²⁶⁸ For more information on the crackdown, see Chapter 3, Section 4, "Hong Kong."

China's Restrictions on U.S. and Foreign Media

The Chinese government has tightened restrictions on international media in China after several dramatic revelations by Western news organizations embarrassed Beijing in the run-up to the 2012 Chinese leadership transition. This highlighted the government's inability to isolate Chinese audiences from foreign perspectives. In response, Beijing has delayed and rejected foreign reporters' visa applications. The government has organized and conducted increasingly sophisticated cyber operations against foreign journalists in China and foreign media companies abroad. Beijing has allowed physical attacks on journalists within China and has used economic incentives and threats to encourage foreign media to

*A netizen is an Internet user who engages in discussions on social, political, and governmental topics online.

avoid coverage that might embarrass the government and Party.²⁶⁹ According to the Foreign Correspondents Club of China (FCCC),* 80 percent of respondents to the FCCC's 2014 Annual Reporting Conditions Survey believed their work conditions worsened or stayed the same since the previous year, a 10 percent increase over 2013. Half of respondents with Chinese assistants said their assistants faced harassment at least once, exceeding 2013 levels.²⁷⁰

Sarah Cook, senior research analyst for East Asia at Freedom House, testified to the Commission that pressure on foreign media over the past two years has "taken the form of delaying or rejecting visas for journalists known for hard-hitting reporting, especially on human rights or high-level corruption."²⁷¹ Since 2012, China has effectively expelled four leading China journalists—Austin Ramzy of the New York Times in 2014, Paul Mooney of Reuters in 2013, and Melissa Chan of Al-Jazeera and Chris Buckley of the New York Times in 2012—by denying them visas.²⁷² Before then, no accredited foreign correspondent had been expelled from China since 1998, when two journalists were accused of stealing state secrets.²⁷³ Since 2012, Bloomberg and the New York Times have reported visa delays after publishing stories on the amassed family wealth of Xi Jinping and then Premier Wen Jiabao; the New York Times has been unable to obtain visas for new employees—including Philip Pan, its chosen bureau chief in Beijing, who has been waiting for a visa since 2012.²⁷⁴

Foreign media companies operating in China are experiencing increased levels of cyber attacks. Dalphine Halgand, U.S. director of Reporters Without Borders, noted in her testimony to the Commission that members of the FCCC continue to be regular targets of cyber attacks designed to infect their computers with malware and spyware.²⁷⁵ Since 2008, China has also conducted a cyber espionage campaign against U.S. media organizations, with intrusions into the networks of the New York Times, the Washington Post, the Wall Street Journal, and Bloomberg.[†] China likely seeks to use information acquired through these intrusions to shape U.S. press coverage of China by intimidating U.S. journalists' sources in China and to gain advance notice about negative coverage of China before it is published.²⁷⁶

Another disturbing trend is the increasing physical harassment of foreign journalists on the ground in China. Ms. Halgand, in her testimony to the Commission, described the nature of such incidents:

In January this year, journalists covering the trial of cyber-dissident Xu Zhiyong were barred from the courtroom and were even prevented from filming outside when Xu's trial opened. BBC, Sky News and CNN crews outside were all pushed away violently by uniformed and plainclothes policemen. CNN reporter David McKenzie reported that he was manhandled and detained by police, who broke his crew's equipment. Two other journalists, Mark Stone and

*The Foreign Correspondent's Club is a professional group of international journalists reporting from China.

†For information on China's cyber espionage campaign against U.S. news agencies, see U.S.-China Economic and Security Review Commission, Chapter 2, Section 2, "China's Cyber Activities," *2013 Annual Report to Congress*, November 2013, pp. 243–265.

