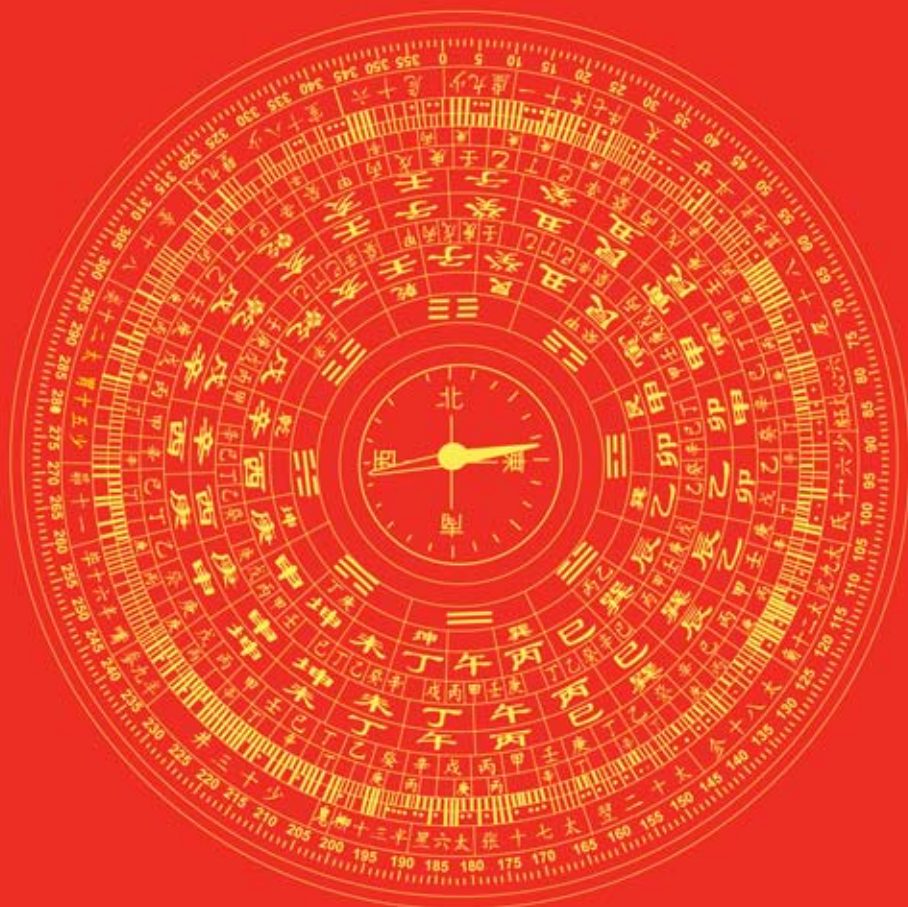


No Substitute for Experience

Chinese Antipiracy Operations in the Gulf of Aden



Andrew S. Erickson and Austin M. Strange



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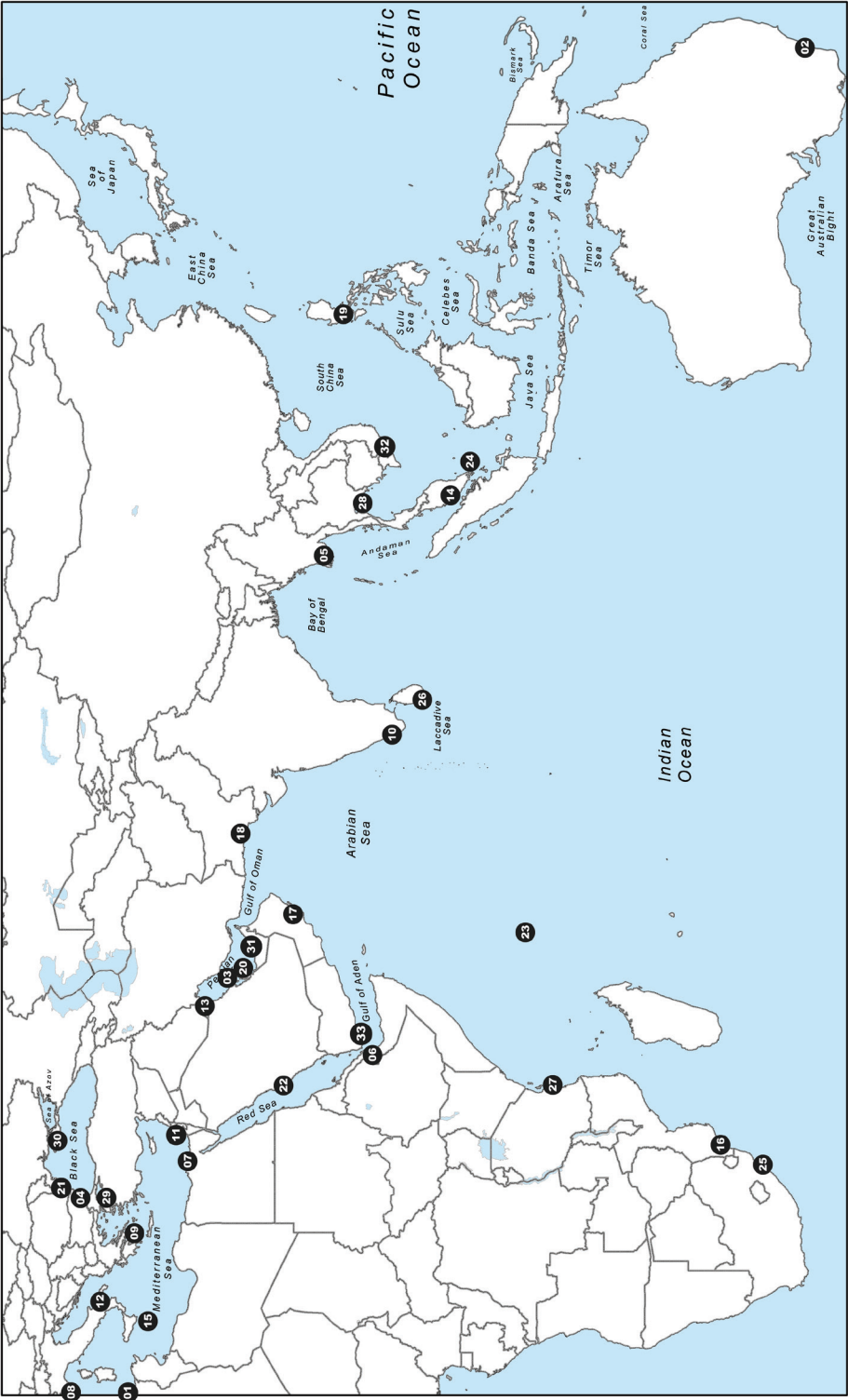
Authors' Note

This eighteen-month study is based on a comprehensive survey of more than two thousand discrete Chinese-language sources published over the past five years. It also draws on discussions with Chinese experts in China and the United States, including one former People's Liberation Army Navy (PLAN) official and one PLAN officer. The most important of these sources are cited herein. Sources that were examined systematically include the official PLAN publications 人民海军 (*People's Navy*), 当代海军 (*Modern Navy*), 海军医学杂志 (*Journal of Navy Medicine*), and 中华航海医学与高气压医学杂志 (*China Journal of Nautical Medicine and Hyperbaric Medicine*); the official PLA publication 解放军报 (*Liberation Army Daily*); and such official state media sources as 中国日报 (*China Daily*), 人民日报 (*People's Daily*), and 中央电视台 (China Central Television/CCTV)—particularly the program “军事报道” (“Military Report”) on China's official military channel, CCTV-7. In selected instances, particularly cases in which translations are especially substantive, lengthy, or have required significant adjudication between literal rendering of Chinese and expressions that would be most intelligible to an English-speaking audience, the original Chinese is appended in an endnote. Every effort has been made to communicate to an English-reading audience in nuanced fashion what Chinese sources themselves are expressing, even when English readers might differ conceptually or substantively. Where possible, such potential ambiguity is noted in endnotes. The one major exception is the widespread description by Chinese sources of ships seized by pirates as having been “hijacked”; from an international legal perspective, “pirated” would be the correct term.

The authors thank Bernard Cole, Gabriel Collins, Peter Dutton, Glen Forbes, William Murray, two anonymous reviewers, and one operational specialist for their insightful comments concerning previous drafts of this study, as well as military operators from multiple nations for sharing their insights. The views expressed herein are those of the authors alone and not those of the U.S. Navy or any other agency of the U.S. government.

All photographs obtained with permission from China Defense Forum.

Selected Port Calls by First 14 PLAN Antipiracy Task Forces, February 2009–April 2013



01 ALGERIA Algiers (off map) 2–5 April 2013, Friendly Visit	10 INDIA Cochin 8 August 2009, Friendly Visit	25 SOUTH AFRICA Durban 4–8 April 2011, Friendly Visit
02 AUSTRALIA Sydney 18–22 December 2012, Friendly Visit	11 ISRAEL Haifa 13–17 August 2012, Friendly Visit	26 SRI LANKA Colombo 5–7 January 2010, Friendly Visit and Replenish/Overhaul 7–12 December 2010, Friendly Visit
03 SAUDIA Manama 9–13 December 2010, Friendly Visit	12 ITALY Taranto 2–7 August 2010, Joint Drills and Friendly Visit	27 TANZANIA Dar es Salaam 26–30 March 2011, Joint Drills and Friendly Visit
04 BULGARIA Varna 5–10 August 2012, Friendly Visit	13 KUWAIT Shuwaikh 27 November–1 December 2011, Friendly Visit	28 THAILAND Sattahip 16–21 August 2011, Joint Drills and Friendly Visit 21–25 April 2012, Friendly Visit
05 BURMA/MYANMAR Rangoon 29 August–2 September 2010, Friendly Visit	14 MALAYSIA Port Kelang 6 December 2009, Friendly Visit	29 TURKEY Istanbul 5–8 August 2012, Friendly Visit
06 DJIBOUTI Djibouti 24 January 2010, Replenish/Overhaul 3 May 2010, Replenish/Overhaul 13 September 2010, Replenish/Overhaul 22 September 2010, Replenish/Overhaul 24 December 2010, Replenish/Overhaul 21 February 2011, Replenish/Overhaul 5 October 2011, Replenish/Overhaul 24–29 March 2012, Replenish/Overhaul 14 May 2012, Replenish/Overhaul 13–18 August 2012, Replenish/Overhaul 1–6 December 2012, Replenish/Overhaul	15 MALTA 26–30 March 2013, Friendly Visit	30 UKRAINE Sevastopol 31 July–3 August 2012, Friendly Visit
07 EGYPT Alexandria 26–30 July 2010, Friendly Visit	16 MOROCCO Casablanca 9–13 April 2013, Friendly Visit	31 UNITED ARAB EMIRATES Abu Dhabi 24–28 March 2010, Friendly Visit
08 FRANCE Toulon (off map) 23–27 April 2013, Friendly Visit	17 MOZAMBIQUE Maputo 29 March–2 April 2012, Friendly Visit	32 VIETNAM Ho Chi Minh City 13 January 2013, Friendly Visit
09 GREECE Crete 7 March 2011, Replenish/Overhaul Piraeus 9–13 August 2010, Friendly Visit	18 OMAN Muscat Salalah 21 June–1 July 2009, Replenish/Overhaul 14 August 2009, Replenish/Overhaul 2 January 2010, Replenish/Overhaul 1 April 2010, Replenish/Overhaul 8 June 2010, Replenish/Overhaul 10 August 2010, Replenish/Overhaul 19 January 2011, Replenish/Overhaul 28 January 2011, Replenish/Overhaul 10 April 2011, Replenish/Overhaul 23 June 2011, Replenish/Overhaul 8–11 August 2011, Replenish/Overhaul	33 YEMEN Aden 21 February 2009, Replenish/Overhaul 25 April 2009, Replenish/Overhaul 23 July 2009, Replenish/Overhaul 28 September 2009, Replenish/Overhaul 5 February 2010, Replenish/Overhaul 16 May 2010, Replenish/Overhaul 26 July 2010, Replenish/Overhaul 1 October 2010, Replenish/Overhaul
	19 PHILIPPINES Manila 13–17 April 2010, Friendly Visit	
	20 QATAR Doha 2–7 August 2011, Friendly Visit	
	21 ROMANIA Constanta 31 July–3 August 2012, Friendly Visit	
	22 SAUDI ARABIA Jeddah 27–31 November 2010, Friendly Visit 3 September 2011, Replenish/Overhaul 17 June 2012, Replenish/Overhaul 1–6 January 2013, Replenish/Overhaul	
	23 SEYCHELLES Victoria 14 April 2011, Friendly Visit	
	24 SINGAPORE Changi 5–7 September 2010, Replenish/Overhaul and Joint Drills 18–20 December 2011, Replenish/Overhaul and Friendly Visit	

Source: This table draws on official Chinese media sources, primarily Xinhua, People's Daily, China Military Online, and Liberation Army Daily.

Introduction: Why Antipiracy in the Gulf of Aden?

The twenty-sixth of December 2012 marked an important date in Chinese military history—the fourth anniversary of China’s furthest and most extensive naval operations to date, the ongoing antipiracy deployments in the Gulf of Aden. In the first-ever simultaneous three-fleet public display, China’s North Sea Fleet, East Sea Fleet, and South Sea Fleet all held “open day activities.”¹ The guided-missile destroyers *Qingdao*, *Guangzhou*, and *Shenzhen* and guided-missile frigate *Zhoushan*, together with their associated helicopters and personnel, were visited by more than eight thousand people “from all sectors of the society” at the port cities after which they are named.² Over the past four years, the People’s Liberation Army Navy has deployed nearly ten thousand personnel on thirty-seven warships with twenty-eight helicopters in thirteen task forces.³ Over the course of more than five hundred operations, these forces have protected more than five thousand commercial vessels—Chinese and foreign in nearly equal proportion, the latter flagged by more than fifty nations.⁴ They have “successfully met and escorted, rescued and salvaged over 60 ships.”⁵ Ships saved from pirates by PLAN ships include four transports loaded with World Food Programme cargo.⁶

Beijing has rightly been recognized for this contribution: “The escort in the Gulf of Aden provided by the Chinese naval task force is a strong support in cracking down [on] Somali piracies [*sic*] for the international community” Ban Ki-moon, secretary-general of the United Nations (UN), has been quoted as declaring, “which reflects China’s important role in international affairs.”⁷ In a new era of international interaction, the PLAN has cooperated with counterpart vessels from over twenty foreign countries “to exchange information regarding piracy in the Gulf of Aden and the Somali sea area.”⁸

Undertaken primarily to safeguard China’s economic interests, the operations also stimulate interagency coordination with the PLAN in a vital position, provide irreplaceable naval training, catalyze the development of naval skill sets often taken for granted but absolutely critical for long-distance operations, and offer tentative indications of Beijing’s approach to maritime governance as a great power. The results thus far are largely positive, albeit modest. China’s navy is increasing its out-of-area capabilities, but it would require tremendous improvements in force structure, human capital, training,

and experience to translate present resources into an ability to engage in high-intensity combat operations in what Chinese strategists term the “Far Seas” (远海). Still, antipiracy operations serve as a modest springboard by which China can achieve the international status and influence that it covets, since they allow China to be seen providing public goods and cooperating to defend the global system. Whatever the ultimate trajectory of China’s maritime power, its escort missions are likely to persist for some time and hence will continue to offer a valuable window into the future of China’s naval role beyond East Asia. Indeed, they offer the first major insights into China’s Far Seas operations and its approach thereto. Four years on, the PLAN’s Gulf of Aden antipiracy mission is highlighted by ten Chinese naval breakthroughs, all of which underscore China’s most significant lesson learned through its antipiracy mission: there is no substitute for experience, and the PLAN has had to learn many things by doing them.

- The mission’s greatest organizational value is its forcing and facilitating of real-time interagency coordination of a scope, duration, and effectiveness rarely seen in Chinese civil-military and security affairs.
- The PLAN has been empowered and required to coordinate directly with civilian organizations such as the Ministry of Transportation (MoT), transcending traditional bureaucratic and civil-military stovepipes and bringing the service out from under the People’s Liberation Army’s organizational shadow.
- The transformation in organizational coordination is aided by the application of new technology to the PLAN’s Gulf of Aden mission, which serves as an invaluable venue for testing Chinese satellites and new communications technology away from home.
- As a result of antipiracy operations, the PLAN is carving out a niche role in Chinese diplomacy, as Chinese antipiracy warships increasingly work with other navies and call on foreign ports for resupply and exchanges.
- Chinese ships and their crewmen deployed to the Gulf of Aden have no choice but to master the logistical skills and concepts associated with protracted, long-distance naval operations, including balancing underway and in-port replenishment and maintaining crew morale for extended periods amid rigorous conditions.
- Perhaps the mission’s greatest operational value is forcing personnel to face unscripted, unpredictable situations—the most intense operational experience presently available to China’s navy.
- The PLAN has traversed a steep learning curve with impressive speed and resourcefulness, enhancing both specific escort protection techniques and associated supporting capabilities.

- The operations have already yielded significant procedural, training, and operational improvements and may influence maintenance procedures and even ship design.
- Having taken these challenges in stride, China's navy is gaining confidence.
- By contributing useful public goods, antipiracy operations offer Beijing increased global maritime influence.

Propelled by both domestic and international interests, antipiracy operations in the Gulf of Aden thus bring China into a more rewarding yet more difficult realm in which expectations are rising in both respects.

On close examination, however, the PLAN's unprecedented actions raise an important foundational question: Why did China's leaders decide that antipiracy operations in the Gulf of Aden provided the right opportunity for the nation's first regularized overseas naval deployments? A confluence of several specific factors was involved.

Antipiracy operations avoid ideological sensitivities. Unlike acts of terrorism, which are designed to further political or ideological agendas, contemporary piracy is a unique maritime phenomenon whose perpetrators are driven by purely economic factors.⁹ Piracy is generally defined as "an illegal act of violence, depredation (e.g., plundering, robbing, or pillaging), or detention in or over international waters committed for private ends by the crew or passengers of a private ship or aircraft against another ship or aircraft or against persons or property on board such ship or aircraft."¹⁰ The fact that piracy is a private, apolitical act is convenient for the leaders of the People's Republic of China (PRC). The regime stakes its popular legitimacy on developing China as an economically dynamic world power with increasing global interests, but it remains wedded to a policy of "non-interference" (互不干涉) in other nations' domestic affairs. However more complex in practice this policy may already be than in theory, Beijing faces a delicate balance in safeguarding its interests and engaging more fully in the international community while avoiding political assertiveness that could be risky and off-putting. Antipiracy operations thus represent a low-risk opportunity to test Beijing's policy preferences.

Piracy imposes direct economic costs on all states, including China. By disrupting flows of critical resources and destabilizing vital waterways, piracy affects all states with stakes in maritime commerce. The growing connectivity between China's massive economy and the international economic system has made threats to the stability of important sea lines of communication (SLOCs) particularly worrisome to China, whose trade relies on more pirate-infested waterways than that of any other country.¹¹

International cooperation is necessary to address piracy. At the same time, pirates' ability to disguise themselves as innocent civilians and to disperse their activities makes piracy an expensive and complex problem for modern naval forces to address. International

cooperation is therefore the natural response, and China desires to be seen as a cooperative, nonbelligerent state as it grows in power.¹² Thus, China has joined other naval powers proactively as they deploy naval forces to the Gulf of Aden in response to this growing and serious threat.

Chinese leaders face both internal and external pressure to exert international leadership. Acts of piracy often create undesired international and domestic political consequences for states whose legitimacy and influence rest on perceptions of how they handle security threats to economic, environmental, and human security. This is certainly a form of domestic pressure to which the Chinese leadership is not immune. Internal and external security developments clearly drove both China's original deployment of antipiracy forces in the Gulf of Aden and, thereafter, Beijing's growing focus on employing nontraditional security operations to protect China's maritime interests.¹³ China's economic, political, and military rise over the past thirty-five years has prompted growing levels of scrutiny by international observers with respect to China's contribution (or lack thereof) as an interested party in the global commons. The PLAN's antipiracy mission has provided a highly visible vehicle by which China can respond to this challenge in a way that allows Beijing to balance concerns over international law and internal policy making. Of course, there are significant domestic sources of pressure as well, pressure that requires leaders to demonstrate capability within the Chinese bureaucratic system to gain confidence and resources and to show the populace the strength of the country under Chinese Communist Party (CCP) leadership.¹⁴

China's military has been directed to broaden its missions beyond territorial defense. China's leaders have emphasized the need to address nontraditional security concerns as part of fulfilling the "new historic missions" (新阶段我军的历史使命) first laid out by former president Hu Jintao at an expanded Central Military Commission (CMC) conference on 24 December 2004. These new missions require the PLA to ensure military support for continued CCP rule; defend China's sovereignty, territorial integrity, and national security; protect China's expanding national interests; and ensure a peaceful global environment and promote mutual development.¹⁵ The last two missions reflected new emphases for the PLA, and the fourth was completely unprecedented. The persistence and complexity of modern piracy has therefore created a learning opportunity for China's navy, which is particularly unproven in such out-of-area maritime regions as the Indian Ocean region (IOR).¹⁶ However, representing as they do the only major Chinese military effort to date that addresses all four missions, antipiracy operations are critical for demonstrating to the international community the Chinese military's ability to execute these contemporary missions and protect Chinese citizens abroad, especially as the PLAN is growing into a pillar of China's modern armed forces.

In 2007, Hu elaborated, “As we strengthen our ability to fight and win limited wars under informatized conditions, we have to pay even more attention to improving noncombat military operations capabilities.”¹⁷ That same year, a CCP constitutional amendment codified these missions further.¹⁸ In attempts to transform Hu’s general guidance into more specific policy, articles in state and military media have argued that the People’s Liberation Army (or PLA, meaning the Chinese military generally) must go beyond its previous mission of safeguarding national “survival interests” (生存利益) to protecting national “development interests” (发展利益)—that is, economic growth.¹⁹ In March 2009 Hu exhorted military delegates of the National People’s Congress (NPC) to emphasize not only “building core military capabilities” but also “the ability to execute military operations other than war” (非战争军事行动).²⁰ Finally, on 8 November 2012 at the Eighteenth National CCP Congress, which concluded Hu’s term in office, Hu reinforced these themes: “We should attach great importance to maritime . . . security. We should [undertake] active planning for the use of military forces in peacetime, expand and intensify military preparedness, and enhance the capability to accomplish a wide range of military tasks, the most important of which is to win local war in an information age.” He placed unprecedented emphasis on Chinese maritime development: “We should enhance our capacity for exploiting marine resources, develop the marine economy, protect the marine ecological environment, resolutely safeguard China’s maritime rights and interests, and build China into a maritime power.”²¹

High-level PLA officers are now conducting a sophisticated analysis of the “nonwar military operations” needed to promote these interests, and antipiracy operations seem to have provided an important test case for carrying out the “new historic missions.” As the PLAN’s official journal *Modern Navy* explained in 2011, “Navy officers have adapted positively to the needs of expanding responsibilities for national interests and naval missions, the Gulf of Aden and Somali waters have become new battlegrounds for carrying out naval diversified responsibilities. [The navy] constantly explores new channels for conducting noncombat operations through escort practice.”²² Or, as the acting party secretary of the fourth escort task force, Gu Likang, stated, “Wherever national interests expand into, so too will the navy’s mission extend to there. Escort task forces must adjust to the maritime environment for which they are responsible as quickly as possible, and expand military training according to local conditions, toughen the force on all sides, [and] conscientiously raise the ability to fulfill missions [and] responsibilities.”²³

Thus, countering piracy allows China’s navy to accumulate experience and operational achievements on the Far Seas unprecedented in its history and to enhance the nation’s political image by performing successful missions in cooperation with other states. Also, it offers China itself excellent opportunities to protect its economic interests abroad and

to participate meaningfully—if, thus far, modestly—in the construction of twenty-first-century global governance architecture.

This study begins by exploring the complex issue of modern piracy, including piracy's transformation into a serious nontraditional security threat and the implications that modern piracy poses for all states in the international system. Chapter 1 discusses the economic, political, and military challenges and opportunities created specifically for China by contemporary piracy, and the factors that catalyzed its Gulf of Aden deployment. Chapter 2 analyzes the institutional foundations of Beijing's escort-task-force mission and the domestic policy issues and debates within China surrounding the PLAN's continued deployments of escort task forces. Chapter 3 adds context by surveying the other multilateral and national naval forces fighting piracy in the Gulf of Aden. In doing so, it highlights the extent to which a series of factors facilitate—or, in many cases, restrict—cooperation between China and other actors. These factors include Beijing's perspectives on the prevailing international maritime laws and norms, its views of the other countries and coalitions involved, the impact of Chinese domestic laws, and the objectives of China's foreign policy. Building on this comparative foundation, chapter 4 details the PLAN's Gulf of Aden mission from December 2008 to the present in key dimensions—the naval platforms used, methods of logistical support, types of interaction with other navies, and the PLAN's operational performance. Using evidence from this discussion, chapter 5 probes the most likely future development path of the PLAN's antipiracy operations and concludes that Beijing has many strategic decisions to make with respect to deploying naval platforms for and addressing the logistical challenges of Far Seas missions. Chapter 6 offers tentative assessments of how the Gulf of Aden mission has shaped the way Beijing views its potential contribution to twenty-first-century global governance and of what the prospects are for more meaningful U.S.-Chinese cooperation, as both great powers continue to face in common the new nontraditional maritime security threats.

Notes

1. Ma Jun, "Navy Opens Ships Up to Public for Anti-piracy Displays Nationwide," *Global Times*, 27 December 2012, www.globaltimes.cn/.
2. Zhang Tao, "China's Three Major Fleets Hold Escort Warship Open Day Activities," *Liberation Army Daily*, 27 December 2012, www.chnarmy.com/ and eng.mod.gov.cn/DefenseNews/2012-12/27/content_4424255.htm. Attendees could "not only visit the warships and have 'zero-distance' contacts with the escort warships, helicopters and special operation equipment, but also have an opportunity to watch anti-piracy demonstration"; Cao Jinping, "PLA Navy to Hold Escort Warship Open Day Activities," *Liberation Army Daily*, 24 December 2012, english.peopledaily.com.cn/.
3. Chen Peiling, "PLA Navy Escort Task Force Mission Presentation" (presentation at twenty-seventh SHADE Meeting, 19 March 2013); Zhao Shengnan, "Navy Protects Ships from Pirates," *China Daily*, 29 December 2012, europe.chinadaily.com.cn/china/2012-12/29/content_16066937.htm.
4. "Number of Ships Escorted by Chinese Naval Escort Task Forces Hits 4,000," *Liberation Army*

- Daily*, 19 July 2011, eng.chinamil.com.cn/news-channels/china-military-news/2011-07/19/content_4538482.htm.
5. Cao Jinping and Mo Xiaoliang, "Review of Chinese Navy's Escort Missions in Gulf of Aden in Past 4 Years," *People's Daily*, 27 December 2012, english.peopledaily.com.cn/.
 6. "Chinese Navy Escort Voyages Fruitful," *Xinhua*, 25 December 2012, news.xinhuanet.com/.
 7. *Ibid.*
 8. *Ibid.*
 9. Peter Chalk, "Sunken Treasures: The Economic Impetus behind Modern Piracy," *RAND Review* 33, no. 2 (Summer 2009), available at www.rand.org/.
 10. U.S. Defense Dept., *Department of Defense Dictionary of Military and Associated Terms*, Joint Publication 1-02 (Washington, D.C.: Joint Staff, 8 November 2010, as amended through 15 August 2012), available at www.dtic.mil/.
 11. Unlike the United States and the European Union, China routinely depends on the stability of SLOCs around both the Middle East and Indian Ocean, as well as those in Southeast Asia, for its imports. Its economy is larger than those of Japan and South Korea combined, states that rely on similar maritime shipping routes.
 12. 刘江平 [Liu Jiangping], "远洋护航是中国海军的国际使命" [Far Oceans Escorts Are the Chinese Navy's International Mission], *海天看点* [Maritime Points], *当代海军* [Modern Navy] (January 2009), pp. 23–25.
 13. The majority of the piracy literature contends, or at least implies, that "antipiracy" is a passive/defensive technique. The PLAN's operations to date are "antipiracy" in nature according to this definition. "Counterpiracy," by contrast, is more preventive, proactive, and aggressive. Chinese military personnel are quite sensitive about this distinction, while the media (even outlets for navies and multilateral maritime coalitions) seem to interchange both terms freely. For further details, see John Patch, "Send the Warships Home: Piracy Is a Crime Best Addressed by Law Enforcement Officials," *Armed Forces Journal* (April 2010). To avoid ambiguity, unless otherwise specified this study therefore uses the term "antipiracy."
 14. For example, many Chinese "netizens" expressed strong hope that the PLAN would dispatch forces to the Gulf of Aden to protect overseas Chinese assets and workers. See "德国海军司令邀请中国海军联手打击海盗" [German Naval Commander Invites Chinese Navy to Join Hands to Fight Piracy], *Sina.com*, 29 November 2008, mil.news.sina.com.cn/.
 15. "切实加强军队党组织能力建设" [Earnestly Step Up Ability-Building within CCP Organizations of Armed Forces], *解放军报* [Liberation Army Daily], 13 December 2004, www.chinamil.com.cn/.
 16. 刘华清 [Liu Huaqing], 刘华清回忆录 [The Memoirs of Liu Huaqing] (Beijing: People's Liberation Army, 2004), p. 437; Nan Li, "The Evolution of China's Naval Strategy and Capabilities: From 'Near Coast' and 'Near Seas' to 'Far Seas,'" *Asian Security* 5, no. 2 (June 2009), pp. 144–69.
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 18. U.S. Defense Dept., *Military and Security Developments Involving the People's Republic of China 2011*, Annual Report Prepared for Congress (Washington, D.C.: 24 August 2011), p. 16, available at www.defense.gov/.
 19. 田秉仁 [Maj. Gen. Tian Bingren], "新世纪阶段我军历史使命的科学拓展" [The Scientific Development of the Historical Mission of Our Army in the New Phase of the New Century], *中国军事科学* [China Military Science] (October 2007), pp. 21–27.
 20. *Ibid.*, p. 17.
 21. "Full Text of Hu Jintao's Report at 18th Party Congress," *Xinhua*, 17 November 2012, news.xinhuanet.com/.
 22. 郭益科 [Guo Yike] 和李高健 [Li Gaojian], "远洋护航,我们展示了什么—写在人民海军舰艇编队赴亚丁湾、索马里海域护航两周年之际 (一)" [Far Oceans Escorts, What Have We Displayed? Written at the Two-Year Anniversary of People's Navy Warship Deployments to the Gulf of Aden and Somali Waters for Escorts (Part 1)], 特别策划 [Special Column], *当代海军* [Modern Navy] (January 2011), pp. 8–11. Original text: "海军官兵积极适应国家利益和海军使命任务扩展的需要,亚丁湾、索马里海域,成为海军执行多样化任务的新战场,在护航实践中不断探索执行非战争军事行动的新途径。"
 23. 朱宁 [Zhu Ning] 和李义保 [Li Yibao], "海阔天高任驰骋--亚丁湾独特的气象海况成为练兵的好操场" [Enjoying Free Rein to Act at Will on the Great Stage of the Vast Sea and High Skies: The Gulf of Aden's Unique Climate and Maritime Conditions Become a Good Arena for Training Troops], 综合新闻 [General News], *人民海军* [People's Navy], 13 March 2010, p. 2. Original text: "国家利益拓展到哪里,海军的使命就延伸到哪里,护航编队必须以最快的速度适应任务海区环境,并因地制宜开展军事训练,全方位摔打部队,切实提升旅行使命任务的能力。"

Modern Piracy and Its Relevance to China

Modern piracy has flourished for more than two decades. The period from 2005 to 2010 saw piracy attacks worldwide increase substantially every year. According to a report by *Zhongxing News Network* citing European Union (EU) naval officials, the number of pirate attacks rose threefold in 2010.¹ Reported international pirate attacks peaked at 445 in 2010;² of 439 attacks reported by the International Maritime Bureau during 2011, 275 occurred either off the coast of Somalia or in the Gulf of Guinea off West Africa.³ Moreover, attacks originating off the coast of Somalia have had a much higher success rate than in other regions. For example, in 2010 successful Somali pirate attacks accounted for over 90 percent of total ship seizures worldwide.⁴ Chinese writers have noted patterns in Somali pirate attacks, such as a rise in both number and intensity during the spring.⁵ A February 2012 article in the official newspaper of the PLAN, *People's Navy*, stated that the Gulf of Aden area covers roughly 530,000 square kilometers, reflecting the wide operating space within which pirates choose and engage targets.⁶

Reports in late 2012 that worldwide pirate attacks had “plummeted” reflected the success of antipiracy operations by navies throughout the world. During a solo escort exercise by the supply vessel *Qiandaohu* of the twelfth escort task force performed in October 2012 to enhance the PLAN's vigilance, Cdr. Fu Junqing commented that pirates were increasingly “making reckless moves in desperation” (铤而走险).⁷ CNTV reported, “According to the International Maritime Bureau, by October 2012 pirate attacks had dropped to a six-year low. Only one ship was attacked in the third quarter compared to thirty-six during the same period in 2011.”⁸ But this reduction is certainly not perceived by China and other states as signaling the eradication of this nontraditional security problem.⁹ As Zhou Xuming, commander of the PLAN's twelfth antipiracy task force, remarked during a July 2012 interview on board ship, “Despite all these efforts, the present antipiracy situation still allows no optimism. The region in which the Somali pirates conduct their criminal activities is gradually extending outward: north to the Gulf of Oman and east to waters off the southwestern coast of India. In addition, the pirates have become even more seasoned and diversified in their employment of criminal means and these circumstances have presented us with new challenges in this ship-escorting operation.”¹⁰ He further affirmed, “We still dare not relax our vigilance and continue to conduct

considerable relevant preparation work based on the situation and characteristics of the pirates' activities."¹¹ Similarly, in December 2012 Li Xiaoyan, commander of the PLAN's thirteenth task force, stated, "The pirates may stage a comeback after a short period of peace. The escort mission may face new challenges in the coming months."¹² *Liberation Army Daily* reported in November 2012 that the coming six-month period could see a significant rise in piracy attacks because of relatively favorable sea conditions and the extension of tactics by pirates, who now operate both day and night.¹³

Other navies also remain concerned about Somali piracy. In September 2012 Australia decided to reroute the heavy-lift ship *Blue Marlin*, carrying HMAS *Canberra* from its builder in Spain to Geelong, in Australia, around the Cape of Good Hope rather than through the Gulf of Aden. *Canberra*, an amphibious assault ship, is larger than a standard aircraft carrier and will be the largest ship in the Australian navy. Shipping officials worried that the enormous target would be vulnerable to pirate attack, which would constitute a major embarrassment for all parties. The detour resulted in an extra twelve thousand miles of travel and took over six weeks.¹⁴

It must be kept in mind, however, that although there is scholarly disagreement on the general subject, piracy's existence is largely rooted in the failure of domestic governance institutions, which in such states as Somalia are still extremely volatile and unstable.¹⁵ The deputy permanent representative of China to the United Nations, Wang Min, emphasized in 2011 his nation's view on that point: "Military action can only mitigate the scourge of Somali piracy."¹⁶

Somalia's centrality to modern piracy, then, is no coincidence. The former British and Italian colony is perhaps the world's most ungoverned state today; in recent years the central authorities have controlled only several city blocks in the capital, Mogadishu.¹⁷ Collapse of governance in 1991 ended Somalia's ability to patrol its own waters, allowing rampant illegal fishing and dumping that harmed its once-important marine economy.¹⁸ Illegal poaching by foreign fishing fleets in Somali waters, in turn, stimulated a nationalist response.¹⁹ As they were operating in a political vacuum, Somali fishermen soon discovered that threatening (and sometimes using) force to extort fines was far more lucrative than their erstwhile conventional profession.²⁰ At the national level, Somalia's case provides overwhelming evidence that absence of domestic governance in coastal states can spawn unbridled piracy. Indeed, of the 439 attacks that occurred worldwide in 2011, 236—or 54 percent—were at the hands of Somali pirates, who operate freely along the unmonitored coastline.²¹

Modern Navy typifies Chinese sources in stating that these pirates are difficult to counter in part because they are hard to locate and identify:

They conceal weapons and ladders in the ship cabin and fishing nets, darting back and forth within the escort zone. [Upon] encountering warships [they] pick up fishing nets and fish, [and upon] running into commercial ships, [they] rob [them] using weapons. These ships are no different from fishing boats in external appearance, [there is] absolutely no way of distinguishing them. Also skiffs are very small in size, and often disappear within the waves as waves rise and fall, [so] warships' warning radars cannot easily detect them.²²

While the collective response of national navies and multilateral task forces in the Gulf of Aden and parts of the Indian Ocean has contributed to a large overall reduction in piracy, risk-taking pirate crews, utterly lacking domestic economic opportunities, are willing to venture farther offshore in their small coastal skiffs to attack merchant vessels.²³ The net result is an expanded maritime area that is vulnerable to pirate attack, making pirates more elusive and control costs higher.²⁴ Moreover, China's leadership has, on numerous occasions, learned that individual pirate attacks on commercial vessels that generate media coverage have greater impact on Beijing's domestic and international political image than do abstract statistical trends.²⁵ As long as the threat of piracy remains, states like China will be wary of taking formidable public-relations risks that carry major economic and political implications.²⁶

Whatever the debate about the root causes of modern piracy worldwide, its costs are clear—pirates pose serious threats to the economic and political stability of states throughout the world. One recent study has found that the cost of these disruptions totals between seven and twelve billion dollars annually.²⁷ Many of the world's most vital SLOCs and shipping routes—including the Bab el Mandeb, the Strait of Hormuz, the Indian Ocean, the Strait of Malacca, the Strait of Singapore, and the South China Sea—regularly face destabilizing piracy threats.²⁸ For example, approximately half of the world's container shipments pass through the Bab el Mandeb (“Gate of Grief”) connecting the Red Sea and the Gulf of Aden.²⁹ Moreover, it is estimated that approximately 40 percent of global energy shipments pass through the Strait of Hormuz, a narrow body of water between Iran and the United Arab Emirates (UAE) that is considered a strategic “choke point.”³⁰ While most pirate attacks are limited in scale, even a temporary disruption of trade by pirates in any of these regions could produce a ripple effect, by forcing companies to reroute shipments and thereby delaying critical energy and industrial-supply deliveries. For complex transnational production networks and just-in-time supply chains, with little spare capacity, the potential impact of such disruption would be significant.³¹ Successful pirate attacks can also bring heavy scrutiny to the international community for its failure to protect global shipping lanes adequately.

Some studies contend that rerouting is a relatively cheap and safe option for some ships, especially the older, slower, and bulkier ships that are most vulnerable to pirate attack and least equipped for protective measures.³² Indeed, rerouting is often preferable to

hefty ransoms or more expensive insurance premiums. Nevertheless, the aggregate costs of avoiding high-traffic waterways where piracy is rampant in favor of such less convenient routes as the Cape of Good Hope are significant.³³ For example, one report estimates actual rerouting costs at between \$2.4 and \$3 billion annually.³⁴ A more recent study by Oceans beyond Piracy, an American nonprofit organization, estimates annual rerouting costs at \$486–\$680 million.³⁵ These costs stem from additional fuel and excess wages to crew members, the primary direct expenses associated with rerouting. Of course, the extra time required to circumnavigate the Cape of Good Hope rather than transiting waterways near the Middle East—estimated by China’s MoT at six days—is also very significant in terms of aggregate opportunity cost.³⁶ Moreover, longer distances increase shipping times and hence require more ships to accommodate the same volume of trade. Rerouting to avoid pirate attacks thus imposes meaningful costs on the shipping industry. However, navigating waters affected by persistent piracy also raises the costs of maritime shipping, by increasing insurance premiums.³⁷ These economic forces motivate greater regional and international cooperation.

China is no exception to the general vulnerability to piracy.³⁸ Internal and external security developments have driven both China’s original deployment of antipiracy forces in the Gulf of Aden and Beijing’s growing focus on nontraditional security tactics to protect China’s maritime interests. Chinese-led joint patrols in other crime-infested waters, such as the upper Mekong Delta, are a prime example. Specifically, the persistence and complexity of modern piracy have created new challenges for the PLAN, which is particularly unproven in such Far Seas as the IOR. These challenges are formidable and perhaps even daunting for the CCP, for reasons explained in the introduction. Antipiracy operations thus represent a critical test for Beijing, not only operationally, but also in terms of policy and symbolism. Yet the benefits are too compelling to ignore.

China, like other nations, has opted for direct naval involvement rather than relying solely on private security initiatives to address an expanding piracy “industry.” However, one Chinese observer, Li Ruijing of the PLA Academy of Military Science, asserts that PLAN antipiracy operations alone are insufficient to protect completely PRC interests endangered by pirates:

First, [one must] understand clearly the responsibilities of “military escorts” [军队护航] and “civil protection” [民间安保]. Chinese overseas interests can only rely, [and even then] not rely completely, on military escorts [中国海外利益只能依靠而非完全依赖军队护航]. In recent years, despite major efforts by the government and military, heavy spending on executing “Gulf of Aden escorts.” . . . [T]he government and military can only protect the “main artery” [大动脉] of China’s core national interests, and clearly have no way to satisfactorily protect many of the security demands of “small blood vessels” [小血管] and “microcirculation” [微循环]. Because of this, as exemplified by [the] U.S. [company] “Blackwater,” by establishing and strengthening [the] Chinese “Red Shield” [红盾],

thereby letting Chinese civil security go abroad, escorts can develop to the highest degree and protect China's overseas interests.³⁹

Amid debates on how to integrate PLAN and civilian resources, Beijing is intent on eradicating piracy by supporting Somali institutions of domestic governance that, if sustained and fortified, could create domestic structures capable of discouraging piratical acts.⁴⁰ For example, as of late 2011 China had given the African Union (AU) \$2.2 million to use specifically for peacekeeping in Somalia and also \$780,000 to the governments of Burundi and Uganda for supplies to be used in the African Union Mission in Somalia (AMISOM).⁴¹ Wang Min, as deputy permanent representative to the UN, has advocated a comprehensive strategy for Somalia based on extensive cooperation between the Somalia Transitional Federal Government and the international community.⁴² In mid-2012 China reportedly announced a grant of nearly \$100 million to install security cameras in neighboring Kenya, which had in October 2011 deployed forces on Somali soil to eradicate the terrorist group Al-Shabaab.⁴³ Nonetheless, piracy persists, and PLAN antipiracy operations in the Gulf of Aden that began in December 2008 and have continued uninterrupted for over four years were ongoing with no known plans for their conclusion as this study went to press.⁴⁴

Threatening the "Golden Waterway": Piracy's Economic Ramifications for China

China relies increasingly on "SLOC security" (海上通道安全) for its economic development.⁴⁵ China's eleventh five-year guideline (2006–10) reiterated the goal of the tenth five-year plan (2001–2005);⁴⁶ it addresses environmental concerns and diversification of energy supply by, first, increasing natural-gas consumption to 8 percent of total energy use by 2015 and, second, finding new sources of oil to reduce China's reliance on coal.⁴⁷ To do this, China must increase significantly its imports of both oil and gas in the near future, making secure SLOCs even more critical for safeguarding energy supplies to fuel China's economic growth. That growth was estimated at 7.5 percent during the National People's Congress in March 2012; the twelfth five-year guideline (2011–15) established a target of 7 percent.⁴⁸

China is indeed looking to the seas to address domestic energy security. Since China became a net oil importer in 1993, its oil-import dependence has risen steadily, with roughly half of China's oil imported at present, 80 percent of it delivered by sea.⁴⁹ This means that China currently relies on maritime transport for 40 percent of its oil. Oil is a vital resource for China that accounts for virtually all of the nation's transportation fuel—for which there is no immediately interchangeable substitute. It is also irreplaceable as a military fuel for the majority of China's air and naval assets, not to mention trucks and off-road machinery that help drive economic growth. The director of China's

National Energy Administration, Zhang Guobao, refers to transportation as a “major consumer of oil” (用油大户) and believes mitigating the transport sector’s reliance on oil is the starting point for reducing China’s overall oil dependence.⁵⁰ The vice-governor of China’s Everbright Bank, Dan Jianbao, predicts that China’s reliance on imports as a percentage of total oil consumption may increase to 80 percent by 2030.⁵¹ Meanwhile, Tong Xiaoguang of China’s Academy of Engineering has suggested that import dependence would reach approximately 65 percent during the same period.⁵²

However divergent in specifics, overall these estimates suggest that the stability of SLOCs will continue to grow in strategic importance.⁵³ Moreover, China became a net natural-gas importer in 2007, and imports of shipborne liquefied natural gas (LNG) have begun to compete with traditional fuels in coastal China, both for residential use and in the booming shipping industry.⁵⁴ Besides energy security trends, the increase in Chinese port traffic further demonstrates China’s economic dependence on the sea. As Ju Chengzhi, Department Head, Department of International Cooperation, Ministry of Transportation, explains, China must, given its tremendous maritime interests, focus on the big picture of long-term benefits and not get lost in the details of short-term costs:

Currently, China has over 260 ship companies involved with international shipping. . . . Right now our development trend is definitely increasingly open, trade volume ever larger, [and] maritime transportation certainly has greater development. This kind of trend has given us a problem, not just the protection of the safety of the Gulf of Aden and Somali waters, [but] also the Strait of Malacca and all shipping lanes. [This is] not a one-time problem, but is a long-term problem. Warship escorts should be [considered in terms of long-term benefits, not preoccupation with short-term costs]. . . . [I]f these Far Seas shipping companies are affected [by piracy] and shut down, [this] will produce an enormous loss in national tax revenues. So, [the issue of a] warship escort task force concerns far more than just the problems of how much money should be spent and how large costs will be. The larger benefits are much more significant than [immediate] costs and prices; they are long-term [in nature].⁵⁵

Similarly, Ju declared in 2009, “China has become a ‘Maritime Shipping Power’ (海运大国), with a national shipping fleet containing over 3,300 vessels with an aggregate carrying capacity of 84,880,000 tonnes, ranking fourth in the world.”⁵⁶ During the same interview, Ju said that China, at the time, relied on maritime shipping for 90 percent of its international trade in goods.⁵⁷ Ju added, “Now Chinese vessels may be seen at ports throughout the world. We have 40,000 crewmen [working] on the oceans. We are also a ‘seafarer power’ [海员大国]; the government has a responsibility to protect them.”⁵⁸

Statistics on Chinese port traffic further demonstrate its growing dependence on maritime commerce. A 2000 PLAN study estimated that aggregate port throughput would grow from 1.8 billion tons to three billion tons by 2010.⁵⁹ By 2009 total throughput had

already reached seven billion tons.⁶⁰ While the recent global recession may have moderated this activity to some degree, it is nevertheless likely to remain high. As a maritime commercial power, China is here to stay.

