

## **CHAPTER 2**

### **SECURITY AND FOREIGN POLICY ISSUES INVOLVING CHINA**

#### **SECTION 1: YEAR IN REVIEW: SECURITY AND FOREIGN AFFAIRS**

##### **Introduction**

The Commission's previous annual reports to Congress documented that Chinese national security and foreign policy have become more centralized and focused under President and Chinese Communist Party (CCP) General Secretary Xi Jinping, who took power in 2012.<sup>1</sup> This trend continued in 2015, as the Xi Administration took further steps to articulate and pursue China's priorities and objectives in both the security and foreign policy realms. President Xi continues to position himself at the apex of the security and foreign policy decision-making apparatus in Beijing, and appears to be successfully advancing a foreign policy and security agenda that reinforces CCP rule and seeks to enable China to achieve great power status.<sup>2</sup>

Meanwhile, China's military modernization continues apace, with impressive new systems and capabilities coming online that augment China's ability to defend its stated interests and field a globally active, world-class military. In some cases, China is deploying the People's Liberation Army (PLA) in ways that contribute to regional peace and security, such as antipiracy operations in the Gulf of Aden, noncombatant evacuation operations, and humanitarian assistance and disaster relief operations. At the same time, however, the PLA is deploying weapons and honing capabilities that will allow it to hold at risk U.S. and allied forces in the Western Pacific. Also of concern are China's aggressive actions in the South and East China seas and its relentless use of cyber espionage to seek economic and military advantage over the United States.

This section—based on Commission hearings, discussions with outside experts and U.S. government officials, and open source research and analysis—reflects on these trends and examines major developments in China's national security and foreign policy, military modernization, global security activities, and U.S.-China security relations, since the publication of the Commission's 2014 Annual Report.

## Major Developments in China's National Security and Foreign Policy in 2015

### ***“One Belt, One Road” and the Continued Emphasis on Peripheral Diplomacy***

Collectively referred to as the “One Belt, One Road” initiative, the “Silk Road Economic Belt” and “21st Century Maritime Silk Road” have become key components of the Xi Administration’s foreign policy agenda.<sup>3</sup> Focused respectively on Eurasia and maritime Asia, the Silk Road Economic Belt and 21st Century Maritime Silk Road encompass approximately 60 countries and seek to enhance regional connectivity and economic, cultural, and diplomatic exchange. The initiatives, for which Beijing has already promised enormous political and financial resources, are designed to advance China’s objectives to facilitate trade and boost exports, provide opportunities for Chinese companies, facilitate access to natural resources, and relieve overcapacity in China’s construction-oriented sectors. They also appear designed to enhance China’s influence among its neighbors and project an image of China as a powerful and responsible regional, even global, power.<sup>4</sup>

The One Belt, One Road initiative is emblematic of the Xi Administration’s focus on “peripheral diplomacy,” which was highlighted at two major CCP meetings on foreign affairs held in 2013 and 2014.<sup>5</sup> According to Michael D. Swaine, senior associate at the Carnegie Endowment for International Peace’s Asia Program,

*[Peripheral diplomacy initiatives] imply a higher level of Chinese pro-activism in foreign and defense policy and a broader definition of [China’s] national interests toward its periphery than has characterized Beijing’s approach during most of the reform era. In particular, they suggest at the very least a decreased emphasis on Deng Xiaoping’s long-standing exhortation for China to remain modest and maintain a low profile in its external relations. They also raise many questions and potential problems for China’s external relations going forward. This includes, most importantly, how Beijing will reconcile the potentially contradictory policy imperatives of deepening positive relations with neighboring countries while more resolutely advancing or protecting China’s territorial and resource interests and claims.*<sup>6</sup>

(For a detailed discussion of how the One Belt, One Road initiative and China’s renewed focus on peripheral diplomacy inform China’s relations with its neighbors, see Chapter 3, Section 1, “China and Central Asia,” and Chapter 3, Section 2, “China and Southeast Asia.”)

### ***New and Proposed Laws on National Security***

China under the Xi Administration is advancing legal infrastructure to more tightly control its national security policies and processes. This includes a National Security Law (enacted in July 2015) that broadly expands the CCP’s control over “security” in a wide range of fields including culture, education, cyberspace, and international seabeds;<sup>7</sup> a draft cybersecurity law (introduced in July

2015) that provides the Chinese government broad powers to control and restrict online information and activity;<sup>8</sup> and a draft counterterrorism law (introduced in November 2014 and again in February 2015) that provides the state sweeping authority to investigate, deter, and punish terrorists.<sup>9</sup> All three laws contain provisions that would broaden and deepen the authority and power of the government, expand the reach of China's security state, and further limit the freedom of citizens already living under political repression. Moreover, due to provisions in each law to control the flow of information on the Internet, they could have negative implications for U.S. and other foreign information and communications technology companies operating in China.<sup>10</sup> (See Chapter 1, Section 4, "Commercial Cyber Espionage and Barriers to Digital Trade in China," for more details on how these laws can impact U.S. companies.)

These developments are just the latest in a series of steps President Xi has taken to streamline and centralize China's security policymaking apparatus, and to solidify his personal role at the helm of that apparatus. According to Cheng Li, director of the John L. Thornton China Center at the Brookings Institution and prominent scholar of elite Chinese politics, "The continuing consolidation of power has been the most noticeable trend under the leadership of Xi Jinping" since 2012.<sup>11</sup> For example, in late 2013, China established the Central National Security Commission, led by President Xi, "to perfect national security systems and strategies in order to ensure national security."<sup>12</sup> Though little is known about the workings of the Central National Security Commission, it appears to have a broad mandate encompassing both domestic and foreign national security matters as well as issues such as "economic security," "ecological security," and "societal security," among others.<sup>13</sup>

### ***White Paper on "China's Military Strategy"***

In May 2015, China published the latest iteration of its biennial defense white paper.\*<sup>14</sup> The new defense white paper tracks closely with the previous defense white paper, released in 2013, and contains no major revelations about China's military strategy or modernization; however, it does provide insight into Chinese leaders' perceptions of the country's evolving security and defense priorities by including some new guidance and emphasizing or clarifying certain aspects of existing strategy.<sup>15</sup> Highlights of the 2015 defense white paper include the following:

- The new defense white paper decisively elevates the maritime domain in China's strategic thinking as China assesses that its most likely conflict scenarios will be at sea, asserting that "the traditional mentality that land outweighs sea must be abandoned."<sup>16</sup> The defense white paper emphasizes that the PLA Navy needs to transition from a primarily coastal force to one capable of global operations.

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\* Defense white papers—China's most authoritative statements on national security—are published by the State Council Information Office and approved by the Central Military Commission, Ministry of National Defense, and State Council. Beijing primarily uses these documents as a public relations tool to help ease deepening international concern over China's military modernization and to answer calls for greater transparency.

- In contrast to past defense white papers, which have emphasized offshore defense as the primary focus of the PLA Navy, the new defense white paper notes “the PLA Navy will gradually shift its focus from ‘offshore waters defense’ to the combination of ‘offshore waters defense’ with ‘open seas protection.’”<sup>17</sup> The PLA Navy’s recent acquisitions, training, and operations—including longer-endurance patrols by PLA Navy surface ships and submarines—reflect this priority shift. (For more information on China’s overseas military activities, see “China’s Global Security Activities in 2015,” later in this section.)
- With respect to maritime territorial disputes, the defense white paper says China will “strike a balance between rights protection and stability maintenance” and strive to “prevent crises.”<sup>18</sup> This suggests Beijing will continue to employ an incremental approach designed to enable China to successfully realize its territorial ambitions while avoiding conflict and limiting forceful reactions from the other claimants or the United States. (See Chapter 3, Section 2, “China and Southeast Asia,” for an examination of recent developments in the South China Sea dispute.)
- The defense white paper asserts that “space and cyberspace have become the new commanding heights in strategic competition,”\* and that China will seek to achieve sufficient defense capabilities in both realms to protect its economic and strategic interests. The paper refers to China as a purely defensive actor in both realms. China’s reliance on space and cyberspace will continue to grow as the PLA’s most sophisticated long-range weapons—which will require unimpeded access to these domains for C4ISR† and targeting—come online.<sup>19</sup>
- The defense white paper emphasizes the need for a more unified, coordinated, and streamlined mechanism for defense policymaking by China’s civilian and military leadership through “in depth development of civil-military integration,” and announces the PLA will “set up a system and a working mechanism for overall and coordinated programming and planning.”<sup>20</sup> This is consistent with other steps taken by the Xi Administration to centralize and tightly control national security decision making in China.<sup>21</sup>

### ***China’s Maritime Disputes in the South China Sea***

China is aggressively advancing its territorial claims in the South China Sea by using land reclamation and construction on land features to vastly expand its civilian and military presence in contested waters. For a discussion of developments in China’s South China Sea maritime disputes in 2015, see Chapter 3, Section

\*This in part echoes a 2009 interview with then PLA Air Force commander General Xu Qiliang, in which he said that “the domain of space and air have become the new commanding height for international strategic competition.” Kevin Pollpeter, “The PLAAF and the Integration of Air and Space Power,” in Richard P. Hallion et al., eds., *The Chinese Air Force: Evolving Concepts, Roles, and Capabilities*, National Defense University Press, 2012, 165.

†C4ISR stands for command, control, communications, computers, intelligence, surveillance, and reconnaissance.

2, “China and Southeast Asia.” See also, “U.S.-China Tensions in the South China Sea,” later in this section.

### ***China’s Maritime Dispute in the East China Sea***

Although the South China Sea dominated headlines in 2015, China also sought to strengthen its position vis-à-vis Japan in its maritime dispute over the Senkaku Islands (called the Diaoyu Islands in Chinese) in the East China Sea.\* Tensions in the East China Sea had reached a high point in November 2013 when China established an Air Defense Identification Zone (ADIZ)† over contested waters to “[protect] state sovereignty and territorial and airspace security.”‡<sup>22</sup> Since then, bilateral ties have improved somewhat, and no single event has ratcheted up tensions.<sup>23</sup> Nevertheless, China continues to quietly build up its military and civilian presence in the East China Sea.