*Martin Patience, were also manhandled by police during coverage of the trial.*²⁷⁷

Finally, China is using economic pressure to induce U.S. and other foreign media organizations' compliance with its expanding information controls. According to the FCCC, the Chinese government has sought to pressure senior editors of France 24, ARD TV (Germany), and the Financial Times, along with various Japanese news organizations, to restrain reporting from their Beijing bureaus.²⁷⁸ In addition, after Bloomberg published its story on the wealth of Xi Jinping's family in 2012, Chinese officials ordered some Chinese businesses to stop subscribing to Bloomberg's financial data terminals, according to *The New York Times*.²⁷⁹ As a result, the company "reportedly suffered significant commercial harm from a drop in sales of its data terminals."²⁸⁰ In 2013, Bloomberg News stopped the release of an investigative report about a web of corruption linking one of China's wealthiest businessmen and high-level Chinese government officials. Bloomberg's Editor-in-Chief Matthew Winkler explained at the time that "the reporting . . . was not ready for publication," but several Bloomberg writers and editors blamed pressure from Beijing and Bloomberg's fear of reprisal.²⁸¹ As of the publication of this Report, the Bloomberg report has not been published. Although China currently comprises a small share of Bloomberg's core terminal market,* Bloomberg executives have emphasized that China is an important part of the firm's long-term strategy to expand into emerging markets.²⁸² The Bloomberg case demonstrates to other media companies that China is willing to use economic levers to enforce information controls.

Other U.S. media firms have suffered losses in revenue after China blocked access to online content tailored for the Chinese market. China cut off access to the New York Times' English- and Chinese-language websites in China after the organization published the story on then Premier Wen Jiabao's family members in 2012, causing heavy losses in revenue from advertisers and Chinese users.† In addition, Reuters' Chinese-language portal faced intermittent outages in November and December 2013 after reporting on the involvement of Wen's daughter in the JP Morgan hiring scandal.²⁸³ The Wall Street Journal's own English and Chinese-language websites were similarly censored during the same period as those of Reuters but were blocked again in China on May 31, days prior to the Tiananmen anniversary.²⁸⁴ As of the publication of this Report, the Wall Street Journal's websites remain blocked in China.

*Bloomberg only has an estimated 3,000 terminals in China, compared with 100,000 in the United States. The terminal market accounts for over three-quarters of Bloomberg's total revenue. Neil Gough and Ravi Somaiya, "Bloomberg Hits at Curb on Articles about China," *New York Times*, March 20, 2014. <http://www.nytimes.com/2014/03/21/business/international/bloomberg-should-have-rethought-articles-on-china-chairman-says.html>.

†In 2013, the New York Times launched a Chinese language, lifestyle-focused website that the Chinese government subsequently blocked. Foreign Correspondents' Club of China, "Position Paper on Working Conditions for Foreign Correspondents in China," September 2014. <http://www.fccchina.org/2014/09/12/fcc-position-paper-2014/>; Sarah Cook, *The Long Shadow of Chinese Censorship: How the Communist Party's Media Restrictions Affect News Outlets around the World* (Center for International Media Assistance, October 22, 2013), p. 18.

Internet and Social Media Censorship Controls

The inherent difficulty of monitoring and stopping the spread of information via new Internet and social media—such as Internet videos, blogs, and Twitter-like microblogs—and mobile phone messaging presents challenges to Beijing’s ability to manage public dissent. The speed and ease with which the Chinese public can access information and express opinions compresses the timeline for Beijing to respond to heated public demands. According to the official China Internet Network Information Center, as of June 2014, China has 632 million total Internet users—527 million of whom use the mobile Internet.²⁸⁵ The number of Internet users is expected to continue increasing rapidly; the Boston Consulting Group projects China will have 730 million users by 2016.²⁸⁶

Expansion of China’s Internet Control Apparatus

China’s Internet monitoring and censorship apparatus is vast—including at least ten government and CCP entities and more than two million personnel*—and redundant, with overlapping responsibilities throughout the system.²⁸⁷