China not only relies broadly on stable SLOCs but also depends heavily on sea-lanes that are some of the world's busiest and most vulnerable to pirate attacks.⁶¹ China relies on five SLOCs for 86 percent of its foreign trade, the Strait of Malacca being the most important; 80 percent of China's oil imports pass through it, and over 60 percent of the ships that transit the strait daily are Chinese.⁶² "Maritime transportation lines have already lived up to their name of becoming national survival and development 'lifelines' [生命线]," states an article in *Modern Navy*. "Regarding economics, maritime transportation lines are important pillars and necessary prerequisites for the rapid development of the national economy."⁶³ China's *Ocean Development Report 2010* states that China's overdependence on "a few passages and straits" for obtaining strategic resources is a primary threat to its "sea-passage security."⁶⁴

Many Chinese analysts appear gravely concerned about China's strong reliance on goods transiting vulnerable international waters and choke points, as well as China's extensive dependence on foreign transportation. For instance, Han Xudong, a professor at China's National Defense University (NDU), has written, "From the current situation, ocean lifelines have already become a soft rib in China's strategic security."⁶⁵ Han regards this as a potential "bottleneck in China's future economic development."⁶⁶ In 2011 a Chinese Academy of Social Sciences (CASS) Research Center for Forecasting Sciences researcher, Fan Ying, stated that 90 percent of China's maritime-imported oil was transported in non-Chinese ships, which makes China's provision of SLOC security more difficult.⁶⁷ During a May 2012 meeting between representatives of the eleventh escort task force and the training ship *Zheng He* in the Gulf of Aden, political worker Tong Zhe stated that 90 percent of China's trade relied on secure passage through SLOCs.⁶⁸ Similarly referring to strategic SLOCs such as the Gulf of Aden, military expert Liu Jiangping adds, "Those who control these maritime strategic channels and gulfs would have their hands put onto China's strategic oil channels, and would be capable of threatening China's energy security."⁶⁹

Li Daguang, a professor at National Defense University and a PLA officer, goes so far as to suggest that great powers are seeking to control vital Indian Ocean energy SLOCs under the pretext of fighting piracy.⁷⁰ Li emphasizes that presently more than a hundred ships cross the Indian Ocean daily and that 70 percent of world oil flows transit the Indian Ocean.⁷¹ He anticipates ship transits increasing to between 150 and two hundred by 2020.⁷² He lists the three primary oil-shipping routes through the Indian Ocean:

- Persian Gulf → Cape of Good Hope → Western Europe → North America
- Persian Gulf → Strait of Malacca → Japan
- Persian Gulf → Suez Canal → Mediterranean → Western Europe → North America.⁷³

On this basis, Li contends, “One after another, the great powers of the world are dispatching maritime power to the Indian Ocean to fight piracy, [but what is] actually valued is the Indian Ocean’s strategic geographic location.”⁷⁴

Disruption of SLOC security also poses a somewhat more complex challenge for China’s economy, one related to China’s well-known role as chief financier of U.S. debt. China officially held over three trillion dollars in foreign reserves in March 2011, almost half of which was in the form of American Treasury bonds.⁷⁵ Disruptions by pirates of trade in the Gulf of Aden (termed the “Golden Waterway” [黄金水道] by Chinese reporter Meng Yan) and the Indian Ocean threaten both the global supply and the resulting price of oil, a commodity on which China relies.⁷⁶ These factors, in turn, play major roles in determining the value of the U.S. dollar, and hence both the value of China’s holdings in U.S. Treasury securities and the ability of American consumers to purchase Chinese goods.⁷⁷ PLAN scholar Chen Chundi notes that given China’s estimated \$1.3 trillion in U.S.-dollar-denominated foreign reserves, if oil prices are driven up “China will face an enormous loss with regard to both foreign reserves and U.S. debt.”⁷⁸ For Beijing, SLOC security is vital not only for guaranteeing safe delivery of China’s energy and material goods but also for helping ensure the stability of the U.S. dollar, another critical pillar of China’s economy.

A January 2009 *Sanlian Life Weekly* article stated, “Consistent with the flow of foreign trade, the two ‘main roads’ [主干道] of China’s Far Oceans maritime transportation run through the Suez Canal to Europe and through the Panama Canal to the U.S. The only way to reach Europe is to transit the Gulf of Aden.”⁷⁹ The burgeoning China-EU trade further increases China’s dependence on safe passage through the Mediterranean Sea, Bab el Mandeb, Gulf of Aden, Indian Ocean, and Malacca and Singapore Straits.⁸⁰ Cargoes between China and European countries typically transit all these waterways, unless such circumstances as storms or elevated piracy risks compel vessels to take longer, more expensive alternative routes. China’s aggregate trade with EU countries in 2010 was approximately \$500 billion.⁸¹ Chinese reporter Meng Yan wrote in 2010 that two thousand Chinese commercial vessels traverse the Gulf of Aden every year.⁸² Moreover, a reported 80 percent of all ships transiting this strategic passage either are Chinese or carry Chinese cargoes or crew members.⁸³ Given these realities, MoT official Ju Chengzhi declares the Gulf of Aden to be a vital transit area: “The Gulf of Aden is a route we take to reach Europe. . . . The ‘Gulf of Aden–Red Sea–Suez Canal–Mediterranean’ line is the

most convenient route chosen by everyone. . . . [T]his route is of course also the most preferable for going to North Africa.”⁸⁴

Adding to the strategic importance of these routes, about 20 percent of China’s imported oil, over 2 percent of its national energy supply, is purchased from Saudi Arabia.⁸⁵ Yemen’s instability following the 2011 Arab Spring uprisings raises the specter of a Yemeni collapse that could have major domestic economic and political consequences for Saudi Arabia and subsequently threaten the stability of its oil exports, as Yemeni refugees would likely pour into that oil-rich nation. Perhaps more significantly, an unstable Yemen could “worsen the risk of piracy or terrorist attacks in or near the [Bab el Mandeb] strait.”⁸⁶

These relationships demonstrate the growing connection between China’s domestic economic growth and external economic, political, and social forces that Beijing is unable to manipulate directly. While China may not be able, or interested in trying, to control many of these risks, SLOC security is a global-commons issue that has seriously threatened overseas Chinese interests. For example, as one Chinese scholar points out, “Somali piracy has not only disrupted navigation security but has also inflicted grave harm on China’s national interests. This is the fundamental reason for China’s escort operations in the Gulf of Aden.”⁸⁷ Further, Yin Zhuo—a retired PLAN rear admiral, a Chinese People’s Political Consultative Conference (CPPCC) national committee member, and frequent commentator—has cited the Gulf of Aden mission as rationale for enhancing the PLAN’s Far Seas capabilities to maximize protection of SLOCs and China’s overseas interests. Yin argues that the recent Libya evacuations were smooth and successful because of China’s naval presence in the area, whereas during a 2000 coup d’état in the Solomon Islands, Chinese nationals who were to be evacuated had to wait for a cargo ship to be rerouted.⁸⁸

China has come a long way since the Solomon Islands episode. Ethnic tensions there threatened Chinese citizens, but because Honiara, the capital of the Solomons, recognized Taipei, Beijing had to run the noncombatant evacuation operation (NEO) instead out of its embassy at Port Moresby, in Papua New Guinea. Following its usual practice of working with local Chinese organizations and federations to collect information and disseminate advisories, diplomats obtained situational updates from local Chinese. Having obtained the telephone number of the local rebel leader and identified the section of the city he controlled, they called him and negotiated safe passage before dispatching a China Ocean Shipping Company (COSCO) ship to evacuate approximately 120 Chinese and arranging flights out of the country. Apparently the PLAN was asked to send a vessel but was unable to do so (today things might be completely different). Subsequently, China has organized a variety of NEOs, including from Fiji during the 2006 military coup.⁸⁹

Professor Feng Liang of Nanjing Naval Command College and Capt. Zhang Chun, a destroyer division commander in the South Sea Fleet, cite SLOC security not only as an important component of China's maritime interests but also as playing an increasingly important role in China's national security and development.⁹⁰ Moreover, Chinese analyst Wang Tao, noting that approximately 60 percent of all vessels transiting the Strait of Malacca are Chinese, argues that only a "powerful, defensive navy" (防卫性的强大海军) armed with resources commensurate with China's growing overseas footprint can ensure the protection of Chinese interests abroad.⁹¹ Zhang Wenmu, a hawkish scholar, has gone so far as to state, in 2009, "The most crucial conduit connecting China with the region and with the rest of the world is the sea lanes, and therefore, China must have a powerful navy."⁹² China's rapidly expanding maritime economy, evidenced by growing maritime imports of resources and the world's largest shipbuilding industry, thus provides tremendous incentives for the PLAN to expand its antipiracy missions and, more broadly, "new historic missions," in both the Near and Far Seas.

Piracy's Political Ramifications for China

The antipiracy task forces have been a great success and have enhanced Beijing's reputation significantly, both at home and abroad. As Beijing has quickly learned, incidents involving Chinese citizens, companies, or military forces abroad offer excellent opportunities to portray China as a responsible stakeholder. As Rear Adm. (and former PLAN escort task force commander) Zhang Huachen puts it, the PLAN's Gulf of Aden antipiracy mission "established a good image" (树立了良好形象) of China and its navy in other states' eyes.⁹³ Wei Xueyi, a commander in the sixth escort task force, declares, "Warships are mobile national territory, the escort task force is a name card for China's image. While carrying out escorts in the Gulf of Aden, we not only need to guarantee the safety of escorted ships, but need even more to display the elegance of the Chinese navy, [and thereby] display an image of China being a responsible power."⁹⁴ In the words of Senior Capt. Li Jie, a well-known analyst at the PLAN's strategic think tank, the Navy Military Studies Research Institute (海军学术研究所),

The PLAN's power conforms with "favorable weather and geography" [天时, 地利], appropriately grasping opportunities. [We] rapidly dispatched task forces to the Gulf of Aden and Somali waters, not only adjusting to the needs of the powerful development of international peace, [but] also in accordance with the morale of domestic troops and citizens, [thereby] displaying China's confidence and determination for peaceful development and global and regional protection through practical operations, [and] taking a step forward in displaying the Chinese navy's image of a "civilized and mighty force" [文明之师, 威武之师].⁹⁵

A special column in *Modern Navy* summarizes the image issue more generally: "Facing severe challenges to the safety of global shipping, the PLAN escort task force has been

persistent in adhering to legal escorts all along, [its] operations have displayed China's unrelenting pursuit for the construction of harmonious seas, [and it has] given full display of the image and heart of a great naval power."⁹⁶

However, nontraditional security contingencies present formidable political and public relations challenges that are complex and risky for China's externally cautious leadership to address. For example, Africa specialist Wang Xuejun notes that China's military activities in such areas as Sudan and Zimbabwe have stirred criticism that potentially detracts from China's international image as a responsible power.⁹⁷ Specifically, antipiracy operations involve the risk of embarrassing failures at the hands of unprofessional, subnational militants. Additionally, the PLAN's antipiracy mission in the Gulf of Aden has exposed the inherent tensions between China's traditional noninterventionist foreign policy and mounting domestic pressure on the Chinese government to protect its citizens and interests overseas within the context of poorly defined international maritime laws and norms concerning piracy. But if failure brings serious repercussions, success breeds inflation of expectations. Thus Beijing's recent forays into antipiracy operations have sparked fundamental debates within China, with some policy makers eager to reap the benefits of the mission and others hesitant to depart from a conservative foreign policy.

The deployment on 26 December 2008 of China's first antipiracy task force was preceded by several Somali pirate attacks that threatened the lives of Chinese merchant sailors and the profits of Chinese shipping companies, thereby magnifying domestic political pressure to respond. In January 2009 MoT official Ju Chengzhi recalled,

Beginning last June Somali piracy became relatively rampant, September and October being the most severe times. Chinese ships were attacked at a relatively high rate, [although] the percentage of [Chinese] ships [actually] hijacked was very low. . . . Sinotrans [Limited]'s [ship] "Dajian" was previously hijacked, the problem was resolved by paying a ransom. Currently there is also a fishing vessel, "Tianyu 8," still being held [by pirates], the seventeen crew members aboard it have been taken captive. China is still using diplomatic channels to endeavor [to resolve the situation] in various ways.

Dajian, which sails "under the flag of Chinese-foreign cargo shipping" (中外运行旗下货轮), was at the time captained by a Sri Lankan and had a twenty-three-man Chinese crew, one member of which was from Hong Kong. Upon its release, the pirates, who had not injured any crewmen, even distributed a hundred dollars to each crew member as compensation for their handheld phones.⁹⁸ Two other Hong Kong-registered commercial vessels, *Stolt Valor* and *Delight*, were also pirated by Somalis during this period. When pirated in late 2008, *Delight* was crewed solely by non-Chinese. As attacks mounted, shipping companies became obligated to provide extra incentives to sailors, as stipulated in collective bargaining contracts negotiated with the Hong Kong Seamen's Union (香港海员工会). Roughly one thousand Hong Kong-registered vessels and

foreign-registered vessels owned by Hong Kong shipowners were covered by these contracts. Sailors crewing Hong Kong-registered ships that transited high-risk waters such as the Gulf of Aden were thereby entitled to double salaries and double reimbursements in instances of injury for each day they spent there. In such “high-risk areas” (高危地区), if a shipping company chose a route that would divert a ship from “internationally designated safety corridors in the Gulf of Aden” (国际社会已在亚丁湾海域划出指定安全航道), sailors were entitled to disembark beforehand, and the company would be responsible for covering the cost of their “travel fees” (旅费).⁹⁹

Pirate attacks on mainland Chinese vessels further highlighted the danger of piracy to the nation’s maritime commerce. First, in mid-November 2008, Somali pirates seized the fishing boat *Tianyu* and held its twenty-four-man crew hostage.¹⁰⁰ Three months later, following a variety of Chinese diplomatic efforts, they freed the vessel and captives. The warship *Haikou* collected the crew members and cared for them on board but apparently had no direct interaction with Somali pirates.¹⁰¹ It took PLAN mechanics sent to *Tianyu* six days to render it able to sail again.¹⁰² A month after *Tianyu*’s seizure, on 17 December, the Chinese tanker *Zhenhua 4* came under attack from nine pirates. The crew retreated to unusually inaccessible living quarters and attempted to resist with makeshift “Molotov cocktails”;¹⁰³ however, the pirates did not withdraw until a Malaysian military helicopter arrived.¹⁰⁴

These incidents exemplified China’s troubles with piracy during 2008. From January to November of that year, of 1,265 Chinese ships, eighty-three were attacked;¹⁰⁵ several were pirated.¹⁰⁶ Makeshift measures advocated by MoT—such as evasive maneuvering, deployment of water cannons, and improvised explosives—were proving inadequate.¹⁰⁷ While COSCO ships had avoided being pirated entirely, their model defense measures and all-Chinese teams could not be extended completely to many China-connected ships.¹⁰⁸ In 2009, Ju Chengzhi of China’s MoT recalled that before China’s initial warship deployment, “when encountering such problems [i.e., pirating of Chinese ships], we relied primarily on foreign diplomatic channels, coordinating with local governments and the International Maritime Organization (IMO) to seek solutions, but [this] was not very effective.”¹⁰⁹ Addressing the surging piracy problem effectively clearly required not uncoordinated stopgaps but decisive, comprehensive action from Beijing.

For all these reasons, by 2008 the Chinese public was pressing its leaders to intervene. The media outlet *Eastday* reported that a survey showed that 86 percent of Chinese “netizens” (active Internet users) supported a Gulf of Aden mission.¹¹⁰ Another survey was reported by *People’s Daily* on 24 December 2008, just two days before the inaugural deployment.¹¹¹ The survey apparently included over seventeen thousand participants, 91.2 percent of whom supported the mission and 6.7 percent of whom opposed it.¹¹² Chinese social networking websites, such as Weibo, captured some of the discontent felt

by Chinese citizens as a result of Beijing's initially hesitant response to Somali piracy. Many of these netizens criticized Beijing for its inability to protect citizens living abroad, and China's leaders surely followed these comments and blog posts.¹¹³ Paradoxically, a long-entrenched, authoritarian regime like China's must in some respects be unusually responsive to short-term public-opinion trends, as it lacks either reserves of enduring ideological affinity or the political release valves of periodic elections and alternation of parties in power that democratic states typically enjoy.¹¹⁴ Domestic political pressure thus seems to have played a major role in heightening Beijing's prioritization of the piracy issue and in strengthening its ultimate response.

In a landmark interview, MoT official Ju Chengzhi revealed the calculus behind the interagency genesis of China's Gulf of Aden mission. He explained why Beijing finally had to act:

Piracy was relatively rampant in September 2008. By October, most of China's large maritime shipping companies felt that pressure was too great. [Yet while] facing the threat of piracy, they had no other choice but to persist [in their current] routes. Otherwise, not only would [they] breach [their] contracts, [but also competitors] would take their share of shipping. Accordingly, maritime shipping companies reported emergencies one after another, making requests for the government to dispatch warships to escort ships as quickly as possible.¹¹⁵

This perceived urgency set the stage for swift interagency coordination of a decisive whole-of-government response:

After we raised this item, [it] commanded everyone's focus. Agencies such as the Ministry of Transportation, the Ministry of Foreign Affairs, and the military, as well as some experts researched [the matter] repeatedly, because this is not a simple measure; [it] relates to a series of weighty issues such as [requisite] capabilities, supply [logistics], and international law. Everyone [thus] shared unanimous understanding of the urgency and severity of this issue.¹¹⁶

From an international political perspective, China's announcement that it would dispatch an escort task force to the Horn of Africa came as a surprise to few, particularly since several other nations had already undertaken, or were preparing to undertake, similar actions. For example, Russia, NATO countries, and India all announced antipiracy deployments before China did.¹¹⁷ Of course, Chinese naval officials were extremely cautious in announcing the PLAN antipiracy mission, stipulating that it would protect specifically commercial vessels from mainland China, Hong Kong, Macau, and Taiwan, the only addition being "ships of international organizations [such as the UN World Food Programme] that are carrying humanitarian supplies to Somalia."¹¹⁸ This posture conveniently allowed China to end its status as the only permanent United Nations Security Council (UNSC) member not contributing to global maritime security and thereby to enhance its international résumé as a "responsible stakeholder" (负责任的利

益相关者).¹¹⁹ As an article in *Modern Navy* articulates further, “This is the fine embodiment of the Chinese navy carrying out Far Seas international duties, establishing the righteous measure of shouldering the mission of international peaceful development, and even more the style of a ‘responsible great power’ [负责任大国].”¹²⁰ A newly published book, an introduction to the PLAN, states that the mission “embodies China’s image as a responsible large country actively fulfilling its international obligations.”¹²¹

China’s antipiracy mission has also facilitated bilateral dialogues between Beijing and other countries invested in the security of the Gulf of Aden, by providing opportunities for interactions between the PLAN and counterpart navies. Through joint exercises, official visits, and information sharing, PLAN officers are establishing with their foreign colleagues ties beneficial to bilateral confidence building.¹²² An article in the Xinhua-run *International Herald Leader* cites the PLAN’s Gulf of Aden operations as one of the most successful cases of projecting Chinese soft power.¹²³ These relationships are forged through activities and exchanges on board either Chinese or counterpart naval vessels. As antipiracy deployments have become a regular PLAN duty, escort crews have begun disembarking in selected ports, including some not necessarily central to global antipiracy operations, and spending several days ashore to rest and recuperate. The core message of these exchanges is that China shares manifold security interests both with other navies and with littoral states in the region; Beijing is eager to maximize the broader political benefits of cooperating with other actors vis-à-vis antipiracy operations.¹²⁴

China has further enhanced the underlying political gains of fighting piracy by expanding the scope of its escort operations to include foreign-flagged ships. While initially escorting only then-prioritized mainland China-, Hong Kong-, Macau- and Taiwan-flagged vessels, a flotilla under PLAN escort at any given time may now include seven to ten foreign ships, which can view escort schedules online and register for free protection.¹²⁵ Since China’s February 2009 Spring Festival holiday, the PLAN and MoT have established routine procedures for escort services, based on maritime traffic conditions, posting announcements on the China Shipowners’ Association (CSA) website by the fifteenth of every month.¹²⁶ In recent years, several PLAN rescues of both Chinese- and foreign-flagged vessels have been reported on heavily by the Chinese media.¹²⁷

Of course, it is not always the PLAN that is rescuing commercial vessels of China or other nations. Occasionally Chinese vessels are rescued by others, in several instances in recent years after having been captured. Most recently, the Iranian navy freed twenty-eight sailors from the Chinese vessel *Xianghuamen*, which had been seized forty-five miles off Iran’s southern port city of Jask in early April 2012.¹²⁸ *Xianghuamen* is owned and operated by the Nanjing Ocean Shipping Company.¹²⁹ In May 2011 a Chinese-flagged cargo ship was pirated.¹³⁰ On that occasion, all of the ship’s twenty-four crew members having

withdrawn to its “safe room,” forces from India and NATO (with American and Turkish air support) expelled the pirates and ensured the safety of the Chinese sailors.¹³¹

As noted above, because international antipiracy operations take place on a highly visible stage, they could potentially expose shortcomings of either China’s policy makers or its sailors. Yet antipiracy in itself is a low-intensity military operation, far short of traditional warfare, and so provides an expansive arena for enhancing both domestic political legitimacy and international relations through successful bilateral and multilateral cooperation. More broadly, as Li Ruijing underscores, there are soft-power gains to be made from Far Seas escort operations, in the broader context of China’s national interests:

Currently, China’s South Sea is facing the unfavorable situation of being split up by “small groups” [群小]. Under the prevailing international situation, however, directly using the South China Sea problem “as a precursor” [为牵引], and relying on a “bright muscles” [亮肌肉] method to “intimidate” each “claimant country” [声索国], will undoubtedly push them toward the embrace of the outside power. Rather, by borrowing from the “East Wind” [东风] of escorts, [we] can lower the China threat theory, in order to develop a military capable of breaking the enemy’s resistance without fighting.¹³²

As Li explains, PLAN antipiracy operations are indeed being undertaken amid a complex maritime environment, one that includes competitive aspects, such as territorial disputes in the South China Sea, that threaten to harm China’s military image. The political dimension of the PLAN’s antipiracy operations must therefore be understood as contributing a cooperative element within this larger context, rather than in isolation.

Piracy’s Military Ramifications for China

From a purely military standpoint, widespread Far Seas piracy provides enormous incentives for PLAN intervention. Chinese naval officials and crews gain what is for them unprecedented operational experience and tests of their equipment by participating in antipiracy missions abroad. A December 2012 *Global Times* article described the PLAN’s maturation process through four years of antipiracy deployments as one of going from “maritime rookies to confident sea dogs.”¹³³ Upon embarking in the eleventh escort task force in late 2011, Senior Capt. Zhou Bo summarized the comprehensive experience to be gained: “The experience definitely would be unprecedented not only for officers and sailors, but also for the durability and function of the ships. . . . And also it’s a great challenge to the officers and sailors, not only physically, but also psychologically.”¹³⁴ The value of Far Seas experience to the PLAN was manifest even in the first deployment. As South Sea Fleet political commissar Huang Jiaxiang remarked in March 2009, “The escort mission accumulated experience and provided revelations for our armed forces in performing diversified military tasks.”¹³⁵ More broadly, as an article in *Modern Navy* documented at the two-year point of the Gulf of Aden mission, “Contact is increasingly

frequent, areas of cooperation are rapidly expanding. For [PLAN] escort personnel, [this is] undoubtedly a good opportunity for discovering their own weaknesses, practicing and improving themselves, [and] studying ‘strong points’ [长技] of others.”¹³⁶

At the four-year mark of PLAN antipiracy escorts in the Gulf of Aden, *People’s Daily* ran an article suggesting that escort operations to date had been successful in executing diverse maritime tasks.¹³⁷ “Through the ‘grindstone’ [whetstone] of escort missions in the past four years,” it stated, “the PLA Navy has tempered its capabilities for using, organizing, commanding and projecting military forces, and carrying out tasks in open seas in an all-round way, and fully improved its capability for performing diversified military missions.”¹³⁸

Additionally, from the PLAN’s perspective, the antipiracy mission also helps to secure budget share and ensure that the service will receive some of China’s most advanced weapons and information technology.¹³⁹ The PLAN also garners noteworthy prestige by enjoying the greatest exposure abroad, the greatest diplomatic responsibilities, and the greatest potential for international interaction in peacetime of China’s three military services—ground forces, the PLA Air Force (PLAAF), and PLAN—and one branch (the Second Artillery Force). Perhaps most significantly, persistent piracy attacks afford Beijing a rationale for expanding its Far Seas military operations and for projecting sustained force farther. As Liu Yonghong and Tang Fuquan of the PLAN’s Dalian Vessel Academy write, “The expansion of maritime security frontiers means the frontiers will further expand according to the requirements of the situation and our mission as well as available and pertinent support. Not only should the frontiers cover the entire ‘maritime areas under China’s jurisdiction’ but also ‘push out beyond China’ to protect her rights abroad.”¹⁴⁰ In 2012, *Global Times* reported that “China’s anti-piracy initiatives in Somalia were further extended by 50 nautical miles (92.6 kilometers) eastward starting from 1 January 2010 according to the Ministry of National Defense, and China will also increase its level of cooperation with other nations to fight against crimes at sea.”¹⁴¹

Besides these benefits, the operational gains for the PLAN from antipiracy operations are tremendously important, particularly for a navy that has little experience with modern combat—in fact, none whatsoever since the Johnson South Reef Skirmish (赤瓜礁海战) of 1988. Chinese escort task forces typically include two warships and one supply ship, which require roughly two weeks to travel the ten thousand kilometers from China’s coast to the waters near Somalia.¹⁴² The destroyers, frigates, and landing ships chosen are among China’s newest, most advanced warships. The personnel of a given escort task force total roughly eight hundred, about 10 percent of whom are special operations personnel.¹⁴³ By the end of 2011 over eight thousand PLAN sailors had participated in at least one Gulf of Aden deployment.¹⁴⁴

The antipiracy mission imposes special crew requirements: “With regard to crewing, according to the actual situation of many Far Seas escort responsibilities, long voyages absolutely need large numbers of long voyage command and support personnel aboard. Currently [this] includes helicopter support crewmen, special operations personnel, task force commanders, political journalists, etc. In all [the number of] personnel had increased by about 50 percent, following the normalization of escort responsibilities, in the future there may be fewer personnel from outside.”¹⁴⁵ These sailors are some of the PLAN’s finest, a reflection of the careful personnel selection process and the imperative that they perform with distinction on the world stage.¹⁴⁶

Selectees enjoy the prestige of being part of China’s first sustained Far Seas military presence, one that dignifies the PLAN and China.¹⁴⁷ In December 2012 Li Jian, captain of an escort medical unit, declared, “Not every warship can access the high seas. Our vessel is authorized to do so by the United Nations. For me and many sailors, it’s our dream to sail into the high seas.”¹⁴⁸ (Li was referring to the rare opportunity for Chinese sailors to deploy in the Far Seas.) An October 2012 article from *Liberation Army Daily*, the PLA’s premier mouthpiece, reveals that at least one Gulf of Aden veteran was using his antipiracy experience to further PLAN development.¹⁴⁹ Wang Hongmin, captain of the guided-missile frigate *Xuzhou* during a 2009 Far Seas escort deployment, in October 2012 commanded the frigate during a “20-day-and-night high-sea training” of the North Sea Fleet (NSF).¹⁵⁰ The training emphasized “comprehensive defense and ship-submarine-airplane integrated confrontation.”¹⁵¹ The PLAN has also recognized the participation of women in antipiracy operations. A February 2013 *China Military Online* article showed eight female sailors on board the guided-missile destroyer *Harbin*, and according to the article, “Since December 2008, many batches of female sailors of the PLA Navy have participated in the escort mission in the Gulf of Aden. Previously, they had mainly undertaken such service and support work as medical treatment, translation and culture.”¹⁵²

Once deployed, PLAN sailors have the opportunity to distinguish themselves further from other escort participants by earning honors and awards. One of these honors is the “Top Ten Escort Pioneer” (十佳护航尖兵) honor, which was conferred on more than two hundred sailors over the first seven escort deployments.¹⁵³

In a sign that the Gulf of Aden mission represents so new an experience for the PLAN as to require fundamentally new thinking, crewmen participate in various appropriate cultural activities, such as “writing escort diaries, telling escort stories, creating escort epigrams, singing escort songs, testing escort knowledge, performing escort programs, and being escort pioneers.”¹⁵⁴ Being at sea for months at a time, while psychologically challenging in many respects, provides an excellent opportunity to indoctrinate PLAN personnel in a way that complements their actual military duties. Li Yanhe of *Liberation*

Army Daily writes that task forces “generate combat power through culture” (文化出战斗力) and “constantly push soldiers to be brave vanguards” (不断催生官兵勇当先锋), thereby forging a “willing-to-lead-in-the-front-lines fighting spirit” (敢打头阵的战斗精神).¹⁵⁵ The emphasis on “Far Seas” cultural activities demonstrates the PLAN’s eagerness to build foundational ideological capacity for long-range missions, a capacity that it perceives as lacking since essentially all previous PLAN operations focused on the Near Seas. The vice-director of the South Sea Fleet (SSF) Political Department, Chen Yanfeng, has said, “While doing a good job of escorting and training, we also need to build comprehensive capacity through self-cultivation [lit., create a high-quality cultural journey].”¹⁵⁶

In addition to experience for their personnel, PLAN aviation units also gain invaluable operational know-how and insights through their contributions to antipiracy operations. For example, the units of the North Sea Fleet aviation branch deployed to the Gulf of Aden have set multiple records during their five escort deployments, “including the shortest time spent on shifting from one degree of combat readiness to another, the longest distance of forward movement, the longest duration of single flight, the first instance of operating without ground crew support, and the first successful attempt to touch down on a ship’s deck for refueling without engine shutdown.”¹⁵⁷ Furthermore, Chinese scholars Liu Wei, Wang Changqin, Wan Shuixian, and Wang Jiangqi observe the role of what they describe as “‘devil’ drones” in U.S. contributions to antipiracy efforts in the Gulf of Aden, and assert, “With the expansion of our country’s interests, our air force should [also] have the capability to protect our country’s interests in areas far away from our country’s ‘aerial territory.’”¹⁵⁸

Deployed sailors also receive some of the PLAN’s best, most intensive operational training. While the challenge presented by pirates is different from and less formidable than that of an organized navy, PLAN antipiracy task forces operate in a highly visible, high-stakes environment and occasionally are tasked with using force to deter or disperse pirates. Given the current tempo—fresh two-ship escort task forces are dispatched roughly every three or four months¹⁵⁹—China would need four or five years to give every destroyer and frigate a chance to participate. (The U.S. Department of Defense estimates that the PLAN possessed a total of seventy-five such vessels as of 2013).¹⁶⁰ According to *People’s Navy*, antipiracy deployments have played a paramount role in encouraging integrative Far Seas training among various PLAN platforms.¹⁶¹

More important, however, is the transfer of knowledge, skills, and perspective that occurs within China’s navy upon the return of each escort group, increasing overall competency and professionalism. As military expert Zhu Jiangming puts it, “The PLAN does not have warfighting responsibilities right now, and can obtain precious experience from escorts in the Gulf of Aden.”¹⁶² The Gulf of Aden service of Pan Zhiqiang, a deputy division commander, is a case in point. Pan participated in four separate escort deployments

between 2009 and 2011, and he views the mission as vital for China's SLOC stability: "One of the requirements is the protection of our investments and strategic transportation channels. The escort missions are toward these ends."¹⁶³ Perhaps most impressively, the commanding officer of *Weishanhu*, Chen Zailiang, has participated in the first, second, fifth, and sixth deployments, contributing over ten thousand hours of service over 550 days.¹⁶⁴ The aviation units of PLAN escort task forces are also well represented.¹⁶⁵ Many pilots are senior in rank and have logged thousands of hours of flight time—over four thousand for *Wenzhou's* helicopter commander, Guo Qingxing.¹⁶⁶ Pilot Hui Sheng has participated in three escort deployments.¹⁶⁷ According to Professor You Ji of the University of New South Wales, "The hours and sorties of helicopter pilots in a four-month rotation in the Gulf of Aden far exceed their whole year's flight time at home."¹⁶⁸

More broadly, as *People's Navy* reported in 2011, over 50 percent of all officers and sailors in the seventh task force were on their second deployment to the region.¹⁶⁹ This suggests, first, that a single deployment may not offer sufficient experience to train crews to the level desired by PLAN leadership, and second, that the PLAN may be using the Gulf of Aden mission to forge an elite group of sailors. Participation in antipiracy operations is apparently affecting promotion rates. As a general rule, all other things being equal, with the PLAN not having fought a war for decades, individuals who have participated in Gulf of Aden deployments (or major exercises, some of which occur in the Far Seas during the antipiracy mission) enjoy better chances of promotion than those who have not.¹⁷⁰

The notion of spreading knowledge and operational expertise is highlighted by the rotation of antipiracy deployments among China's three naval fleets.¹⁷¹ Long weaker and less developed than the North Sea Fleet or East Sea Fleet (ESF), the rapidly strengthening SSF sent all five ships that made the first two antipiracy deployments. The ESF sent a ship in the third round and has since occasionally done so. The first ten escort task forces were composed of vessels from the SSF and ESF, but the NSF deployed the eleventh, in early 2012.¹⁷² Since the NSF's deployment of the eleventh task force, the PLAN has rotated Far Seas escort duties among its three fleets to maximize distribution of operational experience.¹⁷³ Chinese military observer Zhu Jiangming explains, "From my point of view, [the reason for] initially selecting a SSF force was because the SSF was a relatively more experienced fleet, and also because the South China Sea maritime region is more similar to the conditions in the Gulf of Aden. Now having [dispatched] multiple escort fleets, [the PLAN task forces are] beginning to enter a cyclic battle state; allowing the ESF and SSF time to replenish, while simultaneously letting the NSF task force obtain practice."¹⁷⁴

PLAN strategists also reap substantial benefits by studying the management and support associated with the antipiracy mission. The logistical demands of these deployments,

which typically last for four months at a time (sometimes substantially longer), are unprecedented in Chinese military history.¹⁷⁵ The logistics and planning involved were so complex, in fact, that officials in China took nearly a year to settle into a satisfactory approach. PLAN leaders faced questions they had never had to answer before, such as how much and what types of food and medicine should be stored on board for a combined crew of nearly a thousand at sea for so long.¹⁷⁶

Chinese naval expert Wang Haiyun asserts that China's global naval capabilities are trailing its stature as an international power severely, especially with regard to "technological progress" (技术先进性), "operational architecture" (作战体系), "telecommunications" (通讯), "combat teamwork" (协同作战), and "military ideology and training" (军事思想与训练).¹⁷⁷ These operations, however, will enhance the Chinese navy's ability to perform future power-projection tasks more reliably.¹⁷⁸

For instance, as Maj. Gen. Jin Yinan of China's National Defense University has written, "For a military, the results of participating in this kind of action are not just about gaining experience at combating pirates. It is even more about raising the ability to perform missions on seas far away."¹⁷⁹ In the Somali operation PLAN escort fleets have improved their capabilities related to operations with foreign navies, communications with other ships in crowded international waters, and sustainment by underway replenishment at a great distance from traditional logistical sources and bases.¹⁸⁰ This first extended transoceanic operation will give the PLAN an opportunity to refine fundamentally its doctrine and practices for "blue water" (深蓝) missions, which are widely perceived to be in their infancy.¹⁸¹ Political commissar Tang Gusheng of the SSF landing ship *Kunlunshan* remarked in 2011, "By sailing out of our coastal waters, the operation in the Indian Ocean serves as a live drill for us."¹⁸²

The PLAN's most advanced ships, such as Type 052 Luyang I and Luyang II area-air-defense destroyers and Type 054 Jiangkai air-defense frigates, have been deployed in the Gulf of Aden.¹⁸³ To these ships are assigned the PLAN's most decorated officers, who have participated in previous escort deployments, thereby signaling the importance of this mission to both the CMC and State Council.¹⁸⁴ The NSF's deputy commander, Yang Junfei, led the eleventh task force, continuing the recent trend of sending quite senior officers on these deployments. Under Yang, the eleventh task force evidently enhanced intelligence collection and adopted a more preventive approach to mitigating pirate attacks.¹⁸⁵ According to *Liberation Army Daily*, "the 11th naval escort task force of the Navy of the Chinese PLA further intensified its efforts to collect intelligence on pirate activities and made various contingency plans, especially the countermeasures to be adopted when the escort task force or the escorted ships are attacked by pirates."¹⁸⁶

Moreover, the PLAN's niche role as the vanguard of PLA international noncombat operations presumably gives naval officials a bargaining chip that will pay dividends in the form not only of higher budgetary allocations but of praise in official media outlets. For the past decade or so, the PLAN, like other non-ground-force services, has been growing in representation and apparent influence in China's highest military decision-making bodies, such as the State Council, CMC, and various PLA administrative units (e.g., PLA general departments and other central PLA institutions).¹⁸⁷ There are indications that China's military as a whole aims to become more streamlined and may be planning to reorganize its current regional setup in a more outward-focused structure, which would likely further enhance the PLAN's role.¹⁸⁸

The PLAN also garners significant prestige from being China's only military branch with major diplomatic responsibilities, those associated with port calls, official exchanges, and joint (i.e., "combined," or multinational) onboard training in the Gulf of Aden.¹⁸⁹ PLAN crews, more than units of any other Chinese military branch or service, personify China's military abroad. Indeed, from 2002 to January 2012 nineteen of the Chinese military's forty-one total joint training events and exercises were undertaken at sea by China's navy.¹⁹⁰ That said, until recently PLAN sailors in the Gulf of Aden have been highly reluctant to engage their foreign counterparts carrying out similar operations.¹⁹¹ Cai Qing, deputy captain of the frigate *Yantai*, acknowledged, "At first, when sailors on foreign warships greeted us, we were so shy that sometimes we pretended not to have heard them. . . . We gradually realized the importance of exchanges."¹⁹² Li Daguang, an NDU professor and naval officer, refers in a 2011 *People's Navy* article to engagement with other navies almost as if the PLAN were reluctant about it: "Facing greetings and invitations, the Chinese navy, in accordance with the principles of active pragmatism and autonomy, engages in exchanges and cooperation with navies of the world."¹⁹³

Nonetheless, through these exchanges PLAN crews take pride in, and are praised for, presenting a powerful and competent China to the world.¹⁹⁴ The escort mission has thus helped realize the principle that "naval officials are one-half foreign diplomats" [海军军官就是半个外交官].¹⁹⁵ This ideal was embodied more broadly in a September 2012 *Liberation Army Daily* article, "Top Ten Firsts of Chinese Military Diplomacy from 2002 to 2012." According to this authoritative tabulation, the PLAN was involved in five of them, including China's first "round the world" maritime voyage, in 2002 (ranked second); its first launching of joint maritime patrols, with Vietnam in 2005 (fifth); its first deployment of ships for the international escort mission, in 2008 (eighth); its first organization of multinational naval and air force events, in 2009 (ninth); and its first dispatch of troops to evacuate Chinese personnel overseas, in 2011 (tenth).¹⁹⁶

As Beijing's military grand strategy transforms itself from an air- and sea-based regional "counterintervention" (antiaccess/area-denial) approach to one that also increasingly includes at least low-intensity Far Seas projection, China's navy assumes a growing share of China's national security responsibilities. Far Seas piracy patrols provide an otherwise largely unavailable vehicle for testing new platforms and bridging the gap between development and operational capacity. Some of the experience gained off the Horn of Africa with platforms, intelligence and information-technology systems, and logistical arrangements would be transferable to a contingency around China's maritime periphery, such as Taiwan or in the South China Sea. For PLAN officials, this indeed is a welcome opportunity to sharpen their service's combat readiness during a relatively peaceful era of national development, particularly with respect to personnel competence.¹⁹⁷

Undergirding all the military benefits that the PLAN derives from Far Seas antipiracy operations is the fact that they have allowed Beijing to establish a preliminary foothold for future expansion into the Indian Ocean, the vast maritime area between China and the African coastline. The antipiracy mission has served as an effective channel for sustaining a presence in the IOR. PLAN task forces constantly transit the Indian Ocean and have called in a wide variety of its ports. The PLAN presence in the IOR has renewed concerns in many quarters, particularly among Indian officials and observers, over Beijing's growing commercial presence in the region.¹⁹⁸ For example, China has contributed to commercial port development in such countries as Bangladesh, Sri Lanka, and the Maldives.¹⁹⁹ Yet cooperation between China and these states is purely commercial at present.²⁰⁰ Maj. Gen. Peng Guangqian (Ret.) of the PLA has cautioned not only that China's use of ports in IOR nations carries heavy political baggage but also that converting facilities in such locations as Gwadar, Hambantota, or Chittagong would require substantial expenditures.²⁰¹ Amid speculation that China will develop military facilities in such locations as Gwadar and Seychelles, China Ministry of National Defense spokesperson Geng Yansheng declared in March 2013 that China currently possesses no overseas military bases, and that the notion of a Chinese "String of Pearls" strategy is "totally groundless."²⁰² Still, the deployment of escort task forces has allowed Beijing to project military forces directly across the Indian Ocean without heavy scrutiny, at least outside the immediate region.

Notes

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14. "Warship's 12,000-Mile Detour Gives High-Seas Pirates a Wide Berth," *The Australian*, 5 November 2012, available at www.theaustralian.com.au/.
15. "U.N. Takes New Steps to Curb Somalia's Pirates," *PBS NewsHour*, 17 December 2008, www.pbs.org/.
16. 林琼 [Lin Qiong] and 危玮 [Wei Wei], "中国代表说解决索马里海盗问题的根本在于该国稳定" [Chinese Representative Says the Root of Solving the Somali Piracy Problem Is Stability of the Country], *Xinhua*, 18 November 2011, news.xinhuanet.com/world/2011-11/18/c_111175910.htm.
17. Somalia regularly ranks first in *Foreign Policy's* "Failed States Index" rankings. Abdirahman Mohamed Mohamud Farole, "How to Help Somalia," *Foreign Policy*, 18 June 2012.
18. Robyn Hunter, "Somali Pirates Living the High Life," *BBC*, 28 October 2008, news.bbc.co.uk/.
19. Tony Karon, "Why New York Is No Place to Try Somali Pirates," *Time*, 21 April 2009, www.time.com/.
20. Christopher Alessi and Stephanie Hanson, "Background: Combating Maritime Piracy," *Council on Foreign Relations*, 23 March 2012, www.cfr.org/.
21. "2011 Piracy Attacks Totaled 439; 275 off Somalia."
22. 李高健 [Li Gaojian], 方立华 [Fang Lihua], and 姚子宝 [Yao Zibao], "现场: 中国海军第七批护航编队击退到连续袭扰" [On-Site: Seventh Escort Task Force of the Chinese Navy Deters Consecutive Pirate Attacks], 独家报道 [Exclusive Report], 当代海军 [Modern Navy] (February 2011), p. 51. Original text: "他们把武器, 梯子等隐藏在船舱, 渔网内在护航区域内穿梭, 遇见军舰便拿起渔网打鱼, 碰见商船便抄起武器打劫. 这些船从外观上与渔船没有分别, 根本无从辨别, 加上小艇体积小, 常常随着波浪的起伏, 隐没于波浪之间, 舰艇警戒雷达很难发现."
23. 徐菁菁 [Xu Jingjing], "我们为什么要护航--专访交通运输部国际合作司司长周成志" [Why We Want to Escort: Interview with Ju Chengzhi, Head of the Ministry of Transportation's International Cooperation Department], 三联生活周刊 [Sanlian Life Weekly], no. 3, 19 January 2009, pp. 92–95, www.zsnews.cn/News/2009/01/16/1018431.shtml. Identical text also available as "交通部国际合作司长透露海军护航决策由来" [Head of International Cooperation Department of Ministry of Transportation Reveals Origins of Decision on Naval Escort], euav.blog.sohu.com/123529462.html. MoT official Ju Chengzhi describes pirates' scope as broad and methods as effective: "The Somali piracy situation is particularly complex: People [involved] are numerous, the range of activity is wide, [pirate] activity not only appears

- in Somali waters, but even in Yemeni and Kenyan waters, and is still continuously expanding south. Their weapons are advanced, and include a variety of weapons such as rocket-propelled grenades. Their tactics for robbing ships are also relatively powerful and severe. Their organization is relatively tight-knit. Somali pirates often interpose a mother ship in the middle of several fishing boats, and surround the target vessel with the fishing boats at the right time. As soon as the smaller [pirate] ships are close to the target vessel, it takes 15 minutes to throw down the hooks and board the vessel. [The pirates] first use weapons to subdue the [target vessel's] crew members after boarding. Thus, if crew members don't keep a lookout, the situation becomes very dangerous as soon as pirates board the ship. The world's second-largest oil tanker, 'Sirius Star' was hijacked in this way." Original text: "特别是索马里海盗情况复杂: 人数众多, 活动范围广, 不但在索马里海域活动, 甚至出现在也门海域、肯尼亚外海, 而且还在不断地向南扩张, 他们装备先进, 有包括火箭筒在内的各种武器, 劫持船只的手段也比较厉害, 组织比较周密, 索马里海盗通常将一艘母船夹杂在几艘渔船中, 在适当的时候放下多艘小船, 包围目标船舶, 小船一旦靠上目标船舶, 从抛钩到登船只需要15分钟, 上船后先用武器控制船员。因此, 如果船员没有瞭望, 一旦让海盗登船, 情况是很危险的。世界第二大油轮 '天狼星' 也就是被劫持的"
24. Hunter, "Somali Pirates Living the High Life."
 25. 黄立 [Huang Li], 剑指亚丁湾: 中国海军远洋亮剑 [Sword Pointed at the Gulf of Aden: The Chinese Navy's Bright Far Oceans Sword] (Guangzhou: 中山大学出版社 [Zhongshan Univ. Press], 2009), p. 169. Dr. Huang Li is a professor at South China Normal University Law School, where he teaches international criminal law to master's students. He is also a member of the China branch of the International Criminal Law Association and vice president of the Guangdong Province Criminal Law Institute. Huang worked in China's public security system for twelve years, achieving the rank of third-class police inspector. He has conducted extensive research, and his reports have been praised by Ministry of Public Security leadership. Huang is an influential expert in China on organized crime. His publications include the 2008 monograph *Crack Down on Speculation and Profiteering, Eliminate the Loathsome Cancer Uprooting the Harmonious Society*. While Huang acknowledges that he lacks naval operational expertise, his book offers a useful compilation of open-source information and displays incisive critical analysis.
 26. Zhang Yunbi et al., "Pirates-Held Hostages Finally Come Home," *China Daily*, 25 July 2012, usa.chinadaily.com.cn/.
 27. "Security Council Calls for Comprehensive Response to Fight Piracy off Somalia," Xinhua, 23 November 2011, news.xinhuanet.com/english2010/world/2011-11/23/c_122320496.htm.
 28. "Piracy & Armed Robbery Prone Areas and Warnings," ICC Commercial Crime Services, www.icc-ccs.org/.
 29. Martin N. Murphy, "Somali Piracy: Why Should We Care?," *RUSI Journal* 156, no. 6 (December 2011), pp. 4–11.
 30. Erin Foster, "Anti-piracy Review: Economics," *Civil-Military Fusion Centre*, Week 35, 30 August 2011, p. 1, portal.mmowgli.nps.edu/.
 31. See Stephen M. Carmel, "Globalization, Security, and Economic Well-Being," *Naval War College Review* 66, no. 1 (Winter 2013), pp. 52–55.
 32. Anna Bowden and Shikha Basnet, *The Economic Cost of Somali Piracy 2011*, Working Paper (Broomfield, Colo.: Oceans beyond Piracy, One Earth Future Foundation, 8 February 2012), pp. 1–59.
 33. As an article in *Modern Navy* emphasizes, "According to historical records, since Portuguese [explorer] Diaz discovered the Cape of Good Hope in 1487, ships here have capsized and sunk by the thousands; in just the last twenty years, just eleven ships of over 100,000 tons have sunk off the Cape of Good Hope. But waves are small in the Gulf of Aden and in Somali waters, the route is short, [and] has become the first choice for ships throughout the world heading to Europe. If [a ship] sails around the Cape of Good Hope, [it] not only [faces] a perilous environment but also needs to take fourteen more days' voyage." 黄修国 [Huang Xiuguo], 卫肖虹 [Wei Xiaohong], and 吴寒月 [Wu Hanyue], "有自己的军舰护航放心了" [Rest Easy Having One's Own Warship Escorts], 甲板故事 [Deck Stories], 当代海军 [Modern Navy] (March 2009), pp. 42–43. Original text: "据史料记载, 自1487年葡萄牙人迪亚士发现好望角海域以来, 在这里翻沉的船只数以千计, 仅近20年来, 在好望角海域失事翻沉的10万吨以上的船只就有11艘。而亚丁湾和索马里海域海浪小, 航程短, 成为各国远洋船只去往欧洲的首选。如果绕行好望角的话, 不仅环境险恶而且还要多出14天的航程。"
 34. Capt. David B. Moskoff, "Piracy Impacts and Risk Perspectives" (address on Best Management Practices for Protection against Somalia Based Piracy, Maritime Risk Symposium, Rutgers University, 7–9 November 2011), available at