- In July 2015, the Japanese government reported that “China has accelerated its development activities of natural resources in the East China Sea,” identifying 16 freestanding structures China had erected “on the Chinese side of the geographical equidistance line between Japan and China” to facilitate the development of subsea natural gas resources (see Figure 1).§ According to Japanese officials, 7 of the 16 structures had begun drilling activities by September.<sup>24</sup> Although the structures are on the Chinese side of the “equidistance line,” the Japanese government has asked China to stop construction of the platforms, noting “it is extremely regrettable that China is advancing unilateral development.”<sup>25</sup> Japanese Minister of Defense Gen Nakatani suggested China “could install a radar system on the platform, or use it as an operating base for helicopters or drones conducting air patrols.”<sup>26</sup>
- Satellite imagery analysis conducted by *IHS Jane’s* in January 2015 suggests China is upgrading existing military infrastructure on Nanji Island, part of an island chain off the coast of Zhejiang Province about 160 nautical miles (nm) from the Senkaku Islands. The island now appears to host a heliport with ten landing pads and wind turbines, in addition to previously built radar and communications infrastructure.<sup>27</sup> According to Li Jie, a senior researcher from the PLA-affiliated Chinese Naval Research Institute, the island is “a strategically important location because [of its] proximity to the Diaoyu Islands, [because] it can provide support to the East China Sea

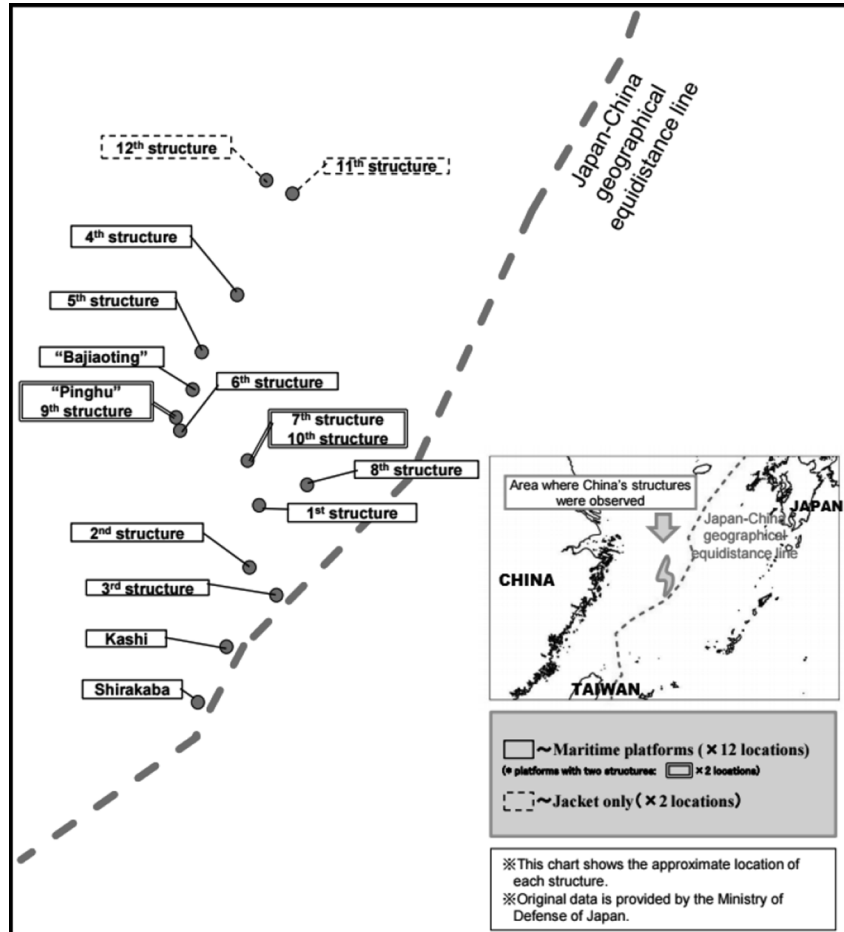
\* Taiwan is a claimant in the East China Sea dispute as well.

† 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.

‡ China does not appear to have used its East China Sea ADIZ as a tool of aggression against Japan since it was established in 2013. Interestingly, the only publicly reported incident of China requiring a civilian aircraft to leave the ADIZ was in July 2015, when a Lao Airlines plane en route from South Korea to Laos was denied permission to enter Chinese airspace over the East China Sea and was forced to return to South Korea. Jeremy Torr, “China Turns Back Lao Airlines Flight for Failing to Comply with ADIZ Rules,” *Air Transport World*, July 27, 2015.

§ In the absence of delimited maritime territory in the East China Sea, Japan takes the position that “maritime delimitation should be conducted based on the geographical equidistance line between Japan and China.” Japan Ministry of Foreign Affairs, *The Current Status of China’s Unilateral Development of Natural Resources in the East China Sea*, July 22, 2015.

Figure 1: China's Natural Gas Infrastructure in the East China Sea



Note: A jacket is a support structure for a drilling platform.

Source: Japan Ministry of Foreign Affairs, *The Current Status of China's Unilateral Development of Natural Resources in the East China Sea*, July 22, 2015.

[ADIZ], and [because] it's a major naval point on the Chinese coastal defense lines. ... It's unarguable that China would like to enhance the existing military presence there."<sup>28</sup>

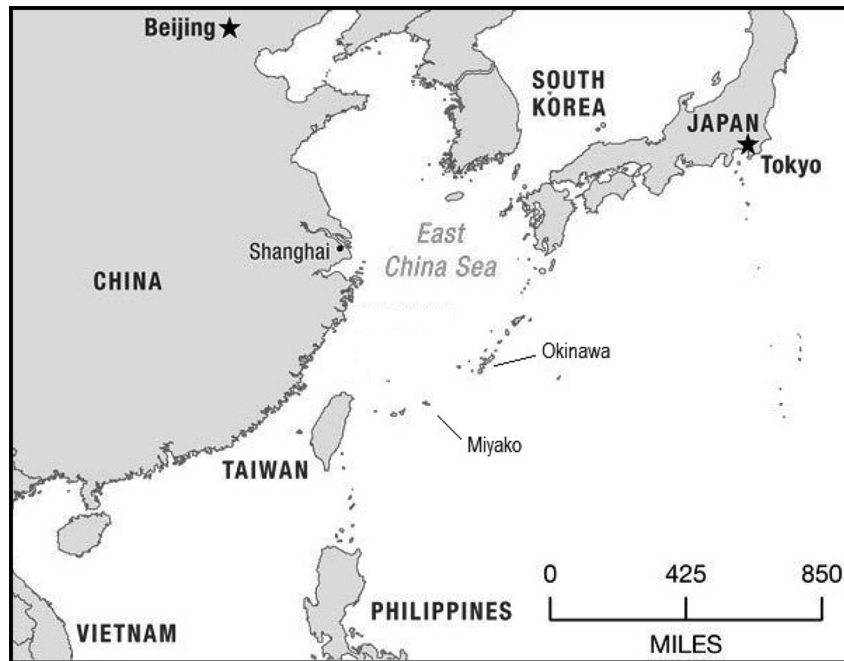
- Chinese aircraft and China Coast Guard ships continue to patrol contested waters. The Japanese Ministry of Defense reported 706 scrambles\* against Chinese aircraft flying near the Senkaku Islands between January 2014 and June 2015 (latest data available).<sup>29</sup> A commanding officer from a Japanese Self-Defense Force squadron based at Naha, the closest Japanese base to the Senkakus, told reporters, "It's practically every day. ... It's absolutely extraordinary to ask one squadron to

\* In military aviation, scrambling refers to directing the immediate takeoff of aircraft from a ground alert condition of readiness to react to a potential air threat.

deal with more than 400 scrambles a year. It's an extremely heavy burden."<sup>30</sup> Japan's Ministry of Defense also reported that China Coast Guard ships entered the territorial sea\* of the Senkaku Islands between seven and nine times per month during the same timeframe.<sup>31</sup>

- In May 2015, a PLA Air Force squadron, which included at least one bomber, transited from the East China Sea to the Western Pacific through Japan's Miyako Strait† for the first time (see Figure 2).<sup>32</sup> This is one of several indicators that the PLA Air Force is enhancing its capabilities to conduct over water operations far from China's coast, including in the East China Sea (see "PLA Training and Exercises," later in this section).

**Figure 2: Map of Miyako Strait**



Source: NPR, "The Role for the US in the East China Sea Dispute," January 30, 2013.

### ***Corruption in the PLA***

As part of President Xi's ongoing nationwide anticorruption campaign, China is conducting a campaign against corruption in the PLA. This campaign is widely understood to be aimed at mitigating growing public disillusionment with politics and governance in China, as well as ending practices such as graft and paying for promotion, which could reduce the quality of officers, perpetuate oppo-

\*The UN Convention on the Law of the Sea defines "territorial sea" as a 12-nautical-mile zone extending from a country's coastline or island shore over which that country enjoys full sovereignty. UN Convention on the Law of the Sea, "Part 2: Territorial Sea and Contiguous Zone."

†The Miyako Strait runs between the Japanese islands of Miyako and Okinawa.

sition to reforms, and threaten PLA modernization and readiness.<sup>33</sup> Aside from these objectives, the anticorruption campaign also appears to be a useful political tool for President Xi to marginalize his political opponents and consolidate power.<sup>34</sup>

The scale of PLA corruption has potentially serious implications for U.S. security interests. According to a RAND Corporation report sponsored by the Commission, “China’s Incomplete Military Transformation: Assessing the Weaknesses of the People’s Liberation Army”:

*If the assessment that the PLA is highly corrupt is accurate and if the PLA’s corruption seriously limits its warfighting capabilities, it may mean that the United States might be inclined to assume China has more sway in international affairs than its actual combat power merits. On the other hand, if the PLA is a highly capable fighting force despite its problems with corruption, the United States might risk overestimating the hollowness of the Chinese armed forces and be insufficiently cautious of confrontation with a PLA that is actually more capable than stories about widespread corruption in the ranks might suggest.*<sup>35</sup>

Measuring the scale and location of corruption in the PLA and evaluating the progress of China’s anticorruption campaign is a difficult task.<sup>36</sup> Statements by current and retired PLA officials, Chinese state media, and some foreign analysts frame corruption as a serious threat to PLA combat readiness.<sup>37</sup> A *PLA Daily* editorial in April 2015 emphasized China faced “national humiliation” on the battlefield if it did not address PLA corruption.<sup>38</sup> However, some analysts, such as former U.S. Army attaché in Beijing Dennis Blasko, suggest the effect of institutional PLA corruption on China’s combat readiness is relatively small. Mr. Blasko writes, “To date, very few (if any) operational combat unit (i.e., divisions, brigades, regiments, etc.) commanders and staff officers are known to have been caught in the corruption dragnet.”<sup>39</sup> Moreover, he notes:

*From the evidence available, the vast majority of corruption in the PLA is found within the political officer system (mostly involving promotions and assignments), the logistics and armaments systems (among those who handle official funds and property and are involved in the procurement of supplies and equipment), and potentially in low-level local headquarters responsible for conscription/recruitment (but likely involving relatively small sums of money). There is little indication that the PLA’s frontline operational leaders, those in command of the units tasked to do the fighting, have been smitten by the scourge of corruption to the degree that some rear area personnel have been.*<sup>40</sup>

Major developments in the PLA anticorruption campaign from late 2014 to 2015 include:

- In November 2014, the Central Military Commission, China’s highest military decision-making body, made the auditing office of the PLA directly responsible only to the Central Military Commission. The auditing office had been subordinate to the



PLA General Logistics Department, which analysts and media reports suggest is a hotbed of corruption.\*<sup>41</sup> By taking direct oversight of the PLA auditors, the Central Military Commission likely intends to reduce institutional obstacles to its reforms and increase its control over PLA discipline.<sup>42</sup>

- Former Central Military Commission vice chairman Xu Caihou, one of the highest-ranking PLA officials to fall in the anticorruption campaign, died of cancer in March 2015 before he could be brought to trial on corruption charges.<sup>43</sup>
- In March 2015, Chinese state media announced 14 PLA generals, including Guo Zhenggang, the son of former Central Military Commission vice chairman Guo Boxiong, had been arrested for corruption.<sup>44</sup>
- In July 2015, Guo Boxiong himself was expelled from the CCP and placed under investigation for graft. General Guo was the highest-ranking PLA official to fall in the anticorruption campaign.<sup>45</sup>
- According to a January 2015 report from state-run *China Daily*, China's anticorruption campaign has led to the arrests of more than 4,000 officers with the rank of lieutenant colonel and above, including about 100 generals, since January 2013.<sup>46</sup>

### ***China's Military Parade***

In September 2015, China held its largest-ever military parade to commemorate the 70th anniversary of the end of World War II, which China refers to as the Chinese People's Resistance against Japanese Aggression and World Antifascist War. The parade featured 12,000 Chinese troops (as well as military units from 17 other countries),<sup>†</sup> 500 pieces of military equipment, and close to 200 aircraft.<sup>47</sup> Among these were many of China's most advanced weapons, some of which had not previously been publicly revealed.<sup>48</sup> Although Chinese officials insist the parade was not aimed at any particular country or countries,<sup>49</sup> it signaled clearly how China could employ its military might against potential adversaries. For example, among the nine classes of ballistic and cruise missiles on display—all of which were prominently labeled—were missiles that pose obvious threats to U.S. forces in the Pacific: the DF-21D “carrier killer” antiship ballistic missile, capable of targeting U.S. ships at sea, and the DF-26 ballistic missile, capable of targeting Guam (thus its nickname, the “Guam killer”).<sup>‡</sup>

In a pre-parade speech commemorating end of the war, President Xi announced the PLA would reduce the number of its troops by

\*Some of the most powerful PLA officers to fall in the anticorruption campaign include Gu Junshan, former deputy director of the General Logistics Department (charged with corruption in March 2014) and Liu Zheng, also former deputy director of the General Logistics Department (expelled from the CCP in January 2015). Reuters, “China Military Official Booted from Parliament in Anti-Graft Drive,” February 28, 2015; BBC, “China Ex-General Gu Junshan Charged with Corruption,” April 1, 2014.