Beijing’s difficulty stopping the spread of Internet video and news related to ethnic riots in Tibet in 2008 underscored for Beijing the need for stronger Internet controls. Then President Hu responded by shutting down YouTube, among other websites.²⁸⁸ After a brief loosening of Internet controls over the 2008 Beijing Olympics to assuage international concerns about China’s Internet censorship, following the games China redoubled its efforts to block non-Chinese websites. The government even expanded the pre-Olympics censorship apparatus. Prior to the 20th anniversary of the Tiananmen Square massacre, China temporarily blocked Twitter.²⁸⁹ Shortly thereafter, following the 2009 Xinjiang riots, Chinese authorities permanently blocked access to Twitter and Facebook.²⁹⁰

Beijing stepped up Internet censorship in 2011 after calls for Arab Spring-inspired † pro-democracy protests early that year in cities across China. Tightened Internet controls were part of a broader effort by Chinese officials to prevent or respond quickly to public criticism of CCP authority or legitimacy in the run-up to the 2012 leadership transition. Beijing also created a new central organization, the State Internet Information Office, to better coordinate its massive censorship apparatus.²⁹¹

After assuming China’s top leadership positions in 2012 and 2013, President Xi continued to strengthen China’s Internet control apparatus. In February 2014, President Xi established the new Central Internet Security and Informationization Leading Group.

*The Chinese government hires about two million people to monitor activity on microblogs. Estimates of CCP censors who are allowed to delete postings are between 20,000 and 50,000 people. In addition, private companies hire in-house censors to delete content; a source told Harvard researchers about two to three of these censors operate for every 50,000 users. “China Employs Two Million Microblog Monitors State Media Say,” BBC, October 4, 2013. <http://www.bbc.com/news/world-asia-china-24396957>; U.S.-China Economic and Security Review Commission, *Hearing on Stability in China: Lessons from Tiananmen and Implications for the United States*, written testimony of David Wertime, May 15, 2014.

†The call for public gatherings in China similarly used the Internet and social media to attempt to organize protests in over a dozen Chinese cities. Andrew Jacobs, “Chinese Government Responds to Call for Protests,” *New York Times*, February 20, 2011. <http://www.nytimes.com/2011/02/21/world/asia/21china.html>.

The group is tasked with enhancing Internet security, and according to President Xi, aims to “build [China] into a cyber power.”²⁹² Lu Wei, head of the State Internet Information Office and President Xi’s Internet czar, reportedly serves as director of the group’s administrative office, signaling the prioritization of Internet censorship as one of its main objectives.²⁹³ Although little is known about specific policy measures from the leading group, it is likely intended to centralize and strengthen Internet information controls.²⁹⁴

Over the last year, Beijing has initiated several campaigns targeting the spread of “rumors,”* “illegal” content, and pornography† on the Internet via microblogs, effectively crippling the platform. David Wertime, senior editor at *Foreign Policy*, explained to the Commission, “While the immediate loss of localized social control has long been a bugbear for Chinese authorities, the [P]arty appears to have realized somewhat belatedly that the social web, often highly critical of government, also threatened its ability to control its message.”²⁹⁵ As a result of President Xi’s campaign to eradicate online “rumors” and “illegal” content, Weibo users have declined rapidly over the last several years—as much as 70 percent of its users have left according to some estimates.²⁹⁶ Many of these users shifted to its rival, WeChat. After rapidly increasing its own user base, WeChat was similarly targeted in March 2014. Censors deleted dozens of WeChat accounts, many of which were politically liberal.²⁹⁷ In August, China passed new regulations on instant messaging platforms—largely targeted at WeChat—requiring real name registration for the first time and banning non-news accounts from sharing political information.²⁹⁸ As the top instant messaging platform with a user base of 393 million people, WeChat likely will suffer the same fallout as alternative microblog platforms emerge.