- dimacs.rutgers.edu/. The statistics on rerouting costs used in this study are for 300,000-DWT (dead weight tonnage) very large crude carriers and 10,000-TEU (twenty-foot-equivalent unit) containerships.
35. Bowder and Basnet, *Economic Cost of Somali Piracy 2011*.
 36. Xu Jingjing, "Why We Want to Escort." MoT official Ju Chengzhi rejects circumnavigating Africa as a viable solution: "Under the present circumstances of intense shipping competition and the global financial crisis, maritime shipping companies, first and foremost, cannot abandon cargoes of trade goods heading to Europe and North Africa. However, if shipping services companies choose the navigation route winding around the Cape of Good Hope, [they] must increase [the total distance traveled] by 3,482 nautical miles. Typically, it takes 18 days to sail from China through the Suez Canal route to Europe, but circumnavigating the Cape of Good Hope takes 24 days." Original text: "在目前激烈的航运竞争和世界金融危机情况下,海运公司首先不可能放弃运载前往欧洲和北非的贸易品;而如果船务公司选择绕过好望角的航线,要增加3482海里。通常,从中国走苏伊士运河航线到欧洲需要18天,而绕过好望角则需要24天。" *Sanlian Life Weekly*, the magazine that interviewed Ju, writes that other MoT officials elaborated on the effect of the economic downturn on world shipping: Zhang Shouguo, director general of the Ministry of Transportation's Water Transportation Department, told a *Sanlian* reporter that "in 2008 the world shipping industry encountered an enormous slump [lit., "cold current," 寒流]. [Zhang] indicated that the level of world shipping volume, [as measured by] the Baltic Dry Index [波罗的海航运指数], had fallen rapidly to just over 600 from over 11,700 in May 2008, [and] transportation prices [paid to shipping companies] for international routes plummeted. Average daily prices [paid to shipping companies] for Cape of Good Hope circumnavigation have already fallen to \$5,000 from over \$200,000." In other words, the 2008 financial crisis depressed shipping revenues by decreasing shipping volumes. Original text: "当地时间2009年1月8日,中国海军赴亚丁湾、索马里海域执行护航任务的舰艇编队顺利完成首次护航任务。与对外贸易流向一致,经苏伊士运河前往欧洲、经巴拿马运河前往美国,是我国远洋航运的两条主干道。亚丁湾正是驶向欧洲的必经之路。交通运输部水运司副司长张守国告诉本刊记者,2008年世界航运业遭遇了巨大的寒流,表明世界航运运量水平的'波罗的海航运指数',由去年5月份的11700多点,急降至600多点,国际航线运输价格直线下降。绕好望角航线日均运价已由20余万美美元跌至5000美元。"
 37. Rawles O. King, *Ocean Piracy and Its Impact on Insurance* (Washington, D.C.: Congressional Research Service, 6 February 2009), available at fpc.state.gov/.
 38. Xu Jingjing, "Why We Want to Escort." According to Ju Chengzhi of China's MoT, for China: "Piracy is an age-old problem. Piracy has actually existed continuously around some islands in the Strait of Malacca and Indonesia, China Ocean Shipping (Group) Corporation [COSCO] CEO Wei Jiafu was hijacked by pirates while a captain in 1982. Veteran captains of 'COSCO' all have had such experiences, both small and large, with pirates." Original text: "海盗问题自古有之。在马六甲海峡和印度尼西亚的一些岛屿,海盗其实一直存在,中国远洋运输(集团)总公司总裁魏家福1982年当船长的时候就被海盗劫持过。'中远'老资格的船长都有像这样大大小小的和海盗打交道的经历。"
 39. 李瑞景 [Li Ruijing], "借护航壮大蓝水海军" [Borrowing from Escorts to Expand Blue-Water Navy], 世界报 [World Journal], 11 April 2012, www.ahwang.cn/sjb/html/2012-04/11/content_151231.htm?div=-1. Original text: "因此,参照美国'黑水',成立并壮大中国的'红盾',让民间安保走出国门,才能最大限度护航发展,保护中国海外利益。"
 40. Ibid.
 41. "China Says Military Action Not Final Solution to Somali Piracy," Xinhua, 18 November 2011, news.xinhuanet.com/english2010/china/2011-11/18/c_131255120.htm.
 42. "China Envoy Says Prosecuting, Detaining Pirates Constitute Important Link of Fighting Somali Piracy," Xinhua, 21 June 2011, news.xinhuanet.com/english2010/world/2011-06/22/c_13942379.htm.
 43. Caroline Wafula, "China Grants Kenya \$94m to Fight Terror," *Africa Review*, 23 May 2012, www.africareview.com/; minutes from twenty-seventh SHADE Meeting on 19 March 2013.
 44. Yang Jingjie, "Captains Courageous," *Global Times*, 24 December 2012, www.globaltimes.cn/. This paper cites *Global Times* (环球时报), as well as *Global Net* (环球网), multiple times. According to *Global Net*'s "About Us" section (see corp.huanqiu.com/aboutus/), it has been invested in by and developed in parallel with *Global Times*, hence our distinction between the two. *Global Net*'s establishment was approved by the *People's Daily* newspaper and the State Council Information Office. According to its website, "Huanqiu.com has developed in parallel with *Global Times*. We form the core of the earliest team reporting from abroad, with special correspondents of diplomatic missions in over 150 countries and territories, reporting news

- from all over the world in Chinese and English languages, fast and accurately.”
45. 吴超 [Wu Chao] and 李大光 [Li Daguang], “海上运输线事关中国发展” [Maritime Shipping Lanes Related to China's Development], 海洋热点 [Ocean Hot Spots], 当代海军 [Modern Navy] (October 2011), pp. 50–52.
 46. The first through tenth five-year national plans were termed “Five-Year Plans.” Starting with the eleventh, they are now deemed “Five-Year Development Guidelines,” such as the “Eleventh Five-Year Development Guidelines.” See www.china.org.cn/english/features/guideline/156532.htm.
 47. “China's NDRC Submits Twelfth Five Year Plan Gas Targets to Cabinet: Official,” *Platts*, 9 May 2012, www.platts.com/.
 48. “China Cuts 2012 GDP Growth to 7.5% for Quality Development,” *Xinhua*, 5 March 2012, news.xinhuanet.com/english/china/2012-03/05/c_131445684.htm.
 49. This is based on official reports that China's dependence on imports as a percentage of total oil consumption had risen above 55 percent during 2011. See “Experts Warn of China's Rising Imported Oil Dependence,” *Xinhua*, 14 August 2011, news.xinhuanet.com/english/2010/indepth/2011-08/14/c_131048726.htm.
 50. “替代燃料: 如何替代石油依赖” [Replacement Fuels: How to Replace Oil Dependence], *CNPC News Center*, 17 September 2012, news.cnpc.com.cn/system/2012/09/17/001392566.shtml.
 51. “到2030年中国进口石油依存度将达到80%” [China's Oil Import Dependence Will Increase to 80 Percent by 2030], 中国资本证券网 [China Capital Securities Net], 24 September 2011, money.163.com/11/0924/05/7EMP62KT00252G50.html.
 52. “Experts Warn of China's Rising Imported Oil Dependence.”
 53. Xu Jingjing, “Why We Want to Escort.” In one indication of China's growing shipping reliance, MoT official Ju Chengzhi states: “The Ministry of Transportation plans that by 2020, China's maritime shipping will [be] built into a fleet of growing scale possessing relatively strong comprehensive competitiveness, specialization, and modernization, [and] transportation capacity of comprehensive scale at the forefront of world [shipping], especially strengthening transport capacity concerning material focal points such as energy and raw materials.” Original text: “交通部规划到2020年, 我国海运建成具有较强综合竞争力的大型化、专业化、现代化船队, 运力总规模居世界前列, 特别是加强能源、原材料等重点物资的运输能力.”
 54. Navy Liu, “LNG Starts to Challenge Traditional Bunker Fuel in China,” *Bunkerworld*, 17 April 2012, www.bunkerworld.com/.
 55. 张庆宝 [Zhang Qingbao], “海外经济利益应由自己来保护”——本报记者专访国家交通运输部合作司司长局成志” [“We Should Protect Our Overseas Economic Interests”: An Interview with Director General Ju Chengzhi of the International Cooperation Department under the Ministry of Transportation], 人民海军 [People's Navy], 9 January 2009, p. 4. Original text: “目前, 我国从事国际海运的船公司有260多家。... 我们目前的发展趋势肯定是越来越开放, 贸易量越来越大, 海运肯定有一个更大的发展。这种趋势就给我们提出了一个课题, 不仅是亚丁湾, 索马里海域, 还有马六甲海峡, 及整个运输通道的安全的保护, 不是一时一事的问题, 而是长久的问题。军舰护航这个事应该算大账, 不要算小账。从国家战略高度来看的话我就不说了, 我只想说, 如果这些远洋运输公司受影响倒闭了, 对国家税收损失会非常巨大。所以, 舰艇编队护航绝不仅仅是个要花多少钱, 多大代价的问题, 大的方面的利益要远远高于花销和代价, 更大的利益在于长远。”
 56. Xu Jingjing, “Why We Want to Escort.” Original text: “我们国家现在称作‘海运大国’目前拥有船舶3300多艘, 载重达8488多万吨, 位于世界第4位。” Ju stated, “In addition to seaborne shipping, [China's] ports are also developing very quickly. Port handling capacity and container capacity, while still in the process of development, are both [already] number one in the world.” Original text: “我们除了海运, 港口发展也很快, 港口吞吐量和集装箱吞吐量都位于世界第一, 并且仍在发展中。” During the same interview, Ju also related China's shipping industry to the nation's energy security, stating, “Maritime shipping assures China's energy security. During the process of economic development, China's energy consumption [has been] tremendous. By the end of 2007, oil imports were already close to 200 million tonnes, [and] this figure continues to increase. If we cannot ensure the secure transportation of such strategic commodities as oil and iron ore, [this] will [have] a large [negative] impact on the economic security of the country as a whole.” Original text: “海运还是我国能源安全的保证。我国在经济发展过程中能源消耗很大, 石油进口在2007年底就已近2亿吨, 这个数字还在不断增长。如果不能保证石油、铁矿石等战略物资的安全运输, 整个国家的经济安全运行都会带来很大的影响。”
 57. *Ibid.* Ju stated, “Economically speaking, thirty years since reform and opening up, [now with] trade volumes burgeoning, China relies on maritime shipping for 90 percent of its international trade in goods.” Original text: “从经济上来说, 改革开放30年来, 对外贸易量激增, 我国90%

- 的国际贸易货物都是依靠海运。” In addition to highlighting China's growing economic reliance on the sea, Ju noted that for many Chinese shipping companies, the rise of contemporary piracy occurred amid an already formidable industrial climate caused by the global financial crisis. Ju stated, “Therefore, in this sense, responding effectively to Somali pirates is also related to China's maritime transportation industry ability to withstand the impact of the financial crisis. If these companies encounter severe shocks, China's position in maritime shipping will also fall sharply. So, I say that for Chinese maritime shipping companies, Somali piracy during the financial crisis is like ‘making a bad situation worse’ [雪上加霜], while escort warships are ‘rendering assistance just when it is needed most’ [雪中送炭].” Original text: “因此,从这个意义上说,有效地应对索马里海盗,还关系到中国航运业是否能够抵御金融危机的冲击。如果这些公司遭受严重的冲击,我国的航运地位也就会一下子跌落下来。所以,我说索马里海盗对于金融危机中的中国海运公司是雪上加霜,而军舰护航则是雪中送炭。”
58. Ibid. Original text: “现在中国船舶遍布世界各地的港口,我们有40万名船员在海洋上跑,我们也是海员大国,政府有责任来保护他们。”
 59. “对话尹卓,护航是划时代标志性事件” [Conversation with Yin Zhuo: Escorts Are an Epoch-Making Event], 当代海军 [Modern Navy] 12 (December 2011), p. 22.
 60. Ibid.
 61. Xu Jingjing, “Why We Want to Escort.” During the aforementioned interview, Ju Chengzhi cited the example of Japan as a state heavily dependent on energy imports that invested significant resources in SLOC stability, stating, “During the 1970s, Japan established itself as a trading nation, with overseas trade a pillar of its national economy. Japan lacks natural resources to support its development, [and] relies on overseas imports to obtain over 95 percent of resources such as oil. In order to ensure the secure transportation of national strategic resources, [it] invested over \$130 million to enhance maritime transportation security in the Strait of Malacca, helped construct basic infrastructure such as navigation buoys, and played a leading management role in the Strait of Malacca Council.” Original text: “上世纪70年代,当时的日本以贸易立国,海外贸易是国民经济支柱。日本本国没有多少资源可供开发,95%以上的石油等资源都依靠海外进口。日本为了保障国家战略资源的运输安全,在马六甲海峡的海运安全建设上投入了1.3亿美元,帮助建设航标等基础设施,还在马六甲海峡理事会上发挥了管理上的主导作用。”
 62. Wu Chao and Li Daguang, “Maritime Shipping Lanes Related to China's Development,” p. 51.
 63. Ibid., pp. 50–52. Original text: “海上交通线已名副其实地成为国家生存与发展的‘生命线’。就经济而言,海上交通线是国民经济迅速发展的重要支柱和必要前提。” The authors add: “In order to secure more interests, some maritime powers seek to capture and maintain maritime hegemony; having absolute control over strategic sea-lanes allows nations to supply [their] overseas strategic resource needs. Columbus's journey and da Gama's global navigation opened up Far Ocean navigation routes, opened up a new record in the history of humanity, and also spurred the birth of modern Far Oceans navies. Since their birth, the most basic mission and responsibility of navies is to protect the safety of maritime transportation routes.” Original text: “为了获得更大的利益,一些海上强国都企图夺取和保持海上霸权,拥有对海峡、航道等海上战略交通线的绝对控制权,以保障国家对海外战略资源的需求。哥伦布的航海和达伽马的环球航行,开辟了海上远洋航线,开辟了人类历史的新纪元,也促使了近代远洋海军的诞生。维护海上交通线的安全,是海军诞生以来最基本的使命任务。”
 64. “中国海洋发展报告2010年” [China Ocean Development Report 2010] (Beijing: 人民日报出版社 [People's Daily Press], 2010).
 65. 韩旭东 [Han Xudong], “制定国家海洋运输安全战略” [Formulate National Maritime Transportation Security Strategy], 瞭望新闻周刊 [Outlook Weekly] 14, 4 April 2011, p. 2, www.zaobao.com.sg/wencui/2011/04/liaowang110407a06.shtml. Original text: “从目前形势看,海洋生命线已成为我国战略安全中的软肋。这主要是因为:一是过度依赖外轮进行海外运输。”
 66. Ibid.
 67. “专家:2020年我国石油对外依存度将达65–70%” [Expert: China's Reliance on Imported Oil May Reach 65–70 Percent by 2020], 中国经济网 [China Economic Net], 1 September 2011, www.chinanews.com/ny/2011/09-01/3300840.shtml.
 68. 孙国强 [Sun Guoqiang], “有‘缘’千里来相会” [A 1,000-Mile Meeting of “Fate”], 人民海军 [People's Navy], 29 May 2012, p. 1.
 69. 刘炎迅 [Liu Yanxun], 陈晓舒 [Chen Xiaoshu], 王婧 [Wang Jing], 何婧 [He Jing], 李郝然 [Li Haoran], and 姚亿江 [Yao Yijiang], “远征索马里背后:中国海军挺进‘深蓝’” [Background of Expedition to Somalia: Chinese Navy Pushes Forward to Blue Water (lit., “Deep Blue”)], 中国新闻周刊 [China Newsweek] 403, 5 January 2009, pp. 22–27.

70. 李大光 [Li Daguang], “反海盗护航, 是借机角逐印度洋?” [Antipiracy Escorts: Are They Opportunities to Compete for the Indian Ocean?], 海天看点 [Maritime Points], 当代海军 [Modern Navy] (February 2009), pp. 39–43. Original text: “世界各大国纷纷派遣海上力量前往印度洋打击海盗, 实际看重的是印度洋的重要地缘战略位置。” In a separate interview, Li adds: “This time NATO’s realization of military deployment in the Indian Ocean is a measure of historical significance; even during the height of the Cold War, NATO did not achieve a military existence in the Indian Ocean. The ‘mastermind’ [主谋] of NATO’s operation is the United States. The United States’ overall strategy is to use NATO operations to expand its range to the Indian Ocean and even Africa. To America, controlling the Indian Ocean has vital importance for carrying out its global strategy.” Original text: “北约此次在印度洋实现军事部署是一个具有历史意义的举措, 即使在冷战的高峰期 北约也没有在印度洋上实现军事存在。北约此次行动背后‘主谋’是美国。美国的整体战略就是要将北约的行动范围扩展至印度洋乃至非洲。对于美国来说, 控制印度洋对执行美国的全球战略则具有至关重要的意义。” Li Daguang, “国防大学教授李大光: 中国最大的敌人是自己” [National Defense University Professor Li Daguang: China’s Biggest Enemy Is Itself], 中国军网 [China Military Online], 3 February 2012, www.chinamil.com.cn/big5/jwjj/2012-02/03/content_4780797.htm.
71. Li Daguang, “Antipiracy Escorts.”
72. Ibid.
73. Ibid.
74. Ibid. Original text: “世界各大国纷纷派遣海上力量前往印度洋打击海盗, 实际看重的是印度洋的重要地缘战略位置。”
75. Wang Ziwu et al., “China Mulls New Forex Reserve Investment Funds,” *Caixin Online*, 25 April 2011, english.caixin.com/.
76. 孟彦 [Meng Yan], “零距离: 拍摄索马里海盗: 亲历中国海军亚丁湾索马里海域护航” [Zero Distance: Capturing Somali Pirates: Personally Experiencing the Chinese Navy’s Gulf of Aden Piracy Area Escorts], 法律与生活 [Law and Life] (March 2010), pp. 34–35.
77. Ibid.
78. 陈春弟 [Chen Chundi], “利比亚战争的思考: 中国海军如何维护我国海外的利益?” [How Should the Chinese Navy Protect Chinese Interests Overseas? Reflections on the War in Libya], 专题报道 [Special Report], 现代舰船 [Modern Ships] (April 2011), pp. 14–17. “Presently, the number of China’s U.S.-dollar foreign exchange reserves has already reached a shocking \$1.3 trillion, and as soon as oil prices are driven up, China will face an enormous loss with regard to both foreign reserves and U.S. debt.” Original text: “目前, 中国美元外汇储备的数字达到惊人的1.3万亿美元, 而一旦石油价格被哄抬, 中国将在外汇储备和美国国债方面面临巨大的损失。”
79. Xu Jingjing, “Why We Want to Escort.”
80. As of February 2013, the EU was China’s largest trading partner, and China was the EU’s second-largest bilateral partner, behind the United States. See *European Union External Action Service* (EEAS), eeas.europa.eu/china/index_en.htm.
81. Ibid.
82. Meng Yan, “Zero Distance,” pp. 34–35.
83. Yang Jingjie, “Captains Courageous.”
84. Xu Jingjing, “Why We Want to Escort.” Original text: “亚丁湾是我们通往欧洲的必经之路。… 大家选择的最便利航道就是‘亚丁湾—红海—苏伊士运河—地中海’一线。… 到北非国家的航运当然也是以这条线路为最优。” Ju adds: “In 2007 Sino-European trade reached \$350 billion. Europe is an important trading partner of China, [and] over 90 percent of China-EU trade depends on maritime transportation.” Original text: “我国和欧洲的贸易量在2007年就已经到达3500多亿美元, 欧盟是中国最大的贸易伙伴, 中国与欧盟的贸易90%以上依靠海运。”
85. “中美能源合作变量” [Variables in Sino-US. Energy Cooperation], 新金融观察报 [New Financial Observer], 27 August 2012, finance.jrj.com.cn/.
86. Ben Simpfendorfer, “Yemen’s Security Challenge Tests China’s Foreign Policy,” *South China Morning Post*, 23 August 2011, www.scmp.com/article/976877/yemens-security-challenge-tests-chinas-foreign-policy.
87. Huang Li, *Sword Pointed at the Gulf of Aden*, p. 172.
88. 黄莹莹 [Huang Yingying], “如何护卫中国海洋权益和海外利益?” [How Can We Protect China’s Maritime Rights and Overseas Interests?], 国际先驱导报 [International Herald Leader], 19 March 2012, www.qstheory.cn/gj/zgjw/201203/t20120320_146624.htm.
89. All data in this paragraph derived from author’s meeting with a Chinese government official, Beijing, June 2009.
90. 冯梁 [Feng Liang] and 张春 [Zhang Chun], “中国海上通道安全及其面临的挑战” [Chinese Sea Lane Security and the Challenges It Faces], 国际问题论坛 [Forum of International Issues]

- 48 (Fall 2007), pp. 92–107, www.siis.org.cn/Sh_Yj_Cms/Mgz/200703/2008517165051dkw.pdf.
91. 王涛 [Wang Tao], “由科特迪瓦内战看中国的海外利益保护” [Using Lessons Learned from Côte d’Ivoire’s Civil War to Examine How China’s Overseas Interests Might Be Protected], 现代军事 [Conmilit] (June 2011), p. 26.
 92. Peter Pham, “The Chinese Navy’s Somali Cruise,” *Family Security Matters*, 12 March 2009, www.familysecuritymatters.org/. For similar analysis, see 刘新华 [Liu Xinhua], “维护中国海外利益 学者提六建议” [Scholar Raises Six Recommendations for Safeguarding China’s Overseas Interests], 国际频道 [International Channel], 人民网 [People’s Net], 17 August 2010, world.people.com.cn/GB/12466074.html.
 93. 李实 [Li Shi] et al., “有效维护国家海上安全和发展利益: 专访军队政协委员, 海军原副司令员赵兴发” [Effectively Protecting National Maritime Security and Development Interests: Exclusive Interview with Military Delegate to the Chinese People’s Political Consultative Conference and Former Navy Deputy Commander Zhao Xingfa], 人民海军 [People’s Navy], 14 March 2012, p. 2.
 94. 钟魁润 [Zhong Kuirun], “中国海军的责任与担当: 海军第六批护航编队亚丁湾护航启示录之三” [The Responsibility and Undertaking of the Chinese Navy: Three Revelations of the Sixth Escort Task Force’s Escorts in the Gulf of Aden], 解放军报 [Liberation Army Daily], 30 November 2010. For further details concerning the sixth task force’s experience in the Gulf of Aden, see “中国海军第六批护航编队凯旋” [Sixth Escort Task Force of the Chinese Navy Returns Triumphant], 独家报道 [Exclusive Report], 当代海军 [Modern Navy] (February 2011), pp. 40–43.
 95. 李杰 [Li Jie] and 梁春晖 [Liang Chunhui], “中国海军舰艇编队护航佳绩令人瞩目--对我海军编队一年护航行动的回顾与思考” [Great Results of Chinese Navy’s Warship Task Force Escorts Catches People’s Attention: Reflection and Thoughts on One Year of Chinese Task Force Escort Operations], 本刊特稿 [Special Story], 当代海军 [Modern Navy] (January 2010), pp. 8–13. Original text: “我海军力量顺应‘天时、地利’适当把握机遇, 毅然派出舰船编队赶赴亚丁海域, 不仅因应了国际和平力量发展的需求, 也顺应国内军心民心, 以实际行动向世人表明我国和平发展和维护世界及地区和平的信心和决心, 进一步展示了我海军‘文明之师, 威武之师’的良好形象”
 96. Guo Yike and Li Gaojian, “Far Oceans Escorts,” p. 1. Original text: “面对世界航运安全遭遇的严峻挑战, 中国海军护航编队始终坚持依法护航, 以行动展示了中国对建设和谐海洋的不懈追求, 彰显了大国海军的胸怀与形象。”
 97. 王学军 [Wang Xuejun], “中国参与非洲和平与安全建设的回顾与反思” [Review and Reflection on China’s Participation in African Peace and Security Construction], 国际问题研究 [China International Studies] (January 2012), pp. 29–42.
 98. “4艘香港货船申请解放军护航3艘被劫商船2艘已获释” [4 Hong Kong Cargo Ships Apply for People’s Liberation Army Escorts, 3 Vessels Have Already Been Hijacked, 2 Vessels Have Already Been Released], 人民网--港澳频道 [People’s Net: Hong Kong & Macau Channel], 1 January 2009, hm.people.com.cn/GB/85423/8644039.html.
 99. Ibid.
 100. “我国渔船遭索马里海盗劫持三个月后获救” [Chinese Fishing Vessel Hijacked by Somali Pirates Freed after Three Months], 中国新闻网 [China News Service], mil.news.sina.com.cn/2009-02-08/2315541326.html.
 101. [Xiao Yongli], “讲述‘海口’舰接护‘天裕8’号渔船全程揭秘” [Retelling: Uncovering Secrets of the Complete Journey of ‘Haikou’ Warship Escorting ‘Tianyu 8’ Fishing Vessel], 独家报道 [Exclusive Report], 当代海军 [Modern Navy] (February 2011), pp. 44–49. “To coordinate with ‘Haikou’s’ pick up escort operation, according to the PLAN’s instructions, at 5:30, ‘Weishanhu,’ already waiting in the maritime region for ‘Haikou,’ supplied ‘Haikou’ with 150 tons of fuel and 15 tons of fresh water, and also transferred five special forces crewmen, one equipment maintenance crewman, and one medical crewman carrying necessary equipment and medical supplies.” Original text: “为配合‘海口’舰开展接护行动, 根据海军指示, 5时30分, 早已在该海域等待的‘微山湖’舰为‘海口’舰补给了150吨燃油和15吨淡水, 并抽调5名特战队员, 1名装备维修人员和1名医疗人员携带必要装备和药品。”
 102. 李通海 [Li Tonghai], “我是勇敢护航兵” [I Am a Brave Escort Soldier], 士官之友 [Friends of Noncommissioned Officers], 人民海军 [People’s Navy], 14 May 2012, p. 4.
 103. Xu Jingjing, “Why We Want to Escort.” MoT official Ju Chengzhi offered details of the incident: “I received news of the ‘Zhenhua 4’ attack an hour after it occurred, and participated in supporting command work from about 1:30 PM that afternoon until about 5:30 PM. ‘Zhenhua 4’ is a ship that has been remodeled and was transporting shipping containers. The ship’s speed was 9 knots[,] . . . relatively slow. At 5 meters . . . its freeboard is very low. This allowed pirates to board the deck relatively easily.” He

then described exceptional circumstances that facilitated resistance: "Objectively speaking, there are multiple elements to 'Zhenhua 4's' success. One is the efforts [of the crew]; the captain commanded correctly [and] the crewmen cooperated, [thereby] forming a team [and] adopting effective measures. Additionally, 'Zhenhua 4's' hull structure is extremely special, there's a very long deck in the center of the ship's hull; usually ships are not like this. [In the exceptional case of 'Zhenhua 4'] the living quarters are at the ship's rear, [so that one] must use two ladders to reach the living quarters from the deck. Following the [pirates'] attack, crew members stayed in the [ir] living quarters and unharnessed the ladders, [thereby] taking a temporary position of advantage. They used improvised explosive devices and high-pressure water cannons to confine pirates to one end of the deck." Original text: "我是在'振华4号'遇袭1个多小时后得知这一情况的,从当日13点30分左右到17点30分左右参与了后方指挥工作。'振华4号'是一艘经过改造的、运送集装箱门机的船舶,船速为9节...比较慢。干舷...为5米,很低。这使得海盗比较容易登上甲板。'振华4号'的成功客观来说有多方面因素。一是本身的努力,船长正确指挥,船员努力配合,形成团队,采取了有效措施。另一方面,'振华4号'的船体结构十分特殊,整个船体中间是很长的甲板--一般船只不会如此,在船尾则有很高的生活区,从甲板到生活区需要通过两个梯子。船员们在遇袭后集中在生活区并把梯子卸掉,占据了居高临下的优势,用土炸弹和高压水枪将海盗限制在甲板的另一端。"

104. "'振华4'轮遭索马里海盗劫持中国船员啤酒瓶抵抗" ["Zhenhua-4" Ship Hijacked by Somali Pirates, Chinese Crew Members Use Beer Bottles to Resist], 东方网 [Eastday Web], 18 December 2008, sh.eastday.com/qtmt/20081218/u1a514197.html.
105. Xu Jingjing, "Why We Want to Escort."
106. "中国海军远征索马里揭秘: 速射炮最适合打海盗" [Uncovering Secrets of the Chinese Navy's Long-Distance Somalia Operation: Rapid-Fire Assault Is the Most Suitable Way to Fight Pirates], 东方网 [Eastday Web], 26 December 2008, mil.sohu.com/20081226/n261430151.shtml.
107. Xu Jingjing, "Why We Want to Escort." As MoT official Ju Chengzhi explained, initial stopgap measures proved inadequate: "Before dispatching warships, we had all been working at self-protection and self-prevention. [Commercial] ships have no weapons themselves, [so] we drafted up various methods. For example, if ships encountered pirates they were not to sail straight, [but rather] needed to sail forward in an 'S' pattern. In addition, maritime shipping

companies also accumulated considerable experience in dealing with pirates, such as making improvised explosive devices and using high-pressure water cannons. Previously 'Zhenhua 4' resisted pirate attacks successfully by adapting these methods. But if pirates are numerous, forming a 'Wolf Pack offensive,' these methods are still of no avail." Original text: "在没有派出军舰以前,长久以来我们都在做船舶自救自防工作。船舶本身是没有武器的,我们就制定各种方法,比如船舶碰到海盗,船不能直行,需要'S'形前进等等。另外,海运公司也积累了大量对付海盗的经验,比如制作土炸弹、使用高压水枪等。前段时间'振华4号'成功抵御海盗袭击都采取了这些办法。但是如果海盗很多,形成'狼群攻势',这些措施还是无济于事。"

108. Ibid. MoT official Ju Chengzhi noted: "There's a very interesting data [point] here. COSCO has been attacked 63 times, yet has never once been hijacked. This is because [its] ships' self-defense and self-prevention measures are relatively effective, and is also because of the composition of our crew. 'China-owned' ships registered through the China Maritime Bureau basically all have a completely set crew: from the captain to sailors, everyone is Chinese, [it] is a very complete team. This facilitates the captain issuing orders effectively to the crew members; the ability to respond to pirates is relatively strong. [In contrast,] the captain of the aforementioned [ship] 'Dajian' was Sri Lankan; [he] surrendered very quickly after encountering pirates, [and] did not resist at all." Original text: "这里有个很有意思的数据。中远公司被袭击了63次,但是没有一次被劫。这是由于船舶的自防自救措施比较有效,另外也因为我们的船员构成。在中国海事局注册的'国字号'船上,基本都有成套的船员:从船长到水手都是中国人,是很完整的班子。这样方便了船长对船员的有效指挥,应对海盗的能力比较强。之前提到的'大建号'的船长是斯里兰卡人,遇到海盗袭击很快就投降了,根本没有抵抗。"
109. Ibid. Original text: "以前遇到这类问题,我们主要是通过外交渠道,协调当地政府和国际海事组织等谋求解决,但都很困难。"
110. "Uncovering Secrets of the Chinese Navy's Long-Distance Somalia Operation."
111. "网友:支持中国海军护航树起大国形象" [Netizens: Support Chinese Naval Escorts Establishing the Image of a Great Power], 人民网 [People's Net], 24 December 2008, military.people.com.cn/GB/42970/8570300.html.
112. Ibid.
113. Huang Li, *Sword Pointed at the Gulf of Aden*, p. 169.

114. Doug Bandow, "America and China: Finding Cooperation, Avoiding Conflict?," *Forbes*, 23 May 2011.
115. Xu Jingjing, "Why We Want to Escort." Original text: "2008年9月份时海盗比较猖獗,到10月份,我国多家大的海运公司感到压力太大,面对海盗威胁,他们除了继续坚持航运别无选择--否则不但违反合同,自己的航运份额就会被别人抢掉。于是各海运公司纷纷告急,提出请求政府尽快派军舰为商船护航。"
116. Ibid. Original text: "我们提出这个事情后,引起各方面的重视。交通运输部、外交部、军方等部门和一些专家反复研究,因为这不是一个简单举措,关系到能力、补给、国际法等一系列重大问题,大家对此事的严重性和紧迫性都有一致认识。"
117. "Russia to Fight Piracy off Somali Coast," RIA Novosti, 23 September 2008, en.rian.ru/; "NATO to Deploy Anti-piracy Fleet to Somali Coast," *CBC News*, 10 October 2008, www.cbc.ca/; "Larger Indian Warship to Fight Pirates off Aden," *The Hindu*, 20 November 2008, www.hindu.com/.
118. "Chinese Navy Sets Sail for Anti-piracy Mission off Somalia," *People's Daily Online*, 26 December 2008, english.peopledaily.com.cn/.
119. 顾国良 [Gu Guoliang], "中美关系的积极发展" [The Positive Development of Sino-U.S. Relations], 学习时报 [Study Times], www.china.com.cn/chinese/zhuanti/xxsb/1187267.htm. Similarly, in August 2012 Qian Lihua, director of the Foreign Affairs Office in China's Ministry of National Defense, penned an article on China's military diplomacy. With respect to the PLA's contribution to international security, Qian wrote: "In contrast to the pursuit of forceful expansion by powerful countries on the rise, the goal of the Chinese military in 'going global' is peaceful, its method is cooperative, and its effect is that both sides win. Participation in international peace and security matters has already become an important component of the Chinese military's building up of diversified military task capabilities. The Chinese military has established and completed institutional mechanisms such as international peacekeeping, disaster relief, and protective sea escort. It has organized related mission units, strengthened specific training, and stressed the relationship between the comprehensive planning of unit construction and participation in international security cooperation. Within the scope of its ability, it has fulfilled its international obligations"; 钱利华 [Qian Lihua], "积极开拓进取 创新军事外交" [Actively Developing Enterprising, Innovative Military Diplomacy], 求是 [Seeking Truth], 1 August 2012, world.people.com.cn/n/2012/0801/c14549-18645319.html.
120. Liu Jiangping, "Far Oceans Escorts Are the Chinese Navy's International Mission." Original text: "这是中国海军走向远洋履行国际义务,树立肩负维护世界和平发展使命的正义之举,更是'负责任大国'风范的良好体现." Liu adds: "Under the framework of international law, having the authority of the United Nations and approval and invitation of the state concerned, and also having a constitution for multiple countries' warships in the Gulf of Aden and Somali waters fighting terrorism for a period of time, the Chinese naval task force's [operations] on the western shore of the Indian Ocean are both for safeguarding China's merchant ships, and also for safeguarding international transit routes and the international trade environment." Original text: "在国际法律的框架下,有联合国的授权,经当事国的邀请并同意。且已有多国军舰在亚丁湾,索马里海域反恐了一段时间的先例,中国海军编队此次远洋印度洋西岸,既是护卫本国船舶的安全,也是保护国际航道和国际贸易环境的安全。"
121. Gao Xiaoxing et al., *PLA Navy*, p. 145.
122. "中国海军需强化国际公关能力发挥军队软实力" [China's Navy Needs to Strengthen International Public Relations and Wield Military Soft Power], 国际先驱导报 [International Herald Leader], 22 May 2009, military.china.com/zh_cn/critical2/23/20090522/15494073.html.
123. Ibid.
124. "Conversation with Yin Zhuo," p. 22.
125. For initial escorts, Xu Jingjing, "Why We Want to Escort." MoT official Ju Chengzhi explains: "[Regarding] these escorts, we respect the principle of voluntary applications. Mainland Chinese ships submit applications to the China Shipowners' Association seven days in advance; the China Shipowners' Association collects and submits applications to the Ministry of Transportation. Ships from Hong Kong and Macau can only apply to the National Maritime Bureau through their respective maritime bureaus. The scope of our escorts of course also includes ships from Taiwan; the Association for Relations across the Taiwan Strait [ARATS] and Straits Exchange Foundation [SEF] coordinate and submit applications to the China Maritime Search and Rescue Center." Original text: "这次护航,我们遵循自愿申请原则,大陆的船舶提前7天向中国船东协会提出申请,由中国船东协会汇总并提交给交通运输部。香港、澳门的船只可以通过两地海事局向国家海事局提交申请。我们的护航范围当然也包括台湾船舶,由海协会与海基会协商并向中国海上搜救中心提出申请。" He emphasizes that protection of China-connected ships was prioritized: "The 1,265 ships transiting the Gulf of Aden are of two types, the first being 'China-owned' [国字号—lit., "named under

- China,” or with ownership under the auspices of the Chinese government], China-flagged ships registered through the China Maritime Bureau, [while] the other type is Chinese-invested foreign-flagged ‘flag of convenience’ ships. These ‘flag of convenience’ ships are Chinese-owned ships registered in other countries, [with] capital funded by the Chinese side, and the crew largely [composed of] Chinese people. Both of these types of ships are the intended beneficiaries of our escort [mission].” Original text: “经过亚丁湾的这1265艘船舶包括两类，一类是在中国海事局登记注册的‘国字号’的中国籍船舶，另一类是中资外国籍‘方便旗’船舶。这些‘方便旗’船舶在海外注册的中资船舶，由中方出资，船员也基本都是中国人。这两类船舶也都是我们这次护航的主要对象。” Note: in another example of official PRC nomenclature that reflects some form of ownership under the aegis of the Chinese government, Air China (中国国际航空公司) is abbreviated as “国航” (national airline). Ownership of Chinese civilian ships is obviously not centralized to the degree of that of China’s flag carrier airline, but the use of this state-centric nomenclature by relevant government officials nevertheless affords useful insights into Beijing’s perspectives concerning how best to secure such ships.
126. Huang Li, *Sword Pointed at the Gulf of Aden*, pp. 222, 224. According to CSA’s website (eng.csoa.cn/about_csa/Introduction/200711/t20071109_445319.htm), it is not directly linked to MoT: “China Shipowners’ Association (abbreviated as CSA) is a voluntary trade organization composed of owners, operators and managers of merchant ships engaged in waterway transportation and relevant shipping related entities, which are registered in the People’s Republic of China. It is registered with the Ministry of Civil Affairs of the People’s Republic of China and has obtained legal corporate body status in accordance with The Regulations on the Registration and Management of Social Organizations promulgated by the State Council of the People’s Republic of China.”
 127. 汪恒成 [Wang Hengcheng] and 张未平 [Zhang Weiping], “护航三年的欣喜与隐忧” [The Joy and Anxiety from Three Years of Escorts], 中国青年报 [China Youth Daily], 13 January 2012, zqb.cyol.com/html/2012-01/13/nw.D110000zgqnb_20120113_1-09.htm.
 128. “China’s Army Praises Iranian Navy for Freedom of Chinese Vessel,” *Fars News Agency*, 7 April 2012, english.farsnews.com/.
 129. “Sailors of PRC Cargo Ship Recount Rescue from Somali Pirates,” *CCTV News Content* (English and Mandarin), 19 April 2012, newscontent.cctv.com/.
 130. “NATO, Indian Navy Rescue Chinese Cargo Ship from Somali Pirates,” *CCTV News Content* (English), 1224 GMT, 10 May 2011.
 131. Ibid.
 132. Li Ruijing, “Borrowing from Escorts to Expand Blue-Water Navy.” Original text: “当前，中国的南海正面临被‘群小’分割的不利局面。但直接以南海问题为牵引，靠‘亮肌肉’的方式‘恐吓’各‘声索国’，在当前国际形势下，无疑会把他们进一步推向域外大国的怀抱。而借护航‘东风’，则可降低中国威胁论调，为发展一支在战略上能不战而屈人之兵、在实力上能决战决胜的远洋海军创造相对宽松的国际舆论环境。”
 133. Yang Jingjie, “Captains Courageous.”
 134. “PLA Navy to Send 11th Batch of Escort Fleets to Somali Waters,” *CCTV News Content* (English and Mandarin), 24 February 2012, newscontent.cctv.com/.
 135. 李宣良 [Li Xuanliang] and 唐忠平 [Tang Zhongping], “黄嘉祥代表：护航行动为我军遂行多样化军事任务提供了有益启示” [NPC Deputy Huang Jiaxiang: The Escort Mission Provides Useful Experience for Our Armed Forces in Performing Diversified Military Tasks], *Xinhua*, 11 March 2009, news.xinhuanet.com/misc/2009-03/11/content_10990229.htm.
 136. 蔡年迟 [Cai Nianchi], “远洋突击，我们历练了什么——写在人民海军舰艇编队赴亚丁湾，索马里海域护航两周年之际（二）” [Far Oceans Sudden Attacks, What Have We Experienced and Practiced? Written at the Two-Year Anniversary of People’s Navy Warship Deployments to the Gulf of Aden and Somali Waters for Escorts (Part 2)], 特别策划 [Special Column], 当代海军 [Modern Navy] (January 2011), pp. 12–15. Original text: “交往日益频繁，合作领域日渐宽泛，这对我护航官兵而言，无疑是发现自身不足，锻炼和提升自己，学习他人‘长技’的好机会...” Cai adds: “While taking pride in their own equipment advancement, strict [adherence to] principles, [and] strengthening of style, escort personnel simultaneously paid even more attention to discovering and studying foreign militaries’ strong points.” Original text: “护航官兵在为自己装备之先进，纪律之严明，作风之顽强倍感自豪的同时，不约而同地把更多地注意力放在了发现并学习外军的优点上。”
 137. Cao Jinping and Mo Xiaoliang, “Review of Chinese Navy’s Escort Missions in Gulf of Aden in Past 4 Years.”
 138. Ibid.
 139. “中国海军赴索马里军舰雷达系统世界领先” [Satellite System of Chinese Navy Warship Going to Somalia a World Leader], 3 March 2009, mil.news.sina.com.cn/2009-03-03/1427544201.html.

140. 刘永宏 [Liu Yonghong] and 唐复全 [Tang Fuquan], “新形势下海军转型建设的战略思考” [China: Strategic Consideration of the Transformation of the PLA Navy under the New Situation], 中国军事科学 [China Military Science] 5 (November 2012), pp. 58–66.
141. Liu Linlin, “Hu Urges ‘Maritime Power,’” *Global Times*, 9 November 2012, www.globaltimes.cn/.
142. 郭刚 [Guo Gang], “(军舰护航) 中国海军护航编队召集被护航船代表交流座谈护航安全” [Escort by Military Vessels: Chinese Naval Escort Formation Gathered Representatives of Escorted Merchant Ships Together to Exchange Views on and Discuss Escort Safety], *Xinhua*, 26 October 2009, www.chinesetoday.com/zh/article/315949.
143. 综合 [Jie He], “索马里海盗释放中国渔船” [Somali Pirates Release Somali Fishing Vessel], 南方周末 [Southern Weekend], 9 February 2009, www.infzm.com/content/23443.
144. 钟魁润 [Zhong Kuirun], “人民海军护航三年建功深蓝” [People’s Navy Makes Great Blue-Water Contributions over Three Years], 光明日报 [Guangming Daily], 29 December 2011, mil.gmw.cn/2011-12/29/content_3280480.htm.
145. 杨屹 [Yang Yi] and 程虹 [Cheng Hong], “让中国海军舰艇走得更远” [Let Chinese Navy Warships Go Farther], 装备技术 [Armament Technology], 当代海军 [Modern Navy] (June 2011), pp. 66–69. Original text: “在人员编制方面, 根据多次执行远海任务的实际情况下, 远航必不可少的需要大量远航指挥及保障人员上船, 目前包括直升机保障人员, 特战队员, 编队指挥人员, 政工记者等, 共增加50%左右的人员, 随着护航任务常态化, 今后可能不会像目前这样上如此多的外来人员。”
146. “护航特战队长: 精心挑选人枪合一境界数十人” [Escort Special Forces Captain: Meticulously Selecting Tens of Crewmen for the Integration of Personnel and Equipment], 解放军报 [Liberation Army Daily], 13 January 2011, mil.huanqiu.com/china/2011-01/1424624.html.
147. “中国海军, 你们使我们坚强的依靠--中国海军第十一批护航编队赢得广泛赞誉” [Chinese Navy, You Are the Source of Our Strength: The PLAN’s Eleventh Escort Task Force Has Earned Widespread Respect], 中国军网 [China Military Online], 12 May 2012, chn.chinamil.com.cn/jwj/2012-05/12/content_4859797.htm.
148. “It’s Four Years since the Chinese Navy Began Escorting Ships.”
149. Qian Xiaohu and Mo Xiaoliang, “All New-Type-Warship Captains Experienced in High-Sea Practice and Training,” *Liberation Army Daily*, 31 October 2012, english.peopledaily.com.cn/90786/8000408.html.
150. Ibid.
151. Ibid.
152. Min Long and Li Ding, “Female Sailors Hold Combat Positions in Escort Mission in Gulf of Aden,” *China Military Online*, 19 February 2013, english.peopledaily.com.cn/90786/8133836.html.
153. 虞章才 [Yu Zhangcai] and 肖勇利 [Xiao Yongli], “远洋课堂, 我们领悟了什么--人民海军执行护航任务两周年回眸 (三)” [In the Far Oceans Classroom, What Have We Come to Understand? A Robust Review of the First Two Years of the PLAN Escort Mission (Part 3)], 人民海军 [People’s Navy], 28 December 2010, p. 1.
154. 林延河 [Lin Yanhe], “让文化在深蓝航线彰显威力, 对海军护航编队加强文化建设的思考” [Letting Cultural Strength Shine Through in Blue-Water Sea-Lanes: Thoughts on Strengthening the Cultural Building of Naval Escort Task Forces], 学习与研究 [Study and Research], 解放军报 [Liberation Army Daily], 31 January 2012, p. 7, www.chinamil.com.cn/jfjbmap/content/2012-01/31/content_76965.htm.
155. Ibid.
156. 江山 [Jiang Shan] and 曹海华 [Cao Haihua], “中国海军第五批护航编队接替护航” [The Fifth Escort Task Force of the Chinese Navy Takes Over Escorting Duties], 甲板故事 [Deck Stories], 当代海军 [Modern Navy] (April 2010), pp. 38–45. Original text: “在搞好护航和训练工作之外, 我们还要打造高品质的文化之旅。”
157. 张仕洋 [Zhang Shiyang] et al., “攻关破隘: 划出空中新航迹: 北海舰队航空兵推进军事训练科学发展闻思录” [Solving Problems, Overcoming Difficulties, Charting a New Course in the Sky: Reflections on a North Sea Fleet Aviation Branch’s Efforts to Promote Scientific Development of Military Training], 人民海军 [People’s Navy], 30 January 2012, p. 3.
158. Liu Wei, Wang Changqin, Wan Shuixian, and Wang Jiangqi, “Chapter Three: Building a Standing Force’s Combat Capability System of Systems in Accordance with the Requirements of New Mission,” in 中国和平发展中的强军战略 [Strategy for Invigorating the Armed Forces amid Peaceful Development], ed. Ma Guangwu (Beijing: Military Science Press, 2011), pp. 71–113.
159. Of course, this is not to say that each task force deployment is identical in composition. While two PLAN warships are usually accompanied by a replenishment ship, this is not always the case. The sixth task force, for example, was composed of frigate *Lanzhou*, amphibious vessel *Kunlunshan*, and replenishment ship *Weishanhu*.