<sup>†</sup>The following countries sent military units to China's parade: Afghanistan, Belarus, Cambodia, Cuba, Egypt, Fiji, Kazakhstan, Kyrgyzstan, Laos, Mexico, Mongolia, Pakistan, Russia, Serbia, Tajikistan, Vanuatu, and Venezuela. Andrew S. Erickson, “China Military Parade—3 September 2015—Your Complete Hardware and Logistics Guide (Updated Version),” *Andrew S. Erickson Blog*, September 2, 2015.

<sup>‡</sup>Other missiles on display at the parade were the DF-10, DF-15B, DF-16, DF-5B, DF-31A, YJ-12, and YJ-83. Andrew Erickson, “Missile March: China Parade Projects Patriotism at Home, Aims for Awe Abroad,” *China Real Time Report* (*Wall Street Journal* blog), September 3, 2015.

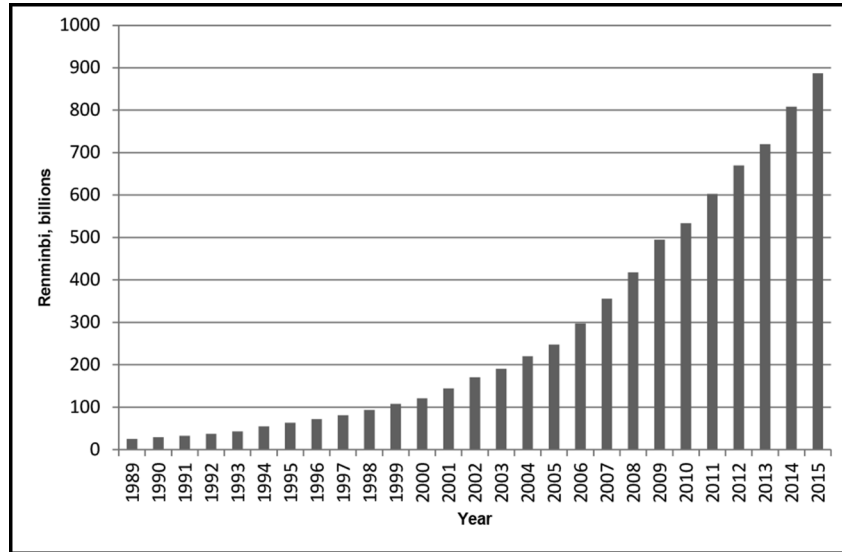
300,000,<sup>50</sup> which would bring the number of China's total troops down to approximately two million, according to state-run news service Xinhua.<sup>51</sup> The announcement, couched in language about China's commitment to "carry out the noble missions of upholding world peace,"<sup>52</sup> seemed intended to reassure global audiences that China's rise will continue to be peaceful. According to Dean Cheng, research fellow on Chinese political and security affairs at the Heritage Foundation, the troop reduction "is consistent with the longer-term effort by the PLA to both pare down its size and shift from a military focused on quantity to one more focused on quality" and "will presumably free up resources that can be reallocated to better pay, better quality of life, additional training, and/or equipment acquisition."<sup>53</sup>

### **Major Developments in China's Military Modernization in 2015**

Since the publication of the Commission's 2014 Annual Report, China's national security and foreign policy apparatus has made new military budget announcements, developed and acquired new military platforms and weapons, engaged in large-scale training and exercises, and conducted significant overseas military operations. Many of these developments are detailed below. (For an in-depth examination of China's space and offensive missile forces modernization programs, which are not covered here, see Chapter 2, Section 2, "China's Space and Counterspace Programs" and Chapter 2, Section 3, "China's Offensive Missile Forces.")

#### ***China's 2015 Defense and Security Budget***

China's announced annual defense budget rose 10.1 percent to \$141.9 billion (RMB 886.9 billion) in 2015.<sup>54</sup> Although the 2015 spending increase is down from a 12.2 percent increase in 2014, in real terms it is roughly consistent with defense spending increases in recent years because China's inflation rate is near a five-year low.<sup>55</sup>

**Figure 3: China's Announced Defense Spending, 1989–2015**

*Source:* This figure reflects Commission judgments based on several sources, each of which provides data for part of the period 1989–2014. The most recent source is used when these sources disagree. For 1989–1993, David Shambaugh, *Modernizing China's Military: Progress, Problems, and Prospects*, University of California Press, 2002, 189; for 1994–2001, Dennis J. Blasko et al., “Defense-Related Spending in China: A Preliminary Analysis and Comparison with American Equivalents,” *United States-China Policy Foundation*, 2007, 19; for 2002–2012, 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; for 2014, Andrew Erickson and Adam Liff, “The Budget This Time: Taking the Measure of China’s Defense Spending,” *Asan Forum*, March–April 2014; and for 2015, Andrew Erickson and Adam Liff, “China’s Military Spending Swells Again despite Domestic Headwinds,” *Wall Street Journal*, March 5, 2015.

China’s actual aggregate defense spending is higher than the official budget because Beijing omits from its official figures some major defense-related expenditures, such as research and development programs, purchases of advanced weapons, and local government support to the PLA. The U.S. Department of Defense (DOD) estimates China’s actual defense spending in 2014 exceeded \$165 billion, approximately 25 percent higher than China’s announced defense budget of \$131.6 billion;<sup>56</sup> the Stockholm International Peace Research Institute estimates China’s actual defense spending in 2014 was \$216 billion, approximately 64 percent higher than China’s announced defense budget.\*

\*There is no consensus on which items should be included in a country’s “official” defense budget. Every major power—including the United States and major allies—spends money on defense not captured in its official defense budget. When evaluating China’s actual defense spending, some observers, such as the Stockholm International Peace Research Institute, include China’s spending on the People’s Armed Police in their calculations, which can increase budget estimates by as much as one-fifth of the official figure. DOD does not disclose its methodology for calculating actual Chinese defense spending. Sam Perlo-Freeman et al., “Trends in World Military Expenditure, 2014,” *Stockholm International Peace Research Institute*, April 2015, 2; Sam Perlo-Freeman, “Deciphering China’s Latest Defense Budget Figures,” *Stockholm International Peace Research Institute*, March 2014; U.S.-China Economic and Security Review Commission, *Hearing on China’s Military Modernization and its Implications for the United States*, written testimony of Andrew Erickson, January 30, 2014; Andrew Erickson and Adam Liff,

Continued

China's defense spending increases appear sustainable in the short term. Although China's official nominal defense spending has grown by double digits almost every year since 1989, the rapid growth of China's economy has kept defense spending at a relatively low percentage of China's gross domestic product (GDP): official defense spending in 2015 will account for only 1.34 percent of China's GDP, and even high-end foreign estimates put Beijing's actual aggregate defense spending at a moderate 2–3 percent of China's GDP.<sup>57</sup> Furthermore, increases to overall state expenditures have outpaced increases to official defense spending in recent years,<sup>58</sup> which has probably insulated Chinese leaders from potential criticism that they are spending too much on the military. Because China's economic growth has slowed, further double-digit increases to military spending will continue to generate opportunity costs as government spending strains to meet other national priorities.<sup>59</sup> However, there is no indication China's government is slowing the growth rate of military spending in response to growing opportunity costs.

### **PLA Navy**

In 2015, the PLA Navy's acquisitions continued to reflect China's efforts to transform it from a coastal force into a technologically advanced navy capable of projecting power throughout the Asia Pacific and beyond.\* Significant developments in China's naval forces from late 2014 to 2015 include the following:

- China launched its fifth Type 815 DONGDIAO-class intelligence-gathering ship in January. China's continued production of DONGDIAOs suggests it will increase intelligence activities in what China considers its near and far seas† and conduct more frequent ISR‡ missions farther from the Chinese mainland in coming years.<sup>60</sup> China sent a Type 815 DONGDIAO to spy on the 2014 Rim of the Pacific exercises off Hawaii, even as China was participating in the exercises for the first time.<sup>61</sup>
- In February, China introduced into service its first advanced antisubmarine warfare aircraft, an indigenously built Y-9.<sup>62</sup> Although China is expanding the PLA Navy's antisubmarine warfare capability, Stratfor, a security-focused consulting firm, asserts China is likely at least ten years from deploying enough antisubmarine warfare aircraft to challenge U.S. submarines in the Western Pacific.<sup>63</sup> The Y-9 has antisubmarine warfare technology roughly comparable to the U.S. P-3C Orion.<sup>64</sup>

\*Demystifying China's Defense Spending: Less Mysterious in the Aggregate." *China Quarterly*, December 2013; and Dennis J. Blasko et al., "Defense-Related Spending in China: A Preliminary Analysis and Comparison with American Equivalents," *United States-China Policy Foundation*, 2007.

† For a comprehensive discussion of trends in PLA Navy modernization, including order of battle and acquisition information, see U.S.-China Economic and Security Review Commission, *2014 Annual Report to Congress*, November 2014, 299–308.

‡ China typically defines its "near seas" as waters within the Yellow Sea, East China Sea, and South China Sea. China typically describes its "far seas" as waters outside of its near seas.

§ ISR refers to intelligence, surveillance, and reconnaissance.