In recent years, growth of social media and its potential for creating instability has prompted the CCP to enact new rules and expand the ability to arrest individuals for posting unfavorable content. In December 2012, shortly after President Xi assumed leadership, China announced the passage of a new law allowing censors to delete social media posts or web pages containing “illegal” information and requiring Internet service providers to turn over information to law enforcement authorities.²⁹⁹ As part of Xi Jinping’s crackdown on Internet “rumors,” China in September 2013 introduced new regulations on online posts: if a post deemed offensive is reposted 500 or more times or viewed more than 5,000 times, the poster could face three years in prison.³⁰⁰ In April 2014, Chinese blogger Qin Zhihui was reportedly the first person to be arrested under these new regulations, guilty of “slander” and “picking quarrels and provoking troubles.” Hundreds more netizens have reportedly been detained during the crackdown on social media.³⁰¹

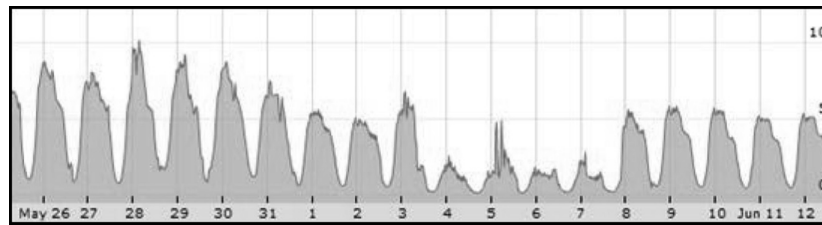
* “Rumors” are broadly defined as information disseminated online that does not follow the Party line. Megha Najagopalan, “China’s Rumor Crackdown Has Cleaned the Internet, Says Official,” Reuters, November 28, 2013. <http://www.reuters.com/article/2013/11/28/us-china-internet-idUSBRE9AR0BQ20131128>.

† The CCP’s campaign against pornography, set to last through November 2014, appears to target domestic media and netizens. Zhang Jialong, “China’s New Internet Crackdown: Not about Porn,” *Foreign Affairs*, April 16, 2014. http://www.foreignpolicy.com/articles/2014/04/16/chinas_new_internet_crackdown_not_about_porn.

Tiananmen Anniversary Disrupts Google Services in Tightest Internet Controls Yet

China disrupted access to Google products and services in the days around June 4, increasing its Internet censorship to the highest levels yet. The anonymous founder of GreatFire.org, a nonprofit organization that monitors Chinese censorship, said, “It would be wrong to say this is a partial block. It is an attempt to fully block Google and all of its properties.”³⁰² A review of Google’s traffic data shows a drop in usage during the most sensitive dates of the anniversary (see Figure 4). Google services remained partially accessible until May 30, when China’s estimated fraction of Google’s normalized worldwide traffic dropped more than fourfold in the days leading to June 4. By comparison, during the same period a year ago, access to Google services remained stable at pre-June 4 levels.³⁰³ Google websites remain blocked in China despite periodic openings of less than a day, as of the publication of this Report.

Figure 4: China’s Fraction of Google’s Worldwide Traffic Normalized, May 26–June 12, 2014



Note: The x-axis represents dates. The y-axis depicts China’s estimated fraction of Google’s worldwide traffic. The graphic does not depict real-time Google traffic, but reflects trends in usage.

Source: Google, Transparency Report Database—China.

China’s Internet Censorship Tools

The Chinese government is improving its efforts to scrutinize and block “sensitive” terms on Chinese social media platforms that have the ability to instantaneously reach large numbers of followers. China blocks information on the Internet and social media through three main methods: (1) shutting down access to websites through a filtering system—colloquially referred to as the “Great Firewall”; (2) blocking lists of keyword searches; and (3) manually removing text that passes through the first two methods deemed offensive to Chinese censors.³⁰⁴ Recent studies have found around 15 percent of total posts are deleted by censors; most are deleted within 24 hours.* According to a May 2013 Harvard University

*A University of Illinois-Chicago study found 16 percent of social media posts are blocked, while a Harvard University study found an average of 13 percent of posts are censored. Each study used a different data set. David Bamman, Brendan O’Connor, and Noah A. Smith, “Censorship and Deletion Practices in Chinese Social Media,” *First Monday* 17:3, March 5, 2012. <http://journals.uic.edu/ojs/index.php/fm/article/view/3943/3169>; Gary King, Jennifer Pan, and Margaret Roberts, “How Censorship in China Allows Government Criticism but Silences Collective Expression,” *American Political Science Review* 107:2 (May 2013): 6.