160. Ronald O'Rourke, *China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress* (Washington, D.C.: Congressional Research Service, 5 September 2013), p. 44, available at www.fas.org/sgp/crs/row/RL33153.pdf.
161. 王毅 [Wang Yi] and 肖勇利 [Xiao Yongli], “探索远海常态化组训模式, 寻求作战能力新的增长点: 东海舰队多兵种联合编队赴远海协同训练” [Exploring a New Model for Normalized Far Seas Organized Training, Searching for New Expansion Points for Naval Combat Ability: Various Units of East Sea Fleet in Joint Task Force Coordinate Training in the Far Seas], 人民海军 [People's Navy], 12 April 2010, p. 1. Wang and Xiao elaborate: “According to the task force commander's introduction, previous Far Seas training exercises were primarily executed independently by each type of naval force. [This was] not beneficial for improving ability [to engage in] such [operations] as joint attacks and comprehensive defense. This time, not only do various combat units such as submarines, surface combat ships, and helicopters coordinate training, but [escort task forces] also carry out counterattack exercises, [with characteristics such as] the large scale of training participants, long training duration, and complex training environment [that] have scarcely been realized in the past. [The training] is aimed at exploring a new model for normalized Far Seas organized training, [by] searching for new expansion points for naval combat ability.” Original text: “据编队指挥员介绍, 过去, 远海训练以各兵种独立训练为主, 不利于联合打击、综合防护等能力的提高, 此次远海训练不仅要进行潜艇、水面舰艇、舰载直升机等多兵种协同训练, 还要进行对抗演练, 参训兵力规模之大、训练时间之长、训练环境之复杂, 均为近年来少有, 旨在探索远海常态化组训模式, 寻求海军作战能力新的增长点。”
162. “中国海军借护航刷经验值 或在学对越反击战做法” [Shall the PLAN Take Lessons from Today's Escort Missions or Yesterday's Vietnam War?], 南方日报 [Southern Daily], 27 March 2012, mil.sohu.com/20120327/n338982053.shtml.
163. Yang Jingjie, “Captains Courageous.”
164. 陈再良 [Chen Zailiang], “连续护航四批次 难忘550天” [An Unforgettable 550 Days over Four Consecutive Escorts], 综合新闻 [General News], 人民海军 [People's Navy], 31 December 2010, p. 3.
165. 詹红义 [Zhan Hongyi] et al., “翱翔在亚丁湾上的雄鹰” [Heroic Eagles Soaring above the Gulf of Aden], 综合新闻 [General News], 人民海军 [People's Navy], 8 April 2010, p. 3.
166. Ibid.
167. 占燕平 [Zhan Yanping], “护航尖兵, 年轻的大队长雷声——三次护航亚丁湾” [A Sharp Escort Soldier, Young Captain Hui Sheng: Three Escort Missions in the Gulf of Aden], 综合新闻 [General News], 人民海军 [People's Navy], 19 August 2011, p. 2.
168. You Ji, “The PLA Navy's Gulf of Aden Mission as Capability Building against NTS Threats,” in *Not Congruent but Quite Complementary: U.S. and Chinese Approaches to Nontraditional Security*, ed. Lyle J. Goldstein, China Maritime Study 9 (Newport, R.I.: Naval War College Press, July 2012), p. 34, available at www.usnwc.edu/.
169. 王智涛 [Wang Zhitao] and 侯瑞 [Hou Rui], “压力来了, 动力才足亲历第八批护航编队临时党委的一次扩大会” [Motivation Is Sufficient Only When Pressure Arrives: Experiencing the Eighth Escort Task Force's Temporary Party Committee Enlarged Meeting], 综合新闻 [General News], 人民海军 [People's Navy], 25 February 2011, p. 2.
170. The authors are indebted to Nan Li for this insight.
171. “Shall the PLAN Take Lessons from Today's Escort Missions or Yesterday's Vietnam War?”
172. “North China Sea Fleet Carries Out First Escort Mission,” *Liberation Army Daily*, 28 February 2012, eng.chinamil.com.cn/news-channels/photo-reports/2012-02/28/content_4803741.htm.
173. You Ji and Lim Chee Kia, “Implications of China's Naval Deployments to Somalia,” *East Asian Policy* 1, no. 3 (July–September 2009), pp. 61–68, www.eai.nus.edu.sg/.
174. “Shall the PLAN Take Lessons from Today's Escort Missions or Yesterday's Vietnam War?”
175. Yang Jingjie, “Captains Courageous.”
176. “Conversation with Yin Zhuo,” p. 22.
177. Ibid.
178. Richard Weitz, “Operation Somalia: China's First Expeditionary Force?,” *China Security* 5, no. 1 (Winter 2009), pp. 27–42, www.washingtonobserver.org/.
179. Ben Blanchard, “Chinese Naval Ships to Head for Somali Waters,” Reuters, 26 December 2008, uk.reuters.com/.
180. Li Jie and Liang Chunhui, “Great Results of Chinese Navy's Warship Task Force Escorts Catches People's Attention,” pp. 8–13.
181. 葛冲 [Ge Chong], “专家解读: 浅蓝走向深蓝 尤需科研投入” [Expert Interpretation: From Light Blue Waters to Deep Blue Waters—There

- Is a Particular Need for Investment in Scientific Research], 文匯報 [Wenhui News], 4 August 2012, paper.wenweipo.com/2012/08/04/WW1208040001.htm.
182. Yang Jingjie, "Captains Courageous."
 183. You Ji, "PLA Navy's Gulf of Aden Mission as Capability Building against NTS Threats," pp. 34–35. For advanced PLAN ships, O'Rourke, *China Naval Modernization*, pp. 24–28.
 184. Antipiracy commentator Yin Zhuo stated during a CCTV program that the CMC attaches significant importance to China's antipiracy deployments. See "Focus Today" (Mandarin), CCTV-4, 1330 GMT, 25 February 2012.
 185. "11th Chinese Naval Escort Task Force Responds to New Piracy Trends," *Liberation Army Daily*, 4 May 2012, eng.mod.gov.cn/DefenseNews/2012-05/04/content_4364044_4.htm.
 186. Ibid.
 187. In a Chinese media interview, Maj. Gen. Peng Guangqian, Academy of Military Science, and Zhang Zhaozhong, National Defense University, state that in the future China's ground forces will be downsized, that the PLAN will be enhanced and become the second-largest service, that the PLAAF and Second Artillery will stay the same, and there will be new services, such as space and cyber forces. Senior Capt. Li Jie says that China's approach to carriers will be incremental and that once acquired, carriers will be deployed to important sea-lanes and strategic sea locations for conventional deterrence and also deployed for nontraditional security missions. 马振岗 [Ma Zhengang], "“中国模式”会取代“美国模式” [Can the "Chinese Model" Replace the "American Model"?], 人民网 [People's Net], 22 October 2009, cn.chinareviewnews.com/doc/50_1074_101111301_2_1022081349.html; 责任编辑: 吴茗, 邱丽芳 [Wu Ming and Qiu Lifang, duty editors], "七大军区的划分" [The Division of the Seven Military Regions], 新华网 [Xinhua Net], 8 April 2008, news.xinhuanet.com/mil/2008-04/08/content_7939418.htm.
 188. The authors thank Nan Li for these points. This process might be facilitated by gradual development and consolidation of China's civil maritime forces, which could then assume missions within China's coastal waters and exclusive economic zone that previously occupied the navy.
 189. The authors are indebted to Nan Li for this insight.
 190. 邹立刚 [Zou Ligang], "保障我国海上通道安全研究" [Research on Ensuring the Safety of China's SLOC], 法治研究 [Research on Rule of Law], no. 1 (January 2012), p. 80.
 191. Yang Jingjie, "Captains Courageous."
 192. Ibid.
 193. 李大光 [Li Daguang], "向世界展现中国海军影响力" [Displaying the Influence of China's Navy to the World], 学习与实践 [Study and Practice], 人民海军 [People's Navy], 21 December 2011, p. 3. Original text: "面对问候与邀请, 中国海军本着积极务实、独立自主的原则, 与世界各国海军进行交流与合作."
 194. Wang Hengcheng and Zhang Weiping, "Joy and Anxiety from Three Years of Escorts."
 195. Ibid.
 196. "Top Ten Firsts of Chinese Military Diplomacy from 2002 to 2012," *Liberation Army Daily*, 25 September 2012, english.peopledaily.com.cn/.
 197. "中国海军虚胖, 不具强悍战斗力" [Chinese Navy Is Bloated, Does Not Possess Valiant Combat Ability], 环球时报 [Global Times], 16 August 2012, wap.chinaaiss.com/touch/view/3409571/.
 198. Iskander Rehman, "Should India Fear China's Navy?," *Diplomat*, 17 May 2012, thediplomat.com/.
 199. Daniel Kostecka, "Hambantota, Chittagong, and the Maldives: Unlikely Pearls for the Chinese Navy," Jamestown Foundation *China Brief* 10, no. 23 (19 November 2010), available at www.jamestown.org/.
 200. Ibid.
 201. 姚忆江 [Yao Yijiang] et al., "中国海外基地的现实与梦想" [Dreams and Reality of Chinese Overseas Bases], 南方周末 [Southern Weekend], 8 August 2012, www.infzm.com/content/61702; Kostecka, "Hambantota, Chittagong, and the Maldives."
 202. "MND: PLA Has No Overseas Military Base," *China Military Online*, 4 March 2013, english.peopledaily.com.cn/90786/8151577.html.

Institutional Underpinnings

Domestic Political and Policy Issues

The economic, political, and military dimensions discussed earlier help to clarify Beijing's motivations for intervening in the Gulf of Aden, yet they constitute an incomplete account. Numerous additional institutional factors have either driven or incentivized China's participation in antipiracy operations in the Gulf of Aden.

Internal Drivers

A perceived lack of cost-effective alternatives for addressing piracy on the Far Seas pushed Beijing to send PLAN forces to protect its interests. Furthermore, Beijing felt compelled to prevent China's being seen as impotent compared to other large—and not so large—states. Finally, as viewed within China's highest policy-making circles, deploying PLAN vessels implicitly allowed China to begin what many civil and military leaders viewed as the next phase in China's twenty-first-century military modernization.

Chinese scholars like Jiang Lei of Nanjing Navy Command College generally agree that as China's stake in the global economy grows and the number of Chinese citizens working overseas increases, China's civilian and military leadership must devote the resources needed to expand the PLAN's overseas capabilities adequately to defend these interests.¹ Deliberations concerning how to respond to piracy have fueled larger internal debates over how, where, and to what extent China should project force overseas to protect national interests.

Of course, at the time of the PLAN's initial deployment, not all Chinese observers were completely supportive. For example, Ma Xiaojun, a professor in the Central Party School's International Strategic Studies Institute, stated in reference to the Gulf of Aden mission, "Another kind of objective is to do things in a sound and practical way, doing whatever we can according to our capability. If you truly have the capability to do long-term escort duty off the east coast of Africa, why do you not first subdue the South China Sea pirates? The international community, especially ASEAN [Association of Southeast Asian Nations], hopes more that China will make more effort to crack down on pirates in the South China Sea region. This possibility is more realistic."²

The hesitancy with which CCP and PLA officials initially deliberated how to respond to growing Gulf of Aden piracy is not surprising, given Beijing's traditional stance of strict nonintervention in other states' affairs.³ One of the most thorough accounts available to date of the genesis and initial stages of the mission documents that it took nearly a year to decide finally to send PLAN forces through the Indian Ocean to the Horn of Africa.⁴ Ultimately, alternative approaches considered simply proved ineffective or infeasible. Chinese merchants wary of pirates could not afford the premiums charged by private security firms at international-market levels and had already begun rerouting around the Cape of Good Hope. As a substitute for circumnavigating Africa, it is also possible to hug the Indian coast; since late 2010 many vessels have done so.⁵ However, while that option allows ships to avoid (narrowly) the rapidly expanding zone vulnerable to piracy, it incurs significant excess costs, as detailed above. Further, Chinese inability to meet the delivery dates of rigid shipping contracts negotiated far in advance would threaten market share.⁶

Another dimension of the internal debates over piracy related to the aspirations of China's public and leadership to see their nation become a great power in the twenty-first century. The "China dream" articulated by General Secretary Xi Jinping in early December 2012 has resonated throughout Chinese society, reflecting official and public desires for national rejuvenation.⁷ Indeed, for the past three years China's "perfect record" of antipiracy patrols has been repeatedly celebrated in Chinese official statements, scholarship, and media.⁸

The international and domestic legal issues associated with piracy also constituted a key element of Chinese internal debates and continue to do so. Antipiracy operations exemplify the legal challenges that China's military faces as it continues to fulfill diverse military tasks. CMC Legal Department vice-director Wang Weihong drew a direct connection: "Military operations, in reality, are also a type of legal warfare."⁹ More specific expertise and interpretation were furnished by Capt. Xing Guangmei, director of the World Naval Research Division, director of the Legal Research Office (法律研究室), and a research fellow at the Navy Military Studies Research Institute. A well-published, recognized, and influential expert on international military legal issues, Xing helped her organization play a key role in determining the PLAN's legal approach for the Gulf of Aden task forces. An article from *Southern Weekend* described her role and contributions:

In mid-October of last year (2008), China's navy officially started discussion of and preparations for operations to "send forces to Somalia [for] escorts." At the time, at closed meetings between the Ministry of Foreign Affairs and Ministry of Transportation, everyone unanimously called for sending naval forces for escorts. Xing Guangmei's work on the legal basis [for the mission] started from this point in time. . . . The Headquarters

of the General Staff of the PLA began [discussion and due diligence] in mid-November, [which continued] through the time when the navy officially set sail on December 26. Xing Guangmei and her colleagues needed to [provide legal advice concerning] the following questions: What kind of military operations are military antipiracy operations? [Is one] able to dispatch troops [to conduct antipiracy operations]? What will military personnel do [once] deployed? If during the voyage [warships] do not [successfully] save ships victimized [by piracy], [then] what kinds of responsibilities will warship commanders bear? What to do if [Chinese forces] enter Somali territory?¹⁰

Xing believed that the mission was justified legally, but that “there exist [areas of ambiguity] in the regulations of prevailing law. . . . The biggest shortcoming is [that] a necessary condition for a crime to constitute piracy is based on [the actor’s] having private goals.” She explained that if pirate-like activities had a political motive attached to them—that is, if pirates and terrorists came together on the high seas—then unless a new UNSC resolution were passed, nations would have no way to expand military operations against pirates in international waters.¹¹ Xing’s “strict constructionist” approach to interpreting international law is reflective not only of her other legal research but also of Beijing’s approaches thereto in general.¹²

Similarly, referring to stipulations in the Geneva Convention on the High Seas and in the UN Convention on the Law of the Sea (UNCLOS), Meng Yan writes,

Looking from practical situations, Somali piracy certainly does not fully meet the above-mentioned treaty regulations. First, Somali pirates differ from traditional pirates, they are both citizens and pirates. Second, the location of Somali pirates’ criminal behavior is outside of “the limits of the high seas and national jurisdictional waters,” and still is conducted in territorial waters. Somali pirate behavior is different from the characteristics regulated in international law, and presents a certain level of difficulty for naval ships of every country with respect to distinguishing, pursuing and punishing pirates.¹³

Liu Jiehua of People’s Public Security University, however, asserts that the legal foundations do exist for China’s navy to punish Somali piracy behavior, through a combination of international and domestic laws and regulations. She writes,

Based on a correct understanding of the crime of piracy, both international law or Chinese domestic law provide a legal basis for our right to exercise jurisdiction over piracy crimes, and also establish a firm legal foundation for China to better punish Somali acts of piracy. According to related regulations of international treaties, [and] according to a series of UNSC resolutions, under the agreement of the Somali Transitional Federal Government [TFG], in accordance with regulations on the determination of jurisdiction and concrete confirmations of criminal charges within Chinese criminal law, we can see that China’s dispatching warships to Somalia to serve as escorts, and punishing Somali pirate crimes, is a lawful act.¹⁴

PLAN officer Zhao Xiaobin raises an entirely separate issue, arguing that current international laws for dealing with captured pirates are inconsistent and inadequate.

He states, "Considering the dangers posed by pirates, evidence collection, prosecution procedures and other problems, our navy mainly takes measures to drive them away or disarm them." Indeed, the PLAN has been notably hesitant to detain pirates, and this defensive strategy is likely to persist until Beijing feels that an acceptable baseline of international law has been established.¹⁵

PLAN lawyer Zheng Ren commented on the legal aspects of Chinese naval escort operations in a 2011 *People's Navy* article.¹⁶ According to Zheng, the majority of legal questions surrounding China's naval escort activities in waters outside China's periphery are largely unanswered as well as neglected. The article quotes her as saying,

There exist some empty spaces with regard to the systemic legal aspects of Chinese naval escort operations. We should urgently research relevant international maritime laws and the maritime laws of each nation, [and] sort out the rights and duties of Chinese warships carrying out maritime military operations; simultaneously, [we] should actively research and draft detailed rules for the authority and implementation of Chinese military participation in maritime operational law; for example, problems such as attacking, catching, detaining and extraditing pirates and terrorists, [as well as] defining the range of navigational safety for Chinese warships, [and] how to exercise the right to undertake acts of rescue for [Chinese] naval ships and aircraft in the territorial waters or ports of other countries.¹⁷

Jin Yongming of the Shanghai Academy of Social Sciences (SASS) offered in late 2011 a different opinion, arguing that China in fact needs domestic law reform to punish pirates more effectively. "China is facing problems with its domestic legal system that should be improved quickly," Jin wrote,

because international laws, including those within UNSC resolutions, cannot be directly applied to Chinese domestic laws. [Rather, they] typically need to be turned into domestic laws, or domestic standards that can be directly applied to international law need to be drafted. China therefore needs to develop relevant laws banning piracy or add provisions within Chinese criminal law for attacking pirate behavior aimed at Chinese naval escort operations in waters near Somalia and in the Gulf of Aden.¹⁸

More specifically, Chinese interpretations of exclusive economic zones have been weighted in favor of coastal states' parochial concerns.¹⁹ Generally Beijing would require a coastal state's consent to deploy military force in its jurisdictional waters before actually dispatching the PLAN to them; otherwise the PLAN's actions might be seen as a breach of the coastal state's sovereign rights and interests and thus a hypocritical act.²⁰ In keeping with this policy, Beijing went to great lengths at least to arrange the appearance that Somali authorities, such as they are, and the Somali people had consented to and supported Beijing's deployment of antipiracy forces.²¹ As Maj. Gen. Peng Guangqian (Ret.) points out, "In history, some nations that have executed global offensive strategies have been enthusiastic about 'new borders' and 'high borders' and demarcated everywhere they have gone as their interest boundaries. China is different from them, and it

does not need to apply any of these concepts.”²² The existence of internal disagreements over the perceived legality of the Far Seas escort mission is suggested both by the time it took Beijing to formulate a unilateral policy and thereafter by the reluctance (which is ongoing) of the PLAN to risk capturing Somali pirates, and thus having to deal with such prisoners. It has avoided that risk by following extremely restrictive rules of engagement (ROE).²³

To be sure, PLAN ROE do permit some action. Pirates often ignore initial verbal and visual warnings not to approach civilian vessels, thereby requiring PLAN personnel to fire flares and sometimes even warning shots. According to You Ji, “by the end of the first two years of the mission, the escort fleet had engaged pirates twenty-one times with live fire and thereby saved thirty commercial ships.”²⁴ The deputy head of the ninth task force’s special operations unit, Yang Wu, reportedly “disclosed that his sailors were under a three-second firing-readiness order.”²⁵ A 2010 article in *Modern Navy* defended China’s restricted approach: “According to international laws and relevant laws and regulations, the Chinese navy’s operations are both practical and effective, as well as reasonable, measured, and backed by evidence; [while] driving away pirates, making ample preparations, [developing] scientific policy, [having] effective command, and moving quickly [allow the PLAN] to play an effective deterrent role.”²⁶

It is important to note that Beijing did not deploy military units in the Gulf of Aden until the UNSC adopted in 2008 three resolutions specifically authorizing the international community to intervene in Somali waters.²⁷ The continuation of the PLAN’s Gulf of Aden mission still rests legally on Security Council resolutions authorizing states to combat piracy along the Somali coast.²⁸ Col. Yang Yujun, deputy director of the Information Affairs Office and spokesman for the Ministry of National Defense, stated in December 2012:

Regarding the question of escort operations in the future, in November of this year the UN Security Council passed a resolution that once again extended by one year the authority of the various countries and regional organizations to crack down on piracy and armed hijacking along the coast of Somalia. Based on this resolution by the UN Security Council, escort vessel formations by the Chinese Navy will continue to fulfill escort tasks in the Gulf of Aden and the waters off of Somalia.²⁹

Moreover, China publicly supports the UN’s authority to organize international efforts against piracy, with Wang Min stating in late 2012 that “we support the coordination role played by the UN in this regard. It is important to enrich and improve cooperation mechanisms, enhance information sharing, effectively prosecute and bring those involved in piracy to trial so as to form synergy in our fight against piracy.”³⁰ In a January 2009 article in *Modern Navy*, Capt. Xing Guangmei highlights three prickly legal issues related to fighting piracy—using violence against Somali pirates, exhibiting antipiracy

behavior in Somalia's sovereign maritime space and airspace, and bringing antipiracy operations into Somali continental territory. She cites three instruments of international law in support of escorts and the use of violence against pirates: UNSC Resolution 1816, UNSC Resolution 1838, and the 1982 UNCLOS. Xing criticizes several navies for not abiding by international law when initially dispatching antipiracy forces. France, she argues, did not obtain approval from Somalia's TFG before entering its waters in April 2008. India, for its part, in November 2008, sank (killing fifteen sailors) a suspected pirate craft that the IMO subsequently verified was a Thai fishing vessel that had lost its way.³¹

These factors, combined with the domestic preoccupation of Chinese policy makers with the Wenchuan earthquake, which devastated Sichuan Province in 2008, help to explain further why Beijing was determined to finalize a course of action quickly and decisively. In addition, Beijing's reluctance to work within the framework of existing international piracy law, which Chinese officials view as weak and underdeveloped, probably helped to spur consensus that China's navy should act on its own and not under a coalition's aegis.

Policy Processes

The confluence of the internal and external drivers outlined above catalyzed China's decision to participate in antipiracy operations in the Gulf of Aden. These factors also dictated the political process of translating plans into practice. As has been pointed out by Erik Lin-Greenberg, "the driving forces behind China's decision to participate in antipiracy operations can be categorized as either realist or idealist."³² Realist motivations include "a desire to protect Chinese shipping, expand China's influence, and to provide opportunities for realistic training that will enhance the PLA's capabilities in military operations other than war," while idealistic forces include China's wish to protect regional and global security.³³ Lin-Greenberg also offers evidence that China's mission may prioritize image building over operational performance at times, reasoning, "While China's anti-piracy operation safeguards Chinese shipping vessels, it offers little protection to Chinese fishermen sailing off the coast of Somalia. The lack of protection in these fishing areas is surprising given that the first Chinese ship hijacked by Somali pirates was the *Tianyu 8* fishing vessel with its 24-member crew in November 2008."³⁴

Practically speaking, Chinese leaders were likely reluctant to join any of the three multilateral antipiracy coalitions—Combined Task Force 151 (CTF-151), NATO, or European Union Naval Forces Somalia / Operation ATALANTA (EU NAVFOR)—because all of them were under Western command, whereas the UN had no multinational antipiracy mechanism in place.³⁵ In any case, Chinese leaders may have feared that operating under the umbrella of one of these organizations would risk exposing China's naval capabilities to an uncomfortable degree.³⁶ It is also worth mentioning that China was the last of all

permanent UNSC members to commit forces to the Gulf of Aden.³⁷ It faced considerable pressure from the international community and from its domestic populace to act.³⁸ Beijing nevertheless was uneasy about integrating itself into one of the prevailing transnational mechanisms. This policy bind may explain the surprisingly quick and effective coordination observed among China's MoT, Ministry of Foreign Affairs (MoFA), and the PLAN, all of which cooperated with unusual alacrity in late 2008 to craft a framework for the PLAN's antipiracy mission and thereby establish an operational foundation.³⁹ A symposium held by these three entities, as well as the Ministry of Commerce, in early December further formalized the policy process.

Notwithstanding this appearance of being hurried or even rushed, however, the policy process settled on represented in fact the culmination of longer-term planning by Chinese naval officials. Scholars such as Li Jie and Huang Li suggest that China's navy had been assessing the prospects of such an unprecedented mission for some time and was simply waiting for a favorable environment to take action.⁴⁰ You Ji offers the following interpretation of the decision making behind the PLAN's mission:

Soon after the first pirate attack on Chinese ships in the Gulf of Aden in May 2008, strategists in the [Navy Military Studies] Research Institute . . . and the PLA National Defense University began discussing the feasibility of an escort mission there. After the completion of various new ship designs, the PLAN could not wait to test its new "teeth." A naval consensus on escort was discussed by Maj. Gen. Jin Yinan (金一南) in an interview broadcast in November 2008. The Central Military Commission (CMC) quickly approved the navy's plan. In the meantime, Chinese diplomats worked frantically to acquire an invitation from the Somali government for the escort mission. Beijing announced on 20 December 2008, only four days after UN Security Council (UNSC) Resolution 1851 was passed, that a three-ship detachment would be dispatched to the Gulf of Aden. The rapid decision process reflected the navy's eagerness to grab this opportunity, with unprecedented CMC support.⁴¹

From the first deployment, the PLAN's Gulf of Aden mission has been managed jointly by the MoT, the MoFA, and the PLAN.⁴² This sharing of responsibility among government organs requires considerable coordination.⁴³ The MoT essentially plays the important role of coordinator, matching foreign commercial vessels with PLAN warships, otherwise unavailable to them.⁴⁴ It solicits applications from foreign merchant vessels desiring PLAN escort services and proposes an escort to the task force.⁴⁵ Once the PLAN has finalized its plan, the MoT guides the merchant ships to the point at which they are to meet the PLAN escorts.⁴⁶ It also helps coordinate and plan port visits for refueling and replenishing in foreign countries, as well as official onboard exchanges between Chinese crewmen and their counterparts.⁴⁷ MoT official Ju Chengzhi emphasizes the interagency nature of escort command:

As for the [coordination] mechanism, the Navy is in primary command of the escorts; the MoT coordinates and cooperates with the Navy. The largest characteristic of these escorts is “civil-military cooperation, military-political cooperation.” [To] conduct effective escorts, it is necessary to ensure that a relatively smooth, high-efficiency command system is formed during this process. This command system is not a unidirectional command model, but rather an information chain cycle: between the MoT and Navy, between the Navy and warships, between warships and commercial ships, and between commercial ships and the MoT.⁴⁸

There is also evidence that the MoT plays also a role in stimulating antipiracy cooperation between China and other states, as well as in handling press releases. In August 2011 it cohosted with the Maritime and Port Authority of Singapore a conference entitled “Partnerships against Piracy off the Coast of Somalia.”⁴⁹ Several Chinese and foreign media outlets have cited announcements by MoT spokespeople of the departures and return journeys of escort task forces.⁵⁰ MoT officials are typically present during videoconferences between escort task forces and military leaders in China, such as when in January 2011 Wu Shengli and other naval officials thanked the PLAN escort forces in the Gulf of Aden for their service.⁵¹ In any event, since the first deploying PLAN vessels—*Wuhan*, *Haikou*, and *Weishanhu*—left Sanya Port in Hainan Province for the Gulf of Aden in late December 2008, arrangements for successive PLAN escort task forces have become increasingly institutionalized and provide an unusual example of well-coordinated Chinese government action across ministries.

Escort formations have comprised roughly eight hundred personnel on two warships and a supply ship, and each has been away from home port between four and six months.⁵² China’s 2008 national defense white paper made no explicit mention of antipiracy deployments, despite a 26 December 2008 announcement that China’s navy would be sending three ships to the Gulf of Aden. The 2010 white paper reviewed the first two years of China’s antipiracy mission. The most recent biennial report, released in April 2013, provides the most comprehensive coverage of China’s antipiracy operations in the series thus far.⁵³

The economic, political, military, and institutional factors that led the Chinese government to participate in Gulf of Aden antipiracy operations catalyzed as well China’s first sustained overseas naval mission. This has brought the PLAN a measure of well-deserved pride, reflected in *Liberation Army Daily*’s 2011 report that Chinese naval vessels would fly larger, brighter ensigns by the year’s end to reflect the perpetually expanding role the PLAN is playing in security throughout the world.⁵⁴ That symbolic upgrade reflects the heightened status of the PLAN, which is enjoying, as a result of the Gulf of Aden mission, more opportunities for international exposure via official visits and joint exercises than do either the ground forces or PLAAF. The emphasis attached

to the flags also reflects China's commitment to joining the ranks of great powers at sea. According to maritime specialist Ni Lexiong, "The flag change is not only part of the PLA's modernisation, but also indicates its determination to be a sea power, because all its new standards have been learned from Western maritime powers like the US."⁵⁵

Developments within China further demonstrate that the Gulf of Aden mission is a major source of Chinese pride. For example, as mentioned earlier, the missile destroyers *Qingdao*, *Guangzhou*, and *Shenzhen* and frigate *Zhoushan* were opened for public visits in ports throughout the NSF, ESF, and SSF in late December 2012.⁵⁶ Spectators at the overwhelmingly popular events, who obtained free tickets "through companies and institutions," were able to watch antipiracy drills and videos on PLAN escort operations since 2008.⁵⁷

The same factors that initially compelled Beijing to deploy PLAN escort forces to the waters off the coast of Somalia have continued to guide China's antipiracy operations for the more-than-four years since. The following chapter surveys the antipiracy efforts of other navies in the Gulf of Aden, as well as how China perceives and interacts with these forces.

Notes

1. 蒋磊 [Jiang Lei], "中国海军走向远海的几点思考" [A Few Thoughts on the Chinese Navy Moving toward the Far Seas], 当代海军 [Modern Navy] 12 (December 2011), pp. 31–33.
2. Liu Yanxun, Chen Xiaoshu, Wang Jing, He Jing, Li Haoran, and Yao Yijiang, "Background of Expedition to Somalia."
3. *China's National Defense in 2010* (Beijing: Information Office of the State Council, People's Republic of China, March 2011), available at www.china.org.cn/government/whitepaper/node_7114675.htm.
4. Huang Li, *Sword Pointed at the Gulf of Aden*, p. 174.
5. Bowden and Basnet, *Economic Cost of Somali Piracy 2011*. See also Sandra I. Erwin, "War on Somali Pirates: Big Business and Growing," *Maritime Security Review*, 15 August 2012. In this piece former CTF-151 commander Terry McKnight states, "The shipping industry is avoiding the waters off Somalia and they are routing their ships, hugging the coast of India."
6. Piracy is not the sole issue here. Indeed, COSCO has come under fire for trying to renegotiate rigid, long-term shipping contracts. See Olivia Chung, "COSCO Pays Up at Cost to Dry-Bulk Rate," *Asia Times*, 7 September 2011, atimes.com/.
7. "China Voice: 'Chinese Dream' Attainable through Down-to-Earth Work," *Xinhua*, 2 December 2012, news.xinhuanet.com/english/china/2012-12/01/c_132012104.htm.
8. U.S. Defense Dept., *Military and Security Developments Involving the People's Republic of China 2011*.
9. 沈亮 [Shen Liang] and 魏颀 [Wei Di], "兵马未动军法先行--中国军队也需法律'掩护'" [Policy Procedures Precede Military Action (lit., "Military Law Precedes Movement of Troops and Horses"): The Chinese Military Also Needs the "Cover" of Law], 南方周末 [Southern Weekend], 2 April 2009, www.infzm.com/content/26444. Original Text: "在中央军委法制局副局长王黎红看来, '军事行动, 实际上也是一种法律战.'"
10. Ibid. Original text: "去年10月中旬, 中国海军正式启动 '出兵索马里护航' 的行动论证。当时, 在外交部和交通部联合召开的内部会议上, 大家一致要求海军出兵护航。邢广梅的法律论证工作就是从这个时间节点开始的。11月中旬, 解放军总参谋部开始进行论证, 到12月26日, 海军正式启动, 这段时间内, 邢广梅和她的同事们需要论证如下问题: 反海盗军事行动是什么性质的军事行动? 能否派兵? 派兵去做什么? 航行过程中若不救助遇难船舶, 军舰指挥官将承担什么样的责任? 进入了索马里的领土怎么办?"

11. Ibid. Original text: “不过,她也有困惑,‘现有法律的规定存在缺陷’她说,‘最大的缺陷是海盜罪的构成要件是基于私人目的’所以,从法律上说,若是出于政治目的--比如海盜与恐怖分子结伙,那么除非安理会做出新的决议,否则各国将无法在公海上展开打击海盜的军事行动”
12. For a similarly constrained view by Xing of international law, see 邢广梅 [Xing Guangmei], “国际人道法框架下 装备冲突 的界定--兼述维和行动背景下的法律适用” [Defining Armed Conflict in International Humanitarian Law, and the Application of IHL in Peacekeeping Operations] (presentation at the International Law of Peace Operations, International Society for Military Law and the Law of War and the Chinese Academy of Military Science, PLA, Beijing, China, 10 November 2011).
13. Meng Yan, “Zero Distance,” pp. 34–35.
14. 刘杰花 [Liu Jiehua], “我国惩治索马里海盜犯罪的法律依据” [Legal Evidence for China Punishing Somali Pirate Criminals], 河南公安高等专科学校学报 [Journal of Henan Public Security Academy] 4 (August 2010), pp. 95–96.
15. “PLA Navy Calls for More Cooperation against Piracy,” *China Daily*, 24 February 2012, english.peopledaily.com.cn/90786/7738796.html.
16. 张启军 [Zhang Qijun] and 潘卫群 [Pan Weiqun], “郑刃: 蓝色海洋里的律政之” [Zheng Ren: A Legal and Political Flower within the Blue Sea], 水兵与法 [Sailors and Law], 人民海军 [People's Navy], 19 October 2011, p. 3.
17. Ibid. Original text: “当前,我国海军护航行动在相关法规制度上还存在一些空白点,我们应该加紧研究有关国际海洋法规以及各国的海洋法律,梳理出我国舰艇执行海上军事行动时的权利和义务;同时,要积极研究制定我军参与海上行动法律授权及实施细则,比如,对海盜和海上恐怖分子的打击、抓捕、拘禁、引渡,我军舰航行安全范围的确定、舰机在外国领海或港口如何行使紧急避险权等问题”
18. 金永明 [Jin Yongming], “中国海军护航急需法制建设” [Chinese Naval Escorts Urgently Need the Establishment of Law], 东方早报 [Oriental Morning Post], 27 December 2011, www.dfdaily.com/html/51/2011/12/27/721723.shtml.
19. See, for example, 任筱锋 [Ren Xiaofeng], “专属经济区内沿海国的国家安全利益与其他国家的航行和飞越自由” [The Security Interests of Coastal States and the Freedom of Other States within Special Economic Zones], 北大法律信息网 [Peking Univ. Law Information Web], 2004, article.chinalawinfo.com/article_print.asp?articleid=31607.
20. This is reflected in the extensive media coverage of Somalia's request to China to assist with fighting pirates in Somali waters, a request received in the weeks before China's first escort task force deployment. See “索马里邀请中国海军打击海盜” [Somalia Invites China's Navy to Combat Piracy], 环球时报 [Global Times], 28 November 2009, news.sina.com.cn/c/2008-11-28/091716743777.shtml.
21. Gao Xiaoxing et al., *PLA Navy*, p. 145.
22. 彭光谦 [Peng Guangqian], “先驱评论: 慎言中国要追逐‘利益边疆’” [Herald Commentary: Speak Cautiously of China Needing to Pursue “Interest Borders”], 国际先驱导报 [International Herald Leader], 9 January 2009, news.sina.com.cn/pl/2009-01-09/100917011188.shtml.
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24. You Ji, “PLA Navy's Gulf of Aden Mission as Capability Building against NTS Threats,” p. 34.
25. Ibid.
26. 张虓 [Zhang Xiao], “各国海军打击索马里海盜为何方法各异” [Navies of the World Fighting Somali Pirates: Why Each Nation's Methods Are Different], 本刊特稿 [Special Story], 当代海军 [Modern Navy] (January 2010), pp. 24–27. Original text: “中国海军根据国际法和有关法律法规,所有行动既务实高效,又有理有节有据。对海盜进行驱离,做到准备充分,决策科学,指挥高效,行动迅速,对海盜起到了有效的震慑作用海盜头目恩德布尔对中国海军也不得不表示折服,认为中国海军是文明之师,威武之师,表示不会用鸡蛋碰石头,主动找中国海军的麻烦”
27. Peter Dutton, “Charting a Course: U.S.-China Cooperation at Sea,” *China Security* 5, no. 1 (Winter 2009), p. 12, available at www.washingtonobserver.org/.
28. “国防部: 中国军队为国家海上执法活动提供安全保障” [Ministry of National Defense: The Chinese Military Will Provide Security Support for the Maritime Law Enforcement Activities of the State], 国防部网 [Website of the Ministry of National Defense of the People's Republic of China], 27 December 2012, www.mod.gov.cn/affair/2012-12/27/content_4424250.htm.
29. Ibid.
30. Mu Xuequan, “China Calls for More Int'l Cooperation in Combating Somali Piracy,” Xinhua, 19 November 2012, big5.xinhuanet.com/gate/big5/news.xinhuanet.com/english/world/2012-11/20/c_123972720.htm.

31. 邢广梅 [Xing Guangmei], “打击索马里海盗应注意哪些法律问题?” [What Legal Issues Should We Pay Attention to While Fighting Somali Piracy?], 海天看点 [Maritime Points], 当代海军 [Modern Navy] (January 2009), pp. 30–31. For further criticism of the Indian action by one of Xing's major colleagues, see the interview hosted by Li Jie, 李杰 [Li Jie], “索马里海域护航各国海军能有多大作为” [How Big a Role Can Each Country's Navy Play in Escorts in Somali Waters?], 海上争鸣 [Contending Maritime Schools of Thought], 当代海军 [Modern Navy] (March 2009), pp. 65–66.
32. Erik Lin-Greenberg, “Dragon Boats: Assessing China's Anti-piracy Operations in the Gulf of Aden,” *Defense & Security Analysis* 26 (June 2010), pp. 213–30.
33. Ibid., p. 220.
34. Ibid., p. 221.
35. Ibid., p. 224.
36. Ibid.
37. Ibid.
38. Eighty-six percent of Chinese surveyed agreed that “China should send warships to fight international pirates and protect cargo ships of China.” See Huang Li, *Sword Pointed at the Gulf of Aden*, p. 174.
39. The authors are indebted to Nan Li for this insight.
40. See Xu Jingjing, “Why We Want to Escort,” and Shen Liang and Wei Di, “Military Law Precedes Movement of Troops and Horses.” The authors thank Nan Li for directing them to these sources. See also 李韬伟 [Li Taowei], “今日长缨在手—海军司令部作战部长沈浩答本报记者问” [Today We Hold the Most Advanced Technology and Capabilities (lit., “the Long Lance”) in Our Hands: Shen Hao, Director of the Operations Department at PLAN Headquarters, Answers Our Reporter's Questions], 人民海军 [People's Navy], 27 December 2008, p. 3, and Huang Li, *Sword Pointed at the Gulf of Aden*, p. 174.
41. You Ji, “PLA Navy's Gulf of Aden Mission as Capability Building against NTS Threats,” p. 33.
42. Personnel from the Ministry of Transportation, Ministry of Foreign Affairs, and PLAN are considered “relevant personnel” for antipiracy operations. “Twelfth Chinese Naval Escort Task Force Sets Sail,” *Liberation Army Daily*, 4 July 2012, eng.chinamil.com.cn/news-channels/china-military-news/2012-07/04/content_4935514.htm.
43. The authors are indebted to Nan Li for these insights.
44. Xu Jingjing, “Why We Want to Escort.”
45. Ibid.
46. Ibid.
47. “交通部视频慰问中国海军护航编队” [Ministry of Transportation Expresses Appreciation to Naval Escort Task Force through Video], *CCTV News*, 4 October 2010, news.cctv.com/china/20091004/100916.shtml.
48. Xu Jingjing, “Why We Want to Escort.” Original text: “从机制上讲, 这次护航以海军指挥为主, 交通运输部协同配合海军。这次护航最大的特点是‘军民合作, 军政合作’; 实施有效护航, 必须保证在这个过程中形成一个比较顺畅、高效的指挥系统。这个指挥系统不是单向指挥的模式, 而是交通运输部与海军、海军与军舰、军舰与商船、商船与交通运输部形成了一个循环的信息链。” Ju details interagency coordination of escort requests: “After receiving information on ship applications, the Ministry of Transportation holds consultative meetings; analyzes various information, such as ship ability; [and then] provides escort recommendations to the Navy. After the PLA Naval Headquarters verifies final escort plans, the Ministry of Transportation notifies dispatched ships [seeking to be escorted], [in order to] allow [the] ships to arrive at maritime rendezvous areas at the scheduled time.” Original text: “交通运输部收到船舶申请信息后举行协商会议, 对船舶能力等各方面信息进行分析, 向海军提供护航建议。在海军指挥部确定最终护航方案后, 由交通运输部来通知调度船舶, 让船舶在指定时间赶到指定海区。”
49. “Partnerships against Piracy off the Coast of Somalia,” an antipiracy conference jointly organized by the Maritime and Port Authority (MPA) of Singapore and China's Ministry of Transportation and hosted by Singapore Shipping Association, 3 August 2011, www.ssa.org.sg/library/SSA0403001/SSA%20Circular/2011/ssa113eml.pdf.
50. See, for example, “Chinese Navy Sends Antipiracy Fleet to Gulf of Aden,” *DefenceWeb*, 5 July 2011, www.defenceweb.co.za/, and “Head of International Cooperation Department of Ministry of Transportation Reveals Origins of Decision on Naval Escort” 三联生活周刊 [Sanlian Life Weekly], 16 January 2009, www.lifeweek.com.cn/.
51. 邹德元 [Zou Deyuan], 梁庆松 [Liang Qingsong], and 蒲海洋 [Pu Haiyang], “海军首长春节视频慰问529护航编队官兵—吴胜利致辞刘晓江主持—张永义丁一平苏士亮徐洪猛范印华徐建中杜景臣王兆海出席” [Navy Commander Wu Shengli Expresses Appreciation to 529th Escort Task Force Officers and Crew over Video during the Spring

- Festival: Wu Shengli Speaks, Liu Xiaojiang Hosts—Zhang Yongyi, Ding Yiping, Su Shiliang, Xu Hongmeng, Fan Yinhua, Xu Jianzhong, Du Jingchen, and Wang Zhaohai Attend], 人民海军 [People's Navy], 1 February 2011, p. 1. For another example of MoT participation in a video teleconference, see 张鑫鑫 [Zhang Xinxin] and 余黄伟 [Yu Huangwei], “交通运输部慰问第六批护航编队” [The Ministry of Transportation Expresses Appreciation to the Sixth Escort Fleet Task Force], 28 September 2010, p. 1.
52. Based on authors' calculations. See exhibit 4 for statistics on each escort task force.
 53. 中国武装力量的多样化运用 [The Diversified Employment of China's Armed Forces] (Beijing: 中华人民共和国国务院新闻办公室 [Information Office of the State Council, The People's Republic of China], 16 April 2013).
 54. Minnie Chan, “Growing Navy Flies a Bigger, Brighter Flag as Its Role Widens,” *South China Morning Post*, 13 April 2011, www.scmp.com/article/964935/growing-navy-flies-bigger-brighter-flag-its-role-widens.
 55. Over four years ago, “a naval equipment research institute” (most likely the Navy Equipment Research Institute) was tasked with researching and developing new ensigns for the PLAN, which previously sported ensigns considerably smaller and less noticeable than did vessels in Western navies. Ibid.
 56. “Antipirate Warships to Open to Public,” Xinhua, 25 December 2012, www.china.org.cn/china/Off_the_Wire/2012-12/24/content_27502421.htm.
 57. Ibid.

China's Views on Multilateral Coordination

Given the transnational economic and political damage that piracy wreaks, the vast area of the western Indian Ocean in which pirates attack, the large number of merchant ships traversing these waters, the diversity of flag states responsible for them, and the resource-intensiveness of naval response options, it is most beneficial for navies around the world to act in unison to protect vulnerable maritime regions. Accordingly, numerous regional and international antipiracy mechanisms have been established in key strategic areas on the basis of this principle. These systems have achieved important gains in reducing pirate attacks in such areas as the Gulf of Aden. Nonetheless, the Chinese government has chosen that the PLAN is to act unilaterally, albeit in parallel with international efforts.

Collective Action against Piracy: Groups and Authorities

Dozens of states in the Americas, Europe, Asia, and Africa have joined the collective fight against pirates in the Gulf of Aden.¹ The navies of countries providing support for antipiracy activities in the region—save for China, India, Iran, Japan, Malaysia, and Russia—have primarily operated directly under one of several multilateral coalition forces.

These are the U.S. Navy–led Coalition Maritime Forces (CMF), NATO’s Operation OCEAN SHIELD, and the EU’s Operation ATALANTA, sometimes referred to as the “three forces” operating in and near the Gulf of Aden. A voluntary coordination mechanism called Shared Awareness and Deconfliction (SHADE), which is now reported to be cochaired rotationally by CMF, NATO, and EU NAVFOR, has recently enhanced interaction among independent actors like China and the above-mentioned organizations. Besides operational actors, various multilateral agencies, businesses, and nongovernmental organizations, such as the Contact Group on Piracy off the Coast of Somalia created after UNSC Resolution 1851, are involved in the fight against piracy. These entities regularly engage with navies fighting piracy through SHADE.

Coalition Maritime Forces. CMF, the first sustained military presence in the Gulf of Aden, is headed by the U.S. Naval Forces, Central Command (NAVCENT) and consists of Combined Task Forces (CTFs) 150, 151, and 152.² It is tasked with safeguarding maritime security in the Arabian Sea, Persian Gulf, Gulf of Oman, Gulf of Aden, Red Sea, and

Indian Ocean. A twenty-nine-member multinational coalition, CMF's presence as an antipiracy force off the Horn of Africa can be traced to 2008, when CTF-150, which has a much broader, post-9/11 national-defense and regional-security mission than piracy alone, helped outline a maritime security patrol area in the Gulf of Aden to facilitate safe passage for commercial vessels. In January 2009, CTF-150's piracy-combating function was taken over by CTF-151 (CTF-150 still conducts other operations in the region, such as counterterrorism; CTF-152 operates in the Persian Gulf).

CTF-151 and its members have helped to lower pirate attacks dramatically. CTF members often help patrol the "internationally recommended transit corridor" (IRTC) which was established by the Maritime Security Center—Horn of Africa (MSCHOA) of EU NAVFOR in 2009. The IRTC is designed to minimize maritime congestion of international vessels and Somali and Yemeni fishermen. The United States has advised all American-flagged merchant shipping to travel through the IRTC established by CMF. NAVCENT's command headquarters in Bahrain serves as the base for CTF activities. Other major contributors to CMF include Canada, Denmark, France, Germany, Greece, Italy, the Netherlands, Pakistan, Saudi Arabia, Spain, South Korea, Turkey, the United Kingdom, and Yemen.³ CTF-151 has been commanded by naval officers from Denmark, Singapore, South Korea, Thailand, Turkey, the United States, and Pakistan, which at this writing heads the task force.⁴

North Atlantic Treaty Organization. NATO's antipiracy efforts in the Gulf of Aden have undergone three stages. Initially, NATO action was a response to calls in late 2008 from Ban Ki-moon, secretary-general of the United Nations, to provide escorts for World Food Programme vessels. These escorts, which were combined with NATO deterrence patrols in the waters off Somalia, were followed by Operation ALLIED PROTECTOR (OAP), which assumed a broader mission set involving antipiracy operations around the Horn of Africa. ALLIED PROTECTOR was under way from March to August 2009;⁵ the third phase, Operation OCEAN SHIELD (OOS) (Task Force 508), began that month, replacing OAP.⁶ NATO's relevant forces in the region had preexisting mandates and thus its initial focus was not to monitor ships transiting the IRTC.