- In January, China commissioned two Type 054A JIANGKAI II-class missile frigates.<sup>65</sup> China has now commissioned 18 of its planned 22 JIANGKAI IIs.<sup>66</sup> The JIANGKAI IIs each likely carry 32 HHQ-16 surface-to-air missiles and 8 YJ-82 antiship cruise missiles, and have served a variety of missions, including antipiracy missions in the Gulf of Aden and patrols in China's near seas.<sup>67</sup>
- China launched its 27th Type 056 JIANGDAO-class corvette in early May.<sup>68</sup> China's JIANGDAOs most likely will be used primarily for near-seas surface patrols because their armaments are not sufficient for deep-water combat operations.<sup>69</sup> China expects to field an additional 5 to 15 ships.<sup>70</sup>
- In July, China commissioned its second Type 052D LUYANG III-class destroyer.<sup>71</sup> According to the U.S. Office of Naval Intelligence report, *The PLA Navy: New Capabilities and Missions for the 21st Century*, the LUYANG III's advanced air defense radar "allows the PLA [Navy] surface force to operate with increased confidence outside of shore-based air defense systems, as one or two ships are equipped to provide air defense for the entire task group."<sup>72</sup> The LUYANG III carries a variant of the advanced, long-range YJ-18 antiship cruise missile. The YJ-18's supersonic speed and assessed maximum range of 290 nautical miles will improve the antiaccess/area denial\* capabilities of the PLA Navy.<sup>73</sup> In the next five years, China expects to deploy ten LUYANG IIIs in total.<sup>74</sup>
- In late 2014, China for the first time landed several production-line J-15 fighters on its Soviet-built KUZNETSOV-class aircraft carrier, the *Liaoning*.<sup>75</sup> As China's naval aviators and the *Liaoning*'s crew gain experience operating aircraft from the *Liaoning*, China will make progress toward developing a potent expeditionary aircraft carrier force. Among other things, a fully operational *Liaoning* could contribute significantly to the PLA's combat capabilities in the South China Sea, where the short range of China's fighter fleet limits its power projection capabilities.<sup>76</sup>
- In July, Chinese state media published an internal document of the China Shipbuilding Industry Corporation that confirmed China's first indigenous aircraft carrier is under construction.<sup>77</sup> If construction began in 2013, as U.S. analysts widely reported, it could reach initial operational capability † by 2020.‡<sup>78</sup> China

\*According to DOD, "antiaccess" actions are intended to slow deployment of an adversary's forces into a theater or cause them to operate at distances farther from the conflict than they would prefer. "Area denial" actions affect maneuvers within a theater, and are intended to impede an adversary's operations within areas where friendly forces cannot or will not prevent access. China, however, uses the term "counterintervention," reflecting its perception that such operations are reactive. U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2013*, 2013, i, 32, 33; U.S. Department of Defense, *Air Sea Battle: Service Collaboration to Address Anti-Access & Area Denial Challenges*, May 2013, 2.

†According to DOD, a system achieves initial operational capability when some units in the force structure scheduled to receive a system have received it and have the ability to employ and maintain it. Defense Acquisition University, *Glossary: Defense Acquisition Acronyms and Terms*, December 2012, B-107.

‡One unattributed Chinese source suggests the carrier could be launched as early as December 2015. David Tweed, "China Aircraft Carrier Launch by End-2015 Plausible, Experts Say,"

appears to be building a second indigenous carrier,\* and probably intends to build an additional one or two indigenous carriers.<sup>79</sup> Boasting a more sizable hull, which will likely allow it to accommodate a larger air wing than the *Liaoning*, China's new carrier will also feature engine and launch system improvements.

- China launched three new Type 093 SHANG-class nuclear attack submarines in May, according to Chinese media reports.<sup>80</sup> The new submarines are reportedly the first SHANGs to carry a vertical missile launch system capable of firing the long-range YJ-18 antiship cruise missile.†<sup>81</sup> The increasing number of Chinese submarines and the growing range of Chinese submarine-launched munitions will greatly complicate the threat environment for U.S. ships operating near China.
- *Popular Science* reported in May that the PLA Navy has built a simulator to begin training the crew of its Type 095 guided-missile, nuclear-powered submarine, which is still under development.<sup>82</sup> Jesse L. Karotkin, senior China analyst at the U.S. Office of Naval Intelligence, 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.<sup>83</sup>
- In May, a report from Chinese state-run *People's Daily* claimed China has developed a highly efficient air-independent propulsion (AIP) system for diesel-electric submarines. Because AIP-equipped diesel-electric submarines need to surface to recharge their batteries less frequently, this will allow China's AIP-equipped submarines to operate for longer periods while limiting their chance of detection.<sup>84</sup>
- Media reports suggest China launched its fifth Type 903 FUCHI-class auxiliary replenishment oiler in June.<sup>85</sup> China now fields nine auxiliary replenishment oilers, and its growing fleet better equips the PLA Navy's surface fleet, including future aircraft carrier task groups and expeditionary forces, to sustain high-tempo operations at longer ranges.<sup>86</sup> The demands of the PLA Navy's expanding missions in far seas have placed its auxiliary replenishment oiler fleet on near-constant deployment status.<sup>87</sup>
- In July 2015, China commissioned the *Donghaidao*, the PLA Navy's first semisubmersible mobile landing platform.<sup>88</sup> The *Donghaidao* is a logistics ship capable of transporting troops, cargo, and some naval craft in the relatively shallow waters

Bloomberg, September 30, 2015; Open Source Center, “PRC Internet: China's First Indigenously Built Aircraft Carrier to Float out in December 2015,” September 24, 2015. ID: CHR2015092459609733.

\*A Taiwan Ministry of Defense report on the PLA reportedly notes China's second indigenous carrier is currently under construction in Shanghai. Reuters, “China Building Two Aircraft Carriers: Taiwan Defense Ministry Report,” September 3, 2015.

†The YJ-18 has a much longer range than the YJ-82, which was previously China's only indigenous submarine-launched antiship cruise missile. U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2015*, May 2015, 10; U.S. Office of Naval Intelligence, *The PLA Navy: New Capabilities and Missions for the 21st Century*, April 2015, 16.

near contested land features in the South China Sea. It is capable of embarking China's POMORNIK hovercraft, which will significantly extend the range of the hovercraft and increase their usefulness in contingencies in the East and South China seas and those involving islands held by Taiwan.<sup>89</sup>

### **China's Amphibious Forces**

The PLA's continued investment in amphibious forces reflects China's perception of a rising need to meet security challenges in its maritime domain. Although amphibious forces, including amphibious lift, amphibious infantry, and auxiliary transport vehicles, would be crucial in an invasion of Taiwan, China does not appear to be building the amphibious lift capability necessary to conduct such a large campaign.<sup>90</sup> China would more likely use its amphibious forces in contingencies in the East and South China seas and those involving islands held by Taiwan. Significant developments in China's amphibious forces from late 2014 to 2015 include the following:

- With the conversion of two mechanized infantry divisions into amphibious mechanized infantry divisions from 2007 to 2012, China doubled its total amphibious mechanized infantry division personnel from about 30,000 soldiers to 52,000–60,000 soldiers and reorganized its amphibious mechanized infantry forces from two to four divisions.<sup>91</sup> The primary role of China's amphibious mechanized infantry divisions is to supplement the PLA Marine Corps as China's main infantry force in amphibious invasions.
- China launched its fourth Type 071 YUZHAO-class landing platform dock in January 2015.<sup>92</sup> China will eventually field six Type 071s, each of which can carry up to 60 armored vehicles and 800 troops, and up to four helicopters.<sup>93</sup> The expanding landing platform dock fleet will improve China's ability to move troops and equipment in South and East China sea missions.<sup>94</sup>
- By early 2015, China had acquired two Ukrainian-built and one indigenously built POMORNIK hovercraft, the largest military hovercraft in the world.<sup>95</sup> China would deploy its hovercraft on amphibious lift ships to provide quick transport of infantry, tanks, and heavy equipment to shore during amphibious invasions. China plans to have a total of four POMORNIKS in service by the end of 2015.<sup>96</sup>

### **China's Amphibious Forces—Continued**

- Images of a model of a landing helicopter dock appeared on Chinese military web pages in April.<sup>97</sup> Although the model is not necessarily authoritative, it fits the description of a landing helicopter dock rumored since 2013 to be under construction.<sup>98</sup> A landing helicopter dock based on the model would be significantly larger than China's current landing platform docks, and as a mobile platform would increase China's ability to launch helicopters and move troops and equipment in East and South China seas contingencies.<sup>99</sup>
- In March, China announced the completion of the front fuselage assembly for the prototype of its AG600 seaplane. The AG600 will be China's largest seaplane, and with a range of 2,970 nm it could improve China's troop transport and patrol capabilities throughout the South China Sea.<sup>100</sup> In addition to civilian uses, China will likely use the AG600 to carry supplies by air to South China Sea islands without an airstrip, and could use the AG600 to transport up to 50 troops at a time.<sup>101</sup> Some analysts believe the AG600 could also conduct intelligence missions.<sup>102</sup>

### **PLA Air Force**

China's PLA Air Force modernization in 2015 included the development of cutting-edge force projection equipment and additions and upgrades to forthcoming and deployed weapon systems.\* Significant developments in PLA Air Force modernization from late 2014 to 2015 include the following:

- In February 2015, documents emerged detailing the characteristics and flight test records of China's Divine Eagle unmanned aerial vehicle. These documents suggest the Divine Eagle is equipped with seven radars, including five active electronically scanned array radars, which could allow it to monitor stealth aircraft, such as the United States' B-2 bomber and F-35 fighter.<sup>103</sup> The Divine Eagle is well equipped to track incoming aircraft, ships, and cruise missiles and help coordinate interceptors from the Chinese mainland during a contingency. The vehicle's array of stealth features and 25-kilometer flight ceiling could degrade the ability of U.S. forces to detect and engage it.<sup>104</sup>
- China introduced its first KJ-500 airborne early warning and control aircraft into service in early 2015, according to media reports.<sup>105</sup> China is expanding its fleet of approximately 13 airborne early warning and control aircraft to improve high-fidelity and time-sensitive tracking for China's air and maritime forces.<sup>106</sup> The KJ-500 will reportedly carry radar comparable to China's KJ-2000 airborne early warning and control plane,

\*For a discussion of long-term trends in PLA Air Force modernization, including order of battle and acquisition information, see U.S.-China Economic and Security Review Commission, *2014 Annual Report to Congress*, November 2014, 308–314.



which “employs radar technology two generations ahead of that used by the U.S. Air Force’s E-3C [airborne early warning and control aircraft],” according to Carlo Kopp, an Australia-based military analyst and editor of *Air Power Australia*.<sup>107</sup> The KJ-500 uses the indigenous Y-8 airframe.

- Satellite imagery from October 2014 confirms China has received one of three ordered Ilyushin IL-78 MIDAS air refueling tankers from Ukraine.\* The plane is the first modern addition to China’s small and outdated fleet of air refueling aircraft, which previously consisted of about 20 modified H-6 bombers operated by the PLA Air Force and the PLA Naval Air Force.<sup>108</sup> In addition to the two IL-78 tankers still due from Ukraine, China purchased up to 8 IL-78 tankers from Russia in the mid-2000s, but production issues have prevented Russia from delivering any planes to date.<sup>109</sup> Moreover, China may build new tankers based on the airframe of the indigenous Y-20 transport aircraft, which is still in development.<sup>110</sup> Over the next decade, these air refueling tanker acquisitions could significantly extend the combat reach of some of China’s attack aircraft. However, the PLA will need to modernize its fleet of attack aircraft—most of which cannot refuel in the air—to take advantage of its expanding air refueling fleet.<sup>111</sup>
- Media reports suggest China has built two new fifth-generation J-20 fighters, bringing its J-20 fleet to six aircraft. The two aircraft reportedly conducted their first flights in late 2014.<sup>112</sup> The J-20 could reach initial operational capability in 2017–2018, and China reportedly hopes to build 24 J-20s by 2020.<sup>113</sup> The PLA Air Force views the J-20 as key to improving China’s ability to conduct offensive operations to deny an enemy’s chance to mobilize defensive forces.<sup>114</sup> The J-20’s stealth features and electronic warfare capabilities would degrade the ability of U.S. forces within the first island chain to detect and engage it.†
- China’s prototype J-11D fighter had its first flight in April 2015. The J-11D has better radar and stealth features than previous fighters in the J-11 line, and almost certainly is capable of carrying China’s most advanced air-to-air and antiship missiles.<sup>115</sup> The J-11D reportedly will feature a turbofan engine with improved thrust and reliability.<sup>116</sup> The J-11 is a modern fighter comparable in performance to fourth-generation U.S. jets.<sup>117</sup>

\*For more information on China’s expanding air refueling fleet, see Michael Pilger, “First Modern Tanker Observed at Chinese Airbase,” *U.S.-China Economic and Security Review Commission*, November 18, 2014.