study, posts calling for collective action have the highest chance of being censored.³⁰⁵ Such censorship reflects the CCP's overarching goal to prevent coordinated protests and contain dissent locally. According to Xiao Qiang, founder and editor of the *China Digital Times*, China also blocks the following information: unfavorable coverage of high-level Chinese officials; challenges to the legitimacy of one-party rule; inner-workings of the Party and censorship system; political opposition groups such as the Falun Gong; political reporting not in sync with the CCP and Central Propaganda Department; and major historical events depicting the Party in a negative light.³⁰⁶

China's state and Party organs use a number of tools to keep the Internet and microblog platforms free of sensitive content, including: cyber intrusions on activists' e-mail and computer networks; surveillance of Internet-connected devices and networks; requirements for real-name registration of all websites; restrictions on Internet availability; domestic and foreign company compliance with law enforcement to provide information on netizens; and public outreach, such as employing users to push online content favorable to the Party.³⁰⁷ Ms. Cook noted to the Commission an increase in China's hiring of so-called "50 Cent Party" members who drive Internet and microblog conversation supportive of the CCP and harass alternative voices.*

The Chinese government also is using offline measures—cracking down on popular microbloggers and leaders of online opinion—to attempt to force netizens to self-censor. For example, Charles Xue, one of these influential online celebrities, had more than 12 million followers before being arrested on prostitution charges as part of the Weibo crackdown and forced to confess on national television for spreading microblog "rumors."³⁰⁸ The arrest led to a reduction in political commentary on Chinese social media, causing users to switch to other platforms.³⁰⁹

However, such measures have not succeeded in stamping out online dissent. Citing the increased number and frequency of deleted Weibo posts and usage of circumvention tools to access banned websites, Xiao Qiang testified to the Commission, "As I have followed Chinese social media, it has become clear to me that more and more netizens are less intimidated by repressive measures."³¹⁰ Internet users also have responded by shifting the language they use to talk about sensitive topics and bypass censors. According to Mr. Wertime, this strategy includes: using homophones, words that sound similar to those censored; homographs, words that look similar to those censored; and memes, repeated phrases or images that carry a particular cultural or political meaning.³¹¹

* These individuals, hired by central and local government authorities, reportedly receive 50 cents renminbi for each post. U.S.-China Economic and Security Review Commission, *Hearing on Stability in China: Lessons from Tiananmen and Implications for the United States*, testimony of Sarah Cook, May 15, 2014.

Impact of China's Internet and Media Controls on U.S. Companies

In the past five years, China's restrictive Internet and media controls are increasingly affecting U.S. affiliates. Twitter, Facebook,* and YouTube remain blocked in China in part due to their unwillingness to censor content and China's accusations that they foment unrest. In Beijing's view, these platforms' ability to organize groups of dissenters, demonstrated during the 2011 Arab Spring, present a direct threat to Party control. Liu Xiaoming, China's ambassador to the United Kingdom, said in an interview this year that these websites are blocked because they violate Chinese law and spread "rumors" unfavorable to the CCP.³¹² In September, Lu Wei, director of the State Internet Information Office, said that Facebook "cannot" gain access to China's market now or in the foreseeable future.³¹³ As a result, these U.S. firms have lost considerable business opportunities in China, and compliant Chinese "copycat" firms, such as Weibo, RenRen, and Youku, have taken their place.³¹⁴

In addition, U.S. companies are forced to decide whether to relocate their operations in an increasingly difficult business environment or self-censor. Google in 2010 redirected all search traffic from its mainland-based domain to its uncensored Hong Kong domain due to Chinese censorship and cyber intrusions on its software platforms based in China.†

In 2014, Reader's Digest self-censored an English-language novel planned to be printed in China for distribution in several Asia Pacific countries after Chinese authorities objected. Instead of relocating to a printer outside of mainland China and taking on added financial burden to avoid censorship, the company decided to cancel the publication.³¹⁵