European Union. The EU's Operation ATALANTA (EU NAVFOR Task Force 465) was operationally established in December 2008 as the first operation of the European Union Naval Force; it was tasked with promoting maritime security off the coast of Somalia by protecting humanitarian vessels and suppressing piracy.⁷ EU NAVFOR's initial mandate was reportedly limited to protecting World Food Programme shipping of humanitarian aid, while commercial shipping protection was of secondary importance. This eventually changed as Somali piracy continued to spread outwards. To date, France, Spain, and Germany have contributed the most ships and equipment to the mission. While it has not always maintained a warship helping to monitor the

IRTC, the United Kingdom contributed the location of the EU NAVFOR headquarters and provided the majority of its staff, and hence has had a constant presence in EU antipiracy efforts since their inception. In early 2012 the EU reaffirmed its commitment to suppressing piracy off the Horn of Africa by extending the *ATALANTA* mandate through December 2014.⁸ Moreover, the EU has recently made progress in developing systems for cross navy cooperation in antipiracy operations. At a two-day symposium in early 2012 it showcased the Mercury Network-based system created in 2009 that allows by-the-minute assessments of piracy conditions.⁹ On 14 May 2012, EU NAVFOR helicopters fired on a Somali beach at Haradheere, 220 miles north of Mogadishu. According to an EU military official, this night raid was meant to “make life as difficult for pirates on land as we’re making it at sea.” It was the first time that the EU’s antipiracy mission had attempted to suppress Somali pirates onshore. The assault reportedly destroyed pirate speedboats, fuel supplies, and an arms depot.¹⁰

The United Kingdom’s Strategic Defence and Security Review and China’s 2010 defense white paper, taken together, suggest that European nations and China are both eager to enhance cooperation against emerging nontraditional security threats.¹¹ This willingness is reflected in the increasing number of official visits and cooperation agreements between Chinese and European military officials. The United Kingdom, for its part, has been particularly receptive to China’s growing role in UN peacekeeping.¹² In early November 2012, China’s twelfth task force hosted the EU NAVFOR commander on board the guided-missile frigate *Yiyang* for an exchange of views on antipiracy operations.¹³

The “three forces” combating piracy in the Gulf of Aden and adjacent waterways collectively operate an average of nine ships at any given time and complete ninety maritime patrol and reconnaissance aircraft sorties monthly.¹⁴ Increasingly, these task forces interface through SHADE, which seats the “three forces” and various independent deployers, such as China, at the same table.

Shared Awareness and Deconfliction. SHADE, which has gained recognition in recent years, meets quarterly in Bahrain. All naval ships or convoys fighting piracy are considered affiliated members. SHADE is not an organization but a facilitating venue. SHADE meetings were initially cochaired by CMF and EU NAVFOR. With NATO also having helped cochair more recent meetings, SHADE seeks to avoid redundancies within naval-task-force and independent-deployer operations. SHADE was originally established by EU NAVFOR, NATO, and CMF because they all recognized the “benefits of a loose confederation of the willing.” After writing SHADE’s Terms of Reference, which explains its mandate and functions, the three parties decided that a tri-chairmanship was most suitable. SHADE is funded by the United States; however, it is not simply American led, as U.S. Central Command and U.S. Naval Forces, Central Command do not assign any tasking and all involved navies maintain sovereignty and vetoes over their

participation.¹⁵ SHADE meetings, often attended by manifold antipiracy stakeholders—including representatives from navies, governments, businesses, and nongovernmental organizations—are reported to be marked by a collegial atmosphere based on the common goal of eradicating piracy.¹⁶

SHADE's core mission is to "ensure effective coordination and de-confliction of military resources and operations in combating piracy."¹⁷ The "success formula" for eradicating piracy, according to SHADE officials, is a combination of joint military and industry responses to piracy and socioeconomic development in the pirates' countries of origin.¹⁸ SHADE's twenty-third meeting was held in March 2012, hosted by CMF and chaired by Capt. Phil Haslam of the Royal Navy, representing EU NAVFOR; it met again in Bahrain in June, September, and December of that year.¹⁹ The March meeting brought together approximately 150 delegates from navies, international organizations, and the shipping industry.²⁰ Most recently, representatives from thirty-one countries met in Bahrain on 19 March 2013 for the twenty-seventh SHADE Conference.²¹ One expert testifying before the U.S.-China Economic and Security Review Commission in April 2012 praised SHADE for bringing CTF-151, NATO, EU NAVFOR, and China closer to meaningful cooperation, even suggesting that a SHADE-type model of multilateral coordination could be applied to various land-based counterterrorism operations.²²

Parties involved appear unanimously to perceive SHADE's efforts as positive and successful. For example, South Korea's Rear Adm. Anho Chung, who held alternating duties as Somali Basin and Gulf of Aden Coordinator for CTF-151 (CMF), CTF-465 (EU NAVFOR), and CTF-508 (NATO OCEAN SHIELD) between June and September 2012, stated that "out of 5,500 merchant vessels that transited through the Gulf of Aden during this period there were a total of 3 piracy attacks and none successfully hijacked," and that the "efforts of CMF, EUNAVFOR, [and] NATO as well as other independent nations including Japan, Republic of Korea, China, Russia, Malaysia and India all contributed to safeguarding the high risk areas by providing a naval presence and leading convoys through the Internationally Recommended Transit Corridor."²³

According to U.S. naval officials, media reports that China was to assume chairmanship of SHADE are erroneous. China reportedly lobbied to chair SHADE as early as November 2009 but was unsuccessful.²⁴ While English-fluent Senior Col. Zhou Bo has attended all twenty-seven SHADE meetings thus far, Chinese chairmanship would mean giving an independent state, rather than a multilateral organization, a leading role in SHADE.²⁵ While all independent deployers have seats at the main table during SHADE meetings, no representative of an independent navy has ever chaired the mechanism. According to SHADE's Terms of Reference, "In order to be eligible to chair SHADE, a nation or coalition must provide enduring assets available for task allocation within the IRTC (patrol boxes) and actively coordinate in accordance with the provisions of the IRTC

Coordination Guide.”²⁶ That said, China’s navy has been welcomed to the Gulf of Aden by the United States and other navies with a long-standing presence there. The former commander of CTF-150 wrote a letter to the commander of China’s first antipiracy escort task force, Rear Adm. Du Jingchen, notifying him that CTF-150 has a robust presence in the Gulf of Aden and would seek to coordinate with the PLAN at every opportunity.²⁷ As of March 2009, CTF-151 had Chinese linguists on board and, in addition to the aforementioned onboard exchanges, exchanged routine pleasantries with the PLAN.²⁸ China has made genuine contributions to the collective effort in parallel with Western navies, such as adjusting its escort convoy route five miles north to avoid coverage overlap with CMF.²⁹ China has likewise participated actively in SHADE.

SHADE meetings offer a forum in which to address internavy coordination issues that persist as a result of various multilateral and independent naval forces conducting complementary but separate antipiracy operations in the same arena. For example, during the September 2012 SHADE meeting, Chinese lieutenant colonel Chen Peiling presented on the PLAN’s postrelease efforts and escort of the Taiwan fishing vessel *Shiuh-fu 1*.³⁰ Subsequent discussion revealed that China’s Ministry of Foreign Affairs had alerted the MoT and CSA. EU NAVFOR had also been contacted and requested to assist *Shiuh-Fu 1*. This raised concerns among SHADE members that all requests and agreements to provide assistance to ships in the Gulf of Aden should take place over Mercury so as to avoid duplication of effort.³¹ In general, the PLAN engages in routine communications with other navies in the Gulf of Aden such as bridge-to-bridge radio and the Mercury chat room, which it watches regularly.³² Reportedly, PLAN task forces were quick to incorporate Mercury into their communication efforts with CMF, EU, and NATO forces because it is more secure than commercial e-mail providers that navies were previously using. Moreover, Mercury served as a window for the PLAN to learn NATO-based procedures and nomenclature, including code words that have been used openly on Mercury to increase communication efficacy.

While SHADE remains chaired by Western naval forces, Beijing may prefer such a cooperation model, since participation is voluntary and does not place any navy under the authority of another, whereas multilateral forces such as CTF-151 are commanded by the U.S.-led CMF. Moreover, in the unlikely event that China did wish to integrate into CTF-151’s antipiracy mission in principle, it would probably not adopt membership prerequisites in practice. To participate in CTF-151, one must first be a member of CMF, which requires navies to install Combined Enterprise Regional Information Exchange System (CENTRIXS) software, a classified platform that allows internavy cooperation through encrypted channels. CENTRIXS provision hinges completely on stable trust among CMF forces. Non-Western navies such as China and Russia remain unlikely to allow the installation of U.S. communications infrastructure on

their surface platforms, which is one reason why Mercury has successfully facilitated internavy communication among diverse parties. The U.S. reportedly attempted to create a support tool to aid internavy coordination under SHADE called “SHADE-t,” but other navies proved uncomfortable with installing U.S. equipment. Furthermore, SHADE-t’s bandwidth requirements were far more taxing than the relatively agile Mercury system.

Nevertheless, the active participation by China (as well as other non-CMF states, such as Russia) in SHADE activities already represents a breakthrough in terms of integration into preexisting security mechanisms that the United States has played a central role in establishing and leading. In March 2013 Lt. Col. Chen Peiling, during a report for the twenty-seventh SHADE meeting, stated that PLAN vessels had deployed units south of the Bab el Mandeb following the completion of their escort duties to help the “three forces” fill patrol gaps.³³ He also reported that in September 2012 the frigate *Yiyang* delayed its replenishment stop at Saudi Arabia and spent twenty hours assisting the U.S. containership *President Polk*, which was having engine problems.³⁴ During the twenty-sixth SHADE meeting, in December 2012, it was revealed that China was continuing to work positively with the “three forces,” including the sharing of maritime patrol craft imagery during recent operations.³⁵ It must be emphasized, however, that cooperation within SHADE and the forum it provides are not equivalent to internavy cooperation that occurs in mechanisms that are able to capitalize on secure communications.³⁶

Moreover, engagement between multilateral and independent naval forces vis-à-vis SHADE has elucidated key differences in the nature of everyone’s contributions. For example, while China’s operations are limited in scope as they are focused on IRTC security and commercial escorts, the “three forces” conduct active patrols throughout the Indian Ocean.³⁷ As one SHADE participant put it, “In SHADE and in other aspects of antipiracy operations, China is trying to validate its own contributions, but not to change the status quo.”³⁸ Such contributions are certainly welcome, though the “three forces” still desire deeper cooperation. For example, EU NAVFOR has attempted to persuade the PLAN to adopt underway replenishment doctrine compatible with its own, albeit unsuccessfully.³⁹

Placing SHADE in the historical context of naval relations between powers, a seat at the SHADE table reflects the broader positive shift in maritime power interactions, at least in the Gulf of Aden. For example, in December 2008, at the time of SHADE’s creation, Royal Navy lieutenant commander Dave Bancroft remarked,

The great achievement in the SHADE is the fact of who sits at the table. I started my time at sea chasing Russian submarines. If you would have told me that in five years the Berlin Wall would come down then, I would not have believed you. But if you said before I retired from the sea, I would be seated at a table in the middle of an American base with

a Russian admiral and his staff to my left, and a Chinese brigadier general and his staff to my right, then I would have thought you insane—but it happened and is still happening. Seafarers have a code: we are all one family and we always help each other. Politicians build the barriers, but the seaman finds a way around them.⁴⁰

Coordination among Independent Antipiracy Forces: Chinese Perspectives

China has actively coordinated its escort operations with other navies, particularly with other independent deployers through the Convoy Coordination Working Group (CCWG), which meets the day before SHADE's quarterly meetings. China, India, and Japan reportedly began coordinating their antipiracy operations as early as 2011.⁴¹ A Sino-Japanese-Indian escort coordination, with recent formal and informal participation by the Korean and Russian navies, respectively, reportedly assigns countries in rotation to act as the "reference" country, responsible for formulating a monthly escort schedule.⁴² As the Indian navy's Assistant Chief of Naval Staff, Rear Adm. Monty Khanna, explained in February 2012, "Earlier what was happening was that the convoys of all these three countries would be spaced by [only a] few hours and there would be long hours in a day when no convoy was available for escorting the vessels."⁴³ Now this disparity is being rectified, and these independent escort forces are reporting their progress during quarterly CCWG meetings.

January through March 2012 was considered a trial period for coordinating escort schedules among China, India, and Japan. They did so twenty-nine times with China acting as the coordinator for ten escorts, India for ten, and Japan for nine.⁴⁴ By July 2012 Korea was set to join the third cycle of the coordination mechanism, China having completed the first three-month coordination cycle as a reference navy. Japan and India worked to "plug the gaps," and India acted as the reference navy for the second cycle, which began in April 2012.⁴⁵ It appears that by September 2012 Korea had begun formally participating in escort coordination with China, Japan, and India; early in that month India, China, and Korea all announced escort services for commercial ships during September.⁴⁶ China, India, Japan, and Korea successfully completed a coordinated convoy schedule between June and September 2012.⁴⁷

CCWG participants have agreed that the coordinated escort schedules can be published on the MSCHOA website.⁴⁸ During a September 2012 SHADE meeting, CCWG's operations were described as "established, working and sufficient."⁴⁹ SHADE has several other functioning groups or elements that do not have tasking authority but help coordinate antipiracy operations, including the Air Coordination Element.⁵⁰

With respect to Sino-Indian military relations, recent coordination under SHADE represents the first instance of a "working relationship on the high seas" between the PLAN and the Indian navy.⁵¹ While the efforts between China and India have been welcomed,

they certainly do not signal a major shift in Sino-Indian military or bilateral relations. Recent actions by both countries suggest that both the South China Sea and the Indian Ocean will remain contentious between the two navies. Antipiracy coordination between the PLAN and the Indian navy in the Gulf of Aden region may represent, more than anything else, a relationship of convenience—both sides acknowledge the importance of coordination to minimize the negative economic impact of subnational piracy. In any case, coordination with other independent states allows China to enhance its image as a cooperative stakeholder without having to operate under CTF-151 and does not require China's navy to make policy adjustments that could be sensitive and undesirable for Beijing.⁵²

Generally speaking, China's navy has publicly lauded cooperation with the above-mentioned antipiracy forces, but in practice China's response has been measured, with the exception of SHADE. Since the PLAN's initial deployment, Chinese official statements have welcomed international cooperation. In January 2009 the Chinese ambassador to the United States, Zhou Wenzhong, stated, "In the course of Chinese naval ships providing escort, the Chinese side, in light of the situation, is willing to exchange information and conduct cooperation with various countries' naval ships, including [those of] the United States, and, if necessary, to participate in humanitarian rescue efforts."⁵³ A SASS researcher, Zhang Ming, states that China needs not only to play an active role in discussions on security of the global commons but also to accompany its verbal diplomacy with concrete contributions in areas such as maritime security and cybersecurity.⁵⁴

But while Chinese scholars like Zhang acknowledge the importance of the global commons, their work reflects major conceptual divergences from the views of other states regarding what actually falls under the umbrella of the "global commons." In Zhang's opinion, emerging powers like China differ from Western powers in their views concerning both maritime sovereignty and cyberspace;⁵⁵ also, as Zhang states, the conflicting strategic interests of both Western and emerging powers may make impossible universal norms and principles to govern the international system. China is not inclined to achieve consensus with Western states about such practices unless it determines that such agreements would serve its own interests, not buttress an international order that it views as catering to Western interests and serving as the foundation of American hegemony.⁵⁶ From this perspective, it is understandable that Beijing remains highly reluctant simply to join existing multilateral antipiracy mechanisms. Rather, states Zhang, resources within the global commons should be exploited in a way that considers all states in the global commons.⁵⁷

In a May 2011 article, Zhang Wenzong of the China Institutes of Contemporary International Relations further outlined Chinese views concerning Beijing's role in the global commons, including maritime security operations such as antipiracy escorts.⁵⁸

“What worries people,” Zhang states, is that “America has not changed its biased view of China as an outlier while establishing ‘global commons’ hegemony and strengthening its hegemony through the process of international cooperation.”⁵⁹ Such views remind us that optimism for greater cooperation with China in such zones as in the Gulf of Aden must be tempered by consciousness that Beijing is quite uncomfortable with U.S. views on and behavior in the American-termed “global commons.”

That said, Chinese scholars like Zhang Wenzong do share one common ideal with their American colleagues: a desire for better U.S.-Chinese policies concerning issues of common concern in the global commons. Zhang writes, “Just as a war in a globalized era between great powers will have no winners, an arms race in the ‘global commons’ is doomed to be a loss-loss and multiple-loss game. Perhaps China’s and the U.S.’s intersection and deep binding of interests in the ‘global commons’ can provide a new angle for U.S. policies towards China and for China-U.S. military relations.”⁶⁰

While engaging in numerous highly publicized confidence-building activities with counterpart navies and multilateral antipiracy forces, the PLAN has preferred that its escort task forces operate largely on their own, treating exchanges with other navies as bilateral diplomatic sweeteners, added bonuses to its core piracy responsibilities. This behavior comports with China’s official approach, which advocates “striving to make independent, self-derived, peaceful foreign policy” (坚持独立自主的和平外交政策).⁶¹

The PLAN is not alone in deploying independent forces to the Indian Ocean and the Horn of Africa to mitigate the effects of piracy. States such as India, Iran, Japan, and Russia have also deployed substantial naval capacity outside multilateral structures. Japan typically operates two warships in the area tasked with antipiracy support at a time, and Russia and India typically one each. All four independent operators have taken part in official exchanges with multilateral mechanisms, but they have not operated under CTF-150 or CTF-151, nor have they adopted policies identical to those of any of the multilateral task forces in the Gulf of Aden.⁶² As Chinese scholars Liu Jingsheng and Shao Guoyu point out, China, Japan, India, and Russia generally have preferred to carry out “accompanying escorts” (伴随护航), while other navies use “zoned escorts” (区域护航).⁶³ The latter approach has been a key facilitator of the coordination mechanisms among these navies. This viewpoint was reiterated by Col. Yang Yujun, deputy director of the Information Affairs Office and spokesman for the Ministry of National Defense, during a press conference in December 2012:⁶⁴

At present, the naval forces of multilateral organizations such as NATO, the EU, and a number of countries have launched escort duty by zones, while independent escort countries such as China, India, Japan, and South Korea (ROK), etc., have adopted a cooperative approach involving shipping-schedule coordination. . . . Beginning in January this year, by coordinating their respective escort schedules with one another and balancing escort

resources, independent escort countries such as China, India, and Japan have improved their escort efficiency.⁶⁵

See exhibit 1 for a comprehensive representation of unilateral approaches to Gulf of Aden counterpiracy and a representation of the potential gains to the international community were the independently operating countries to integrate fully into international mechanisms to fight piracy.

Beijing's "Zoned Escorts" Proposal. In mid-October 2009, Beijing suggested officially that waters around the Horn of Africa be apportioned into discrete zones in each of which a participating nation would exercise responsibility for security. The idea was a response to the unexpected broadening of Somali pirate attacks beyond the sixtieth meridian toward the south and east.⁶⁶ At least one Chinese analyst has stated that while China's proposal would reduce costs and increase effectiveness, relative gains concerns on the part of other nations may well preclude its implementation.⁶⁷ In November, China convened a conference to promote the proposal.⁶⁸

But what were Beijing's underlying reasons? Rear Adm. Yin Zhuo (Ret.), described as the "director of a naval expert committee," explains that China lacks formal relations with NATO.⁶⁹ Closer cooperation "would involve the sharing of intelligence codes, which is a sensitive military and political issue."⁷⁰ Lack of experience and preparation (that is, reluctance to risk exposing these shortcomings to counterpart navies) is no longer a major factor in Beijing's promotion of the "zoned escort" approach, but others remain, such as sensitivity regarding sovereignty and concerns about revealing Chinese capabilities. There appears to be concern that Chinese vessels would be subjected to scrutiny; Rear Adm. Yang Yi reports that "some secretive reconnaissance does take place." In any case, as Senior Capt. Li Jie of the Navy Military Studies Research Institute adds, "as long as all parties keep their activities to a minimum, military powers will not engage in disputes."⁷¹

A number of factors, however, limit the appeal to others of China's "zone" approach. First, because some sea areas are much busier than others, it would result in an inefficient distribution of forces. Second, the zones assigned to nations whose navies are relatively less capable or experienced might be less secure than others. (That could be very difficult to solve, as any nation would be reluctant to acknowledge that its forces were not able to perform adequately.) Third, such a distributed unilateral approach seems regrettable in principle when there is support in the international community for a genuine cooperative multilateral arrangement. Perhaps because of such problems, China is not promoting zoned escorts in SHADE.⁷²

Most Chinese mentions of multilateral mechanisms imply that the current Chinese participation on a largely bilateral, case-by-case basis is sufficient, and that little if anything else is required beyond incremental improvements. As one *Modern Navy* article put it,

“While insisting on ‘focusing on self’ [以我为主] [when] conducting escorts, China’s navy [also] is actively expanding international maritime military exchanges and cooperation, [and] gradually establishing and exploring escort methods and mechanisms with relevant countries.”⁷³ Another *Modern Navy* article suggests a desire to “free ride” on international resources, on an ad hoc basis, rather than helping to build multilateral capacity in peacetime.⁷⁴

Exhibit 1. Notable Antipiracy Operations outside CMF, NATO, and EU NAVFOR

Country	Date of First Task Force Dispatch	Total Ships Escorted
China	26 December 2008	5,000+ (as of 26 December 2012)
Japan ^a	14 March 2009	2,805 (September 2012)
India	23 October 2008	1,870 (2 December 2011)
Iran ^b	20 December 2008	1,400+ (28 February 2012)
Russia	October 2008	700+ (17 October 2012)

Notes:

a. A cable from 2009 stated, “(C) Summary: Two Japanese Maritime Self-Defense Forces (JMSDF) destroyers departed Japan on March 14 bound for the Horn of Africa (HOA) region on an anti-piracy mission. The vessels will operate independently from CTF-151 and other multi-national efforts in the region, but will interact closely with other navies on logistics and communications. Although initially bound to protect only Japanese vessels or ships carrying Japanese goods, strong public support for the mission bodes well for passage of a new law broadening the JMSDF’s mission. While operations experts continue to finalize logistical in-theater arrangements for the deployment, JMSDF vessels steam towards what is one of their most significant operations since their establishment. End Summary.” “13 MAR 2009 Embassy Tokyo Daily Activity Report,” 13 March 2009, www.cablegatesearch.net/cable.php?id=09TOKYO610#para-231331-1.

b. This is a summary of operations by the largest states that pursue Gulf of Aden antipiracy operations unilaterally. Other states such as Pakistan and Malaysia also have limited independent operations. It is important to note that statistics provided by independent deployers vary in their reliability, Iran’s particularly so. Iran has occasionally deployed a tanker and frigate to contribute to antipiracy operations; however, they reportedly spend considerable time at anchor. In fact Iran’s only actual IRTC escorts involve Iranian security forces boarding and protecting specific ships traveling to and from Iran via the Gulf of Aden. As such, these statistics are offered simply to convey a rough sense of independent deployer operations and should not necessarily be appraised at face value.

Sources: China: Cao Jinping and Mo Xiaoliang, “Review of Chinese Navy’s Escort Missions in Gulf of Aden in Past 4 Years.” Japan: “Japan’s Actions against Piracy off the Coast of Somalia,” *Japan Ministry of Foreign Affairs*, September 2012, www.mofa.go.jp/; “Record of Escort Operations Performed by Japan Maritime Self-Defense Force Units Dispatched for Antipiracy Activities,” Japan Ministry of Defense / JSDF, 7 February 2012, www.mod.go.jp/. India: “Navy Role in Anti-piracy Fight Has Grown Steadily: Officer,” *The Economic Times*, 2 December 2011, articles.economictimes.indiatimes.com/indiannavy.nic.in/sites/default/files/Content_DNO_AntiPiracy_05-06-12_.pdf. Iran: “Iran Navy Escorts 1,400 Ships in 4 Years,” *PressTV*, 28 February 2012, www.hellenicshippingnews.com/; “Iran Joins Fight against Piracy,” *CNN*, 20 December 2008, articles.cnn.com/. Russia: “Russian Navy Develops Plan of Its Regular Presence in Gulf of Aden,” *Naval Today*, 17 October 2012, navaltoday.com/; “Somalia: Russian Destroyer Escorts Commercial Vessels in Gulf of Aden,” *Horseed Media*, 22 January 2012, horseedmedia.net/.

Indicators of Openness to More Proactive Approaches? In one of the few examples of Chinese government-affiliated individuals calling for further cooperative antipiracy mechanisms, Cha Changsong has proposed the following in *Modern Navy*:

First, a maritime military mutual trust mechanism should be constructed. Maritime military mutual trust is the foundation of maritime military cooperation, [and] is the precondition for the establishment of all other cooperation mechanisms. A maritime military mutual trust mechanism entails establishing various measures directly involving improvements [to] the security environment; mainly increasing the transparency and predictability of military activities, undertaking military activities within controllable specifications; [and] reducing the uncertainty of maritime military safety areas, mutual suspicion, mutual misjudgment and misunderstanding. [This] can clarify the military security intentions of both sides, [thereby] lowering the probability of deliberate confrontations.⁷⁵

Cha also advocates a “maritime military security discussion mechanism” (海上军事安全磋商机制) founded on the basic principles of “respect, mutual trust, equality, and reciprocity” (尊重, 互信, 对等, 互惠). Next, Cha calls for an “emergency intelligence sharing mechanism” (海上安全应急情报共享机制). Cha says China and Russia already have a mature mechanism of this type, but one limited to antipiracy escorts. Other recommendations from Cha include a “maritime warning mechanism” (海上预警机制) and a “mechanism for joint escorts” (联合护航机制).⁷⁶

A speech by Gen. Chen Bingde, chief of the PLA General Staff—delivered on the sidelines of U.S.-Chinese naval talks in Washington in May 2011—represented a noteworthy departure from traditional Chinese foreign policy, a departure that suggested China might be more willing to adopt more proactive measures while cooperating with others in Gulf of Aden antipiracy operations.⁷⁷ Chen advocated cooperation among international militaries against pirate bases within Somalia, arguing on the grounds that Somalia was no longer a sovereign state and pirate ransoms were fueling broader terrorist activities.⁷⁸ He went so far as to declare, “For counter-piracy campaigns to be effective, we should probably move beyond the ocean and crush their bases on the land.”⁷⁹ On the same trip, during a speech at NDU in Washington, D.C., Chen stated,

As I discussed with Secretary Clinton today and Admiral Mullen yesterday, as for counter-piracy operations I personally believe that we should not only fight with pirates on the sea, but also on the ground; because those pirates operating on the sea are simply low-ranking ones, and the true masterminds are on the ground. All the ransoms and treasures they obtained were all later handed over to their chiefs of organizations. Countries must work together in fighting against pirates.⁸⁰

Whatever their genesis or congruence with the government’s line, Chen’s comments underscored an evolution of official Chinese views on piracy. Ideologically, if not operationally, the PLAN is gradually departing from its conservative policy of defense-based deterrence of piracy and appears to be considering the suppression of specific sources of Somali piracy. Average ransoms have risen from \$150,000 to well over seven million dollars, as pirates take advantage of the political pressure that their attacks can generate to influence the governments of merchant seamen held captive.⁸¹ Therefore, according to Chen, “it is important that we target not only the operators, those on the small ships or crafts conducting the hijacking activities, but also the figureheads.”⁸²

China is facing major policy decisions, then, just as the larger international community inches toward a policy that involves antipiracy operations ashore on a larger scale, a policy that could alter fundamentally how the international community addresses subnational piracy in the future. It would not be surprising if Beijing remained content simply to escort commercial vessels off Somalia’s coast, deterring attacks and magnifying its own contributions to their observed aggregate reduction. However, Chinese

official commentary has echoed the international consensus that piracy is rooted in systemic problems onshore and is not simply a matter of isolated groups of seafaring bandits seeking easy profit.⁸³ General Chen has voiced this notion. Nevertheless, it seems unlikely that China's military, as long as it continues to operate independently, will move from offshore patrols and escorts to aggressive assaults on suspected pirate lairs on land. Moreover, as an article in *Modern Navy* (in addition to that cited to similar effect above) suggests, China retains a strong impulse to free ride on other nations' "public goods": "Reconstructing Somali national order is the basic path to solving the piracy issue. It is unrealistic to rely solely on Somalia's own power to solve these problems. International society, mainly Western countries, should relinquish self-interest and use good faith, in order to conscientiously push forward the solution to Somali piracy and realize regional peace and calm."⁸⁴

For Beijing to contribute to a continental deployment would be seen by many as a major foreign-policy shift and could set an unhealthy precedent. But perhaps Beijing is closer to such a change than previously believed.⁸⁵ In August 2012, Angola extradited thirty-seven Chinese citizens back to the PRC on suspicion of "kidnapping, robbery, blackmail, human trafficking and forcing women into prostitution," according to the Ministry of Public Security.⁸⁶ This episode, combined with similar Chinese law enforcement activities in other regions, such as Southeast Asia, suggests that China may be increasingly willing to intensify nontraditional security operations to protect its citizens overseas.

Regardless, several trends and decisions over the past two years signal that China is considering deeper cooperation to minimize the expense of continuing to deter piracy through naval operations alone. First, naval officers of the states that operate independently have been increasing internavy antipiracy dialogues as they interact through SHADE with representatives of navies currently under the command of the CTF-151, NATO, and EU antipiracy structures.⁸⁷ Second, the PLAN has assigned one of its vessels to monitor the IRTC alongside CTF-151 ships. Third, the PLAN's escorts of World Food Programme supplies through the Gulf of Aden, highly publicized domestically and internationally by state media, signal Chinese willingness to increase its international responsibilities for the stability of the world economy.⁸⁸ Finally, as previously mentioned, Somalia's TFG has essentially invited Chinese presence onshore.⁸⁹ This last factor in particular could help surmount China's major foreign-policy hurdles concerning sovereignty issues, since consent of the sovereign is the strongest authority under international law for a country's forces to act within another's territory. This is especially important in that when it made the initial decision to deploy naval forces to the Gulf of Aden, Beijing emphasized that sovereign consent and UN imprimatur were key factors it had considered.

Chinese Official Views regarding Antipiracy Law and Related Maritime Laws

As is commonplace for Chinese leaders when discussing Gulf of Aden piracy, Wang Min, China's deputy permanent representative to the UN, remarked in July 2012, "It is imperative for the international community to strengthen coordination and cooperation to cope with these developments."⁹⁰ According to scholar Zou Ligang, China is a signatory to over thirty-five international laws and treaties related to SLOC security.⁹¹ Zou states that the complexity of international maritime law, as well as a lack of consensus regarding such issues as the fate of captured pirate suspects, often precludes decisive action.⁹² These characteristics of existing maritime law, coupled with Beijing's supreme sensitivity concerning sovereignty issues—still a cornerstone of its foreign policy—make differences in opinion and interpretation with regard to international law a potentially costly bottleneck for the enhancement of China's antipiracy cooperation with other states and mechanisms.

It may therefore be most effective, in engaging Beijing vis-à-vis antipiracy, to focus on China's interests. Statements from its foremost leadership echelon clearly reflect the great importance that Beijing attaches to the security of major international SLOCs.⁹³ Official Chinese views on antipiracy law, as well as rules associated with naval engagement in international waters, underscore the need for stronger legal institutions regarding SLOCs. Official Chinese media sources have frequently challenged the international community to be more proactive in this regard.⁹⁴ Feng Xinhua asserts that the UN should form a new entity tasked specifically with strategic SLOC security worldwide.⁹⁵ The essential claim is that UNCLOS, while exhorting countries to cooperate in the interest of general maritime security, contains no specific provisions on how to address SLOC-related security issues. Furthermore, Feng believes, regional agencies should be established both to implement UN-mandated regulations on SLOC security and to serve as communication centers for states invested in the given region.⁹⁶ Simultaneously, other scholars have praised current multilateral and state-to-state partnerships that focus on ensuring safe SLOCs.⁹⁷

Official Chinese statements reflect the extreme degree of caution with which Beijing is proceeding. China supported all four UNSC resolutions aimed at Somali piracy that were passed in 2008, including declarations that states may intervene within Somalia's twelve-nautical-mile territorial waters (Resolution 1846) and even fight pirates on Somali shores (Resolution 1851) if necessary. Since the passage of these resolutions, however, China has gone to great lengths to emphasize that Somalia remains a sovereign country. Its official statements, for instance, frequently note that all international assistance and operations against piracy in Somali waters should take place only with Mogadishu's permission. They also repeat the appreciation expressed to it by Somalia's government on behalf of its people for Chinese assistance.⁹⁸ China's legal mandate for

the PLAN antipiracy mission was initially confined to (with minor exceptions) defending Chinese commercial ships participating in PLAN escort flotillas.⁹⁹ At the outset, task forces escorted only vessels flagged by mainland China, Hong Kong, Macau, and Taiwan, but, as noted, the MoT has since allowed the commercial vessels of other flag states to request China's escort services in advance.¹⁰⁰

Legal frameworks offer a platform for institutionalizing the Chinese navy's antipiracy operations, but perceived limitations to the legality of certain antipiracy activities are also preventing more meaningful contributions by Beijing. While training has expanded notably in the past three years and China's antipiracy capabilities and confidence have grown accordingly, PLAN ships and troops involved in antipiracy escorts do not actively pursue suspected pirates; they simply deter them from attacking PLAN vessels or merchant ships under escort. They also respond to rescue request calls from areas sufficiently close to the Gulf of Aden.¹⁰¹ Moreover, despite the fact that China's navy has dispatched more escort task forces than any other independently operating navy, China, unlike several other Western and Asian states, has not kept a single pirate in detention on its own soil.¹⁰² As an article in *Modern Navy* explains, navies face "three main [legal] problems" (三难) in this regard. The first is identifying and confirming pirate targets accurately at sea. The second regards evidence, of which four types are required: "相关物证 [related material evidence], 照录相证据 [photographic evidence], 行动证人证言 [witness evidence], [and] 受害船舶证据 [evidence from victimized ships]." Collection is difficult, because pirates often discard materials into the ocean. Third, trying pirates is problematic.¹⁰³

Rather, as official statements by Chinese officials such as Wang Min suggest, Beijing may prefer "Special Courts" (特别法庭) that would be universally agreed on and would allow China to circumvent the thorny issue of trying foreigners on Chinese soil.¹⁰⁴ This preference is likely because, lacking specialized domestic judicial mechanisms for trying pirates, China would be uncomfortable prosecuting a suspected Somali pirate in its own courts. Beijing has repeatedly attempted to solve this complex issue by advocating the establishment of such a court on Somali soil.¹⁰⁵ No such formal courts have been opened in Somalia, but in March 2011 a detention center designed especially for holding pirates captured by international navies at sea was opened in Hargeisa, the capital of Somaliland, a relatively stable autonomous region in northern Somalia. As of May 2012, this prison was already processing prisoner transfers from Seychelles and other countries.¹⁰⁶ In addition, by early that same year roughly a thousand suspected or convicted pirates were being detained in twenty countries throughout the world.¹⁰⁷

In April 2011 the international community resolved to consider establishing specific Somali courts for the purpose of trying suspected Gulf of Aden pirates. The resolution, drafted by Colombia, France, Italy, Russia, Spain, and Ukraine, was approved by the

fifteen-nation UNSC.¹⁰⁸ A 22 November 2011, U.S.-drafted UNSC document mentions the need to “investigate and prosecute not only suspects captured at sea, but also anyone who incites or intentionally facilitates piracy operations, including key figures of criminal networks involved in piracy who illicitly plan, organize, facilitate, or finance and profit from such attacks.” Moreover, the official document reiterates the consensus that piracy near Somalia funds the purchase of weapons and recruitment of individuals that help sustain the piracy “industry” in the region, allowing it to continue to interfere with global commerce flows.¹⁰⁹

At present, the Hargeisa detention center either releases captured pirates or sends them to regional states, which themselves have only limited prisoner capacity.¹¹⁰ Greater capacity to hold prisoners on Somali soil would likely enable more active Chinese antipiracy operations, as jailing suspects in Somalia under UN jurisdiction might avoid uncomfortable sovereignty issues. Furthermore, Interpol, the United States, and various other states are cooperatively constructing an antipiracy intelligence center to track pirates’ financial flows. The agency, formally called the Regional Anti-Piracy Prosecutions and Intelligence Co-ordination Centre (RAPPICC), is located at a Seychelles coast guard base near that nation’s capital, Victoria, and reportedly opened in March 2013.¹¹¹ RAPPICC’s staff, including its director, Garry Crone, will initially be provided by Britain’s Serious Organised Crime Agency.¹¹² Beijing, if invited, may be willing to cooperate with other nations at the center, which could make the PLAN’s piracy contribution more meaningful; however, unless it were located on Somali soil, few would likely see Chinese participation as a major breakthrough. Beijing’s unwillingness to hold suspected pirates reflects not only its reluctance to confront the complex issues involved in trying criminals from other states but also its view that prisons and court systems in Somalia are no substitute for the stabilizing effects of comprehensive development of economic and social institutions in the failed state, a viewpoint that Wang Min and PLAN officials emphasize regularly.¹¹³

Most countries on the UNSC share this stance, and in fact China has many more similarities than differences from other UN members with respect to piracy policies. But it has yet formally to join a multilateral antipiracy organization, suggesting that its leaders are simply unwilling to appear subordinate to a higher decision-making body or another nation, such as the United States, even symbolically. Scholar Huang Li adds that endorsing and pursuing policies that kill pirates could cause pirate groups to target Chinese ships particularly, creating a self-inflicted problem and potentially undermining the initial goal of protecting Chinese citizens abroad.¹¹⁴ Thus, despite earlier indications that China’s navy may gradually adopt more assertive tactics to help eradicate Somali piracy, one might still expect Beijing to maintain policies that avoid creating new sources of political vulnerability for the regime. Similarly, at the central level, Chinese leadership

may be unlikely to approve more aggressive approaches such as onshore attacks and piracy trials in China, though China has signaled it will not oppose other countries in such efforts.

Chinese official statements and scholarship on international antipiracy law largely reflect the notion that cross navy cooperation should be enhanced to ensure economic benefits for all states involved. *People's Navy* has reported that President Hu Jintao first introduced China's "harmonious oceans" (和谐海洋) concept in April 2009 as a basis for Chinese cooperation in the global maritime commons, appealing to the values of shared peace and prosperity achieved through meaningful cooperation among states.¹¹⁵ These values should be pursued, Chinese leaders believe, by creating international sea-lane security laws through building an international organization, specifically identifying strategic SLOCs, and promoting regional cooperation through regional mechanisms that pool resources.¹¹⁶

The PLAN will likely be open in principle to the possibility of greater cooperation in the Gulf of Aden and in other regions where antipiracy operations remain nascent. There are no signs, however, that China will decide to operate under the aegis of a multinational apparatus in the near future: Beijing does not perceive benefits in joining a collaborative effort as outweighing the costs. Independent operation avoids any situation in which China would have to subordinate itself—even symbolically—to another state or organization, and it provides the PLAN with considerable freedom to alter its operations without having to notify its partners or undergoing lengthy multilateral consultations and deliberations. For now it appears that while Beijing is eager to increase cooperation *quantitatively* off the Horn of Africa, this cooperation is likely to be one of increased basic coordination, low-level information sharing, navy-to-navy exchanges, and joint operations—all of which China's navy does already, and none of which would represent a *qualitative* breakthrough.

Notes

1. As of November 2012, twenty-seven states participated in the CMF: Australia, Bahrain, Belgium, Canada, Denmark, France, Germany, Greece, Italy, Japan, Jordan, the Republic of Korea, Kuwait, Malaysia, the Netherlands, New Zealand, Pakistan, Portugal, Saudi Arabia, Seychelles, Singapore, Spain, Thailand, Turkey, the United Arab Emirates, the United Kingdom, and the United States; *Combined Maritime Forces*, combinedmaritimeforces.com/. According to its website, EU NAVFOR consists of forces or resources from EU member countries and has received contributions in various forms also from Croatia, Montenegro, Norway, Serbia, and

Ukraine; *EU NAVFOR*, www.eunavfor.eu/. While Japan is listed formally as a member of CMF, it reports individual escort task-force statistics and largely operates outside CMF; Japanese coordination with China, India, and Korea is a case in point. NATO's Operation OCEAN SHIELD states that all NATO allies are contributing members: Albania, Belgium, Bulgaria, Canada, Croatia, the Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Turkey, the United Kingdom,

- and the United States; NATO: *Allied Command Operations*, www.aco.nato.int/.
2. CMF is "comprised of three principle [sic] task forces: CTF-150 (maritime security and counter-terrorism), CTF-151 (counter piracy) and CTF-152 (Arabian Gulf security and cooperation)." It is "commanded by a U.S. Navy Vice Admiral, who also serves as Commander U.S. Navy Central Command and U.S. Navy Fifth Fleet. All three commands are co-located at U.S. Naval Support Activity Bahrain." See *Combined Maritime Forces*.
 3. Lauren Ploch et al., *Piracy off the Horn of Africa*, Report for Congress (Washington, D.C.: Congressional Research Service, 28 September 2009), pp. 16–20, available at www.history.navy.mil/.
 4. "Combined Maritime Forces: Combined Task Force 151," *U.S. Naval Forces Central Command*, www.cusnc.navy.mil/.
 5. "Operation Allied Protector," NATO: *Allied Command Operations*, www.aco.nato.int/.
 6. *Ibid.* In March 2011 a warship operating under OOS provided helicopter gunfire assistance to a U.S. warship working under CTF-151 to arrest a group of pirates attempting a hijack. "Successful Cooperation between NATO and Combined Maritime Forces," news release, Allied Maritime Command Headquarters Northwood, 7 March 2011, www.manw.nato.int/. In mid-June 2011, Rear Adm. Gualtiero Mattesi of Italy replaced Commo. Michiel B. Hijmans of the Royal Netherlands Navy as commander of OOS; "New Commander for NATO's Counter Piracy Task Force," news release, Allied Maritime Command Headquarters Northwood, 17 June 2011, www.manw.nato.int/. According to OOS's website, "Operation Ocean Shield builds on the experience gained during Operation Allied Protector, NATO's previous counter-piracy mission, and develops a distinctive NATO role based on the broad strength of the Alliance by adopting a more comprehensive approach to counter-piracy efforts"; "Operation Ocean Shield Current News," NATO, www.manw.nato.int/. In February 2012 NATO announced it would extend OOS through December 2012; "Successful Start to 2012 for Operation Ocean Shield," news release, Allied Maritime Command Headquarters Northwood, 6 February 2012, www.manw.nato.int/.
 7. EU NAVFOR was established in October 2008 but did not achieve full operational capacity until December 2008. "About Us," *EU NAVFOR Somalia*, www.eunavfor.eu/about-us/.
 8. "EU Extends Anti-piracy Mission," *RBD Radio*, 28 February 2012, www.raxanreeb.com/.
 9. "PLA Navy Calls for More Cooperation against Piracy." Mercury is a communications software technology company. Its effectiveness in the realm of antipiracy stems largely from the broad applicability of its systems in the Gulf of Aden. It provides an Internet-based communications channel that allows countries to share information immediately. It has contributed enormously to communication among civilian and military vessels. See "How to Catch a Pirate: Cooperation Is Key," *Navaltechnology.com*, 24 November 2011.
 10. Ian Drury, "We're Coming to Get You! Somali Pirate Boat Blown Up by Chopper as Navy Frigate Crew Arrest 12," *Daily Mail*, 15 May 2012, www.dailymail.co.uk/, and "EU Somalia Pirates Air Strikes: Europe Carries Out First Strikes against Pirate Targets," *Huffington Post*, www.huffingtonpost.com/.
 11. Available at Gov.uk.
 12. Miwa Hirono, "Build on Security Initiatives" (opinion), *China Daily*, 20 May 2011, www.chinadaily.com.cn/opinion/2011-05/20/content_12551373.htm.
 13. "Chinese Naval Escort Task Force Commander Meets with EU Counterpart," *Liberation Army Daily*, 5 November 2012, eng.mod.gov.cn/MilitaryExchanges/2012-11/05/content_4411040.htm.
 14. "Counterpiracy Operational Update" (presentation by CTF-151, twenty-seventh SHADE meeting, 19 March 2013).
 15. Correspondence with SHADE participants, March 2013.
 16. *Ibid.*
 17. Nitin Gokhale, "India, China and the Pirates," *Diplomat*, 6 March 2012, thediplomat.com/.
 18. "Counterpiracy Operational Update."
 19. "Combined Maritime Forces Host 25th International Meeting of SHADE," *Combined Maritime Forces*, 23 September 2012, combinedmaritimeforces.com/.
 20. "Combined Maritime Forces Host 23rd SHADE Meeting," *Maritime Security Asia*, 31 March 2012, maritimesecurity.asia/.
 21. "Piracy, Private Security Companies and Best Maritime Practice on the Table at 27th SHADE Conference," *Combined Maritime Forces*, 21 March 2013, combinedmaritimeforces.com/.
 22. Christina Lin, "NATO-China Cooperation: Opportunities and Challenges," testimony before the U.S.-China Economic and Security Review Commission, *China-Europe Relationship and*

- Transatlantic Implications*, 112th Cong., 2nd sess., 19 April 2012, available at www.uscc.gov/.
23. "Combined Maritime Forces Host 25th International Meeting of SHADE."
 24. *Ibid.*
 25. Correspondence with SHADE participants, March 2013.
 26. "Terms of Reference," Shared Awareness and De-confliction (SHADE) Group, 19 January 2010.
 27. Terry McKnight and Michael Hirsh, *Pirate Alley: Commanding Task Force 151 off Somalia* (Annapolis, Md.: Naval Institute Press, 2012), p. 168.
 28. *Ibid.*, pp. 168–70. Rear Adm. Terry McKnight's personal account of commanding CTF-151 also reveals that in the Gulf of Aden, U.S. and Chinese naval forces could interact with fewer of the bureaucratic procedures typically associated with in-country exchanges (p. 171).
 29. Correspondence with SHADE participants, March 2013.
 30. Unless otherwise specified, the insights in this paragraph are from the minutes of the twenty-fourth and twenty-fifth SHADE meetings.
 31. *Ibid.*
 32. Correspondence with SHADE participants, March 2013.
 33. Chen Peiling, "PLA Navy Escort Task Force Mission Presentation" (presentation at twenty-seventh SHADE meeting, 19 March 2013).
 34. *Ibid.*
 35. Minutes of the twenty-sixth SHADE meeting.
 36. Correspondence with SHADE participants, March 2013.
 37. EU NAVFOR and NATO focus primarily on antipiracy off the coast of Somalia; CMF conducts active patrols throughout the Indian Ocean, while addressing counterterrorism and antipiracy in the Gulf of Aden.
 38. Correspondence with SHADE participants, March 2013.
 39. *Ibid.*
 40. McKnight and Hirsh, *Pirate Alley*, p. 166.
 41. "Indian, Chinese Navies Unite to Tackle Piracy," *Times of India*, 2 February 2012, available at articles.timesofindia.indiatimes.com/. It should be noted that Japan and China initially agreed to coordinate escorts as early as March 2009. See "Japan, China to Coordinate Moves on Antipiracy Missions off Somalia," *People's Daily Online*, 12 May 2011, english.people.com.cn/90001/90776/90883/7378319.html.
 42. Minnie Chan, "PLA Joins Forces with Rival Navies for Piracy Patrols; Defence Ministry Announces Deal with India and Japan to Protect Shipping Routes near Somali Coast," *South China Morning Post*, 24 February 2012, available at www.lexisnexis.com/.
 43. Ajay Banerjee, "India, China Join Hands on the High Seas to Tackle Pirates," *The Tribune (India)*, 1 February 2012, www.tribuneindia.com/.
 44. 冯春梅 [Feng Chunmei] and 孝金波 [Xiao Jinbo], "国防部举行例行记者会, 回答海军护航、航母平台、网络黑客攻击等问题: 中印日护航形成统一有序班期" [Ministry of National Defense Holds Routine Press Conference, Answers Questions on Naval Escorts, Carrier Platforms, and Network Hacker Attacks: China, India and Japan Escorts Have Formed Unified Coordinated Schedules], *人民日报* [People's Daily], 30 March 2012, news.163.com/12/0330/04/7TQLRQLF00014AED.html?from=tag.
 45. "Anti-piracy Bid: South Korea Joins India, Japan, China," *Times of India*, 13 June 2012, available at articles.timesofindia.indiatimes.com/, and "India, China to Address Maritime Concerns," *Political and Defence Weekly*, 26 June–2 July 2012, p. 26.
 46. *Piracy Threat Analysis Report: 31 August 2012–6 September 2012* (Washington, D.C.: AdvanFort Threat Analysis Center, n.d.), www.advanfort.com/files/Piracy%20Threat%20Analysis%20Report%207%20Sep%2012.pdf.
 47. At the September 2012 SHADE meeting, India presented the coordinated schedule, as it had already received China and Japan's escort schedules for the June–September period. India was scheduled to initiate an escort convoy schedule program that coordinated Chinese, Indian, and Japanese naval forces between October and December 2012; correspondence with SHADE participants, March 2013. According to a presentation at the twenty-seventh SHADE meetings, on 19 March 2013, CCWG's 2013 proposed escort coordination schedule was as follows: 20 March–8 April 2013, South Korea; 8–29 April 2013, China; 29 April–20 May 2013, India. On 10 June 2013, Japan was to submit completed program to the MSCHOA, an initiative of EU NAVFOR to facilitate information sharing with industry stakeholders. On 17 June 2013, MSCHOA was to post the program for 13 July on its website. "Convoy Coordination Working Group (CCWG)" (brief to SHADE Plenary Session, twenty-seventh SHADE meeting, 19 March 2013).
 48. The Russian navy has agreed in principle to receive information on CCWG's three-month

- escort coordination programs and to attempt to fill gaps; China has never offered to coordinate so closely. Correspondence with SHADE participants, March 2013.
49. Ibid.
 50. Lars Munkholm, "SHADE Air Working Group" (twenty-seventh SHADE meeting, 19 March 2013).
 51. Banerjee, "India, China Join Hands on the High Seas to Tackle Pirates."
 52. Gokhale, "India, China and the Pirates."
 53. 张茗 [Zhang Ming], "全球公地'安全治理与中国的选择" [Security Governance of the "Global Commons" and China's Choice], 现代国际关系 [Contemporary International Relations] 5 (2012), pp. 22–28. Zhang further asserts, "The 'global commons' can bring prosperity or leave a legacy of calamity. Its importance and fragility are increasing in equal measure. On the one hand, the 'global commons' is gradually being integrated into global economic, sociocultural, and security frameworks, becoming a bond connecting all the countries and peoples of the world as well as the basis of global security and prosperity."
 54. Ibid.
 55. While Russia typically sides with China on space weaponization and cyberspace issues, in practice it does not differ from the United States in its views on the rule sets governing the global maritime and aerial commons. In this regard, Zhang's characterization (original text: "不仅美国学界和职能部门之间存在分歧, 中国、俄罗斯与西方国家之间也尚未达成共识") does not appear to be factually accurate. It is offered here to illustrate the range of Chinese views on this important topic. Ibid.
 56. Ibid.
 57. Ibid. Zhang further argues that to ensure China's role in global-commons security, "at the present stage, so as to heighten China's situational awareness in all 'global commons' areas, for force projection, and for executing nonmilitary humanitarian aid and disaster relief missions, it is necessary to, as quickly as possible, build a complete space infrastructure and network infrastructure, as well as build a mighty air force and "blue water [lit. 'blue-colored'] navy." Original Chinese: "必须尽快建设完备的太空基础设施、网络基础设施, 建设强大的空军、蓝色海军." China's contributions to the security of the global commons are limited to date, and Zhang asserts that more "practical actions," such as Gulf of Aden patrols, are needed to accumulate experience commensurate to China's desire to impact international norms for defending these public areas of governance. Regarding cooperation with other states, Zhang terms "tolerant development" an appropriate policy, one that he defines as a tiered system of cooperation among developed, emerging, and other state actors at all levels.
 58. 张文宗 [Zhang Wenzong], "重构中美军事关系应对美国战略东移" [Rebuilding China-U.S. Military Relations in Response to America's Strategic Shift East], 中国社会科学报 [China Social Science Journal] 13 (26 May 2011). *China Social Science Journal* is a biweekly publication. Zhang maintains that "given the 'common ground' [公地] attribute of the 'global commons' [全球公地], each country could destroy the 'ecological systems' (生态系统) in these fields because of competition for limited resources. Thus it is very necessary to establish and improve international rules on the ocean, in space, in Internet space and in polar regions. But in the process of establishing rules, every country should accord to a fair and consultative spirit and positively explore, China and America are powers with global influence, they are able to, and should, wield a constructive hand."
 59. Ibid.
 60. Ibid.
 61. 文峥 [Wen Zheng], "2012: 中国外交寻求中 '共赢'" [2012: Chinese Foreign Policy Seeks "Win-Win"], CCTV, 2012, news.cntv.cn/2012lianghui/fmbd/zym/waijiao/.
 62. Ploch et al., *Piracy off the Horn of Africa*, pp. 16–20.
 63. 刘景升 [Liu Jingsheng], 大连海事局 [Dalian Maritime Safety Administration], and 邵国余 [Shao Guoyu], 辽宁海事局 [Liaoning Maritime Safety Administration], "索马里海盗现状及应对策略" [The Status and Characteristics of Somali Pirates and Preventive Measures], 中国海事 [Chinese Maritime Safety] 6 (June 2010), pp. 37–40.
 64. "国防部: 中国军队为国家海上执法活动提供安全保障" [Ministry of National Defense: The Chinese Military Will Provide Security Support for the Maritime Law Enforcement Activities of the State], 国防部网 [Website of the Ministry of National Defense of the People's Republic of China], 27 December 2012, www.mod.gov.cn/affair/2012-12/27/content_4424250.htm.
 65. Ibid.
 66. Guo Gang, "Escort by Military Vessels." For further details, see 刘福俊 [Liu Fujun], "多国在华协商联合护航新方式" [Countries Discuss New Method of Joint Escorts in China], 本刊特稿 [Special Story], 当代海军 [Modern Navy] (January 2010), pp. 15–17, esp. p. 17.