†The first island chain refers to a line of islands running through the Kurile Islands, Japan and the Ryukyu Islands, Taiwan, the Philippines, Borneo, and Natuna Besar. The second island chain is farther east, running through the Kurile Islands, Japan, the Bonin Islands, the Mariana Islands, and the Caroline Islands. 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. Open Source Center, “PRC Article Surveys China’s Naval Rivals, Challenges,” January 6, 2012. ID: CPP20120109671003; Bernard D. Cole, *The Great Wall at Sea* (Second Edition), Naval Institute Press, 2010, 174–176.

- The Aviation Industry Corporation of China may be developing a high-altitude hypersonic unmanned aerial vehicle for regional strategic reconnaissance operations. Taiwan press reporting suggests that the drone would be launched from H-6 bombers, capable of achieving speeds up to Mach 3 to 3.5; operating at a range of 5,500 kilometers (km) (3,417 miles (mi)) and a height of 95,140 feet (18 mi); and returning to an airbase.<sup>118</sup>

### ***PLA Training and Exercises***

The PLA conducts exercises and training to enhance warfighting competencies, integrate new weapon systems and tactics, develop and refine integrated joint operations command structures and concepts, evaluate crew and platform proficiencies, and demonstrate China's ability to project power in Asia and beyond, among other objectives.

Implementing President Xi's emphasis on real-combat military training was a top priority for all large-scale PLA military exercises in 2015.<sup>119</sup> The Xi Administration frequently emphasizes the importance of military training under realistic combat conditions. The 2015 defense white paper states the PLA will begin to "intensify training" in complex scenarios and establish a "training supervision and inspection system, so as to incorporate real-combat requirements into training."<sup>120</sup> The PLA's military training appears to be growing more complex as it increasingly emphasizes joint exercises between diverse combat arms types. According to Xinhua, the PLA planned to conduct more than 100 joint exercises involving more than 50 corps in 2015.<sup>121</sup>

Major military exercises from late 2014 to 2015 included the following:

- From August to October, all four PLA services participated in the Joint Action 2015 exercises, a series of live-fire drills reportedly involving more than 140,000 troops.<sup>122</sup> Joint Action is designed to integrate all Chinese armed forces to operate together across the spectrum of war. The exercises took place in several simultaneous or overlapping phases in different regions of the country, and emphasized testing troops' "joint operations using digitized commands and information."<sup>123</sup>
- From July to September 2015, the PLA conducted the Firepower 2015 exercises, a series of cross-region base training exercises for artillery and air defense brigades.<sup>124</sup> The Firepower exercises are designed to link sensors to strike systems for joint target engagement. Firepower 2015 subjected participating brigades to "red versus blue" combat simulations.\* One

\* "Red versus blue" exercises in the U.S. military pit a "red" force that simulates a potential foe's capabilities against a "blue" force that simulates the capabilities of friendly forces. Chinese media reports suggest that in Chinese red versus blue exercises, the red force represents friendly forces and the blue force represents an enemy force. Open Source Center, "CCTV-7: Jinan Air Defense Unit Holds Ground-Air Confrontations in 'Firepower-2015 Shandan D' Drill," August 9, 2015. ID: CHO2015081029855809; Open Source Center, "CCTV-Xinwen: Lanzhou MR Units Hold Confrontations in 'Firepower-2015 Qingtongxia C' Exercise," August 4, 2015. ID: CHO2015080513756969; and Open Source Center, "People's Liberation Army Daily: PRC Air Force's First Blue Team Makes Debut in Firepower-2015-Shandan A Exercise," July 6, 2015. ID: CHR2015070623165581; Open Source Center, "JFJB Photo: 'Stride 2015-Zhurihe Military Drill Kicks Off,'" June 2, 2015. ID: CHN2015060221884644.

feature of these exercises has been the use of opposing force electromagnetic warfare\* operations by blue forces to train PLA units to operate under conditions that simulate U.S. tactics.<sup>125</sup> This raft of brigade-level exercises likely will increase the ability of commanders at the brigade level and lower to innovate and take the initiative in combat, and reduce the tendency among front-line PLA commanders to push decisions up the chain of command.<sup>126</sup> The PLA will use Firepower 2015 to evaluate and rank all units to ensure the highest-performing PLA units will be deployed at the front lines of future conflicts.<sup>127</sup>

- China held the Stride 2015 military exercises from June to September. Stride 2015 subjected 29 brigades to red versus blue simulated combat drills at six training sites across China, with most of the drills occurring in the Inner Mongolia Autonomous Region. According to a *China Military Online* report, Stride 2015 emphasized “the commanders’ planning for combat operations, command [and] control training, . . . ground-air coordination training, harmonious training between ‘new type’ forces [such as special operations forces] and traditional forces and the transformation and application of new combat methods and results.”<sup>128</sup> As the PLA develops its command and control and joint operations capabilities in simulated combat, it will become increasingly capable of integrating its evolving military forces to conduct large-scale military operations involving diverse combat arms types.
- In March, Chinese long-range bombers traversed the Bashi Channel between Taiwan and the Philippines to conduct the first known PLA Air Force drill in the Western Pacific.<sup>129</sup> The planes involved were reportedly H-6K bombers, which can carry long-range land attack cruise missiles capable of reaching Guam.<sup>130</sup> The PLA Air Force conducted another drill through the Bashi Channel in August, with “multiple types of aircraft . . . reaching 1,000 kilometers [540 nm] beyond the First Island Chain,” according to Chinese state-run media outlet Xinhua.<sup>131</sup> These drills provided pilots with maritime flight experience and reflect the PLA Air Force’s growing role in support of the PLA’s strike missions into the second island chain.<sup>132</sup> China most likely intended these drills to develop its far-seas power projection capabilities, and to demonstrate its ability and intention to exert influence farther from the Chinese mainland.
- In May 2015, the PLA Air Force for the first time successfully airdropped heavy artillery into “enemy” rear areas during a drill.<sup>133</sup> According to Chinese media, the artillery airdrop “indicates a major leap forward for [the PLA’s] airborne operation capability.”<sup>134</sup> This capability could have applications in a Taiwan conflict scenario.

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\* Electromagnetic warfare involves the use of focused energy, usually radio waves or laser light, to confuse or disable an enemy’s electronics and protect the electronics of friendly forces. Raytheon, “Electronic Warfare”; Lockheed Martin, “Electronic Warfare.”

### **PLA Navy Sails through U.S. Arctic Waters**

On September 2, five PLA Navy ships sailed through Alaska's Aleutian Island chain. This marked the first time the PLA operated in the Bering Sea, and the first time it operated in the United States' territorial sea (i.e., within 12 nm of U.S. territory) during a far sea deployment without a U.S. port call. According to U.S. defense officials, the PLA Navy flotilla (which included three combat ships, a supply ship, and an amphibious ship) operated in accordance with international law as articulated in the UN Convention on the Law of the Sea (UNCLOS), which allows for "innocent passage" within the territorial sea, as well as "transit passage" through straits.<sup>135</sup> The PLA Navy ships sailed through the area following a military exercise with Russia in the Sea of Japan.<sup>136</sup>

The PLA Navy's transit was significant in part because, while it was consistent with international law, it contravened China's unconventional policy on foreign militaries' operations in its own exclusive economic zone and territorial sea.<sup>137</sup> China asserts that it has the right to require foreign ships to obtain permission or provide notification before conducting innocent passage, although UNCLOS does not include such a provision.<sup>138</sup> It is unclear whether the PLA Navy's transit through U.S. territory reflects a shift in China's long-standing policy.

The unprecedented transit came as China has indicated a growing interest in the Arctic, particularly in opportunities for new shipping routes and natural resource exploitation.<sup>139</sup> U.S. Pacific Command Commander Admiral Harry Harris testified to Congress that he believed the PLA Navy passed through the Aleutian Islands in part to "demonstrate their capability to operate that far north."<sup>140</sup> The timing of the transit coincided with President Obama's visit to Alaska, which included, among other events, a U.S.-led conference of global leaders (including from China) and stakeholders in Arctic issues.<sup>141</sup> When asked whether the PLA transit was timed to coincide with President Obama's visit, Adm. Harris replied, "I think it was coincidental, but I don't know that for a fact."<sup>142</sup>

### **China's Global Security Activities in 2015**

China's global security engagement continued to expand in 2015, reflecting China's maturing international security interests and the PLA's improving capacity to operate in unfamiliar environments far from China's shores.

#### ***China Seeks Arrangements for Overseas Military Facility***

In its 2015 defense white paper, China said its "growing strategic interests" would require an expansion of overseas military engage-

ment to safeguard its overseas interests.\*<sup>143</sup> It is widely understood that China will use the PLA to protect these overseas interests, which include growing overseas expatriate populations and commercial interests.<sup>144</sup> The PLA Navy already operates routine patrols of busy shipping lanes vulnerable to piracy in the Gulf of Aden † and has been involved in Chinese noncombatant evacuation operations overseas. Moreover, China appears to be working to establish military facilities in strategically important parts of the world, especially in the greater Indian Ocean region. These facilities would support logistical requirements and greatly assist the PLA Navy in increasing its global presence.<sup>145</sup>

According to statements by Djibouti President Ismail Omar Guelleh, the governments of China and Djibouti are in talks to establish a Chinese military facility in Djibouti.<sup>146</sup> These negotiations follow a 2014 defense cooperation agreement between Djibouti and China that allowed PLA Navy ships to dock at the Port of Djibouti and brought hundreds of millions of dollars in Chinese investment to the country.<sup>147</sup> To date, PLA Navy ships have visited the Port of Djibouti more than 50 times to resupply food, perishables, and water.<sup>148</sup> A permanent Chinese military facility could allow China to offer its ships a more comprehensive set of resupply services in Djibouti while supporting China's antipiracy operations in the Gulf of Aden. Moreover, Djibouti occupies a strategic position at the Bab-el-Mandeb—a chokepoint for sea lines of communication between the Red Sea and Indian Ocean—through which travels a large portion of hundreds of billions of dollars in trade between China and the Middle East and Europe.<sup>149</sup> A military foothold in Djibouti would boost China's power projection capabilities in an area of the world crucial to China's economic interests. The United States, France, and Japan each have a permanent military presence in Djibouti. The United States military's Camp Lemonnier in Djibouti is a hub for U.S. counterterrorism operations in Africa and the Middle East.<sup>150</sup>

China may seek to establish military facilities elsewhere in the region as well. Over the last few years, China has played a large role in financing and constructing civilian port infrastructure in the Indian Ocean, including the Port of Colombo and Port of Hambantota in Sri Lanka, and Gwadar Port in Pakistan.<sup>151</sup> Furthermore, PLA Navy antipiracy task groups have made port calls in at least 12 regional countries for resupply and replenishment and military-to-military engagements.<sup>152</sup> Chinese investments in commercial ports in the Indian Ocean and Chinese naval diplomacy with countries in the region will likely improve the PLA Navy's ability to replenish using regional ports, and could lay the groundwork for future logistics hubs in the Indian Ocean.