Other companies are shelving their freedom of expression values in order to gain access to or maintain their operations in the Chinese market. LinkedIn said it would comply with Chinese censorship in order to enter the Chinese market. "We are strongly in support of freedom of expression. But it was clear to us that to create value for our members in China and around the world, we would need to implement the Chinese government's restrictions on content," a spokesman explained.³¹⁶ Over the last year, LinkedIn censored content for Chinese-language users beyond the Great Firewall—in this case English-language content for users based in the United States—stating "content posted from China IP addresses will be blocked globally to protect the safety of our members that live in China."³¹⁷

Apple Corporation, in 2013 removed applications, including anticensorship software, from its China software store. According

* Facebook maintains a small advertising sales office in China and has expressed interest in entering the Chinese market. Reed Albergotti, "LinkedIn Considers Changes after China Censorship Revealed," *Wall Street Journal*, September 3, 2014. <http://blogs.wsj.com/digits/2014/09/03/linkedin-considers-changes-after-china-censorship-exposed/>; Benjamin Pimentel, "Is Facebook About to Enter China?," *MarketWatch*, April 14, 2014. <http://www.marketwatch.com/story/is-facebook-about-to-enter-china-2014-04-14/>.

† Google retains research and development as well as sales offices in Beijing and Shanghai. E-mail correspondence with Google representative; Miguel Helft and David Barbosa, "Google Shuts Down China Site in Dispute over Censorship," *New York Times*, March 22, 2010. <http://www.nytimes.com/2010/03/23/technology/23google.html>.

to the application developer, Apple said Chinese authorities ordered the removal of the software “because it includes content that is illegal in China.”³¹⁸ Early this year, GreatFire.org released a report that found Microsoft’s Bing search engine “censors a vast amount of content that is hosted inside China and which is not censored by China-based internet companies like Baidu.”*³¹⁹ In response, Microsoft acknowledged errors and confirmed its policy of “[adjusting] search results to comply with local [Chinese] law or for quality or safety reasons such as child abuse or malware.”³²⁰

Implications for the United States

China’s domestic instability and how Beijing responds to dissent have implications for U.S. interests and U.S.-China relations. Domestic instability in China affects U.S. investment and production in China. A 2014 protest by 40,000 employees at a Nike supplier over low wages halted production for two weeks, leading to an estimated \$58 million in losses.³²¹ Protests at a Cooper Tire factory over the company’s potential sale in December 2013 cost a reported \$70 million.³²² Labor shortages and soaring living costs could increase such disputes in the future.

Moreover, in recent years, the increasing impact of Chinese media and Internet censorship on U.S. company operations and profits both within China and abroad has denied some U.S. businesses market access and forced other U.S. businesses to reduce activities in China, relocate operations, and self-censor. As a result, some U.S. firms are losing out on business opportunities in the world’s largest consumer market; others face the difficulty of balancing protections for freedom of expression while operating under China’s authoritarian regime.

The recent increased restrictions on freedom of expression and freedom of the press in China undermine the ability of U.S. news agencies and journalists to operate in China. U.S. journalists are facing more frequent harassment, visa restrictions, cyber attacks, and economic incentives and threats. Such policies force U.S. news agencies to reduce operations in China, thereby limiting U.S. news coverage of China.

Conclusions

- Heightened public awareness, the growth in Internet and social media use, and the lack of satisfactory channels for redress have led to a large number of “mass incidents” each year. Public outrage centers on land seizures, labor disputes, wide-scale corruption, cultural and religious repression, and environmental degradation. Such incidents challenge the legitimacy and competence of the Chinese Communist Party (CCP) and the government at all levels. Local governments have responded to such incidents with a mixture of repression and concessions.
- This year marked an escalation in violence linked to unrest in Xinjiang. Clashes between Uyghurs and police are increasingly ending in bloodshed, including the death of nearly 100 people in late July. In addition, attacks by militant Uyghur separatists are shifting from targeting government officials and buildings to at-

*Baidu is China’s most popular search engine.

tacking civilians and soft targets such as train stations and public spaces.