67. “专家: 中国货轮被海盗劫持凸显护航盲区” [Expert: Pirates' Commandeering of Chinese Cargo Ships Has Made Apparent Blind Spots in Escort Areas], 国际先驱导报 [International Herald Leader], 27 October 2009, military.china.com/zh_cn/critical/2/23/20091027/15681025.html.
68. 吴末方 [Wu Mofang], “分区护航将是有效反制海盗的新举措” [Zoned Escorts Will Be an Effective Piracy Countermeasure], 本刊特稿 [Special Story], 当代海军 [Modern Navy] (January 2010), pp. 21–23. Wu's analysis supports Beijing's proposal effusively: “Based on international society's need for joint escorts, China's proposal for ‘zoned escorts’ is timely. From a military standpoint, using zoned escorts can avoid each country operating independently politically and militarily during escorts, [thereby] raising the effectiveness of escorts. Simultaneously, [we] can preserve escort power, [and] reduce escort costs. Currently, globally there are five publicly acknowledged maritime zones with high piracy levels. [They are] the West African coast, the Somali peninsula and adjacent waters, the Red Sea and Gulf of Aden adjacent waters, Bay of Bengal coast and all of Southeast Asia's maritime areas. Most Chinese ships must transit these maritime regions. If [escorts] are executed according to China's proposed maritime ‘zoned escort’ recommendation, [this] will be beneficial to global maritime transportation. If [China] is really able to ‘specially hold a meeting in Beijing to research this issue, in order to search for a common strategy,’ then the PLAN's international position and the image of China as a responsible world power will achieve acceptance by the international community.” Original text: “基于国际社会对联合护航的需求, 中国提出‘分区护航’恰逢其时。从军事角度看, 通过分区护航, 可以避免护航时各国各自为政, 单兵作战, 提高护航效率。同时, 还可以节省护航力量, 节约护航开销。当前全球有五大公认的海盗多发区, 分别是西非海岸, 索马里半岛, 附近水域, 红海和亚丁湾附近, 孟加拉湾沿岸和整个东南亚水域。对于大多数中国船只来说, 这几处海域都是必经之地。如果按照中国提出的‘分区护航’实施海上护航的建议, 将对全球海上运输都十分有利。如果能够真的‘在北京专门召开一次会议研究此事, 以寻找一个共同方案’的话, 那么中国海军的国际地位以及中国作为负责人的世界大国形象必然会得到国际社会认可。”
69. Zhang Haizhou, “Team Antipiracy Fight Urged,” *China Daily*, 20 November 2009, www.chinadaily.com.cn/china/2009-11/20/content_9007337.htm.
70. Wu Jiao, “Navies Seeking Better Ways to Battle Pirates,” *China Daily*, 6 November 2009, p. 1, www.china.org.cn/world/2009-11/06/content_18837678.htm.
71. Cui Xiaohuo, “Cooperation in Gulf Mission ‘Smooth,’” *China Daily*, 19 February 2009, www.chinadaily.com.cn/cndy/2009-02/19/content_7489960.htm.
72. Correspondence with SHADE participants, March 2013.
73. Li Jie and Liang Chunhui, “Great Results of Chinese Navy's Warship Task Force Escorts Catches People's Attention,” pp. 8–13. Original text: “我国海军护航编队在坚持以我为主进行护航的同时, 积极开展国际间海上军事交流与合作, 逐步建立和探索与相关国家联合护航行动的方式与机制。”
74. “国防大学教授张京: 亲历中巴亚丁湾联合” [National Defense University Professor Zhang Jing: Experiencing China-Pakistan Gulf of Aden Joint Exercises], 中国海军在行动 [Chinese Navy in Action], 当代海军 [Modern Navy] (February 2012), pp. 38–40. Zhang states: “The majority of foreign warships, regardless of whether they are replenishment vessels or vessels being replenished, can all mutually supply each other. Even Indian warships not part of an alliance can receive fueling from American replenishment vessels. Currently, China's advocacy for independence is correct, but it cannot hurt to try adding another tactic during crucial moments. More importantly, currently this type of Chinese-style independent refueling system is not beneficial for expanding joint replenishment supply with other navies [and] has a definite influence on the Chinese navy's ascension to the international stage.” Original text: “据了解, 大部分的外国军舰无论是补给舰还是被补给的舰船都可以互相保障, 就连没有同盟关系的印度监听都能接受美国补给舰的补给。当前, 我们力主独立自主没错, 但在关键时刻多一种手段未尝不可。更重要的是, 当前这种独一无二的中国式海上补给制式, 不利于中国海军在海上与外国军舰艇展开联合补给保障, 对中国海军走上国际舞台造成一定影响。”
75. 查长松 [Cha Changsong], “上军事合作需要建构海上合作机制” [Maritime Military Cooperation Requires the Construction of a Maritime Cooperation Mechanism], 本刊特稿 [Special Story], 当代海军 [Modern Navy] (January 2010), pp. 18–20, quotations from p. 20. Original text: “首先, 要建立海上军事互信机制。海上军事互信是海上军事合作的基础, 是建立其他一切合作机制的前提条件。海上军事互信机制就是在海上军事领域建立各种直接涉及改善安全环境的措施, 主要是增加军事活动的透明度与可预测性, 使海上军事活动在一个可控的规范内进行, 减少海上军事安全领域的不确定性, 相互猜疑, 彼此误判

- 与误解,能够确认双方的军事安全意图,降低故意与冲突的可能性。”
76. Ibid.
 77. “Attack Pirate Bosses on Land, Chinese General Says,” *Reuters*, 19 May 2011, af.reuters.com/. For an argument that the piracy issue needs to be addressed both at sea and ashore, see 观天下 [Guan Tianxia], “多国海军如何面对日益猖獗的索马里海盗” [How Do Navies Confront Growingly Rampant Somali Piracy?], 海天看点 [Maritime Points], 当代海军 [Modern Navy] (January 2009), pp. 26–29.
 78. “Invasion to Stop Piracy” (editorial), *Bangkok Post*, 23 May 2011, editorialcollections24.blogspot.com/.
 79. “Attack Pirate Bosses on Land, Chinese General Says.”
 80. Chen Bingde, “Speech Presented at the U.S. National Defense University” (Washington, D.C., 18 May 2011).
 81. Greg Torode, “Hit Pirates on Land, Says Top China General,” *South China Morning Post*, 20 May 2011, topics.scmp.com/news/china-news-watch/article/Hit-pirates-on-land-says-top-China-general.
 82. Ibid.
 83. For a representative example, see “索马里海盗问题来龙去脉” [The Ins and Outs of the Somali Piracy Problem], 新华 [Xinhua], 14 April 2009, news.xinhuanet.com/world/2009-04/14/content_11181431.htm.
 84. 戴青龙 [Dai Qinglong], “护航行动 依然任重道远” [Escort Operations: Still Shouldering a Heavy Responsibility], 本刊特稿 [Special Story], 当代海军 [Modern Navy] (December 2010), pp. 20–21. Original text: “重建索马里国家秩序,这才是解决海盗问题的根本之道。这些问题仅仅依靠索马里自身力量解决是不现实的,国际社会主要是西方国家应该拿出诚意,摒弃私利,以切实行动推动索马里问题的解决,实现地区和平与安宁。”
 85. Peter Mattis, “Angola Operation Shows China Testing Overseas Security Role; Cambodian Visit to China Rubs Salt in ASEAN Wound,” Jamestown Foundation *China Brief* 12, no. 17 (September 2012), available at www.jamestown.org/.
 86. Chen Zhi, “37 Suspects Involved in Violent Crimes in Angola Sent Back to China,” *Xinhua*, 26 August 2012, news.xinhuanet.com/english/china/2012-08/25/c_131807401.htm.
 87. Ploch et al., *Piracy off the Horn of Africa*, pp. 16–20.
 88. Ibid.
 89. Gao Xiaoxing et al., *PLA Navy*, p. 145.
 90. “China Calls on Stronger International Community Coordination against Piracy,” *Ethiopian Ministry of Foreign Affairs*, 29 July 2012, www.mfa.gov.et/.
 91. 邹立刚 [Zou Ligang], “保障我国海上通道安全研究” [Research on Ensuring the Safety of China’s SLOCs], 法治研究 [Research on Rule of Law] 1 (January 2012), p. 80.
 92. Ibid.
 93. 孙文广 [Sun Wenguang], “胡锦涛对党的军队建设思想的创新与发展” [Hu Jintao’s Innovation and Development of the Party’s Construction of Military Thought], 中国共产党新闻网 [Chinese Communist Party News Web], 6 November 2007, cpc.people.com.cn/GB/68742/84762/84763/6489003.html.
 94. See, for example, “China Backs Fight against Somali Piracy in Light of International Law,” *Xinhua*, 26 August 2008, news.xinhuanet.com/english2010/china/2010-08/26/c_13462599.htm.
 95. 冯新华 [Feng Xinhua], “维护国际海上战略通道安全的战略对策” [Strategic Countermeasures to Maintain Security of Strategic International Sea-Lanes], 海洋热点 [Ocean Hot Spots], 当代海军 [Modern Navy] (April 2011), pp. 52–55.
 96. Ibid.
 97. Ibid.
 98. United Nations Security Council, “Security Council Decides States, Regional Organizations May Use ‘All Necessary Means’ to Fight Piracy off Somali Coast for 12-Month Period: Resolution 1846 (2008) Adopted Unanimously; Authorizations Provided after Consent from Transitional Federal Government,” *United Nations*, 2 December 2008, www.un.org/. In January 2009, for instance, just as the PLAN escort mission commenced, *Modern Navy* published the following statement from the Somali ambassador to China, Mohamed Ahmed Awil: “Welcome! Our President expresses [his] welcome, our Premier expresses [his] welcome, our people express [their] welcome. When the Chinese navy enters the Gulf of Aden and Somali waters, it will be a historic moment, we welcome this moment at its earliest arrival. No matter what, I think, the Chinese navy is the most popular in the Gulf of Aden and in Somali waters, we have no quantitative limits on the escorts in the Gulf of Aden or in Somali waters. The Somali Government will do everything in its power to provide the Chinese navy with information and assistance. This is because I [firmly] believe that China is the most trustworthy peaceful power.” Original text: “欢迎! 我们的总统表示欢迎,我们的总

- 理表示欢迎,我们的人民表示欢迎.当中国海军进入亚丁湾,索马里海域时,将是一个历史性的时刻,我们欢迎这个时刻的尽早到来.无论如何,我认为,中国海军在亚丁湾,索马里海域是最受欢迎的,我们对他们派遣军舰赴亚丁湾,索马里海域护航没有数量上的限制.索马里政府会向中国海军提供一切力所能及的信息和帮助.因为我相信,中国是最为可信的和平力量”;袁珍军 [Yuan Zhenjun], “中国海军舰艇编队开赴亚丁湾,索马里海域护航” [Chinese Navy Warship Task Force Heads to the Gulf of Aden, Somali Waters for Escorts], 海天看点 [Maritime Points], 当代海军 [Modern Navy] (January 2009), pp. 15–22.
99. “外交部:中国海军赴非洲主要是保护本国船舶” [Ministry of Foreign Affairs: The Chinese Navy Is Going to Africa Primarily to Protect Chinese Ships], 环球网 [Global Net], 21 December 2008, mil.huanqiu.com/china/2008-12/319841.html.
 100. “Hong Kong, Macau, Taiwan Ships Can Request Escort of Chinese Mainland Navy,” Xinhua, 6 January 2009, english.cri.cn/6909/2009/01/06/1895440143.htm.
 101. Gao Xiaoxing et al., *PLA Navy*, pp. 144, 147; “China Mute on Hijacking Dilemma,” *People’s Daily*, 22 October 2009, www.english.people.com.cn/90001/90776/90883/6790222.html, and “张家栋:目前首要目标是救人--最快两周内 有消息” [Zhang Jiadong: At Present, the Most Important Goal Is to Save Lives; There Will Be News within Two Weeks at the Earliest], 中国网 [China Net], 19 October 2009, mil.huanqiu.com/china/2009-10/609253.html.
 102. “Malaysia, S. Korea May Prosecute 12 Somali Pirates Captured in Raids,” *Global Times*, 26 January 2011, www.globaltimes.cn/world/asia-pacific/2011-01/616880.html; “France: Pirates Captured, Hostages Freed,” *CBS News*, 11 February 2009, www.cbsnews.com/; and “Egyptian Fishing Boats Returned Home with 8 Captured Pirates,” Xinhua, 24 August 2009, www.chinadaily.com.cn/world/2009-08/23/content_8605304.htm.
 103. 李发新 [Li Faxin], “索马里海盗活动缘何愈演愈烈” [Why Somali Pirate Activities Are Becoming More Intense], 海洋热点 [Ocean Hot Spots], 当代海军 [Modern Navy] (May 2011), p. 57.
 104. 危玮 [Wei Wei], “中国支持国际社会继续探讨起诉和监禁索马里海盗问题” [China Supports the International Community in Continuing to Discuss the Issue of Prosecuting and Detaining Somali Pirates], Xinhua, 22 June 2011, news.xinhuanet.com/world/2011-06/22/c_121566111.htm.
 105. “Prosecuting, Detaining Pirates Important for Fighting Piracy,” Xinhua, 22 June 2011, www.chinadaily.com.cn/china/2011-06/22/content_12749180.htm.
 106. Mike Mount, “New Pirate Prison in Somalia Aims to Relieve International Overload,” *CNN Blogs*, 7 May 2012, security.blogs.cnn.com/.
 107. Britta Rinehard, “International Maritime Piracy and Armed Robbery,” *Civil-Military Fusion Centre*, April 2012, https://www.cimicweb.org/.
 108. “UN Security Council Adopts Resolution to Consider Specialized Somalia Courts to Try Pirates,” Xinhua, 11 April 2011, news.xinhuanet.com/english2010/world/2011-04/12/c_13824100.htm.
 109. “Security Council Calls for Comprehensive Response to Fight Piracy off Somalia.”
 110. Bruce A. Elleman, Andrew Forbes, and David Rosenberg, “Conclusions,” in *Piracy and Maritime Crime: Historical and Modern Case Studies*, ed. Elleman, Forbes, and Rosenberg, Newport Paper 35 (Newport, R.I.: Naval War College Press, 2010), p. 239.
 111. “Anti-piracy Centre Open for Business,” *Foreign and Commonwealth Office*, 25 February 2013, www.gov.uk/.
 112. *Oceans beyond Piracy*, oceansbeyondpiracy.org/. Also see Ella Ide, “Overrun by Pirate Prisoners, Seychelles Call for Help,” *Agence France-Press*, 5 March 2012, www.bangkokpost.com/.
 113. Lin Qiong and Wei Wei, “Chinese Representative Says the Root of Solving the Somali Piracy Problem Is Stability of the Country,” Xinhua News Agency, 18 November 2011, news.xinhuanet.com/world/2011-11/18/c_111175910.htm.
 114. Huang Li, *Sword Pointed at the Gulf of Aden*, pp. 258–62.
 115. Mo Xiaoliang, Shen Shu, and Liu Wenping, “Hand-in-Hand Joint Creation of Harmonious Oceans,” p. 2. At the time, Hu stated, “Promoting the establishment of harmonious oceans is an important component of establishing long-lasting peace, shared prosperity and a harmonious world, [and] is the beautiful pursuit and hope of the people of all nations of the world. . . . China’s navy will use more an open-minded, pragmatic, and cooperative spirit to actively participate in international maritime security cooperation, in order to persistently strive towards and realize the lofty goal of [creating] harmonious oceans.” Original text: “推动建设和谐海洋,是建设持久和平、共同繁荣的和谐世界的重要组成部分,是世界各国人民的美好愿望和共同追求. . . . 中国海军将以更加开放、务实、合作的精神,积极参与国际海上安全合作,为实现和谐海洋这一崇高目标而不懈努力.”
 116. Feng Xinhua, “Strategic Countermeasures to Maintain Security of Strategic International Sea Lanes.”

China's Recent Antipiracy Activities in the Gulf of Aden and Indian Ocean

The PLAN's first antipiracy operation took place in the Gulf of Aden on 6 January 2009 at roughly 11 AM, when four Chinese-flagged vessels were taken under escort.¹ Later that day the PLAN faced its first challenge. Pirates closing in on one of the escortees, Chinese motor vessel (MV) *Zhenhua* 25, failed to respond to two red flares fired from helicopters deployed off a PLAN warship. The helicopters approached within two hundred meters, closer to the ocean surface; "special operations soldiers had already opened safety locks and aimed [at] the pirates[,] getting ready to pull the trigger." The helicopters, "the pirates' bazookas and rifles . . . targeting" them, "flew over pirates' heads just against the sea surface" as "the explosive bombs fired by the special operations soldiers exploded and clapped in the air in quick succession." Minutes later the pirates dispersed.²

Since the end of 2008 PLAN escorts, area patrols, and on-ship protection activities have made substantial contributions to the safety of the Gulf of Aden and neighboring economic lifelines at sea. China's navy has learned valuable lessons, and several of its warships have participated in multiple deployments. Occasional encounters with pirates and dozens of exchanges with other navies have allowed the PLAN to exhibit its competence in deterring piracy and have also helped identify areas for logistical and operational improvement for future missions and, potentially, real combat.

Shortly after the first Gulf of Aden mission began, Li Daguang laid out several key performance criteria for China's naval escorts:

- Rapid reaction ability (迅速出动能力)
- Far Oceans deployment ability (远洋部署能力)
- Weapons supply (武器装备)
- Logistical security ability (后勤保障能力)
- Special operations combat ability (特种作战能力)
- Regular training level (平时的训练水平)

- Joint war-fighting ability (联合作战的能力)
- Emergency response ability (应对紧急情况能力).

By all accounts, the PLAN has met initial requirements in all these areas.³

Missions Details: December 2008–December 2012

The recent development of China's naval order of battle demonstrates the rapidity with which the PLAN is updating its maritime platforms. As of 2013, China's navy possessed twenty-three destroyers and fifty-two frigates, as well as newly commissioned aircraft carrier *Liaoning*.⁴ It also had twenty-nine amphibious ships and twenty-six medium landing ships. As Ronald O'Rourke of the Congressional Research Service explains, "[The Department of Defense] stated in 2011 that the percentage of modern units within China's submarine force has increased from less than 10% in 2000 and 2004 to about 47% in 2008 and 50% in 2009, and that the percentage of modern units within China's force of surface combatants has increased from less than 10% in 2000 and 2004 to about 25% in 2008 and 2009." Researchers at the U.S.-China Economic and Security Review Commission offer even more detailed percentages for destroyers and frigates respectively. Based on the International Institute for Strategic Studies volume *The Military Balance*: 1990 (0% each) and 1995 (5%, 8%). Based on their 24 June 2013 correspondence with the U.S. Office of Naval Intelligence: 2000 (20%, 25%); 2005 (40%, 35%); 2010 (50%, 45%); as well as projections for 2015 (70% each) and 2020 (80% each).⁵

Platforms Used

As noted previously, PLAN antipiracy task forces typically rotate every three or four months and deploy (for the most recent deployments) about 170 days from departure to return to home port. The total days spent at sea for PLAN ships increased steadily between the first and seventh task forces, with the eleventh task force holding the record of two hundred days away from home port.⁶ Similarly, the number of ships escorted in both aggregate and per-escort terms also increased. Task forces usually consist of two warships, either destroyers or frigates, and a replenishment ship. Thus at any given time the PLAN typically has three naval vessels stationed in the Gulf of Aden.

The Gulf of Aden deployers are the first modern PLAN surface ships sent for sustained periods outside the "second island chain"—that is, from the Kuriles westward around the Marianas to Indonesia.⁷ Beijing appears poised to continue the trend of deploying some of its most advanced surface ships to the Horn of Africa. During antipiracy operations, these platforms cover distances unprecedented for the PLAN. For example, the NSF Jiangkai II (Type 054A)—class guided-missile frigate *Yantai* sailed over forty-two thousand nautical miles, or two times the earth's circumference, during a

two-hundred-day antipiracy deployment.⁸ Currently, PLA task force platforms usually consist of various combinations of Type 052 Luyang-class destroyers, Type 054 Jiangkai-class frigates, and amphibious landing ships that primarily function as support and replenishment vessels. Assignment of these types reflects China's naval aspirations to deploy first-class, blue-water technology on a sustained basis. Exhibit 2 details the twenty-five PLAN vessels employed in the first fourteen task forces.

Logistical Underpinnings

Crews undergo substantial predeparture training.⁹ This reportedly includes predeparture instruction for PLAN officers, some of whom participate in antipiracy courses such as the two-week classes reportedly held at Nanjing Naval Command College (南京海军指挥学院) beginning on 13 February 2012.¹⁰ According to *Liberation Army Daily*, "This training class will last for 14 days. 84 persons from the leading organs of the PLA Navy, the 12th and 13th naval escort task forces, the North China Sea Fleet and the NCC attend the training class."¹¹ Aimed at high-level officers, "the training class will exert effort to improve the capability of the naval commanders at all levels, the frontline commanders in particular, in executing the oceangoing diversified military tasks by ways of theory lecture, experience exchange in groups, concentrated study and discussion as well as commanding drill."¹²

In addition to high-ranking officers, all crew members to be deployed conduct extensive preparation. Prior to deployment, for instance, sailors of the eighth task force completed specialized training updated for trends observed in the most recent escort operations.¹³ This targeted preparation included "72 action programs in four categories, 150 emergency plans in response to various scenarios, and 15 drill scenarios of various types," as well as training for heavy weather.¹⁴ Notable drills simulated rescue operations, live firing, rappelling from "shipborne helicopters [舰载直升机]," and boarding of merchant vessels.¹⁵ Similarly, the eleventh escort task force conducted three months of "prewar" (战前) training after leaving its home port, Qingdao.¹⁶ It underwent over 260 hours of training while passing through the Yellow Sea, East China Sea, Miyako Strait, and north-west Pacific.¹⁷

More broadly, all newly enlisted servicemen in ESF brigades (大队) must reportedly undergo special training to improve the fleet's ability to fulfill Far Seas escort responsibilities.¹⁸ One aspect of this training is learning how to throw hand grenades accurately under challenging conditions.¹⁹ One examination requires personnel to hit both stationary and moving doughnut-shaped targets with an inner and outer circle of three and six meters' diameter, respectively, as the targets move at varying speeds from multiple axes to simulate pirate skiffs' unpredictable movements.²⁰ The exercise highlights the imperative to target pirates urgently when they approach within seventy meters.²¹ Given

Exhibit 2. *PLAN Vessels Deployed in Gulf of Aden Antipiracy Operations*

Vessel ^a	Hull Number	Class	Type	Full-Load Displacement (tonnes)	Builder
<i>Wuhan</i>	169	Luyang I (052B)	Destroyer	7,112	Jiangnan Shipyard, Shanghai
<i>Haikou</i>	171	Luyang II (052C)	Destroyer	7,112	Jiangnan Shipyard, Shanghai
<i>Shenzhen</i>	167	Luhai (051B)	Destroyer	6,096	Dalian Shipyard
<i>Guangzhou</i>	168	Luyang I (052B)	Destroyer	7,112	Jiangnan Shipyard, Shanghai
<i>Lanzhou</i>	170	Luyang II (052C)	Destroyer	7,112	Jiangnan Shipyard, Shanghai
<i>Qingdao</i>	113	Luhu (052A)	Destroyer	4,674	Jiangnan Shipyard, Shanghai
<i>Harbin</i>	112	Luhu (052A)	Destroyer	4,674	Jiangnan Shipyard, Shanghai
<i>Huangshan</i>	570	Jiangkai II (054A)	Frigate	3,963	Huangpu Shipyard, Guangzhou
<i>Zhoushan</i>	529	Jiangkai II (054A)	Frigate	3,963	Hudong-Zhonghua Shipyard, Shanghai
<i>Xuzhou</i>	530	Jiangkai II (054A)	Frigate	3,963	Huangpu Shipyard, Guangzhou
<i>Ma'anshan</i>	525	Jiangkai I (054A)	Frigate	3,963	Hudong-Zhonghua Shipyard, Shanghai
<i>Wenzhou</i>	526	Jiangkai I (054A)	Frigate	3,963	Huangpu Shipyard, Guangzhou
<i>Chaohu</i>	568 ^b	Jiangkai II (054A)	Frigate	3,963	Hudong-Zhonghua Shipyard, Shanghai
<i>Yulin</i>	569	Jiangkai II (054A)	Frigate	3,963	Hudong-Zhonghua Shipyard, Shanghai
<i>Yuncheng</i>	571	Jiangkai II (054A)	Frigate	3,963	Huangpu Shipyard, Guangzhou
<i>Yantai</i>	538	Jiangkai II (054A)	Frigate	3,963	Huangpu Shipyard, Guangzhou
<i>Yiyang</i>	548	Jiangkai II (054A)	Frigate	3,963	Huangpu Shipyard, Guangzhou
<i>Changzhou</i>	549	Jiangkai II (054A)	Frigate	3,963	Hudong-Zhonghua Shipyard, Shanghai
<i>Hengyang</i>	568	Jiangkai II (054A)	Frigate	3,963	Hudong-Zhonghua Shipyard, Shanghai

Laid Down	Launched	Commissioned	Home Port	Task Forces Participated In
2001	9 September 2002	18 July 2004	Sanya, SSF	1, 9
November 2002	29 October 2003	20 July 2005	Sanya, SSF	1, 10
July 1996	16 October 1997	4 January 1999	Zhanjiang, SSF	2
2001	25 May 2002	18 July 2004	Sanya, SSF	5
June 2002	29 April 2003	18 July 2004	Zhanjiang, SSF	6
January 1993	October 1993	March 1996	Qingdao, NSF	11
November 1990	October 1991	July 1994	NSF	14
2006	18 March 2007	13 May 2008	Zhanjiang, SSF	2, 13
2006	21 December 2006	3 January 2008	Zhoushan, ESF	3, 7
2005	30 September 2006	27 January 2008	Zhoushan, ESF	3, 7
December 2001	11 September 2003	18 February 2005	Zhoushan, ESF	4, 8
February 2002	30 November 2003	26 September 2006	Zhoushan, ESF	4, 8
2007	23 May 2007	30 June 2008	Sanya, SSF	5
2007	28 April 2009	1 February 2010	Zhanjiang, SSF	9
2007	8 February 2009	15 January 2010	Zhanjiang, SSF	10
2009	24 August 2010	9 June 2011	NSF	11
2008	17 November 2009	26 October 2010	Zhoushan, ESF	12
December 2009	21 May 2010	30 May 2011	Zhoushan, ESF	12
2007	23 May 2007	30 June 2008	Zhanjiang, SSF	13

Exhibit 2. (continued)

Vessel ^a	Hull Number	Class	Type	Full-Load Displacement (tonnes)	Builder
<i>Mianyang</i>	528	Jiangwei II (053H3)	Frigate	2,286	Huangpu Shipyard, Guangzhou
<i>Kunlunshan</i>	998	Yuzhao (071)	Landing ship	18,500 (standard, not full load)	Hudong-Zhonghua Shipyard, Shanghai
<i>Weishanhu</i>	887	Fuchi (903)	Replenishment	23,369	Guangzhou Shipyard International
<i>Qiandaohu</i>	886	Fuchi (903)	Replenishment	23,000	Hudong-Zhonghua Shipyard, Shanghai
<i>Poyanghu</i>	882	Fuqing (ex-Fencang 615)	Replenishment	22,099	Dalian
<i>Qinghaihu</i>	885 (ex-NY953)	Komandarm Fedko	Replenishment	37,000	Kherson (Ukraine)/ Dalian

Notes:

China's Defence Today and online Chinese sources sometimes provide contradictory details. In case of discrepancies, *Jane's* data are used as a default.

a. Vessels are arranged in a two-tiered ordering system. The first filtering tier is vessel type and the second is first task force participated in.

b. *Chaohu* was renamed *Hengyang* in 2012, www.sinodefenceforum.com/navy/054-series-frigate-thread-2-a-107-4149.html.

c. Denotes limited duration of role.

Sources: *Jane's Fighting Ships*; *China's Defence Today*; "China Sends Escort Fleet to Somali Waters," Xinhua, 29 February 2012, www.china.org.cn/wap/2012-02/29/content_24762887.htm; "China," *World Warships*, www.worldwarships.com/; "中国海军

three tries, sailors who hit at least two from thirty meters or at least one from forty meters are deemed "outstanding" (优秀); hitting none from thirty meters constitutes failure.²² En route training for escort forces has been institutionalized. For example, the seventh task force held a first comprehensive training session in November 2010 after it departed for the Gulf of Aden, with plans for "taking one road, practicing one road" (走一路, 练一路).²³

Since English is mandated by the International Maritime Organization for all international communications at sea, another important component of predeparture training is language instruction. PLAN crewmen are expected to possess baseline English communication skills to communicate effectively with foreign civilians, pirates, and counterpart naval officials. For example, crew members of the ninth escort task force received bilingual Chinese and English study materials such as the hard-copy *Blue Shield Bulletin* (蓝盾快报) and *The Escort Voice* (护航之声) radio broadcasts. Crew members also reportedly spend a good deal of time studying English.²⁴ The recent emphasis on English training and on comprehensive education of task forces suggests that the PLAN may foresee an increase in the number of foreign ships escorted. It also reflects the importance that the Chinese government and military attach to their capabilities and image when interacting face-to-face with other states, engagements that have grown in frequency and substance. The twelfth escort task force had an on-duty translator aboard the frigate

Laid Down	Launched	Commissioned	Home Port	Task Forces Participated In
2003	30 May 2004	October 2004	ESF	14
June 2006	21 December 2006	13 November 2007	Zhanjiang, SSF	6
N/A	June 2003	April 2004	Sanya, SSF	1, 2, 5, 6, 11, 14
2002	29 March 2003	30 April 2004	Zhoushan, ESF	3, 4, 7, 8, 12
		1979	Shanghai, ESF	5, 6, 8, 10
January 1989 (Ukraine)	April 1992	2 June 1996	SSF	9, 10, 13

十批护航编队简介” [A Brief Introduction to China’s Ten Naval Escort Task Forces], Xinhua, 26 December 2011, news.xinhuanet.com/mil/2011-12/26/c_122483096.htm; “Fuqing Class Fleet Oiler,” *China’s Defence Today*, updated 1 March 2009, www.sinodefence.com/navy/support/fuqing.asp; “PLA Navy Holds Comprehensive Replenishment Training under Adverse Conditions,” *Military Report*, CCTV-7 (Mandarin), 1130 GMT, 15 October 2011; Liu Yiwei and Hou Rui, “PLA 8th Naval Escort Taskforce Conducts 1st Replenishment,” *Liberation Army Daily*, 1 March 2011; Wang Lingshuo and Li De, “‘Peace Ark’ Hospital Ship Makes First Replenishment in Open Sea,” *Liberation Army Daily*, 9 September 2010; CCTV.com; www.sinodefence.com/special/operations/anti-piracy.asp; id.china-embassy.org/eng/gdxw/t781886.htm; eng.chinamil.com.cn/news-channels/china-military-news/2011-07/01/content_4458702.htm; english.ts.cn/news/content/2012-05/08/content_6813662.htm; Qin Chuan, Yang Qinghai, and Li Ding, “14th Chinese Naval Escort Taskforce Conducts Open-Sea Training,” *People’s Daily*, 27 February 2013, english.peopledaily.com.cn/90786/8144844.html.

Yiyang, though it is unclear whether all task forces have carried official translators.²⁵ Additionally, according to a Chinese media article, during the first escort deployment the destroyer *Haikou* was equipped with thirty laptops and a local area network that allowed crew members to listen to music and watch movies. Each PLAN task force member receives four “pocket books” that cover the psychological aspects of deployment, security, international law, and the application of international law to military operations. Also, in preparation for meeting ships of other nations, a naval officer who specializes in international law provides full-time legal support to officers and crews.²⁶

Organizing Operations

Antipiracy services provided by the PLAN to commercial ships have included area patrols, escorts, and on-ship protection.²⁷ Wang Yongxiang, deputy commander of the tenth escort task force, explains that the choice of modes depends on multiple factors: “the schedules of the merchant vessels to be escorted, their characteristics, and how well our warships have rested. We want to not only ensure the safety of our charges, but also improve the efficiency of escort protection.”²⁸ Area patrol—monitoring certain maritime zones in and around the Gulf of Aden—is the approach least employed by the PLAN.²⁹ When China’s navy does engage in this type of operation, it typically maintains two base points 550–600 nautical miles apart—one a hundred nautical miles north of Yemen’s

Socotra Island and the other seventy-five nautical miles southwest of Aden Harbor.³⁰ PLAN vessels travel between these points, typically taking two to three days to do so.³¹

As of July 2010, the fifth task force had begun adjusting escort rendezvous points in response to geographic trends in pirate attacks.³² The commander of the fifth task force, Zhang Wendan, stated, “We shall strengthen communication and contact with our charges in light of changes in the weather conditions of these waters and the way in which pirates operate. When the sea conditions are favorable, we shall extend the route of escort cover toward the eastern part of the Gulf of Aden. When a single warship provides accompanying escort, we shall send other ships to the patrol area to provide area escort.”³³ Additionally, the PLAN has divided the main shipping lane into seven area-patrol zones, so as to secure the maritime region immediately east of the Gulf of Aden.³⁴

PLAN task forces are also changing their training methods and placing emphasis on emerging trends in pirate attacks.³⁵ In late 2012 *China Daily* reported that pirates were focusing more heavily on larger vessels carrying energy supplies, such as coal and oil, rather than smaller, slower merchant ships.³⁶ Task forces are improving communication with escorted vessels, sharing information with foreign navies, and improving advance patrols and warning.³⁷ Broadcasting in English over very-high-frequency (VHF) radio, which has been the universal hailing frequency for decades, *Yuncheng*, of the tenth escort task force, announced, “All ships, all ships, this is the Chinese naval convoy. If you need any assistance, please report to us on VHF channel 16. Out.”³⁸ While the immediate benefits of enhanced communication between PLAN ships and commercial vessels include improved escort provision, PLAN profits from these interactions transcend the specific antipiracy mission set. Insights from antipiracy communication “best practices,” such as managing rendezvous, working with merchant captains who do not take orders but must be induced to listen, figuring out optimal formations for steaming, and accounting for discrepancies in the speeds of various vessels, are all transferable to future wartime scenarios that involve real operations, such as a “Malacca dilemma” contingency.³⁹

PLAN crewmen are sometimes stationed aboard commercial vessels on routes with relatively little traffic and that have therefore lower risk of coming under attack, to limit wear and tear on warships; this is referred to as “on-ship protection.”⁴⁰ This service is usually provided by PLAN Marine Corps Special Operations Forces (中国海军特种作战部队) with the assistance of helicopters that provide monitoring and, if needed, gunfire.⁴¹ A typical escort task force has between seventy and ninety of these elite soldiers, who have received extensive land-based training.⁴² Special Forces (特战队) personnel are transported by helicopter and rappel onto the decks of the civilian vessel.⁴³ As of 2010, special operations units could comfortably escort seven commercial ships at a time, deploying from five to seven personnel on the front and rear vessels in the convoy. Special Operations Forces marines are armed with deck-mounted grenade launchers

that can destroy pirate targets at two thousand meters.⁴⁴ They also carry Type 56 assault rifles, QBZ-95 automatic rifles, QBU-88 sniper rifles, and infrared night-vision goggles. In extreme circumstances, civilian crewmen may be given weapons.⁴⁵ *Modern Navy* reports that further efforts are required to use equipment more effectively: “With regard to electronic armament deployment, escorts serve as an important long distance responsibility, [the PLAN] needs some experience to test whether [it] is using relatively effective electronic armament to serve as set equipment [to] arm ships, including photoelectric equipment, [Automatic Identification System] equipment, 12.7 mm machine guns, high-power searchlights, high-power telescopes, portable night vision, and such.”⁴⁶

In practice, most of the intense operations are performed during training exercises for Special Forces units, often conducted during inclement weather or at night. As an article in *Modern Navy* explains, “Escort task forces insist on ‘taking one road, practicing one road, [and] researching one road (走一路, 练一路, 研究一路),’ [on] organizing helicopter groups; [on having] Special Forces crewmen perform maritime antipiracy training deployment exercises, stressing training exercises using real weapons, [including] Special Forces air mobile and ground level [training]; [and on having] helicopter patrol warning, maritime rescue and various other categories; [thereby] raising [the PLAN’s] ability to complete all [requisite] tasks [comprehensively].”⁴⁷

Examples include the Special Forces exercises during the third escort task force deployment, held in “complex weather conditions.”⁴⁸ During such training sessions PLAN units simulate combat operations to eliminate or disperse pirates. Reportedly, exercises routinely last over nine hours.⁴⁹ One report describes a training session that ran continuously for three days and encompassed all operational aspects of the PLAN antipiracy mission.⁵⁰ A 2012 training exercise demonstrated how Special Forces units adapt to inclement weather such as rain, which makes decks slippery and blurs vision, often slowing reaction speed.⁵¹ While searching cabins during the training exercise, Special Forces personnel crouched to lower their centers of gravity and moved more slowly to ensure that their cabin checks were effective.⁵² They also practiced sign-language communication, simulated firing, cross-protection methods, and searches for targets.⁵³ In a description of a similar exercise it was revealed that Special Forces commandos carried thirteen kilograms of equipment, including a camera on each commando’s upper left chest that transmitted video to the command post to enhance decision making.⁵⁴

Of all the services provided by China’s antipiracy forces, escorting civilian ships is the most common; it has become a daily practice for PLAN task forces in the Gulf of Aden. Since the first task force, the two warships stationed in the Gulf of Aden have led separate flotillas of merchant ships, sometimes in opposite directions, through an area west of longitude fifty-seven degrees east and south of latitude fifteen degrees north.⁵⁵ PLAN escort efficiency has improved significantly since 2008. As a 2010 *Liberation Army*

Daily article states, “From the first escort to the escort of the 1,000th ship the Chinese naval task force used over 300 days, from the 1,000th to the 2,000th ship used over 220 days, and from the 2,000th to the 3,000th ship only used over 180 days’ time. More and more ships apply to enter only Chinese naval escort task forces, they believe firmly that following the Chinese navy is safe, this type of dependence and endorsement originates from the willingness of the Chinese navy to take on international humanitarian responsibilities, and comes from the 100% safety assurance of escorted vessels over the last two years.”⁵⁶ These impressive statistics could not have been attained without substantial improvements in escort organization and capacity. During the first month there was considerable organizational confusion, as a result of which commercial ships failed to adhere to escort procedures.⁵⁷ After the 2009 Spring Festival, therefore, the Chinese ministries and organizations involved began scheduling escort trips on the basis of the level of traffic in various sections of the Gulf of Aden, using research provided by the PLAN and MoT. Today, before the fifteenth of every month, the China Shipowners’ Association posts detailed escort schedules. Ju Chengzhi of the MoT explains that escort scheduling is not a simple task, as several factors must be considered: “Scheduling and coordination of ships is very precise work. Slow ships need to increase speed, [while] fast ships need to decrease speed; however, [ships] cannot wait in dangerous areas if they arrive before the warships. At the same time, [one] must consider the Suez Canal issue, because the Suez Canal gate opens at fixed times.”⁵⁸ According to Liu Haitao, head of the eleventh escort task force, task forces in early 2012 were publishing their schedules about one month in advance.⁵⁹ The PLAN generally requires merchant ships to work around the posted schedule, but given at least a week’s notice, on a case-by-case basis it also accepts requests for special provisions, such as for ships with speeds below ten knots.⁶⁰

Escort Procedures

Convoy formations depend on the numbers of both escorting warships and commercial vessels. One-column convoys arrange the merchant ships equidistantly, typically flanked by one warship, which travels at a speed similar to that of the flotilla. For two-column escorts, either a single warship steams between the columns or one takes station on each side.⁶¹ Alternatively, as seventh escort task force commander Wang Xianzhong explains, escorts may be “composed of three units. Escort warships are situated at the front left and back right of the escort flotilla. In order to facilitate flexible maneuvering, both ends look after each other, defending against pirate attacks.”⁶² Methods may be combined: the third task force used four escort methods during one escort operation and, during another separate joint escort operation with a foreign navy, was able to provide protection for twenty-five ships.⁶³ Because of the variety of displacements and speeds of ships applying for Chinese escorts, the eleventh task force began grouping convoys into low- and high-speed flotillas, each led by one warship.⁶⁴

Occasionally warships meeting each other with convoys from opposite directions trade flotillas, as in a “relay race.”⁶⁵ Reportedly the ninth task force emphasized placing commercial ships with lower freeboards in closer proximity to PLAN escorting ships.⁶⁶ The eleventh task force performed a textbook relay-style escort in 2012 while protecting three commercial vessels.⁶⁷ *Yantai* began a solo escort transit, handing off to the Type 052 guided-missile destroyer *Qingdao* when it reached a temporary replenishment area in the central Gulf of Aden. Throughout, a PLAN helicopter provided aerial monitoring and security.