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\*This reflects the PLA's New Historic Mission to protect China's expanding national interests. In December 2004, then Chinese President Hu Jintao outlined four "New Historic Missions" for the Chinese military. According to Daniel Hartnett, analyst at CNA Corporation, the missions are "to ensure military support for continued Chinese Communist Party rule in Beijing; to defend China's sovereignty, territorial integrity, and national security; to protect China's expanding national interests; and to help ensure a peaceful global environment and promote mutual development." U.S.-China Economic and Security Review Commission, *Hearing on China's Military and Security Activities Abroad*, written testimony of Daniel Hartnett, March 4, 2009.

†The Gulf of Aden is a gulf between the Horn of Africa and the south coast of the Arabian Peninsula. It is a crossroads for trade between the Indian Ocean and Mediterranean Sea.

### ***China's Submarine Deployments***

In late 2013, China began its first known submarine deployment to the Indian Ocean. Chinese officials have claimed these submarines support China's antipiracy activities in the Indian Ocean.<sup>153</sup> The more likely purpose of these deployments, though, is to collect intelligence on U.S., Indian, and other forces in the Indian Ocean; test and enhance the ability of China's submarine crews to operate for long durations at extended distances from the Chinese mainland; prepare for potential crises and wartime operations in the Indian Ocean; and demonstrate China's growing strategic interests in the region.<sup>154</sup> According to Adm. Harris:

*We're seeing Chinese submarine deployments extend farther and farther [from China], almost with every deployment. It has become routine for Chinese submarines to travel to the Horn of Africa region and North Arabian Sea in conjunction with their counterpiracy task force operations. We are seeing their ballistic missile submarines travel in the Pacific at [longer] ranges, and of course all of those [deployments are] of concern.*<sup>155</sup>

These deployments demonstrate China's growing ability to conduct small-scale, long-distance naval operations for extended durations despite its lack of overseas military facilities. Moreover, these deployments suggest Chinese submarine commanders and crews are becoming familiar with the operating environment of the Indian and Pacific oceans. With the visit of a PLA Navy submarine to the Port of Karachi, Pakistan, in May 2015, China has now conducted at least four submarine deployments in the Indian Ocean region since December 2013.<sup>156</sup> China's submarine deployments in the Indian Ocean include the following:

- From December 2013 to February 2014, a SHANG-class nuclear attack submarine conducted China's first known submarine patrol in the Indian Ocean.\*<sup>157</sup>
- In September 2014, a Chinese SONG-class diesel-electric submarine † made a port call in Colombo, Sri Lanka.<sup>158</sup> Another port call to Colombo by a Chinese submarine was reported in October 2014.‡<sup>159</sup> These visits highlight what have been generally positive relations between China and Sri Lanka in recent years, including contracts for billions of dollars in Chinese investment in Sri Lanka. In February 2015, however, the

\*The SHANG nuclear attack submarine carries torpedoes (range of 15 nm) and YJ-82 anti-ship cruise missiles (20 nm) and will likely be equipped with the YJ-18 antiship cruise missile (290 nm) in coming years. The SHANG is designed for antisurface warfare and intelligence, surveillance, and reconnaissance operations, and likely will escort future nuclear deterrent patrols and aircraft carrier task groups. U.S.-China Economic and Security Review Commission, *2014 Annual Report to Congress*, November 2014, 301.

†The SONG's weaponry, expected missile upgrades, and role in PLA Navy operations are similar to those of the SHANG nuclear attack submarine. *IHS Jane's*, "Jane's Fighting Ships: Song Class (Type 039/039G)," February 13, 2015; U.S.-China Economic and Security Review Commission, *2014 Annual Report to Congress*, November 2014, 301.

‡Sources disagree about whether the October 2014 port call involved the same SONG-class submarine that visited Colombo in September, or a HAN-class nuclear attack submarine. Atul Aneja, "China Says its Submarine Docked in Sri Lanka 'for Replenishment,'" *Hindu*, November 28, 2014; Shihar Aneez and Ranga Sirilal, "Chinese Submarine Docks in Sri Lanka despite Indian Concerns," Reuters, November 2, 2014.

newly elected Sri Lankan government ruled out future Chinese submarine visits and stopped work on the \$1.5 billion Chinese development of the Port of Colombo pending an investigation into rumors of impropriety surrounding the contract.<sup>160</sup> Although in June Sri Lanka outlined steps for the project to resume, this development suggests the new Sri Lankan government may be taking a more skeptical view of economic and security cooperation with China than did its predecessor.<sup>161</sup>

- In April 2015, a Chinese submarine finished a two-month deployment to the Gulf of Aden. According to media reports, it was a HAN-class nuclear attack submarine.\*<sup>162</sup>
- In May 2015, a Chinese YUAN-class diesel-electric submarine visited the Port of Karachi, Pakistan,<sup>163</sup> one month after China reportedly agreed to sell eight YUANs to Pakistan.†<sup>164</sup>

### ***PLA Navy Evacuates Citizens from Yemen***

From March 29 to April 6, 2015, China conducted a noncombatant evacuation operation ‡ (NEO) in war-torn Yemen, marking the first Chinese NEO conducted exclusively by the PLA.<sup>165</sup> China's Gulf of Aden antipiracy task force, consisting of two PLA Navy frigates and a replenishment ship, brought about 600 Chinese citizens and more than 200 foreign nationals across the Gulf of Aden to the port of Djibouti. The PLA Navy conducted the evacuation without encountering hostile forces. The Yemen operation was a significant symbolic milestone as China works to build its reputation as a responsible global power.<sup>166</sup> According to Deputy Chief of the PLA's General Staff Department Sun Jianguo, the Yemen NEO is an example of China's "unique role in the effort to create a peaceful, stable, prosperous neighborhood and [provide] public services to address global problems and challenges."<sup>167</sup>

China has conducted more than a dozen NEOs since 2006, including NEOs in Chad, Haiti, Kyrgyzstan, Lebanon, the Solomon Islands, Thailand, Timor-Leste, Tonga, Egypt, Libya, Japan, Iraq, and Vietnam. These NEOs involved the evacuation of 59,600 Chinese nationals in total.<sup>168</sup> Generally, Chinese civilian government agencies—not the PLA—led these NEOs, usually by marshaling commercial ships and aircraft.<sup>169</sup> Significant recent Chinese non-combatant evacuation operations include the following:

- In 2011, the PLA Air Force and Navy deployed four cargo aircraft and one surface combatant, respectively, to support and protect the Ministry of Foreign Affairs-led evacuation of 35,000 Chinese nationals from Libya. This marked the first use of

\*China's aging HAN nuclear attack submarines have weaponry similar to the SONG diesel-electric submarine, but because China has already begun to decommission its older HAN boats and probably will phase out this class as more modern submarines are incorporated into the fleet, the HAN nuclear attack submarine is unlikely to receive substantial armaments upgrades in the near future. *IHS Jane's*, "Jane's Fighting Ships: Han class (Type 091/091G)," February 13, 2015.

†The YUAN's weaponry, likely missile upgrades, and role in PLA Navy operations are similar to those of the SHANG nuclear attack submarine and SONG diesel-electric submarine. *IHS Jane's*, "Jane's Fighting Ships: Yuan Class (Type 041)," February 13, 2015.

‡Noncombatant evacuation operations involve the extraction of civilians from a foreign country amid a dangerous security situation.

PLA military platforms in a Chinese NEO.<sup>170</sup> China's ministries of Commerce 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.<sup>171</sup>

- In May 2014, Chinese civilian government and embassy personnel worked with the Vietnamese government to coordinate the evacuation of 3,553 Chinese nationals from Vietnam following violent anti-Chinese riots. Representatives of the state-owned Metallurgical Corporation of China—the employer of most of the evacuees and a target of the riots—also helped to coordinate the evacuation. The Chinese government used chartered planes to evacuate the roughly 100 people injured in the riots and four chartered ships to evacuate the rest.<sup>172</sup>

The Yemen NEO furthers China's goal to develop NEO capabilities in far seas.<sup>173</sup> The size and projected growth of China's expatriate population and overseas economic assets motivates this mission. Chinese citizens made more than 100 million trips abroad in 2014, and will make 150 million trips abroad annually by 2020.<sup>174</sup> According to Mathieu Duchâtel, senior researcher at the Stockholm International Peace Research Institute, and Jonas Parello-Plesner, former senior policy fellow at the European Council on Foreign Relations, more than five million Chinese nationals live abroad, many working for one of the 20,000 Chinese companies operating overseas.<sup>175</sup> China assesses protecting overseas Chinese citizens and economic assets will require greater expeditionary capabilities, and the 2015 defense white paper suggests China will develop its NEO capabilities by expanding the PLA Navy's global presence and calling on the PLA, rather than civilian government organizations, to run future NEOs. Although the PLA Navy has demonstrated the ability to conduct a NEO in a permissive environment, its limited operational experience and planning capability and lack of overseas military assets and bases may hamper its ability to extend its NEO capabilities beyond the Asia Pacific and greater Indian Ocean regions and to operate in hostile environments. China will likely continue to acquire blue-water naval assets, seek new training and experience for its personnel, and cultivate port agreements in far seas to overcome some of these deficiencies.



### China-Russia Security Relations in 2015

China and Russia continued to enhance cooperation in the security realm in 2015. This trend is likely to continue as Beijing and Moscow seek areas of shared interest on which to align while downplaying their growing competition in the economic and foreign policy realms.

#### *Joint Sea 2015*

In the first phase of Joint Sea 2015 military exercise, which took place from May 17 to May 21, two PLA Navy Type 054A frigates and a Type 903 auxiliary replenishment oiler met five Russian Navy ships for the first China-Russia joint exercise in the Mediterranean Sea.<sup>176</sup> The exercise featured navigation safety, underway replenishment, escort missions, and live fire training.<sup>177</sup> The Chinese ships docked in the Russian Black Sea port of Novorossiysk several days before the exercises.<sup>178</sup> China's increasing military activity in the Mediterranean Sea indicates Beijing's interest in protecting regional trade routes, maintaining its ability to conduct noncombatant evacuation operations in the region, and demonstrating the increasingly global reach of its military.<sup>179</sup>

The second phase of the exercise took place in the Sea of Japan from August 20 to August 28 and was reported by Chinese and Russian press to be the largest-ever exercise between the two countries.<sup>180</sup> One Russian Navy deputy commander noted that it was "unprecedented" in scope.<sup>181</sup> The weeklong exercise, which involved 7 PLA Navy surface ships, 5 PLA Air Force aircraft, and 200 Chinese marines,<sup>182</sup> focused on "anti-sabotage, anti-submarine, anti-vessel and anti-aircraft defense"<sup>183</sup> and culminated in a joint amphibious landing drill,<sup>184</sup> the PLA's first ever amphibious landing in a foreign country.<sup>185</sup>

#### *China Purchases Russian S-400 Air and Missile Defense Systems*

China will purchase S-400 air and missile defense systems from Russia, according to an April 2015 statement from the chief executive officer of Russian arms exporter Rosoboronexport. China signed a contract to purchase the S-400s in 2014.<sup>186</sup> Analysts say the order likely includes four to six units, at a total cost of \$3 billion.<sup>187</sup> The S-400 will extend the range of China's surface-to-air missile force from 300 kilometers (approximately 186 miles) to 400 kilometers (approximately 249 miles)—enough to cover all of Taiwan, the Senkaku Islands in the East China Sea, and parts of the South China Sea<sup>188</sup>—and feature an improved ballistic missile defense capability over China's existing surface-to-air missile systems.<sup>189</sup> China also is developing its own next-generation surface-to-air missile, the HQ-19, which likely will have capabilities similar to the S-400.<sup>190</sup>

### **China-Russia Security Relations in 2015—Continued**

#### *War Anniversary Parade in Moscow*

On May 9, 102 Chinese soldiers marched in a military parade in Moscow to commemorate the anniversary of the end of World War II.<sup>191</sup> President Xi also attended the event. China was one of only ten countries to send a delegation because many Western leaders boycotted the parade over Russia's actions in Ukraine.<sup>192</sup> The participation of Chinese troops in the parade may signal China's growing, if temporary, security alignment with Russia as each country deals with strained security relations with its respective neighbors.