- In an effort to address the underlying causes of unrest, President Xi has launched robust anticorruption and counterterrorism campaigns, dedicated resources to address the public's environmental and health concerns, and proposed *hukou* system reforms.
- In response to rising levels of unrest, China's leaders are expanding and improving China's stability maintenance apparatus by streamlining domestic security policymaking, strengthening forces responsible for maintaining internal security, tightening the Party's control over legal institutions, significantly increasing funding for public security, and using information controls to clamp down on dissent.
- With the entire legal apparatus under the CCP's control, local and national officials contain unrest by limiting citizens' access to legal counsel and impartial trials, restricting the ability of citizens to obtain redress for grievances through official channels, and detaining government critics through legal and extralegal means. Although President Xi has implemented several substantial reforms and hinted at others, the same legal mechanisms to target dissent likely will persist, and meaningful reform will remain elusive.
- President Xi has implemented a campaign not seen in China since the 1970s against individuals expressing dissent. In addition to targeting outspoken dissidents, President Xi has cracked down on popular online commentators. This year's 25th anniversary of the Tiananmen Square massacre marked the harshest crackdown on dissenters yet and the tightest online censorship implemented thus far.
- Although China already has one of the most restricted media environments in the world, since President Xi took office, China has increased censorship of domestic and foreign media. China's information controls directly affect U.S. media companies and journalists with China operations through visa restrictions, cyber attacks, physical harassment, favoritism, and threats. Tightened media controls also affect Chinese citizens who face increasing difficulty accessing information sources that express alternative views from the CCP.
- Beijing likely will take calculated measures to strengthen Internet controls. However, China probably will struggle with the rapid and unpredictable development of Internet-based applications and technologies that could help users defy Beijing's current controls. Furthermore, the increasing number and sophistication of Internet users in China makes Beijing's approach vulnerable to public backlash when authorities restrain users' access and network performance, especially in sectors where the Internet has become a critical component of economic growth and commerce.

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RECOMMENDATIONS

China's Military Modernization

The Commission recommends:

- Congress fund the U.S. Navy's shipbuilding and operational efforts to increase its presence in the Asia Pacific to at least 67 ships and rebalance homeports to 60 percent in the region by 2020 so that the United States will have the capacity to maintain readiness and presence in the Asia Pacific, offset China's growing military capabilities, and surge naval assets in the event of a contingency.
- Congress appoint an outside panel of experts to do a net assessment of the Sino-American military balance and make recommendations to Congress regarding the adequacy of the current U.S. military plans and budgets to meet the security requirements of the United States in the Pacific.
- Congress ensure the adequacy of open source collection, production, and dissemination capabilities vis-à-vis security issues involving China.
- Congress direct U.S. Pacific Command to brief Congress on the People's Liberation Army Navy's participation in the Rim of the Pacific-2014 exercise.
- Congress direct the Department of Defense to provide to Congress its purpose and rationale for its military-to-military engagement planning with the People's Liberation Army, including proposed programs already discussed with the People's Liberation Army.
- Given the importance of understanding China's nuclear and conventional ballistic missile programs, Congress direct the Government Accountability Office to provide an unclassified report, with a classified annex, that examines China's nuclear and conventional ballistic missile capabilities, intentions, and force structure.

China's Domestic Stability

The Commission recommends:

- Members of Congress reaffirm their support for human rights, freedom of expression, and rule of law in China and raise citizens' rights to freedom of speech, expression, and religion in their meetings with Chinese government officials.

- Congress support the efforts of the U.S. Agency for International Development, U.S. Department of State, and the National Endowment for Democracy to strengthen governance and improve the well-being of Chinese citizens through capacity-building training programs and exchanges.
- Congress closely monitor U.S.-China counterterrorism cooperation to ensure the United States is not endorsing or providing any support for China's suppression of Chinese citizens, including Uyghurs, Tibetans, and other ethnic minorities.
- Congress continue to support and fund media outlets that promote the free flow of information and Internet freedom within China.