Task force components detach as necessary. On 6 June 2011, when the merchant vessel *Hyderabad* was threatened twenty-five nautical miles from an escort formation, the escorting Type 054 frigate *Wenzhou* dispatched helicopters to disperse the pirates and left its convoy to collect *Hyderabad*, deploying smaller craft to cover the merchant ships until its return.⁶⁸

Accommodations are made for ships with special requirements; PLAN warships remain behind with them if necessary. On 18 March 2010 the Chinese MV *Zhenhua 9* arrived late at the rendezvous because of its “extremely low speed.” The replenishment ship *Weishanhu* detached to provide an individual escort. Pirates converged on the easy “prey,” and *Weishanhu* interposed itself, its Special Forces personnel manning heavy machine guns. When the pirates neared to a mile and a half, *Weishanhu* fired two red flares, to no effect. A second firing, this time of “explosive bombs and flash bombs” at one nautical mile, likewise failed to deter the pirates. Thirty-four minutes after the first firing, *Weishanhu*’s commander “ordered the sailors to intercept and shoot at the pirate boats for warning.” Machine-gun fire roiled the water in front of the pirate boats, which finally dispersed.⁶⁹

Convoys, initially four ships at any given time, quickly expanded to as many as twelve. According to Rear Adm. Yin Zhuo (Ret.), escorted flotillas in 2011 and 2012 sometimes included twenty or thirty merchant ships.⁷⁰ In March 2010 *People’s Navy* reported that the fourth escort task force had broken the record for the number of ships escorted in one convoy, arranging thirty-one ships into three columns.⁷¹ Li Shihong, commander of the tenth escort task force, stated, “On the first escort assignment, there were only four merchant vessels. Today, each batch includes 10 vessels or more on average. We have won extensive praise from the international community and the trust of foreign merchant vessels with safe and efficient escort operations.”⁷²

Special Forces

This increase in vessels per escorted group reflects the valuable operational lessons learned by the initial PLAN task forces, especially by the Special Forces personnel responsible for on-ship protection. Rather than deploying to all vessels in a flotilla, Special

Forces teams now board the first ship, the ships on the outside of the convoy, and any with low freeboards that make them especially vulnerable to skiff-based pirate attacks.⁷³ In April 2012, the eleventh task force was deploying special operations units on commercial ships with low freeboards, low speed, and poor self-protection ability for three days at a time.⁷⁴ Jiang Jixiang, leader of the eleventh task force's 1st Special Operations Squad, remarked, "Before boarding the merchant vessel, we have drafted a detailed plan of action on the basis of her structure and characteristics. Our men are equipped with radios, a variety of weapons, and advanced optical reconnaissance devices. There are seven Chinese and foreign-flagged merchant vessels in this convoy. They are general cargo ships, bulk carriers, and oil tankers from China, Panama, and Germany."⁷⁵

In late 2011, PLAN special operations units conducted integrated training with commercial ships in which civilian seamen took up makeshift weapons and manned the sides of their ships while PLAN forces used water cannons to fight off hypothetical pirates.⁷⁶ Chen Jihong, commanding officer of the tenth escort task force's Special Forces, commented, "The on-board escort operation can strengthen the antipiracy deployment of a merchant vessel and enable her crew to acquire a greater antipiracy consciousness on the one hand and, on the other, step up the exchange of antipiracy experience between the military and civilians and enable [Special Operations Force] soldiers and crew members to become familiar with each other's antipiracy practices and processes."⁷⁷ By the end of 2011 over seven hundred commandos had participated in PLAN escort deployments.⁷⁸

Additionally, helicopters now play a larger role than earlier in monitoring the seven PLAN-identified transit zones in the Gulf of Aden, allowing earlier detection of potential threats and thus earlier adjustments to escort flotilla organization, as required. Helicopters often patrol out in front of escort formations. "As the forward eyes, the helicopters unit ensures that the escort formation can discover and discern the pirates early, and make an early decision. . . . Sometimes, the crews on helicopters have to tackle . . . the pirates single-handedly and fulfill the mission of driving them away."⁷⁹ Supply ships have responded in instances where combat and monitoring capacity is perceived as insufficient, sometimes serving directly (like *Weishanhu*, in the incident described above) as escorting ships themselves.⁸⁰

The various adjustments made by the PLAN escorts have been lauded by Chinese media as manifestations of the "scientific spirit" with which PLAN crews carry out their deployments.⁸¹ The eleventh escort task force exhibited this spirit during a routine escort of three ships in March 2012. After receiving notice that the COSCO merchant vessel *Fu Yuan* would be unable to meet its escorts punctually at the rendezvous point, *Qingdao* left with the two faster vessels that had arrived, while *Yantai* waited three hours to escort *Fu Yuan*.⁸² These consecutive convoys reflected the PLAN's flexibility in reacting to sudden schedule changes. Earlier, Special Forces units of the eighth task force had created

antipiracy security guidance teams, an innovative service for commercial escorts in which teams examined their security equipment, such as netting, security cabins, and resources for deterring approaching pirates.⁸³ It appears that while PLAN escort task forces in general observe rigid convoy departure schedules, escort groups “often leave one warship behind to wait for merchant ships that are late due to extreme weather.”⁸⁴ According to an individual identified only as “Captain Liu” of Nanjing Ocean Shipping Company, Ltd., this flexibility allows commercial companies to save thousands of dollars as well as avoid the dangers of piracy.⁸⁵

Foreign Vessels

At this writing, roughly 70 percent of ships escorted by China’s navy are foreign.⁸⁶ In terms of aggregate escorts over the four-year period of December 2008–December 2012, roughly 50 percent of PLAN-escorted commercial vessels have been foreign flagged.⁸⁷ *People’s Navy* reported in mid-2011 that China had provided escort services to ships from over fifty foreign countries.⁸⁸ *People’s Daily* emphasizes that escort services have always been free of charge for both Chinese and foreign commercial ships.⁸⁹ Other observers, such as Zhai Dequan, deputy secretary-general of the China Arms Control and Disarmament Association, assert that “China shoulders responsibility for foreign vessels based on growing national strength and a friendly policy,” as many other states do not send escort forces, because of limited interest and enormous cost.⁹⁰ In Zhai’s opinion, “Such international cooperation and exchanges also help the rest of the world to know more about China and accept it.”⁹¹ Foreign civilian ships can apply online at the CSA website to join a PLAN convoy. Presumably, Beijing began providing escort protection to vessels of other countries after assessing that PLAN performance and experience were sufficient, that domestic needs could be met at the same time, and that the political benefits of escorting foreign ships outweighed the potential risks of refusing or failing to protect them adequately.

Long-Duration Voyages: Meeting New Challenges

Additional operational challenges of the antipiracy mission include what are for the PLAN unprecedentedly harsh conditions. The Gulf of Aden and surrounding regions are marked by high temperatures, salinity, and humidity, factors that present formidable problems for deployments lasting three or four months.⁹² Temperatures on the “control deck” (甲板) of PLAN warships can reportedly reach 122° F (50° C). In one indication of the trials of the environment, PLAN soldiers speak of their tanned faces as “black mirror” (黑镜) faces.⁹³

These conditions test the quality and durability of equipment, and they stress PLAN platforms considerably.⁹⁴ For example, in August 2009 a helicopter fired signal flares

at pirates near MV *Zhenhua-4* in 39° C heat and force-seven (i.e., gale-force) winds.⁹⁵ Another suggestion of the uniqueness of this deterrence operation is the fact that the replenishment ship *Qiandaohu*, charged primarily with supporting destroyers and frigates, was tasked with establishing a temporary command center to direct helicopters.⁹⁶ *People's Navy* reports that the vessel did so in just twenty minutes, marking the first time that *Qiandaohu* played a role in battle-like circumstances.⁹⁷ Ordinarily, sailors on board PLAN supply ships are often referred to as “provisions officers” (粮草官).⁹⁸

In an indication that the Gulf of Aden mission may even be influencing Chinese naval architecture and engineering, an article in *Modern Navy* suggests, “Because power equipment frequently needs repair and maintenance during escorts, and [sometimes] even needs [to] undergo overhaul and such, maintenance space needs to be considered during the design [process].”⁹⁹ Maintenance and spare parts are important: “With regard to cabin supply, according to reflections on escort warships’ usage, because escort time is long, carried spare parts and accessories are numerous and [the system] is insufficiently optimized. This results in the shortage of spare parts and accessories.”¹⁰⁰ Specifically, “with regard to equipment reliability, during escorts, electromechanics, toilets, air compressors fail most frequently, domestically produced equipment has the highest fault rates, domestically produced equipment needs to undergo long term inspection before being installed on ships.”¹⁰¹ As a result, “with regard to repair security, because systematic equipment faults are complex during long voyages, yet we do not currently allocate adequate [physical] space for equipment maintenance and repairs, we need to make improvements in these areas. Additionally, [we] need to supply an electronic manual that can secure the needs of crewmen.”¹⁰²

Operating in inclement conditions raises overall competence, and in fact China apparently considers it necessary to improve antipiracy capabilities in all conditions. As Wang Min remarked in late July 2012, “At present, acts of piracy are still running rampant. They are getting apparently industrialized and violent, with increased all-weather piracy capabilities and expanding scope of attacks.”¹⁰³ This may be evidence of improved pirate capabilities, as assessed by the Chinese, and also of the PLAN’s own growth and development.

Long deployments also challenge crews’ physical and mental endurance. Problems include the fact that while “raising crew members’ life security ability is an important way to ensure war-fighting ability” at present “material and mental life [is] relatively arduous and mundane.”¹⁰⁴ PLAN specialists are studying health problems linked to long-duration deployments and recommending countermeasures. According to one study, the five most common ailments for PLAN crewmen on escort operations are respiratory infections, traumas, dermal diseases, digestive system disorders, and stomatological (mouth) diseases.¹⁰⁵ A similar study found that the most common medical problems for crewmen

were respiratory diseases, dermatitis, and exercise-induced injuries. All female participants experienced menstrual disorders. To combat these health problems and thereby better fulfill escort mission requirements, the authors suggest, “efforts should be made on health care propaganda and education coupled with disease prevention and treatment.”¹⁰⁶

Another study found that rates of xerophthalmus, or “dry eye”—in which the conjunctiva and cornea desiccate abnormally—was more prevalent among PLAN escort sailors than among ground troops. Task force–related factors include lengthy exposure to video displays, air pollution, and marine wind.¹⁰⁷ The seriousness of gum disease also increases for crew members as they stay at sea longer, one study documents. That study’s authors too suggest timely and effective propaganda and education for PLAN sailors.¹⁰⁸ To improve sanitation and prevent disease during long voyages, another study advocates

- Increasing training for reserve disease prevention
- Strengthening the establishment of teams with specialized expertise
- Strengthening the establishment of informatization for disease prevention
- Expanding the disease prevention functions of warships and complementary sanitation ships.¹⁰⁹

However mundane, seasickness too is a problem. One study shows that seasickness and duration aboard vary inversely—the longer crewmen deploy, the less serious their seasickness. The study suggests that older crew members need special attention and that measures should be adopted to prevent seasickness and thereby improve quality of life.¹¹⁰ Other researchers suggest the following to prevent motion sickness for sailors on board ship for long periods: build confidence, relax mentally, adjust eating habits, improve hygiene, enhance physical training, increase officers’ stamina, and expand medicinal treatments.¹¹¹ PLA No. 425 Hospital has been assisting PLAN officers and crewmen of escort ships.¹¹² On board ships medical resources are limited, but officers and crews have access to medical “teleconsultations” with hospital staff ashore.¹¹³ During an October 2010 Gulf of Aden visit, the PLAN hospital ship *Peace Ark* held a joint medical training exercise, BLUE SEA ANGEL, with *Weishanhu* and the Type 052C destroyer *Lanzhou*.¹¹⁴ The exercise simulated providing medical care to victims of pirate attacks, including coordinated response, deployment of medical helicopters, and consultative contact with experts at Navy General Hospital in Beijing.¹¹⁵ A more narrowly specialized study found that the cognitive ability of helicopter pilots decreases as time at sea increases, especially “distinguishing special graph” (特殊图形辨认) ability. The authors suggested that aeromedical measures be installed to ensure necessary cognitive and flying ability.¹¹⁶

An embedded journalist reports that breakfast on board task force ships usually consists of milk, eggs, porridge, steamed buns, bread, and two or three more dishes, while lunch and dinner offer four dishes each.¹¹⁷ One study in *Journal of Navy Medicine* proposed a new food scheme designed for long-distance voyages. The study created ten recipes whose caloric content and nutrient composition were “reasonable”—that is, in accordance with the dietary requirements of a naval crew.¹¹⁸ In late 2010 CCTV-7 reported that a PLAN support base’s logistics department had developed a vegetable preservation technology for warships that encompassed picking, processing and packaging, loading, onboard cold storage, and onboard management.¹¹⁹ The technology allows PLAN crews to keep vegetables fresh up to forty days, from twenty-five.¹²⁰ An SSF logistical crew aboard *Weishanhu* developed a technology for vegetable preservation that preserves leafy vegetables for forty days and root vegetables for sixty days, with a wastage rate of under 5 percent.¹²¹ This is important, as Chinese sailors eat vegetables with every meal.¹²²

Morale is also a problem on prolonged voyages. One study found that while crewmen are in high spirits predeployment, tests taken on the seventy-seventh day of escort operations reveal that the psychological state of a crew has “degraded markedly,” displaying “hostility and crankiness.” Tests administered on the 142nd and 204th days revealed further-degraded crew psychology.¹²³ Another study found that prolonged deployment reduced the mental health of female midshipmen.¹²⁴ Psychological problems among sailors were apparently especially prevalent during initial antipiracy deployments, before China’s navy had secured arrangements for resupply and replenishment in foreign ports.¹²⁵ Such problems as homesickness and conflicts among crew members led the PLAN to bring psychiatrists aboard.¹²⁶ Moreover, writes *People’s Navy* reporter Zhu Hongliang, who accompanied PLAN escort forces to the Gulf of Aden, sailors’ shared berthing spaces are typically only ten square meters in size, and sailors must awaken at 6:20 AM every morning, sometimes after standing watch at night.¹²⁷ Special Forces personnel are expected to execute their responsibilities, in conjunction with helicopter units, for eight to ten hours a day, not including unexpected action.¹²⁸ “Getting salty,” as one active-duty U.S. naval helicopter pilot emphasized to the authors, is an intangible element of long-term naval deployments that should not be overlooked. China’s growing focus on the morale and health of Gulf of Aden sailors suggests that the PLAN understands this concept.

To maintain morale, task forces often organize cultural activities, skill-building events, and celebrations while at sea.¹²⁹ A diary kept by a journalist while on board an escort ship records that weekends are the “happiest” times for crewmen, because they are allowed to telephone family members then. They are also permitted to use the popular Chinese instant-messaging program Tencent QQ for ten or fifteen minutes. Additionally, ships are now equipped with CDMA telecommunications systems (i.e., that allow several

users to employ one channel).¹³⁰ Crewmen also have access, via satellite, to *Liberation Army Daily*, the *CCTV News Broadcast*, and the *CCTV Military Report*.¹³¹ One *People's Navy* article reports that PLAN sailors commonly enjoy several types of on-ship activities outside of work, such as listening to music, watching TV, drinking coffee, exercising, and surfing the Internet.¹³² As long as they are not preparing to discharge responsibilities imminently or to replace others on watch, crewmen are free to engage in entertainment activities.¹³³ The article describes an “activity room” (活动室) boasting a “modern feel,” various information outlets such as TVs, magazines, and Internet-connected computers; European coffee; three treadmills; and two exercise bikes.¹³⁴ An April 2012 *Modern Navy* article profiled the various ways in which Chinese escort sailors get sufficient exercise at sea.¹³⁵ Because time and deck space are limited, sailors must select activities that conserve them. Popular fitness activities include running laps, jumping rope, long jumping, sit-ups, and push-ups. The PLAN also provides Gulf of Aden crews vitamin packs and other health products.

Challenges to the health of PLAN escort task force crewmen and the substantial amount of coverage of this topic by Chinese scholars demonstrate how substantially the Gulf of Aden mission has broadened the PLAN's range of operational considerations.

Intranaal Coordination

Chinese antipiracy operations require considerable synchronization among military and civil agencies. To mitigate inefficiencies stemming from vertical, asymmetrical information flows among various government and military agencies, China's navy adopted for this effort a flat command structure in which CMC orders can be passed directly to vessels on duty rather than through fleet and base command levels. This expedites decision making in times of urgency.¹³⁶ For example, in June 2012, while serving on the eleventh escort task force, *Yantai* experienced a radar system malfunction. According to an article in *Science & Technology Daily*, “the radar's automatic plotting device suddenly ‘went on strike’ one day. People in the ship formation checked repeatedly but could not find the cause of the breakdown. So they activated the ‘ship's equipment remote maintenance and repair technical support’ group consultation system. Very quickly, people aboard *Yantai* ‘invited on board’ technical experts at an electronic science and technology organization in Shanghai, and the problem was easily solved.”¹³⁷

This coordination mechanism reportedly allowed the NSF task force to gain troubleshooting access to over four hundred naval and technical experts in Shanghai, reflecting PLAN efforts to ensure that its relatively inexperienced units are able to operate smoothly in the Gulf of Aden.¹³⁸ One exercise drill held by the tenth task force in February 2012 suggests that the PLAN has recognized the need to regularize emergency repair.¹³⁹ During the exercise a repair team boarded a ship whose “navigation radar” had

“failed” after a pirate attack and “repaired” it in twenty minutes while medical personnel treated “injured” crew members.¹⁴⁰

More generally, experience in coordination gained in Gulf of Aden operations has set a standard for future instances in which Beijing needs to respond swiftly in the Far Seas or other regions outside China. Given the PLAN’s enhanced role in safeguarding national interests, Chinese authors Yang Jun, Zou Debin, and Xu Yanshan argue, China must abandon the tendency to view naval development independently but should rather “include maritime material flow into the building system-of-systems of the whole military, into the maritime material flow system-of-systems of the whole nation; and . . . build according to the support thinking of ‘joint logistics in charge of general support, navy in charge of special support’ under the overall planning of the nation and the General Headquarters.”¹⁴¹

Encounters with Pirates

The first Chinese naval officer actually to encounter pirates in the modern era was aboard a Chilean naval vessel participating in training exercises while circumnavigating the globe in August 2008. The pirates fled when the warship fired warning shots.¹⁴² In the Gulf of Aden, PLAN task forces are occasionally forced to contend with armed pirates, whether in area patrol, on-ship protection, or escort operations. Antipiracy operations can also involve encounters with unexpected personnel. In one such instance, sailors on the Type 054A frigate *Zhoushan* discovered a ten-meter skiff carrying forty-five unarmed stowaways, whom they subsequently inspected and released.¹⁴³ Typical PLAN responses to pirates involve launching signal flares, flash bombs, or stun grenades either from the decks of warships or from helicopters, as well as warning by loudspeaker that an organized military force is present and advising the pirates to withdraw.¹⁴⁴

On 14 March 2009, for instance, the Type 051B destroyer *Shenzhen* was escorting seven vessels in two columns. Suddenly, helicopters patrolling ahead reported eighteen speedboats approaching from multiple axes. With the nearest support, the Type 054A guided-missile frigate *Huangshan*, nine nautical miles away, *Shenzhen* approached the pirates, as the helicopters circled closely and special operations forces took positions on deck. At three nautical miles, pirates on each boat aimed bazookas and rifles periodically at *Shenzhen* and the helicopters. In response, Special Forces personnel “aimed at the pirates . . . with the machine guns in their hands.” After a two-minute standoff, the pirates fled.¹⁴⁵

In November 2010, a crewman on board *Le Cong* sustained injuries after being attacked by pirates.¹⁴⁶ After sailing 2,300 kilometers to the scene in over thirty-seven hours, *Xuzhou* sent medics on board to treat the victim’s wounds.¹⁴⁷ On 20 November 2010,

Special Forces responded to a situation in which the Chinese-flagged MV *Taiankou* (泰安口) had been attacked and boarded by four pirates; the fate of the twenty-one crew members was unknown.¹⁴⁸ The cargo ship belonged to COSCO.¹⁴⁹ Within minutes, four Special Forces personnel were dispatched in a helicopter and eight more in two speedboats.¹⁵⁰ The helicopter-based forces used “photoelectric infrared” (光电红外) and other means to survey the merchant vessel and surrounding waters. “Snipers targeted the pirates on board, while other personnel launched flares, flash-bang and percussion grenades as a warning and dropped hooks and shelf ladders.”¹⁵¹ Personnel from the boats boarded and searched the vessel compartment by compartment. Within twenty minutes they had rescued the crew from the security cabin, where they had been trapped for ten hours.¹⁵² All twenty-one civilian personnel on board were unharmed.¹⁵³

Yan Zhigang, a sailor on board the Type 054A guided-missile frigate *Xuzhou*, recounts an experience involving *Taiankou* and a reported pirate attack in November 2010:

On the vast ocean, the warship, small boat, and Special Forces team members formed a safety net, and wrapped “*Taiankou*” into it. When I heard the sound of Special Forces transmitting over the intercom—“no pirates were discovered on the platform,” “the operating room is secure,” “the cabin is secure”—I was especially excited. Following 80 minutes of fighting searches, after we confirmed that the merchant vessel was secure, 21 captive compatriots exited the cabin consecutively. We then used the small boat to give supplies such as food and medicine to “*Taiankou*.”¹⁵⁴

The attack on *Taiankou* reportedly happened just two days after the crew of the Chinese commercial vessel *Le Cong* successfully warded off pirates, which meant that its escort, the guided-missile frigate *Xuzhou*, had to take *Le Cong* quickly to a secure point and then rush to *Taiankou*’s location.¹⁵⁵

In March 2010 *Weishanhu* fired warning shots from its heavy machine guns when approximately 130 suspected pirate skiffs approached it during a solo escort of MV *Zhenhua 9*.¹⁵⁶ In December 2011, five pirate boats harassing merchant vessels in a PLAN convoy fled naval and aerial pressure.¹⁵⁷ In February 2011, shortly after the Chinese New Year, helicopters sent from *Xuzhou* after a distress call fired warning shots and scared away pirate skiffs that were chasing a South Korean merchant ship.¹⁵⁸ In April 2012, an eleventh task force escort convoy was surrounded by twenty-two suspected pirate skiffs, toward which the escort fired stun grenades after they defied helicopters.¹⁵⁹ This incident was preceded by several smaller-scale contingencies the month before in which small groups of suspected pirate skiffs approached eleventh task force convoys only to be repelled by a combination of helicopter pursuit and warning flares.¹⁶⁰ Then, in May 2012, approximately seventy suspected pirate boats began speeding toward a convoy under escort of the eleventh task force, approaching the column on both sides.¹⁶¹ The pirates continued the pursuit even after special operations personnel on *Qingdao* fired stun

grenades and flash bombs.¹⁶² Special Forces men then fired machine guns into the water in front of the skiffs as a warning, to which the pirate skiffs responded by turning toward the starboard side of *Qingdao*.¹⁶³ (Such deterrence by machine-gun fire has become fairly common.)¹⁶⁴ Special operations soldiers in helicopters fired warning shots until, after four hours, the pirates finally sped off.¹⁶⁵

Warning tactics employed during a training session of the ninth task force appeared to be increasingly assertive; for instance, the guided-missile destroyer *Wuhan* used high-decibel sound and strong light to deter pirates during the simulation.¹⁶⁶ When the simulated skiffs ignored warnings, Special Forces units manned machine guns and evidence-acquisition officers boarded speedboats to approach the skiffs.¹⁶⁷ During another training exercise, in 2011, PLAN units practiced negotiating with pirates.¹⁶⁸ PLAN warships also project English- and Arabic-language messages by loudspeaker to suspected pirates. A broadcast from the tenth escort task force announced, “Warning, warning, warning. This is the Chinese navy. This is the Chinese navy. Go away, go away.”¹⁶⁹ In response, pirates usually retreat hastily. Most exchanges between the PLAN and Somali pirates are of this type. *Modern Navy* reported in January 2011 that task forces had warned away over a thousand “suspicious” vessels and thwarted hundreds of attacks during the first two years of antipiracy operations.¹⁷⁰

However, task forces are sometimes forced to engage pirates, those who either ignore warnings or are already attacking a vessel when the PLAN arrives. As of April 2012, the PLAN had reportedly “rescued” forty-eight vessels chased and attacked by pirates. It had also escorted eight ships that had been released from captivity.¹⁷¹

In what may have been the PLAN’s most difficult, risky, and unpredictable operation in its first four years of Gulf of Aden operations, in July 2012 its forces again received civilians who had previously suffered pirate attacks.¹⁷² This time *Changzhou*, of the twelfth escort task force, took aboard twenty-six Chinese and foreign crew members from the Taiwanese fishing vessel *Shiuh-fu 1*. The freed sailors, who had been held captive ashore in Somalia for 571 days, were to be transferred to Tanzania, before returning home. On the day *Changzhou* received them, high winds complicated the boarding.¹⁷³ Wang Mingyong, *Changzhou*’s commanding officer, explained, “The wind was too strong in the area, so we employed a helicopter to get them. It took five flights and 65 minutes to fly all 26 members back, safely.”¹⁷⁴

The area was frequented by pirates, a factor that heightened the risks associated with PLAN assistance.¹⁷⁵ Accordingly, personnel involved conducted rapid, meticulous analysis.¹⁷⁶ The task force commander, Zhou Xuming, and political commissar Zhai Yongyuan received a flurry of preplans and plans including “Armed Forces Operations Plan and Preplan” (兵力行动方案预案), “Political Work Orders” (政治工作指示), “Special

Reconnaissance Proceedings Plan and Preplan” (特情处置方案预案), “Crewmen Arrangements and Life Security Plan and Preplan” (船员安置和生活保障方案预案), “Escorting and Pickup Preplan” (护送和交接预案), and “Armament Supply Plan and Preplan” (装备保障方案预案).¹⁷⁷ Helicopter units of the twelfth task force apparently faced in this operation the possibility of landing on Somali soil as well as confronting pirates directly, the former a prospect that PLAN forces had never confronted previously.¹⁷⁸ A *People's Navy* article elaborates,

Facing a real situation in which helicopter groups, Special Forces members and small boat drivers might [have to] land on the Somali coast, or even face pirates directly during the pickup [and] escort process, the temporary Party Committee command preparation center sent out political orders to mobilize. [It] called on all officers and sailors to dedicate themselves passionately to the pickup [and] escort, [while] facing a test of life and death, to not fear hardship, [to] attack and overcome difficulties, [and to] use real actions to carry out unlimited loyalty and devoted promises to the Motherland and the people.¹⁷⁹

The hostage pickup brought PLAN assets closer to Somali territory, and potential pirate bases, than ever before. Because of wave conditions, *Changzhou* was unable to get close to shore, so it dispatched two dinghies with five Special Forces members and four sailors to search the surf zone. The team found the released hostages but was unable to extract them in the boats because of high waves near shore.¹⁸⁰ As mentioned above, *Changzhou* dispatched a helicopter to conduct the pickup, which also ran into trouble because the wet, sandy beach was unsuitable for landing. The approach of nightfall would put the freed hostages at risk of recapture. Two experienced Special Forces members were therefore sent to the beach to facilitate the helicopter's landing, after which PLAN forces were finally able to pick up the twenty-six hostages, separated into five batches according to height, weight, and other factors that affected their safe transport.

The above-mentioned “preplans” appear to have represented a twelfth-task-force innovation based on the experiences of the previous eleven task forces.¹⁸¹ Zhou Xuming stated in a July 2012 interview with *Liberation Army Daily*, “Regarding the drafting of plans and preplans, for instance, we borrow from previous experience, [and] analyze the prevailing escort situation, [to] draft plans and preplans [for areas such as] escort operations and logistical support, [we] make the greatest efforts to think meticulously, completely and thoroughly about possibilities emergencies that may occur during escorts. Additionally, we have strengthened command training, and organized training to strengthen basic capabilities for responsible teams.”¹⁸²

In yet another instance, on 3 December 2010 pirates attacked the PLAN's 275th escorted flotilla. In a seventy-minute saga, “a pirate skiff pretending to be a fishing vessel suddenly initiated an attack on the Marshall Islands–flagged *Nordic-Apollo* [北欧—阿波罗号]. After being deterred, [the pirates] again disappeared in the middle of the flotilla,

subsequently attacking the vessel *Safire-T* [“萨菲尔—T”号].¹⁸³ Machine gunners aboard *Xuzhou* as well as ship-based helicopters opened fire on the pirate skiff after it hooked a ladder onto *Nordic-Apollo*.¹⁸⁴

Even pirates who give up on attacks may cause problems for PLAN forces. In one instance during the seventh task force, for example,

In the process of fleeing, cunning pirates constantly adopted a zigzag approach [lit., “zhi-shaped approach,” i.e., in the shape of the character 之], making large turns in the opposite direction, and other methods, wanting to avoid [the Chinese navy’s] pursuit. Due to pressure from the PLAN’s comprehensive power attack, pirates threw oil barrels and guns into the ocean in the process of fleeing, continuing to flee at high speed. . . . At 1:59 PM, after the pirate skiffs and warships circled around for forty minutes, while [PLAN forces] consecutively shouted [at them] and firing warning shots, blocking [pirate] shooting, five pirates were forced to stop their ship, raising their hands high and surrendering.¹⁸⁵

On 15 May 2012, *Liberation Army Daily* reported that the eleventh task force had “evicted” seventy suspected pirate boats.¹⁸⁶ While the precise nature of these operations remains unclear, it appears that China’s navy envisions its level of engagement with pirates as evolving gradually toward a more assertive and preemptive approach. For example, May 2011 training simulated an on-ship assault on pirates who refused to abandon a pirated vessel.¹⁸⁷ Thus far, however, intimidation remains the core of PLAN antipiracy action. During a solo escort of eleven vessels in August 2012, *Yiyang* repelled numerous suspected pirate skiffs by speeding toward them.¹⁸⁸ In October 2012 during a night escort of five merchant ships, *Changzhou* of the twelfth task force identified via radar three suspicious boats 7.2 nautical miles from the escort convoy. When the ships approached within half a nautical mile, *Changzhou* fired signal flares and the skiffs retreated promptly.¹⁸⁹ This followed a similar incident in which Panamanian-registered merchant ship *Dehang*, pursued by four pirate boats to within a hundred meters, placed a distress call to *Changzhou*.¹⁹⁰ *Changzhou* immediately pursued the boats and fired warning explosives. The pirates subsequently abandoned their weapons and fled.

In an article in the Beijing-based journal *Law and Life*, reporter Meng Yan documents the PLAN’s encounter with pirates who attacked a nearby commercial vessel during escort patrols. On 13 July 2009, *Huangshan* received a mayday call from the Liberian-flagged vessel *Elephant* while on a zone patrol. Ten minutes later *Huangshan* headed toward the distressed vessel and dispatched helicopters, which flew within three hundred meters of pirate skiffs and released warning flares. The attackers changed direction and began pursuing the nearby Maltese-flagged commercial vessel *Polyhronis*. PLAN helicopters fired additional flares and explosives, and the pirates soon retreated. According to Meng, the encounter lasted just over ninety minutes.¹⁹¹

While Beijing's official statistics depict its forces as antipiracy stalwarts, the degree of operational engagement of China's navy with pirates is still much lower than that of other navies. An illustration is Beijing's recent policies on ransom payments, which reflect the limits of Chinese ability and willingness to protect civilian ships militarily. The *Dexinhai* incident remains a case in point. A Chinese-flagged bulk coal ship owned by a subsidiary of COSCO, *Dexinhai* was pirated on 19 October 2009 about seven hundred miles east of the Somali coast.¹⁹² Though early rumors suggested that *Zhoushan* and *Xuzhou* were racing to the rescue, it was soon revealed that the twenty-five-member crew was being held hostage in Hobyo, a harbor town in central coastal Somalia.¹⁹³ Chinese naval officials explained that the PLAN warships were a thousand miles away and could not have caught the pirates before reaching shore; in fact, Chinese press reports suggest that Chinese leaders were collectively relieved that the pirates had taken the *Dexinhai* crew ashore, which provided a rationale for military inaction.¹⁹⁴ On 28 December 2009, a four-million-dollar ransom payment was dropped aboard *Dexinhai*, and all twenty-five Chinese crewmen were released. Interestingly, *CCTV-7's Military Report* stated that on 20 October 2009 *Xuzhou* had been ordered to prepare for an armed rescue mission of *Dexinhai's* crew.¹⁹⁵

In stark contrast to China's willingness to make payoffs, since 2008 French, Indian, and American naval forces have performed armed rescues to extract hostages without paying ransoms.¹⁹⁶ For example, in April 2009 U.S. Navy SEALs successfully rescued American captain Richard Phillips of *Maersk Alabama* after using sniper rifles to kill three pirates holding Phillips on a lifeboat.¹⁹⁷ China's central government is wary of potential embarrassment and domestic political damage from appearing weak and thus has done its best to suppress news of ransom payments. The PLAN's heavily publicized "100% safety record" in the antipiracy mission should be viewed in light of the fact that PLAN operations are far more risk averse than those of counterpart navies.¹⁹⁸ Moreover, appeasing Somali pirates' demands unilaterally without seeking the advice or assistance of nearby navies is hardly conducive to fighting piracy in the long run; in fact, it risks encouraging further piracy by offering incentives. The *Dexinhai* incident is a sobering reminder that the extent of Beijing's Far Seas maritime cooperation is limited by perceived domestic and political liabilities.

Engagement with Other Navies

Of the many Chinese "firsts" achieved by the PLAN through the Gulf of Aden mission, the first naval operation involving shipboard exchanges and information sharing with foreign navies was particularly significant in the eyes of both Chinese and foreign observers.¹⁹⁹ As Rear Adm. Michael McDevitt, USN (Ret.), states, "In terms of international engagement, the first decade of the 21st century should be divided into a pre-anti-piracy

operations period and a post-anti-piracy period, because once the PLAN began to conduct anti-piracy operations, the entire nature of its approach to international naval engagement changed appreciably.”²⁰⁰ China has since made considerable strides in naval engagement and diplomacy; interaction with foreign navies that was novel in 2008 has today become daily routine in the Gulf of Aden. In December 2012 *People’s Daily* stated, “[Over] the past four years, the Chinese naval escort task forces have [continued to inform] the outside [world about] the information they [possessed concerning] the activities of suspicious ships through network mailbox and radio station every day and shared information resources with 50-odd warships of 20-plus countries and organizations.”²⁰¹

During a port call in Djibouti, PLAN officers hosted a buffet reception aboard the assault ship *Kunlunshan* and invited foreign naval officers.²⁰² More substantively, in February 2012 China’s navy hosted the first International Symposium on Counter-Piracy and Escort Cooperation at the PLAN Command College in Nanjing. During the symposium EU NAVFOR chief of staff Philip James Haslam remarked, “We work closely together anywhere at [the] tactical level. . . . We have a common understanding [and] . . . can generate that synergy between us.”²⁰³ Navy Military Studies Research Institute senior researcher Cai Weidong states, “The Chinese navy hopes to build up a platform for international cooperation that will allow naval forces of different countries to familiarize themselves with each other. I hope the platform well-serves our anti-piracy goals.”²⁰⁴ *Modern Navy* lists several barriers to more meaningful coordination that were explored during the symposium, including the “piracy situation and intelligence information work” (海盗形势和情报信息工作), “organization of maritime force operations” (海上兵力行动组织), “escort law” (护航法律), and “escort provision” (护航保障).²⁰⁵

PLAN task forces continue to operate independently of multilateral organizations, but Beijing has enhanced cooperation with counterpart navies in the Gulf of Aden through shipboard exchanges, joint drills and escorts, and coordination through SHADE. See exhibit 3 for a summary of exchanges to date. This exhibit surveys the rough frequency of PLAN task force exchanges with traditional forces in the region.

Shipboard exchanges in the Gulf of Aden help establish simple but important relationships among China’s navy and foreign military units operating in close proximity. These on-ship interactions are highly publicized by Chinese media as symbols of the PLAN’s growing competence on the international stage and of China’s peaceful outward military development. Chinese task forces have held exchanges with multilateral naval forces operating under CTF-151, NATO, and EU NAVFOR. Such interactions have increased considerably since the PLAN’s initial deployment. In 2011 Han Xiaohu, commander of China’s eighth escort task force (Task Force 526), visited the NATO force’s flagship, a frigate, in March; hosted the Singapore navy’s Rear Adm. Harris Chan, then commander of CTF-151, on a PLAN warship in May; and hosted the EU NAVFOR force commander

Exhibit 3. Selected Commander-Level Exchanges between PLAN and Multilateral Antipiracy Maritime Security Forces in Gulf of Aden

Date	Counterpart	Activity
November 2009	CTF-151	Hosted CTF-151 commander aboard PLAN vessel
May 2011	CTF-151	Hosted CTF-151 commander aboard PLAN vessel
July 2012	CTF-151	Hosted CTF-151 commander aboard PLAN vessel
May 2013	CTF-151	Hosted CTF-151 commander aboard PLAN vessel
January 2010	NATO	Hosted NATO antipiracy commander aboard PLAN vessel
January 2011	NATO	Hosted and visited NATO antipiracy commander
March 2011	NATO	Visited NATO antipiracy commander on counterpart ship
January 2012	NATO	Hosted and visited NATO antipiracy commander
April 2012	NATO	Met with counterpart officials
July 2012	NATO	Hosted NATO antipiracy commander aboard PLAN vessel
August 2012	NATO	Visited NATO antipiracy commander on counterpart ship
January 2013	NATO	Visited NATO antipiracy commander on counterpart ship
February 2013	NATO	Hosted NATO antipiracy commander aboard PLAN vessel
November 2009	EU NAVFOR	Met with counterpart officials
February 2011	EU NAVFOR	Visited EU NAVFOR commander on counterpart ship
June 2011	EU NAVFOR	Hosted EU NAVFOR commander aboard PLAN vessel
July 2012	EU NAVFOR	Visited EU NAVFOR commander on counterpart ship
November 2012	EU NAVFOR	Hosted EU NAVFOR commander aboard PLAN vessel

Sources: This table draws on official Chinese media sources, primarily *Liberation Army Daily*, *Xinhua*, *People's Daily*, and *China Military Online*, as well as from the websites of PLAN antipiracy partners such as CMF, NATO, and EU NAVFOR. While it is impossible to guarantee that all visits are covered, it is interesting that significantly fewer data concerning exchanges with CTF appear to be available.

on board the frigate *Wenzhou* in June.²⁰⁶ The PLAN and Singapore navy had previously conducted bilateral exchanges in September 2010 in the Gulf of Aden, sending personnel on board each other's ships.²⁰⁷ China's navy conducted more exchanges with CTF-152 in July 2012 and with NATO in April and July 2012.²⁰⁸

PLAN task forces off the Horn of Africa too have been active in a variety of bilateral exchanges with counterpart navies. *People's Navy* reported that the PLAN and the Russian navy executed joint antipiracy escorts for the first time in October 2009 in the PEACE BLUE SHIELD 2009 (和平蓝盾—2009) exercise.²⁰⁹

Additionally, China's navy held extensive joint exercises with Russian navy BLUE SHIELD units in May 2011.²¹⁰ Scholar Lu Dehua has referred to BLUE SHIELD as the inauguration of a new "battle domain" (战场) of Chinese cooperative exercises with other navies.²¹¹

Most recently, during comprehensive joint naval exercises in April 2012, Chinese and Russian naval forces performed extensive piracy-deterrence and rescue joint training off the coast of Qingdao.²¹²

In addition to regular collaboration with Russia's navy, PLAN military officials met with Dutch counterparts to perform on-ship inspections and exchanges in November 2009, and in 2010 PLAN forces collaborated with South Korean naval units in anti-piracy exercises in the Gulf of Aden.²¹³ In May 2012 "Chinese and South Korean naval escort task forces organized a joint military drill during which helicopters of the two sides landed on each other's warships for the first time."²¹⁴ In April 2011, Senator Mark Kirk of Illinois paid a visit to the eighth PLAN escort task force in the Gulf of Aden and held talks with the task force commander, Han Xiaohu.²¹⁵ That same month, China's eighth escort task force sent *Wenzhou* and *Qiandaohu* to conduct joint antipiracy exercises with the Pakistani guided-missile destroyer *Khyber*.²¹⁶ The main components of these exercises were "joint escorts" (联合护航), "communications exercises" (通信演练), "ship landings dispersed for maximum coverage" (交叉着舰), "joint visits" (联合登临), and "search and rescue exercises" (搜救演练).²¹⁷ These joint drills followed the Pakistani-hosted PEACE 11 multinational maritime exercises, which included naval ships from, among other states, China, the United States, Britain, France, Japan, and Pakistan.²¹⁸ China sent frigates *Wenzhou* and *Ma'anshan*, as well as two helicopters and seventy Special Forces commandos, to participate.²¹⁹ In March 2013, China's navy, as well as the U.S. Navy, again sent forces to take part in Pakistani-hosted five-day international antipiracy joint exercises, this time titled AMAN-13 (Urdu for "peace"), which included naval participants from thirteen navies as well as twenty other observer countries. China has participated in all four Pakistani-sponsored antipiracy exercises held since 2007, and sent the destroyer *Harbin*, the guided-missile frigate *Mianyang*, and the replenishment ship *Weishanhu* to participate in AMAN-13, assigning a total of two helicopters and 730 troops to partake in the exercise.²²⁰ Pakistan's navy stated that the exercises are focused primarily on "information sharing, mutual understanding and identifying areas of common interest."²²¹

Then in September 2012, *Yiyang* of the twelfth escort task force arrived in Karachi for its second period of rest and replenishment, as well as seminars and other exchanges with Pakistani counterparts.²²² Later that year, Rear Adm. Zhou Xuming and members from the twelfth escort task force met with Commo. Jonathan Mead, Acting Commander of the Australian Fleet, in Sydney on an official visit during the task force's journey home. The Australian chief of navy, Vice Adm. Ray Griggs, remarked, "I welcome the continued opportunity for our navies to share their experiences today as we exchange lessons learned in the conduct of counter-piracy operations."²²³ Perhaps of even greater interest to observers concerned about potential rivalries between China and other ascendant

naval powers, recent evidence suggests that India too is open to Chinese nontraditional security contributions in the IOR.²²⁴ “The footprint of the Chinese Navy has been increasing as a result of [Chinese] economic development,” Vice Adm. Satish Soni, Flag Officer Commanding-in-Chief of India’s Southern Naval Command, stated in December 2012. “They are also contributing to antipiracy tasks. We hope as their Navy develops, it contributes to the overall maritime security operations of the Indian Ocean Region and its neighbourhood.”²²⁵

The Gulf of Aden operations also help to facilitate PLAN maritime engagement with the countries themselves, in the region and beyond. *People’s Daily* reports that “since the second Chinese naval escort task force, the Chinese Navy has established a new mechanism of organizing escort warships to pay friendly visits to foreign countries, and the Chinese naval escort task forces have successfully paid friendly visits to more than 20 countries, such as India, Pakistan, the United Arab Emirates (UAE) and Singapore.”²²⁶ Upon the completion of their escort duties in the Gulf of Aden, the Type 052B destroyer *Guangzhou* and the frigate *Chaohu* visited Egypt, Italy, Greece, and Myanmar in succession and also stopped in Singapore to resupply.²²⁷ During March 2011 PLAN Special Forces engaged with civilian Tanzanian counterparts working for a marine company during a joint training session that included training in individual tactics and coordinated training. The two sides practiced infiltration at sea, the capture of enemy personnel, and martial arts.²²⁸ PLAN Special Forces also performed hostage rescue and concealed rowing, among other challenging exercises.²²⁹ Along with *Zhoushan*, *Xuzhou* visited South Africa on 4 April 2011 to conduct exchanges with the South African navy in Durban.²³⁰ In mid-May 2011 China invited twenty representatives from eight African nations, including Algeria, Gabon, and Cameroon, to participate in a twenty-day maritime law enforcement program in Zhejiang Province.²³¹ During its voyage back home from the Gulf of Aden, the tenth task force paid an official visit to Mozambique, the first ever by PLAN task forces, followed by an official five-day visit to Thailand.²³²

In summer 2012, the eleventh task force visited Ukraine, Romania, Turkey, Bulgaria, and Israel in succession.²³³ Previously, the fifth escort task force had stopped in Egypt, Italy, Greece, and Myanmar.²³⁴ Similarly, the indigenously built destroyer *Lanzhou* visited Saudi Arabia, Sri Lanka, and Indonesia upon conclusion of the sixth escort task force’s deployment.²³⁵ Homeward bound following the conclusion of the ninth escort task force’s escorting, *Wuhan* and the frigate *Yulin* stopped at Changi Port in Singapore for replenishment; over three days their personnel interacted with Singaporean navy counterparts and visited the Information Fusion Centre, which promotes maritime information sharing.²³⁶ They had previously stopped in Kuwait and Oman.²³⁷ These visits demonstrate a growing tendency of PLAN task forces to use their departure and return journeys as opportunities for overseas diplomacy.²³⁸

The PLAN commander, Adm. Wu Shengli, visited Turkey in September 2012 to discuss various forms of naval exchanges, including enhancing Sino-Turkish escort cooperation.²³⁹ Escort vessels have visited such destinations as Saudi Arabia and Australia, and in March 2013 the thirteenth escort task force docked at Malta on 26–30 March, the first such visit of Chinese escort warships to Malta.²⁴⁰ Of course, in addition to visiting other countries the PLAN also hosts foreign navies in China. For example, French naval units visited Zhanjiang, SSF headquarters, in June 2010.²⁴¹ Such experiences have established intermilitary dialogues between China and countries throughout the world, contacts of varying strategic significance to Beijing.