#### ***China's Global Arms Sales***

China overtook Germany to become the third-largest arms exporter worldwide in 2015, according to a Stockholm International Peace Research Institute study.<sup>193</sup> Between the periods 2005–2009 and 2010–2015, China's exports of major arms rose 143 percent from \$3.1 billion to \$7.6 billion. China's arms exports increasingly include advanced weapons and platforms, such as jet fighters and missile corvettes. The surge and growing complexity in China's arms exports reflect the maturation of China's domestic defense industry after decades of significant Chinese government investment in defense research and development, as well as China's efforts to secure foreign military technology through arms transfers and espionage.<sup>194</sup> China is poised to continue growing its arms exports as it increasingly offers low-cost alternatives to advanced platforms formerly available only from the United States and Russia. Moreover, these mounting arms exports will support China's military modernization program by defraying the costs of some of the country's investments in its domestic defense industry.

In the past ten years, China has sold weapons to 48 countries, all in Asia, Africa, or Latin America.<sup>195</sup> Several countries, including Algeria, Argentina, Bangladesh, Burma (Myanmar), and Nigeria, have acquired major naval platforms from China. China also has secured deals to supply several countries, including Pakistan, Venezuela, and Bangladesh, with jet fighter aircraft, and is likely to pursue new jet fighter transfers in the near future.<sup>196</sup> Major Chinese arms export deals over the past several years have included the following:

- In March 2015, Pakistan agreed to purchase eight Chinese YUAN-class submarines in a deal reportedly worth as much as \$5 billion.<sup>197</sup> The acquisition could support Pakistan's efforts to develop a sea-based nuclear deterrent.<sup>198</sup> Pakistan's YUANs most likely would feature air-independent propulsion diesel engines, a standard feature of PLA Navy YUANs that increases stealth and endurance.
- In June 2015, the *Bangkok Post* reported China had won a bid to provide Thailand with three YUAN-class submarines at a

cost of about \$1 billion.<sup>199</sup> Thailand reportedly chose the Chinese bid over bids from Germany and South Korea. Many analysts interpreted the deal as a signal that Thailand's ruling junta seeks closer security ties with China as its partnership with the United States falters.<sup>200</sup> However, in July, Thailand's military leadership apparently shelved the deal, most likely due to popular opposition to the allocation of funds to military acquisitions at the cost of social welfare and economic programs.<sup>201</sup>

### **U.S.-China Security Relations in 2015**

U.S.-China relations were strained in 2015, with China's continued aggressive behavior in the South China Sea and its ongoing cyber espionage against U.S. targets as the two major irritants from Washington's point of view.

#### ***U.S.-China Tensions in the South China Sea***

Even as China's destabilizing actions in the South China Sea alienate U.S. allies and partners and challenge lawful air and maritime transit by the U.S. military, Beijing continues to insist that the United States should not involve itself in issues related to the South China Sea.<sup>202</sup> In 2015, China's land reclamation activity on seven land features increased tensions between Beijing and its neighbors regarding disputes over the contested Spratly Islands. (See Chapter 3, Section 2, "China and Southeast Asia," for an in-depth examination of China's land reclamation and other activities in the South China Sea.)

U.S.-China tensions in the South China Sea began to heighten considerably in May 2015. On May 12, as more details of China's land reclamation in the South China Sea came to light, the *Wall Street Journal* reported that U.S. Secretary of Defense Ashton Carter was contemplating sending U.S. Navy surveillance aircraft and ships within 12 nm of China's land reclamation projects, citing "growing momentum within the Pentagon and the White House for taking concrete steps in order to send Beijing a signal that the recent buildup in the Spratlys went too far and needed to stop."<sup>203</sup> On October 27, after much deliberation by the Obama Administration, a U.S. Navy guided missile destroyer conducted a freedom of navigation patrol within 12 nm of Subi reef, an artificial island created by China from a low-tide elevation,\* appearing to signal that the United States does not consider Subi Reef to have a territorial sea.<sup>204</sup>

Starting in May and continuing through the summer, the U.S. Navy more regularly publicized its air patrols near the land reclamation projects. On May 20, a CNN reporter accompanied the crew of a U.S. Navy P-8A Poseidon surveillance plane that flew from Clark Air Base in the Philippines to airspace near some of China's land reclamation projects. Over the course of the flight, the

\*According to UNCLOS, low-tide elevations, which are submerged at high tide, may not generate a territorial sea unless they are located within the territorial sea of another island or mainland coastline. UN Convention on the Law of the Sea, "Part 2: Territorial Sea and Contiguous Zone." See also Gregory Poling, "Carter on the South China Sea: Committed and (Mostly) Clear," *Center for Strategic and International Studies Asia, Maritime Transparency Initiative*, June 3, 2015.

PLA Navy ordered the crew of the Poseidon to leave the airspace eight times.<sup>205</sup> CNN reported the P-8 crew had been flying such missions for months and were accustomed to similar warnings, but they noted the warnings had become more frequent and aggressive as China's land reclamation projects progressed. That same month, a U.S. defense official said U.S. Navy surveillance missions near China's land reclamation projects occur on an almost-daily basis.<sup>206</sup> In July, Commander of the U.S. Pacific Fleet Admiral Scott Swift told reporters he had been present on one such flight, noting that the missions were "positive and structured," and "normalized."<sup>207</sup>

Publicizing U.S. naval patrols and surveillance flights near China's reclaimed land features in the South China Sea appears to be part of a growing effort by the United States both to impose reputational costs on China and to reassure allies, partners, and friends in the region as China's land reclamation and construction activities continue. In his keynote speech at the 2015 Shangri-La Dialogue,\* Secretary Carter asked for "a lasting halt" to land reclamation in the South China Sea and harshly criticized China's land reclamation, saying, "Turning an underwater rock into an airfield simply does not afford the rights of sovereignty or permit restrictions on international air or maritime transit."<sup>208</sup> He also reaffirmed the United States' right and intention to "fly, sail, and operate wherever international law allows,"<sup>209</sup> a statement President Obama repeated in a joint press conference during President Xi's first ever state visit to the United States in September.<sup>210</sup>

At the time of the writing of this Report, U.S. pressure on China to cease further land reclamation and military facilities construction appears to have largely been ineffective. In August, China's foreign minister announced China's land reclamation "has already stopped," in an attempt to assuage concerns as consensus was building between the United States and Southeast Asian countries to call for a lasting halt to all land reclamation in the South China Sea.<sup>211</sup> The Chinese foreign minister's assertion was false, however; although the land reclamation phase appears to be nearing completion, China continues to build, expand, and upgrade infrastructure on these reclaimed sites.<sup>212</sup> During the September state visit, President Xi again sought to allay concerns, stating "China does not intend to pursue militarization"<sup>213</sup> of the artificial islands. Absent greater specificity about what constitutes "militarization," and given the existing military infrastructure on China's reclaimed features, President Xi's pledge seems similarly disingenuous.

#### *Memoranda of Understanding on U.S.-China Maritime Encounters*

After several close encounters between the U.S. and Chinese militaries in and above the South China Sea in 2013 and 2014,†

\*The Shangri-La Dialogue is a high-profile meeting of regional defense leaders held annually in Singapore.

†In December 2013, a PLA Navy ship executed unsafe maneuvers 300 feet from a U.S. Navy ship in the South China Sea, nearly resulting in a collision. On four occasions between March and August 2014, PLA Air Force planes engaged in dangerous and aggressive maneuvers against U.S. Navy aircraft over international waters in the South China Sea. Josh Chin, "Chinese Intercepts of U.S. Aircraft: Rogue Pilots or Realpolitik?" *China Real Time Report* (*Wall Street Journal* blog), August 26, 2014; Tom Cohen, "'Aggressive' Chinese Fighter Jet Flies Dangerously Close to U.S. Military Plane," CNN, August 24, 2014; Scott Neuman, "Photo Released of Chinese Fighter That Buzzed U.S. Navy Plane," *National Public Radio*, August 23, 2014; and

DOD and the Chinese Ministry of Defense completed negotiations on two voluntary memoranda of understanding (MOUs) on “Rules of Safety of Air and Maritime Encounters” and “Notification of Major Military Activities” in November 2014.

The “Rules” MOU seeks to avoid miscalculations and misunderstandings in encounters between U.S. and Chinese surface ships by establishing best practices for unplanned encounters.\*<sup>214</sup> During the September 2015 state visit, the two countries announced an air-to-air annex to the “Rules” MOU.†<sup>215</sup> The “Notifications” MOU aims to increase transparency between the two militaries by providing best practices for regularly sharing information about security-related policy developments in each country and by establishing a mechanism to encourage the two militaries to invite each other to observe unilateral, bilateral, and multilateral exercises.<sup>216</sup> At the September state visit, the two sides announced an annex providing rules for an emergency military hotline as well.<sup>217</sup>

The extent to which the Chinese and U.S. militaries have followed the MOU guidance in their interactions is unclear. According to September 2015 testimony to Congress by Adm. Harris, U.S. Pacific Command has “seen very few dangerous activities by the Chinese” since August 2014.<sup>218</sup> Days later, U.S. National Security Adviser Susan Rice also asserted that “[w]e’ve seen a marked improvement in operational safety since we signed [the MOUs].”<sup>219</sup> One day after Ms. Rice’s statement, however, the *Wall Street Journal* reported that on September 15, 2015, two Chinese fighter jets flew within 500 feet of a U.S. Air Force reconnaissance plane approximately 80 miles from China’s coast in the Yellow Sea. U.S. defense officials referred to the intercept as “unsafe,” but were hopeful that it was an isolated incident, noting “improvements” in the behavior of PLA pilots since last year.<sup>220</sup>

### ***Chinese Cyber Espionage Continues to Damage Relations***

China’s unabated use of cyber espionage continues to erode trust between Washington and Beijing. Of particular concern to the U.S. government and business community is Chinese cyber-enabled economic espionage. Chinese economic espionage not only disadvantages the U.S. economy, but also can have an impact in the security realm when targeting defense contractors and sensitive tech-

John Harper, “Hagel Calls Chinese Actions against USS Cowpens ‘Irresponsible,’” *Stars and Stripes*, December 19, 2013.

\* This MOU follows a similar nonbinding agreement signed in 2014, the “Code on Unplanned Encounters at Sea” between China, the United States, and 19 other Pacific countries. Neither of these agreements addresses China’s policy of requiring prior permission for foreign intelligence gathering and military activity in its exclusive economic zone, contrary to international law. Referring to the 2014 code, a senior PLA Navy official stated that “whether or where or when these rules apply” had not been decided. Similarly, the “Rules” MOU allows each country their own interpretation, stating “this Memorandum is made without prejudice to either side’s policy perspective on military activities in the exclusive economic zone.” Jeremy Page, “China Won’t Necessarily Observe New Conduct Code for Navies,” *Wall Street Journal*, April 23, 2014; U.S. Department of Defense and Chinese Ministry of National Defense, *Memorandum of Understanding between the United States of America Department of Defense and the People’s Republic of China’s Ministry of Defense on Notification of Major Military Activities Confidence Building Measures Mechanism*, November 4, 2014, 4; and Peter Dutton and Andrew Erickson, “When Eagle Meets Dragon: Managing Risk in Maritime East Asia,” *Real Clear Defense*, March 25, 2015.

† During the state visit, the two countries also announced they would pursue a parallel “Rules” MOU for the U.S. and Chinese coast guards. *White House Office of the Press Secretary*, “Fact Sheet: Chinese President Xi Jinping’s State Visit to the United States,” September 25, 2015.

nologies with military applications. A January 2015 internal DOD report found the U.S. defense industry to be vulnerable to cyber espionage, asserting there were “significant vulnerabilities on nearly every [DOD] acquisition program that underwent cybersecurity [operational test and evaluation] in [fiscal year] 2014.”<sup>221</sup> (For an in-depth discussion of China’s cyber-enabled economic espionage activities, see Chapter 1, Section 4, “Commercial Cyber Espionage and Barriers to Digital Trade in China.”)

Chinese cyber espionage against the United States government is also of concern. Perhaps the most notable evidence of China’s growing espionage against the U.S. government came in 2015 with the revelation that the personal information of more than 22 million Americans as well as millions of sensitive and classified documents had been exfiltrated from the U.S. Office of Personnel Management via a massive cyber espionage campaign.<sup>222</sup> Several observers, including the U.S. Director of National Intelligence James Clapper, have suggested the Chinese government was behind the campaign.<sup>223</sup> At the time of the writing of this Report, the U.S. government had not publicly attributed the espionage campaign to China.

In addition, China is developing capabilities to conduct offensive cyber operations—which are separate from cyber espionage—against U.S. military or civilian systems.\* An updated edition of one of China’s most authoritative resources on military strategy, *The Science of Military Strategy*, acknowledges for the first time the existence of offensive cyber forces within China’s military, something Beijing had previously denied.† As noted earlier, China’s 2015 defense white paper refers to the cyber realm as one of two “new commanding heights in strategic competition.”<sup>224</sup> According to U.S. defense officials, the United States and China are negotiating an agreement that neither side will conduct offensive cyber operations against each other’s civilian critical infrastructure in peacetime.<sup>225</sup>

### Select U.S.-China Security-Related Visits and Exchanges in 2015

*Presidents Obama and Xi Hold a Summit:* As noted earlier, President Xi Jinping made his first ever state visit to the United States in September 2015. During the visit, the two countries announced several agreements and cooperative efforts, the most prominent related to climate change and cyber-enabled economic espionage. In addition to the expanded military MOU noted previously, other security and foreign policy announcements included commitments to: advance counterterrorism cooperation (particularly on countering improvised explosive devices); expand

\* For an assessment of China’s offensive cyber warfare capabilities and how they might interact with U.S. forces and systems in a conflict, see Evan Heginbotham et al., “The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996–2017,” *RAND Corporation*, September 2015, 259–282.

† The updated *Science of Military Strategy* was published in Chinese in 2013, but had not been translated into English until early 2015. Shane Harris, “China Reveals Its Cyberwar Secrets,” *Daily Beast*, March 18, 2015.

**Select U.S.-China Security-Related Visits and Exchanges in 2015—Continued**

humanitarian assistance and disaster relief cooperation; establish an annual bilateral dialogue on nuclear security; and maintain cooperation in support of reconstruction and economic development in Afghanistan.<sup>226</sup>

*U.S.-China Strategic and Economic Dialogue:* At the seventh round of the Strategic and Economic Dialogue talks held in Washington on June 23–24, 2015, participants discussed over 100 issues, but accomplished little on the “Strategic Track,” likely due to impasses over the South China Sea and cybersecurity.<sup>227</sup>

*Central Military Commission Vice Chairman Fan Changlong Visits the United States:* General Fan spent six days in the United States in June 2015, visiting the U.S. aircraft carrier *Ronald Reagan* in San Francisco, a Boeing factory in Seattle, and the U.S. Army Base at Fort Hood before arriving in Washington, DC, for meetings with Pentagon and State Department officials.<sup>228</sup> During his visit, the two sides established an Army-to-Army Dialogue.<sup>229</sup> China’s land reclamation in the South China Sea was a prominent discussion topic, although it appears little progress was made to address either side’s concerns.<sup>230</sup> General Fan invited Secretary Carter and Adm. Harry Harris to visit China before the end of the year.<sup>231</sup> General Fan visited Cuba immediately after his trip to the United States.<sup>232</sup>

*Joint Antipiracy Exercises in the Gulf of Aden:* The U.S. and Chinese navies participated in their third annual joint antipiracy exercise in the Gulf of Aden in December 2014. The two-day exercise involved a U.S. Navy guided-missile destroyer, at least two PLA Navy ships, and more than 700 personnel. The exercise included combined visit, board, search, and seizure operations (to include the landing of a PLA Navy helicopter on the U.S. ship), and communications exchanges, among other activities.<sup>233</sup> Captain Doug Stuffle, commander of U.S. Navy Destroyer Squadron 1, said, “These bilateral exercises help us establish clear paths for communication; they encourage transparency of trust, help us mitigate risk, and allow us to demonstrate cooperative efforts in the international community to help us work together to deal with transnational threats. In the end, we look to create a peaceful, stable and secure maritime domain.”<sup>234</sup> The PLA, which has been undertaking antipiracy patrols in the Gulf of Aden since December 2008, began its 21st escort task force in August 2015.<sup>235</sup>

*Joint Exercise in the South China Sea:* In April, the U.S. Seventh Fleet flagship *Blue Ridge* and a PLA Navy landing craft conducted joint drills in uncontested waters of the South China Sea. The first part of the exercise focused on improving communication at sea; the second part focused on search and rescue.<sup>236</sup>

*Other Military Exercises:* The U.S. and Chinese militaries participated in several multilateral exercises together in 2015. In January, a combined U.S., Chinese, and Thai military engineer

**Select U.S.-China Security-Related Visits and Exchanges in 2015—Continued**

force built a school in Thailand as part of the multilateral Cobra Gold exercise.<sup>237</sup> In May, China and Malaysia led the fourth Association of Southeast Asian Nations Regional Forum Disaster Relief Exercise, which included the United States and 24 other participants and simulated a typhoon impacting Malaysia.<sup>238</sup> In June, China participated for the first time in “Exercise Khaan Quest,” a 25-country peacekeeping drill led by Mongolia and the United States.<sup>239</sup> From August to September, the United States, China, and Australia conducted their second trilateral “Kowari” exercise, during which a small number of troops from each country participated in wilderness training in a remote area near Darwin, Australia.<sup>240</sup> From August to October, China, the United States, and the United Kingdom sent small numbers of troops to participate in New Zealand’s “Tropic Twilight” humanitarian drill, which involved infrastructure construction and upgrades for schools and clinics at outlying Cook Islands atolls.<sup>241</sup>

*Port Visits:* The *Blue Ridge* visited Zhanjiang in April. There, the *Blue Ridge* hosted ship tours for Chinese military personnel, and its crew received reciprocal PLA Navy ship tours. Specific details of the ship visits were not publicized.<sup>242</sup> In addition, the U.S. guided missile destroyer *Stethem* visited Qingdao in July. The July port visit also involved planning for a future search and rescue exercise at sea.<sup>243</sup>

*Quarterly Video Teleconferences between Naval Chiefs:* Starting in April 2015, former U.S. Chief of Naval Operations Admiral Jonathan Greenert and his Chinese counterpart Admiral Wu Shengli, Commander in Chief of the PLA Navy, began conducting quarterly video teleconference calls to discuss a range of issues in the military-to-military relationship. During a July call, Adm. Wu invited then incoming (now acting) Chief of Naval Operations Admiral John Richardson to visit China.<sup>244</sup>

*Other Exchanges:* 27 military-to-military exchanges were planned for 2015, according to DOD’s annual report to Congress on China’s military for 2015.\* At the time of the writing of this Report, approximately half of these exchanges appear to have occurred. In addition to the aforementioned exchanges, the following took place: U.S. Army Pacific Commander General Vincent K. Brooks visited Beijing and Haikou to meet with PLA leaders;<sup>245</sup> defense officials held the annual Defense Policy Coordination Talks and Asia-Pacific Security Dialogue in Washington, DC;<sup>246</sup> PLA Navy and PLA Air Force academic delegations visited the United States;<sup>247</sup> a U.S. National Defense University delegation visited the Shenyang Military Area Command;<sup>248</sup> and defense officials conducted the 10th U.S.-China Disaster Management Exchange, among other exchanges.<sup>249</sup>

\*These were to include 4 high-level visits, 11 institutionalized exchanges, 5 academic exchanges, and 7 functional exchanges. U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2015*, May 2015, 75.



## Conclusions

- Three years after coming to power, Chinese President Xi Jinping has made significant progress consolidating control over China's national security and foreign policy apparatus. Two areas of particular focus for the Xi Administration are strengthening the state's power over national security matters (as exemplified in three new and proposed laws governing national security) and emphasizing "peripheral diplomacy" with China's neighbors (as exemplified in the One Belt, One Road initiative).
- U.S.-China security relations continued to deteriorate in 2015. China's aggressive behavior in the South China Sea and its unremitting cyber espionage against the United States were the key drivers of growing distrust. Further, the Chinese military's continued emphasis on developing antiaccess/area denial capabilities makes clear that China seeks the capability to limit the U.S. military's freedom of movement in the Western Pacific.
- China's military modernization program continues to bear fruit, particularly as new naval and air force platforms and capabilities come online. In particular, new developments in China's naval modernization increase its ability to deploy troops and equipment in contingencies in the East and South China seas and those involving islands held by Taiwan. Moreover, the continued production of surface combatants, along with advances in submarine and aircraft carrier programs, supports China's ability to project force in its near seas.
- China in 2015 continued to take steps to bolster its position in its dispute with Japan over islands and adjacent waters in the East China Sea by constructing 16 structures to facilitate natural gas exploitation near disputed waters; conducting near-daily patrols of contested waters and airspace; and enhancing the PLA Air Force's presence in the East China Sea with the establishment of regular oversea training flights far from China's coast and a first-ever transit flight through Japan's Miyako Strait.
- The rapid growth of China's arms exports during the last ten years reflects the maturation of China's domestic defense industry. In the coming years, Chinese arms, including advanced systems such as jet fighters, will increasingly compete with U.S. and Russian arms on the global market.
- China's noncombatant evacuation operations, far seas submarine deployments, and interest in establishing an overseas military facility reflect its willingness to use military resources to defend its growing overseas assets. China's global security activities likely will increase as the population of Chinese nationals overseas grows along with Chinese overseas economic activity.
- 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, continues to shift in China's direction.

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