Notes

1. 虞章才 [Yu Zhangcai], 肖勇利 [Xiao Yongli], and 李唐 [Li Tang], “我舰艇编队首次成功远洋护航” [Chinese Warship Task Force Successful in First Far Oceans Escort], 本刊特稿 [Special Story], 当代海军 [Modern Navy] (February 2009), p. 11.
2. Gao Xiaoxing et al., *PLA Navy*, pp. 150–52.
3. 李大光 [Li Daguang], “专家解读: 中国舰艇编队护航亦面临多种考验” [Expert Analysis: Chinese Warship Escort Task Force Faces Many Tests], 本刊特稿 [Special Story], 当代海军 [Modern Navy] (February 2009), p. 23.
4. O'Rourke, *China Naval Modernization*, p. 44.
5. For the figures cited, respectively, see O'Rourke, *China Naval Modernization* (2013), p. 44; and Craig Murray, Andrew Berglund, and Kimberley Hsu, “China's Naval Modernization and Implications for the United States,” U.S.-China Economic and Security Review Commission Staff Research Backgrounder, 26 August 2013, p. 7, origin. www.uscc.gov/.
6. “China's Eleventh Escort Fleet Returns from Somali Waters,” Xinhua, 13 September 2012, news.xinhuanet.com/english/china/2012-09/13/c_131848762.htm.
7. U.S. Defense Dept., *Military and Security Developments Involving the People's Republic of China 2011*, pp. 32–33.
8. Yang Jingjie, “Captains Courageous.”
9. 王智涛 [Wang Zhitao] and 侯瑞 [Hou Rui], “谋时而动, 顺势而力, 专访第八批护航编队指挥员, 东海舰队副参方法副参谋长韩小虎” [Act in Good Time and Go with the Trend: Exclusive Interview of Han Xiaohu, Commander of the Eighth Escort Formation and Deputy Chief of Staff of the East Sea Fleet], 人民海军 [People's Navy], 1 March 2011, p. 1.
10. “Chinese Navy Steps Up Anti-piracy Training,” Associated Press, 17 February 2012.
11. Shen Shu and Qin Ruoyun, “PLA Navy Opens First Training Class for Escort Mission,” Chnarmy.com, 15 February 2012.
12. Ibid.
13. Ibid.
14. Ibid.
15. Ibid.
16. 米晋国 [Mi Jinguo] and 崔岳 [Cui Yue], “战鼓声声旌旗猎猎—声声旌军第十一批护航编队出征之际” [Battle Drums Sounding and Hunting Banners and Flags: Written at the Departure of the Eleventh Escort Task Force], 专题新闻 [Special News], 人民海军 [People's Navy], 28 February 2012, p. 3.
17. Ibid.
18. 王冠 [Wang Guan] and 陈鹏鹏 [Chen Pengpeng], “5连冠移动靶前栽跟头—固定靶变身‘海盗船’” [Successively Felling the Moving Target Five Times: Moving Targets Change into “Pirate Boats”], 综合新闻 [General News], 人民海军 [People's Navy], 23 February 2011, p. 2.
19. Ibid.
20. Ibid.
21. Ibid.
22. Ibid.
23. 李高健 [Li Gaojian] and 方立华 [Fang Lihua], “劈波斩浪驱‘海盗’—盗击第七批护航编队‘舟山’舰首次反海盗综合演练” [Parting the Waves to Pursue the “Pirates”: Witnessing the First Comprehensive Training Exercise of “Zhoushan” of the Seventh Escort Task Force], 人民海军 [People's Navy], 10 November 2010, p. 1. Xu Haihua, chief of staff of the escort task force, remarked of the exercise, “Setting sail is a [form of] combat. Today we organized and

- executed comprehensive antipiracy exercises for crew members and special forces on 'Zhoushan' [that] exercised and tested the unit's organizational command, communications network, and ability to manage emergency situations. Moving forward, [we] still need to conduct more cooperative training according to escort responsibilities. The seventh escort task force will persist in 'taking one road, practicing one road' during the escort process; integrate organizational [methods such as] follow-on escorts, zoned escorts, and on-ship escorts; strengthen training such as warships' Far Seas movement, coordination between warships and aircraft, and maritime rescue and assistance; [and thereby] continuously increase the capability of warship task forces to fulfill Far Seas escort responsibilities." Original text: "起航就是战斗,我们今天组织'舟山'舰舰员与海军特战队员进行反海盗综合演练,锻炼并检验了部队组织指挥、通信联络和处置突发情况的能力。接下来还要根据护航任务进行多次合练。第七批护航编队将坚持在护航过程中'走一路、练一路,'结合组织伴随护航、区域护航、随船护卫等,加强舰艇远海机动、舰机协同、海上救援等训练,不断增强舰艇编队遂行远海吴航任务的能力"
24. 李德 [Li De] and 李根成 [Li Gencheng], "中国海军第九批护航编队的'英语热'" [The "English Fever" of China's Ninth Escort Task Force], Chinanews.com, 18 October 2011, news.163.com/11/1018/20/7GM4ON0T00014JB6.html.
 25. Cheng Bijie and Hou Rui, "Mercury Net Boosts Exchange between Chinese and Foreign Escort Task Forces," *Liberation Army Daily*, 13 November 2012, eng.chinamil.com.cn/news-channels/china-military-news/2012-11/13/content_5096255.htm.
 26. Liu Yanxun, Chen Xiaoshu, Wang Jing, He Jing, Li Haoran, and Yao Yijiang, "Background of Expedition to Somalia."
 27. 孙自法 [Sun Zifa], "中国海军护航舰艇编队将以三种行动方式护航" [Chinese Navy Escort Fleet to Adopt Three Modes of Action in Escort], 中国新闻社 [China News Service], 3 January 2009, and 责任编辑:付志伟 [Responsible Editor: Fu Zhiwei], "中国护航编队将在任务海区设7个巡逻区" [China's Escort Fleet Will Set Up Seven Patrol Zones in the Sea Area to Which It Is Tasked], 中国新闻网 [China News Service], 4 January 2009, news.xinhuanet.com/mil/2009-01/04/content_10601050.htm.
 28. "PLA Navy's Escort Formations Continuously Improve Their Pelagic [Open Sea] Escort Capabilities through Practice in Live Situation," 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 26 December 2011.
 29. Sun Zifa, "Chinese Navy Escort Fleet to Adopt Three Modes of Action in Escort," and Fu Zhiwei, "China's Escort Fleet Will Set Up Seven Patrol Zones in the Sea Area to Which It Is Tasked."
 30. Sun Zifa, "Chinese Navy Escort Fleet to Adopt Three Modes of Action in Escort."
 31. Yang Jingjie, "Captains Courageous."
 32. "Fifth Escort Formation of PLA Navy," 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 2 July 2010.
 33. Ibid.
 34. Sun Zifa, "Chinese Navy Escort Fleet to Adopt Three Modes of Action in Escort," and Fu Zhiwei, "China's Escort Fleet Will Set Up Seven Patrol Zones in the Sea Area to Which It Is Tasked."
 35. 李根成 [Li Gencheng], "海军第九批护航编队保持反海盗高压态势--针对海区态势开展应对训练" [Ninth Naval Escort Task Force Maintains a High Pressure Position: Expanding Responsive Training Targeted at Maritime Zone Conditions], 人民海军 [People's Navy], 26 August 2011, p. 1.
 36. Zhao Shengnan, "Navy Protects Ships from Pirates."
 37. Li Gencheng, "Ninth Naval Escort Task Force Maintains a High Pressure Position," p. 1. Li explains: "To 'address the difficulty of discovering and identifying small targets on the water,' especially [given] the nonstop increase in the phenomenon of pirate attacks at dusk and during the evening, escort task forces are strengthening communication with Chinese and foreign ships being escorted, on the foundation of information sharing with escort warships of all navies. [They are adopting] measures such as the scientific application of examination resources, the rational distribution of warning power, expanding the range of helicopter patrols, and strengthening warning [mechanisms] during high vulnerability periods [by] discovering as early as possible, reporting immediately, ensuring rapid observation and warning, accuracy, and high efficiency." Original text: "针对海上小目标发现难、识别难的情况,尤其是海盜利用黄昏、夜间作案的现象不断增加,护航编队在加强与被护中外船舶信息沟通、与各国护航舰艇情报交流的基础上,科学运用观察资源、合理配置警戒力量,采取扩大直升机巡逻范围、加强高危期观察警戒等措施,做到尽早发现、及时报告,确保观察预警快速、准确、高效。"
 38. "PLA Navy's Escort Formations Showcase China's Positive Image on International Arena,"

- 军事报道 [Military Report], CCTV-7 (Mandarin), 27 December 2011.
39. The authors are grateful to have received the insights contained in the latter half of this paragraph from a U.S. Navy officer.
 40. Huang Li, *Sword Pointed at the Gulf of Aden*, pp. 226–36. For more details on Special Forces Operations during escorts, see 邵洪 [Shao Hong], 曹海华 [Cao Haihua], and 高毅 [Gao Yi], “蛟龙突击队’护航揭秘” [Revealing Escort Secrets of the “Flood Dragon Shock Brigade”], 中国海军在行动 [Chinese Navy in Action], 当代海军 [Modern Navy] (January 2012), pp. 46–49.
 41. Huang Li, *Sword Pointed at the Gulf of Aden*, pp. 226–36.
 42. Ibid.
 43. Ibid.
 44. As Huang Li explains: “In order to handle pirate attacks, the Chinese navy especially installed anti-aircraft machine guns and grenade launchers on the warships. According to informed sources, the caliber of these anti-aircraft machine guns is 12.7 mm. They can also be used to fire bullets horizontally above the water. The range is about 1.5 kilometers, and the firing rate is 80 bullets per minute. Grenade launchers are mounted on platforms above the deck of the warships, with a shooting range of 400–2,000 meters. The strong firepower net put up by these two weapons, though inadequate for battles between warships, is most suitable for close-range combat with the pirates. In face of this firepower net, there is only one outcome for the pirates—extermination.” Ibid.
 45. Ibid.
 46. Yang Yi and Cheng Hong, “Let Chinese Navy Warships Go Farther,” p. 67.
 47. Jiang Shan and Cao Haihua, “Fifth Escort Task Force of the Chinese Navy Takes Over Escorting Duties,” pp. 38–45. Original partial text: “护航编队坚持‘走一路，练一路，研究一路；组织直升机组，特战队员等进行了海上反海盗部署演练，重点演练了实际使用武器，特战队员机降滑降，直升机巡逻警戒，海上救援等多个科目，提高了随行任务的能力”
 48. “On National Day, We Provide Escort Cover in the Gulf of Aden,” 军事报道 [Military Report], CCTV-7, 18 October 2009.
 49. “PLA Navy Eighth Escort Flotilla Conducts Antipiracy Exercise in Gulf of Aden,” CCTV-*Xinwen* (Mandarin), 0024 GMT, 22 May 2011.
 50. “PLA Navy’s Tenth Escort Formation Conducts Day-and-Night Training to Improve Escort Capabilities,” 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 13 November 2011.
 51. “PLA Navy’s Eleventh Escort Formation Conducts Antipiracy Training in Hostile Weather,” 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 29 February 2012.
 52. Ibid.
 53. Ibid.
 54. “PLA Navy’s Special Operations Unit Drills in Gulf of Aden,” Live News, CCTV (Mandarin), 31 August 2011.
 55. Sun Zifa, “Chinese Navy Escort Fleet to Adopt Three Modes of Action in Escort,” and Fu Zhiwei, “China’s Escort Fleet Will Set Up Seven Patrol Zones in the Sea Area to Which It Is Tasked.”
 56. 李建文 [Li Jianwen], “为了黄金航道的和谐平安：写在海军护航编队护送中外商船总数突破 3000 艘之际” [For the Harmony and Safety of the Golden Waterway: Written at the Time of the 3000th Escort Breakthrough by Naval Escort Task Forces of Chinese and Foreign Ships], 解放军报 [Liberation Army Daily], 4 December 2010, p. 4, www.chinamil.com.cn/jfjbmap/content/2010-12/04/content_44927.htm.
 57. “战斗篇” [Chapter on Combat], 当代海军 [Modern Navy] (July 2009), pp. 10–11.
 58. Xu Jingjing, “Why We Want to Escort” Original text: “船舶调度上的工作是很细致的。慢的船需要加速，快的船需要减速，而不能在军舰未到达时提前驶入危险区域等候。同时还需要考虑苏伊士运河的问题，因为苏伊士运河的闸口是定点开放的。”
 59. “PLA Navy Escorts Foreign Merchant Ships in Gulf of Aden,” CCTV News Content (English and Mandarin), 15 February 2012, newscontent.cctv.com/.
 60. See *China’s Shipowner’s Association*, eng.csoa.cn/Notice/201204/t20120426_1232559.htm.
 61. 虞章才 [Yu Zhangcai], interview, “中国海军舰艇编队首批护航行动全程揭秘” [Revealing Secrets of the Complete Voyage of the Chinese Navy Warship Task Force First Escort Operation], 本刊特稿 [Special Story], 当代海军 [Modern Navy] (July 2009), pp. 10–23. As Yu explains, “Because the number of commercial ships is relatively high, in order to ensure that escorted ships were safe, while conducting escorts, escort warships group commercial vessels [together]. The grouping method is usually determined according to the number of commercial vessels. Sometimes [ships are organized] into one column, [while other times] there are two columns. When there is a single column, commercial ships maintain a certain distance both behind and in front of them, [and] China’s warship is on the outside of the column, usually

- maintaining the same direction and speed as the escort column. When there are two columns, if two warships are escorting at the same time, one is placed on each side of the column. If there is only one warship, it is placed in the middle of the two columns, using a certain distance between the commercial ships, heading forward in parallel. During each escort, each escorted ship is assigned a number to facilitate communication within the [flotilla].” Original text: “由于商船数量较多, 为确保被护航商船航行安全, 每次护航军舰都要对商船进行编组。编组方式一般根据被护航商船数量决定, 有时是一字单纵队, 有时是双纵队。单纵队时, 商船前后保持一定距离, 我军舰在纵队外侧, 一般与纵队保持同向同速航行。双纵队时, 如果是两艘军舰同时护航, 就各在一路纵队的外侧, 如果是单船军舰护航, 就在两路纵队中间, 以一定的间距与商船平行前进。每次护航, 都要给所有被护航船编号, 以方便彼此之间的通讯联系。”
62. Li Gaojian, Fang Lihua, and Yao Zibao, “On-Site,” p. 51. Original text: “指挥员王献忠告诉记者, 编队编成三路纵队, 护航舰艇位于编队的左前方和右后方, 就是为了便于灵活机动, 首尾相顾, 防止海盗袭击。”
 63. Li Jie and Liang Chunhui, “Great Results of Chinese Navy’s Warship Task Force Escorts Catches People’s Attention,” p. 11.
 64. “Eleventh Chinese Naval Escort Task Force Realizes Scientific Escort,” *China Military Online*, 5 May 2012, eng.chinamil.com.cn/news-channels/china-military-news/2012-05/08/content_4855639.htm.
 65. “Chapter on Combat,” and Huang Li, *Sword Pointed at the Gulf of Aden*, pp. 222–36.
 66. “Ninth Escort Formation of PLA Navy Deploys SOF Soldiers on Board MVs to Keep the Charge Perfectly Safe,” 军事报道 [Military Report], CCTV-7 (Mandarin), 19 October 2011.
 67. “PLA Navy’s Eleventh Escort Formation Uses Relay Escort to Expand the Range of Options,” 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 1 June 2012.
 68. Gao Xiaoxing et al., *PLA Navy*, p. 144.
 69. Ibid., pp. 149–50.
 70. “Conversation with Yin Zhuo,” p. 22.
 71. 朱宁 [Zhu Ning] and 李义保 [Li Yibao], “船队驶过去国歌响起来--第四批护航编队单批护航最大船队侧记” [Ship Convoy Drives Off, National Anthem Strikes Up: Elaborating on the Fourth Escort Task Force’s Escorting the Largest Single Escort Convoy], 综合新闻 [General News], 人民海军 [People’s Navy], 8 March 2010, p. 2.
 72. “PLA Navy’s Pelagic [Open Sea] Escort Mission Goes from Strength to Strength,” 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 25 December 2011.
 73. “Conversation with Yin Zhuo,” p. 22.
 74. “PLA Navy’s Eleventh Escort Formation Provides Onboard Protection,” 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 19 April 2012.
 75. Ibid.
 76. “PLA Navy’s Tenth Escort Formation Provides On-Board Escort for Merchant Vessels for the First Time,” 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 28 November 2011.
 77. Ibid.
 78. Lin Liyao, “The PLAN’s Escort Mission in the Gulf of Aden,” *China Daily*, 28 December 2011, www.china.org.cn/china/2011-12/28/content_24274584.htm.
 79. Gao Xiaoxing et al., *PLA Navy*, p. 147.
 80. “Conversation with Yin Zhuo,” p. 22.
 81. “Eleventh Chinese Naval Escort Task Force Realizes Scientific Escort.”
 82. “PLA Navy’s Eleventh Escort Formation Adopts Scientific Escort Methodology to Improve Efficiency,” 军事报道 [Military Report], CCTV-7 (Mandarin), 26 March 2012.
 83. “PLA Navy Escort Formation Provides Antipiracy Security Guidance for Escorted Vessels,” 军事报道 [Military Report], CCTV-7 (Mandarin), 2 April 2011.
 84. Zhao Shengnan, “Navy Protects Ships from Pirates.”
 85. Ibid.
 86. “Number of Ships Escorted by Chinese Naval Escort Task Forces Hits 4,000.”
 87. Zhao Shengnan, “Navy Protects Ships from Pirates.”
 88. 王智涛 [Wang Zhitao] and 侯瑞 [Hou Rui], “走向深蓝的新里程--写在中国海军护航编队护送中外商船总数突破4000艘之际” [A New Course for Moving toward Deep Blue: Written at the Time of the 4000th Escort of Chinese and Foreign Ships by the Chinese Naval Escort Task Forces], 海军军事 [Naval Military Affairs], 人民海军 [People’s Navy], 19 July 2011, p. 4.
 89. Cao Jinping and Mo Xiaoliang, “Review of Chinese Navy’s Escort Missions in Gulf of Aden in Past 4 Years.”
 90. Zhao Shengnan, “Navy Protects Ships from Pirates.”

91. Ibid.
92. "Pelagic [Open Sea] Support Tested by Routinized Escort Mission," 军事报道 [Military Report], CCTV-7 (Mandarin), 24 December 2010. According to *Modern Navy*, "With regard to power equipment, escort warships typically are quite overloaded. Additionally, temperatures are high in the Gulf of Aden maritime region, the sand and dust levels in the air are highest, and diesel engines are not able to work very effectively. As such, [this] demands ample power reserves for power equipment. Because during escorts [speed] is mainly under 12 knots, currently warships using [power equipment] at low speeds causes carbon accumulation, because of this power equipment needs to carry a wide load." Yang Yi and Cheng Hong, "Let Chinese Navy Warships Go Farther," p. 67.
93. 余文强 [Yu Wenqiang] and 侯瑞 [Hou Rui], "亚丁湾上的'日光浴'--记特战队员刘俊杰第一次随船护卫" ["Suntan" on the Gulf of Aden: Marking Special Forces Member Liu Junjie's First Follow-On Escort Protection], 综合新闻 [General News], 人民海军 [People's Navy], 14 September 2012, p. 2.
94. "Conversation with Yin Zhuo," p. 22.
95. 胡宝良 [Hu Baoliang], "飞向深蓝的舰载雄鹰: 访我军第一支舰载机部队队长齐向龙" [Ship-Based Fierce Eagle Flying toward the Deep Blue: Interview with the PLA's First Ship-Based Aircraft Unit Commander Qi Xianglong], 兵器知识 [Ordnance Knowledge] 6 (June 2011), pp. 22–24.
96. 张卫东 [Zhang Weidong], "感受'粮草官'的担当" [Experiencing the Undertakings of the "Provisions Officers"], 人民海军 [People's Navy], 27 December 2011, p. 5.
97. Ibid.
98. Ibid.
99. Yang Yi and Cheng Hong, "Let Chinese Navy Warships Go Farther," p. 67.
100. Ibid.
101. Ibid., p. 68.
102. Ibid. Original text: "目前对维修通道, 空间, 设备考虑得不充分."
103. "Statement by Ambassador Wang Min, Deputy Permanent Representative of China to the United Nations, at the Twelfth Plenary Meeting of the Contact Group on Piracy off the Coast of Somalia," *Permanent Mission of the People's Republic of China*, 25 July 2012, www.china-un.org/eng/gdxw/t955494.htm.
104. Yang Yi and Cheng Hong, "Let Chinese Navy Warships Go Farther," p. 68. The authors elaborate: "Despite having already adopted many ways to improve crew members' living conditions, there still exist problems such as beds being too small, irrationality of bed and cabinet design, unsatisfactory bathing equipment, a lack of personal electronic charging infrastructure, a lack of various cold storage facilities, a lack of multifunctional canteens, poor grease resistance in kitchens, poor trash disposal ability, [and] incomplete fitness and entertainment infrastructure."
105. 钱钢 [Qian Gang] et al., "某舰连续两次执行护航任务期间减员就诊疾病谱分析" [Analysis of the Disease Spectrum of the Ship Crew during the Two Consecutive Escort Missions], 中华航海医学与高气压医学杂志 [China Journal of Nautical Medicine & Hyperbaric Medicine] 19, no. 2 (April 2012), pp. 108–10.
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110. 韦林山 [Wei Linshan] et al., "舰员上舰时间与晕船程度, 生活质量的关系研究" [Relationship between the Duration of Stay on Board the Vessel and Seasickness Seriousness and Quality of Life], 中华航海医学与高气压医学杂志 [China Journal of Nautical Medicine & Hyperbaric Medicine] 18, no. 4 (August 2011), pp. 229–31.
111. 牛振 [Niu Zhen] and 李檬 [Li Meng], "舰艇远航中运动病的防治" [Preventing Motion Sickness during Long Warship Voyages], 海军医学

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112. “Chinese Navy Uses Telemedicine in Major Missions,” *People’s Daily Online*, 7 January 2013, english.peopledaily.com.cn/90786/8080783.html.
113. Ibid.
114. “‘Peace Ark’ Hospital Ship Conducts Coordinated High-Seas Medical Service Exercise,” 军事报道 [Military Report], CCTV-7 (Mandarin), 8 October 2010.
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121. “Pelagic [Open Sea] Support Tested by Routinized Escort Mission.”
122. Ibid.
123. 杨昌燕 [Yang Changyan] et al., “水面舰艇长远航期间船员心理状况研究” [Investigation on the Mental Health Status of the Ship Crew on Board Surface Naval Vessels during a Prolonged Deployment], 中华航海医学与高气压医学杂志 [China Journal of Nautical Medicine & Hyperbaric Medicine] 18, no. 1 (February 2011), pp. 31–33.
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125. Yang Jingjie, “Captains Courageous.”
126. Ibid.
127. 朱鸿亮 [Zhu Hongliang], “执著的奇迹岁月的馈赠” [Rewarding Prolonged Perseverance], subarticle in full-page thematic spread, “我们见证, 我们震撼——护航记者珍藏的护航感悟” [Having Experienced (It), We Are Deeply Impressed: Escort Reporters Cherish Their Escort Awareness], 人民海军 [People’s Navy], 27 December 2011, p. 6.
128. 张金华 [Zhang Jinhua], 曹海华 [Cao Haihua], and 邵龙飞 [Shao Longfei], “蛟龙跃海天——南海舰队某特种部队加强战斗力建设纪事” [Flood Dragon Special Forces Leap on the Water and in the Skies: Record of South Sea Fleet Special Forces Unit Strengthening Combat], 人民海军 [People’s Navy], 22 February 2010, p. 1.
129. 虞章才 [Yu Zhangcai] et al., “我护航官兵欢欢喜喜过大年” [Chinese Escort Officials Joyfully Celebrate the New Year], 甲板故事 [Deck Stories], 当代海军 [Modern Navy] (March 2009), pp. 37–41. For example, one PLAN sailor in the eleventh task force remarked, “In our downtime, our life is rich and diverse, because on the Gulf of Aden we have our own ‘cultural fair.’ In order to make our life on the Gulf of Aden go from simply blue to multicolored, we frequently hold on-ship activities such as photo exhibitions, painting and calligraphy exhibitions, English corners, and birthday parties.” 曹海华 [Cao Haihua], 王军 [Wang Jun], and 张旗 [Zhang Qi], “亚丁湾上的‘文化嘉年华’” [“Cultural Celebration” in the Gulf of Aden], 解放军报 [Liberation Army Daily], 16 May 2010, news.mod.gov.cn/action/2010-05/16/content_4156578.htm.
130. Hou Rui, “Tempered by Trials and Tribulations, I Come from the Gulf of Aden,” p. 17.
131. Ibid., p. 18.
132. 涂雍晖 [Tu Yonghui], 林健 [Lin Jian], and 侯瑞 [Hou Rui], “亚丁湾上的周末” [A Weekend on the Gulf of Aden], 综合新闻 [General News], 人民海军 [People’s Navy], 21 August 2012, p. 2.
133. Ibid.
134. Ibid.
135. 湛威 [Zhan Wei], 晨夜 [Chen Ye], and 李根成 [Li Gengcheng], “远海大洋健身忙——第十批护航编队官兵健身保健见闻录” [Busy with Fitness in the Far Seas and the Big Ocean: Information Records of Tenth Escort Task Force Officers and Enlisted Maintaining Fitness and Health], 水兵健康 [Sailor Health], 当代海军 [Modern Navy] (April 2012), p. 4.
136. Ibid., p. 22.
137. 陈典宏 [Chen Dianhong] and 米晋国 [Mi Jinguo], “远程会诊为护航舰‘把脉’” [Remote

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 140. The following is extracted from the CCTV-7 account: “[Voice] 171, 171, this is Zhen Hua 20. Our navigation radar has broken down. Two crew members sustained injuries in an accident when working outside. We are requesting support. Having received the distress call, the formation immediately sent support teams to the MV. After the equipment repair team boarded the MV, they immediately worked on the breakdown and restored the navigation radar in 20 minutes.”
 141. Yang Jun, Zou Debin, and Xu Yanshan “Research on Maritime Military Material Flow System-of-Systems Building,” in 军事物流与军事交通运输 [Military Material Flow and Military Communications and Transportation] (Beijing: Academy of Military Science Press, 2010), pp. 80–83.
 142. 刘永路 [Liu Yonglu] and 吕晓琳 [Lü Xiaolin], “第一位直面索马里海盗的中国海军军官” [The First Chinese Naval Official to Face Somali Pirates Directly], 甲板故事 [Deck Stories], 当代海军 [Modern Navy] (March 2009), pp. 44–47.
 143. 王德帅 [Wang Deshuai], “我驾小艇护商船” [I Drive a Small Boat and Escort Commercial Vessels], 综合新闻 [General News], 当代海军 [Modern Navy] (December 2011), p. 2.
 144. Gao Fei, Li Gengcheng, and Jiang Rui, “Tenth Chinese Escort Task Force Expels Suspicious Pirate Targets,” *Liberation Army Daily*, 22 November 2011, eng.chinamil.com.cn/news-channels/china-military-news/2011-11/22/content_4720079.htm, and “PLA Navy’s Tenth Escort Formation Conducts Day-and-Night Training to Improve Escort Capabilities.”
 145. Gao Xiaoxing et al., *PLA Navy*, pp. 147–48.
 146. “PLA Navy Escort Formation Escorts MV ‘Le Cong’ Safely to Salalah,” 军事报道 [Military Report], CCTV-7 (Mandarin), 22 November 2010. Original source text: “At 1557 on 18 November local time, Chinese merchant vessel ‘Le Cong,’ which was transiting the Arabian Sea was attacked by two pirate boats and a crew member sustained gun wounds. Under the protection of four special operations soldiers, the MV and the wounded crew member reached Salalah, Oman, safely at 0000 on 21 November local time.”
 147. Ibid. The following is a direct quotation: “When the attack happened, the warship *Xuzhou* was over 2,300 km away. It immediately sailed at high speed toward the incident area. After sailing for 37 hours, the *Xuzhou* rendezvoused with MV *Le Cong*. Three medics immediately provided preliminary treatment for the wounded crew member. As the wounded [individual] required better medical care, MV *Le Cong* started sailing toward the nearest port, Salalah of Oman.” The characteristics given in the most recent *Jane’s Fighting Ships* seem incompatible with so fast a transit.
 148. 邵洪 [Shao Hong], 曹海华 [Cao Haihua], and 高毅 [Gao Yi], “蛟龙出击一千昼夜—南海舰队某特种大队亚丁湾护航纪事” [The Flood Dragon Attacks for a Thousand Days and Nights: Chronicling Escorting by a South Sea Fleet Special Forces Unit in the Gulf of Aden], 人民海军 [People’s Navy], 28 December 2011, p. 3.
 149. “Chinese Cargo Ship ‘Taiankou’ Out of Danger Following Pirate Attack,” 军事报道 [Military Report], CCTV-7 (Mandarin), 22 November 2010.
 150. Ibid.
 151. Ibid. Original text: “狙击手瞄准船上海盗, 发射闪光弹和爆震弹进行警告; 抛钩, 架梯.”
 152. Ibid.
 153. “Party Flag Flies Aloft along the Escort Routes,” 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 24 June 2011.
 154. 颜志刚 [Yan Zhigang], “营救‘泰安口’轮, 我在火线立功” [Rescuing “Taiankou”: I Succeeded in the Line of Fire], 综合新闻 [General News], 人民海军 [People’s Navy], 5 December 2011, p. 3. Original text: “茫茫大洋中, 军舰、小艇、特战队员, 三方面构成立体安全网, 把‘泰安口’轮紧裹其中。当听到特战队员对讲机里传出‘钻井平台没有发现海盗、‘驾驶室安全、‘机舱安全’的声音时, 我格外激动。经过近80分钟的战斗搜索, 在我方确认商船安全后, 21名被困的祖国同胞陆续出舱。而后, 我们又用小艇将食品、药品等物资送到‘泰安口’轮。”
 155. 李高健 [Li Gaojian], 方立华 [Fang Lihua], and 姚子宝 [Yao Zibao], “印度洋上的生死营救—我护航编队营救‘泰安口’号遇袭货船遇袭货船营救纪实” [Rescue of Life and Death on the Indian Ocean: Account of Chinese Escort Task Force’s Rescue of Attacked Cargo Ship “Taiankou”], 综合新闻 [General News], 人民海军 [People’s Navy], 8 December 2010, p. 3.

156. "Escort Operations in Gulf of Aden: Real Combat-Oriented Escort Training Boosts Innovation Capability," 军事报道 [Military Report], *CCTV-7*, 22 December 2010. The program states: "In March this year, Warship 887 [*Weishanhu*] was providing solo escort cover for MV *Zhenhua 9* when its radar detected over 130 skiffs coming toward them at high speed. Warship 887 immediately moved forward to block them. After the signal flares, flashbangs, and stun grenades they fired were ignored, they fired warning shots from a heavy machine gun, sending the pirate skiffs fleeing."
157. "PLA Navy's Tenth Escort Formation Successfully Chases Away Five Suspected Pirate Boats," 军事报道 [Military Report], *CCTV-7* (Mandarin), 1130 GMT, 1 January 2012.
158. 李高健 [Li Gaojian] and 方立华 [Fang Lihua], "我护航编队成功解救遭海盗追击韩国商船" [China's Escort Fleet Successfully Rescues South Korean Merchant Ship Chased by Pirates], 人民海军 [People's Navy], 14 February 2011, p. 1.
159. "PLA Navy's Eleventh Escort Formation Successfully Chases Away 22 Suspect Boats," 军事报道 [Military Report], *CCTV-7* (Mandarin), 1130 GMT, 1 April 2012.
160. "PLA Navy's Eleventh Escort Formation Successfully Chases Off Several Batches of Suspicious Vessels," 军事报道 [Military Report], *CCTV-7* (Mandarin), 1130 GMT, 27 March 2012.
161. "Eleventh Escort Formation of PLA Navy Successfully Chases Away over 70 Suspicious Skiffs," 军事报道 [Military Report], *CCTV-7* (Mandarin), 1130 GMT, 18 May 2012.
162. Ibid.
163. Ibid.
164. 涂雍晖 [Tu Yonghui] and 侯瑞 [Hou Rui], "重枪出击--目击第十二批护航编队特战队员实弹射击训练" [Machine Gun Attack: Witnessing Live-Fire Training of the PLA Navy by the Special Forces of the Twelfth Escort Formation], 人民海军 [People's Navy], 22 October 2012, p. 1.
165. "Eleventh Escort Formation of PLA Navy Successfully Chases Away Over 70 Suspicious Skiffs."
166. "PLA Navy's Ninth Escort Formation Organizes Emergency Response Exercise during Mission," 军事报道 [Military Report], *CCTV-7* (Mandarin), 19 August 2011.
167. Ibid.
168. "PLA Navy Escort Formation Conducts Antipiracy Exercise on Board Merchant Vessels in the Convoy," 军事报道 [Military Report], *CCTV-7* (Mandarin), 11 April 2011.
169. "PLA Navy's Tenth Escort Formation Conducts Day-and-Night Training to Improve Escort Capabilities"
170. Guo Yike and Li Gaojian, "Far Oceans Escorts," p. 1.
171. "Chinese Navy's Escort Missions in Somali Waters Fully Successful: Envoy," Xinhua, 30 March 2012, news.xinhuanet.com/english/china/2012-03/30/c_131497403.htm.
172. "Changzhou Warship of PLA Navy's Twelfth Escort Formation Successfully Receives 26 Crew Members of Taiwan's 'Hsu Fu-1' Fishing Vessel," 军事报道 [Military Report], *CCTV-7* (Mandarin), 1130 GMT, 18 September 2012.
173. "China's Escort Ship Picks Up Fishermen Seized by Somali Pirates," *CCTV News* (English), 0613 GMT, 19 July 2012.
174. Ibid.
175. 王志秋 [Wang Zhiqiu] and 侯瑞 [Hou Rui], "索马里海域大接护--十二批护航编队常州舰接护'旭富一号'渔船船员纪实" [Big Escort Pickup in the Gulf of Aden: Real Account of the Twelfth Naval Escort Task Force Changzhou Warship's Pickup and Escort of "Shiuh-fu 1" Fishing Boat Crew Members], 综合新闻 [General News], 人民海军 [People's Navy], 25 July 2012, p. 3.
176. Ibid.
177. Ibid.
178. Ibid.
179. Ibid. Original text: "针对直升机组、特战队员和小艇驾驶人员在接护过程中有可能登临索马里沿岸,甚至直接面对索马里海盗的实际情况,预备指挥所临时党委一方面发出政治动员令,号召全体官兵以高昂的战斗热情投入一接护行动,在生死考验面前,不畏艰险、攻坚克难,用实际行动践行对祖国和人民的无限忠诚和热爱的誓言." The account of this incident in the following paragraph is taken from this source.
180. Ibid. Wave crests reportedly reached five to six meters (sixteen to twenty feet).
181. Cheng Bijie and Hou Rui, "Properly Pass on the Relay Baton, Properly Play the Role of Representative Team—Conversation with Zhou Xuming, Commander of the PLA Navy's 12th Ship-Escorting Ship Formation," p. 4.
182. Ibid. Original text: "就拿方案预案的制定来说,我们借鉴以往经验,分析当前护航形势,制定了护航行动、后装保障方案等多套方案预案,尽量把护航可能出现的各种突发应急情况预先想细、想全、想透,此外,我们还强化了指挥所训练,组织任务部队加强基本技能训练."

183. Li Gaojian, Fang Lihua, and Yao Zibao, "On-Site," p. 50. Original text: "去年12月13日, 海盗袭击了中国海军护航编队护卫的第275批舰艇。海岛快艇伪装成渔船, 突然向编队中的马绍尔群岛籍的'北欧-阿波罗号'商船发动袭击, 又在编队中间逃, 先后袭击了'萨菲尔-T'号等商船, 整个过程持续70分钟。"
184. "FFG Xuzhou Sets Five Records in the History of PLA Navy's Pelagic [Open Sea] Escort Missions," 军事报道 [Military Report], CCTV-7 (Mandarin), 18 May 2011.
185. Li Gaojian, Fang Lihua, and Yao Zibao, "On-Site," p. 53. Original text: "狡猾的海盗在逃窜过程中, 不停地采取走'之'字型, 大幅度逆向航行等方式逃避我的追击。迫于我军舰综合力量的打击, 海盗在逃窜过程中, 将油桶, 枪支等抛入海中, 继续高速逃窜... 13时59分, 海盗快艇与我周旋近40分钟后, 在我连续攻心喊话, 鸣枪示警, 拦阻射击之下, 5名海盗被迫停车漂泊, 高举双手投降。"
186. "Chinese Navy Evicts over 70 Suspected Pirate Boats," Xinhua, 15 May 2012, eng.chinamil.com.cn/news-channels/photo-reports/2012-05/17/content_4865487.htm.
187. "PLA Navy Escort Formation Conducts Antipiracy Exercise on Board Merchant Vessels in the Convoy."
188. "PLA Navy's Twelfth Escort Formation Protects Civilian Ships in Gulf of Aden," 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 29 August 2012.
189. "Chinese Naval Ship Expels Suspect Boats in Gulf of Aden," *Liberation Army Daily*, 25 October 2012, eng.chinamil.com.cn/news-channels/china-military-news/2012-10/25/content_5066500.htm.
190. "Chinese Navy Rescues Panamanian Ship from Pirate Attack," *Liberation Army Daily*, 23 October 2012, english.peopledaily.com.cn/90786/7986815.html.
191. Meng Yan, "Zero Distance," pp. 34–35.
192. "Somali Pirates: \$4 Million Ransom Paid for Coal Ship," Reuters, 27 December 2009, www.reuters.com/article/2009/12/27/us-somalia-piracy-china-idUSTRE5BQK420091227.
193. 雷志华 [Lei Zhihua], "我护航编队正高速赶往事发海域营救被劫货轮" [Our Escort Formation Is Steaming at High Speed to the Area of the Incident to Rescue the Plundered Cargo Ship], 环球网 [Global Net], 29 October 2009, www.dehong.gov.cn/news/homenews/2009/1020/news-28789.html.
194. Ibid.; Guo Gang, "Escort by Military Vessels"; "China Mute on Hijacking Dilemma"; and "Zhang Jiadong: At Present, the Most Important Goal Is to Save Lives."
195. "Wang Hongmin, Captain Who Never Shrinks from His Mission," 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 25 August 2012.
196. "Chinese Downplay Somali Pirate Ransom," *World Net Daily*, 30 December 2009, www.wnd.com/2009/12/120485/.
197. Greg Torode et al., "Showdown with Somali Pirates a Test of PLA's Might," *South China Morning Post*, 22 October 2009.
198. "Chinese Downplay Somali Pirate Ransom."
199. 孙彦新 [Sun Yanxin] and 朱鸿亮 [Zhu Hongliang], "中国海军首批护航编队开创人民海军历史上多个'第一'" [Chinese Naval First Escort Task Force Achieves Multiple "Firsts" in History of People's Navy], 新华社 [Xinhua News Agency], 28 April 2009, news.xinhuanet.com/newscenter/2009-04/28/content_11275556.htm.
200. Michael McDewitt, "PLA Naval Exercises with International Partners," in *Learning by Doing: The PLA Trains at Home and Abroad*, ed. Roy Kamphausen, David Lai, and Travis Tanner (Carlisle, Pa.: Army War College Press, 2012), pp. 81–125.
201. Cao Jinping and Mo Xiaoliang, "Review of Chinese Navy's Escort Missions in Gulf of Aden in Past 4 Years."
202. Yang Jingjie, "Captains Courageous." The article elaborates: "Gradually, various ice-breaking activities were organized such as a friendly soccer match between the Chinese and British navies. *Kunlunshan* once also held a buffet reception on its deck while docked in Djibouti, inviting foreign naval officers aboard."
203. "China Calls for Counter-piracy Operations to Expand Coordination," *CCTV News* (English), 23 February 2012, english.cntv.cn/program/newsupdate/20120223/121814.shtml.
204. "PLA Navy Sends Forces to Somalia to Fight Piracy in Gulf of Aden," *CCTV News* (English), 1223 GMT, 27 February 2012.
205. 刘文平 [Liu Wenping], "护航效率, 在深度合作中提升" [Escort Efficiency Rises amid Deep Cooperation], 新闻观察 [News Observer], 当代海军 [Modern Navy] (March 2012), p. 3.
206. "NATO Flagship Welcomes Chinese Naval Task Force Commander," news release, *Allied Maritime Command Headquarters*, 28 March 2011, www.manw.nato.int/; Liu Yiwei and Tang Shifeng, "CTF-151 Commander Visits Eighth Chinese Naval Escort Task Force," *Liberation*

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Operational Trajectories

Since 2008 the PLAN has found that there is no substitute for experience. Over time, China's approaches to various aspects of antipiracy operations have evolved; however, its strategic direction for several aspects of PLAN antipiracy operations remains debated.

This chapter examines trends and debates in PLAN approaches concerning such issues as logistical support—international relationships, basing options, existing platforms—and the potential impact of new platforms, such as China's aircraft carrier.

Logistical Support Trends

From the outset, Chinese planners were seriously concerned about logistical challenges associated with deployments to Somali waters. Since then, using experience, they have gradually streamlined the logistical underpinnings of Far Seas antipiracy operations. China's navy has received considerable logistical support from other countries, from various other Chinese military and governmental agencies, and even from China's state-owned enterprises (SOEs) operating in foreign countries near the Gulf of Aden and IOR. Most onshore support for the supplying and replenishing of escort task forces comes from Chinese embassies and enterprises located in IOR coastal states.¹

Sustained overseas deployments are difficult and require multiple skills that the most advanced navies may consider routine but that the PLAN is learning incrementally. For example, executing replenishment at sea is far more difficult than logistics that can be planned in advance or ship handling and cargo transferring that can be simulated and practiced in the Near Seas. It requires maintaining schedules, planning stores distribution, and exercising the supply system—repeatedly—as well as improvising, when, for example, a “just in time” delivery to a transfer port fails to occur. Unlike during training simulations in restricted Chinese waters, poor performance in the Far Seas generates real consequences, often before the eyes of other navies or nations, as well as the public back home.²

PLAN antipiracy task forces rely partially on underway replenishment to supply critical fuel and stores. When task forces transfer escort duties, outgoing PLAN warships usually

convey materials and equipment to incoming vessels. The PLAN is learning the craft of blue-water at-sea replenishment, albeit gradually. One U.S. Navy helicopter pilot whom the authors consulted has witnessed Chinese ships conducting at-sea replenishment in the Gulf of Aden by halting and tying up. U.S. ships, by contrast, usually maintain thirteen knots.

Refueling and maintaining ample stocks of high-quality water, food, and medicine on board have been enduring challenges. Food supplies often spoil;³ innovative approaches to that problem were discussed in the previous chapter. Water, too, is apparently a particular problem. According to a June 2011 article in *Modern Navy*, in the PLAN all drinking water for the duration of five or six months is obtained from shore, sometimes via replenishment ships; water purified from salt water tastes bad and is used only for bathwater.⁴ Potable water needs to be replenished monthly, but this is complicated by the limited number of replenishment ships. An article in *Journal of Navy Medicine* examines the risk of contamination in drinking water on board, which the authors see as a significant problem. They recommend that

- Water storage compartments be cleaned thoroughly on a regular, set basis
- Stored water be bleached on a regular, set basis, and the amount of bleaching powder used be according to the amount of water being stored
- Purification equipment be installed in water supply pipes throughout the ship, especially on pipes leading to the galley
- Crew members be provided boiled water.⁵

In February 2012 *People's Navy* ran a special report on securing fresh drinking water for sailors in the Gulf of Aden.⁶ During the first deployment, in 2008, crewmen faced a major dilemma in that regard:

Most maritime areas near the Gulf of Aden are desert-like zones lacking water [resources], freshwater can even be sold for between fifty and sixty U.S. dollars per ton, over a hundred times the price of water in Chinese cities. If warships want to replenish freshwater on the coast, not only is the degree of difficulty great, [but, in addition, money] spent on foreign exchange is extremely high. However, the warships' costs for purifying salt water were [also] extremely high. [Therefore, in performing] battle-ready shifts for hundreds of days [at a time], [while facing] limited freshwater supplies, personnel did everything possible to save water, often shaving their heads bald during the escort [mission].⁷

Bernard Cole sees these logistical challenges related to freshwater supply as evidence of the PLAN's grossly inadequate distilling plants and water-management practices. He states, "Any ship that cannot depend on its onboard distilling plants for freshwater supplies for all purposes is hampered severely."⁸

Operating in high temperatures and saltwater environments is especially dangerous for helicopters, which face the risk of “high-salinity crystallization” (高盐颗粒结晶) and resulting exterior corrosion. Helicopters must therefore be washed after every flight. More generally, in the early deployments freshwater scarcity created problems for entire crews; some sailors even developed skin diseases. *People’s Navy* suggests that the main cause was that the vessels deployed to the Gulf of Aden had been designed for Near Seas operations and thus did not have the water-purification equipment needed for longer voyages. In September 2009, managers and technicians of Qinghuang Dao Mountain Heavy Industries Machinery Company, Ltd., began researching the problem.⁹ By May 2010 the problem had been largely solved by the installation of new purification equipment, and sailors on escort warships enjoyed a constant supply of freshwater for cleaning, laundry, showers, and other maintenance of personal hygiene.¹⁰ The article adds that

crewmen use 5–10 liters of water and roughly 20 liters of water daily for drinking and washing, respectively. At this rate a crew of 200 would require 5–6 tonnes every day. However, various operational machinery and equipment on board requires high amounts of freshwater, including diesel engine generators in “closed cooling systems” (闭式冷却系统), “high-pressure compressors” (高压空气压缩机), and “charging storage batteries” (蓄电池补充). Large-scale steam-powered ships that require large amounts of water to refill boilers place particularly large amounts of strain on freshwater supply. Relying solely on on-ship stores of freshwater cannot even come close to meeting these demands, and as such, medium- and large-scale ships have all installed high-production saltwater purification equipment to supply backup water for crewmen and equipment, and to ensure the persistent escort ability of ships.¹¹

In late 2010 *People’s Navy* reporter Liang Qingsong outlined several logistical innovations made by PLAN escort task forces. They had

- Strengthened safeguards according to the integrative methods of system support and follow-on ship, specialized support and general support, intramilitary support and local support, domestic support and preassistance support. [They] gradually established various support capability systems such as crew member–level ability; and strengthened their ability [to perform] follow-on [support], long voyage technology repair assistance support, domestic assistance support, [and] foreign emergency support.
- Established types of support methods such as obtaining supplies from passing commercial ships, transferring supplies hand to hand, foreign purchases, airborne shipping, multichannel backup supplies [and] emergency delivery mechanisms, ensuring that task force equipment could be discarded promptly if accidents occurred, [and] guaranteeing that living materials are supplied promptly.
- Established a mechanism for foreign port resupply reliably and emergency health and sickness rescue and delivery. [They] borrowed from the experience of foreign escort task forces. Through research [they] offered suggestions such as condensing the replenishment period on relying on foreign ports by comprehensive replenishment ships, [and] establishing foreign comprehensive support points, [thereby] improving

the strength and completeness of long-term, high efficiency mechanisms for foreign logistical support.¹²

At sea, antipiracy task forces rely on a combination of underway replenishment and port visits for fuel and stores. When escort duties are handed off to an incoming task force, the outgoing group transfers “materials, equipment and spares” to its reliefs, such as in the twelfth/thirteenth task force handover.¹³

Wang Weiyuan of PLA Naval Engineering University catalogs several problems with the PLAN’s current refueling strategy in the Gulf of Aden:

Because of continuous escort duration limits for escort warships, [PLAN escort ships] must undergo refueling every three weeks on average, but comprehensive supply ships typically require three days to load supplies (including oil fuel, freshwater and provisions). This means that the only comprehensive supply ship in the escort task force must frequently rush back and forth between port and the escort ships. Not only [does this make] the work intensity for comprehensive supply ships high, [but it also] severely restricts the escort ships from fulfilling their responsibilities.¹⁴

One major trend in logistical support has been the PLAN’s growing reliance on foreign ports where its ships can moor temporarily for maintenance. For example, during the inaugural antipiracy deployment, only supply ship *Weishanhu* made two brief stops, for replenishment, at Aden Harbor, while destroyers *Haikou* and *Wuhan* received only at-sea replenishment and made no port visits, apparently because Chinese decision makers were concerned about the possibility of local opposition.¹⁵ This unusual initial approach surprised some American naval observers with whom one of the authors spoke, who had expected that the destroyers would certainly enter port repeatedly.¹⁶ Warships within escort task forces are now, in contrast, relying increasingly on overseas ports for supply and replenishment, a major reason why some Chinese scholars are calling for a more systematic overseas replenishment mechanism for PLAN escort operations.¹⁷ One reason for this trend is the extended duration of recent operations—the inaugural task force was at sea for 124 days, whereas the most recent deployments have averaged roughly half a year away from their home ports, as discussed above; the eleventh deployment lasted nearly seven months. Of course, an underlying, pragmatic rationale for increasing the frequency of PLAN port calls is that Beijing uses the antipiracy mission to pursue broader diplomatic objectives along the IOR littoral and in the Middle East, such as enhancing bilateral ties with important energy suppliers. Since 2011 the “normalization” (常态化) of PLAN port calls has occurred rapidly; warships in recent escort task forces have stopped in foreign ports an average of once per month, typically staying in port for five days.¹⁸ While on land in other countries, crews often participate in collective shopping, sightseeing, and other group activities. A third option for resupplying task forces in the Gulf of Aden has been to rely on Chinese SOEs whose vessels operate out of coastal-state ports. COSCO, the PRC’s biggest shipping company, has working relations

with husbanding agents and suppliers in most foreign coastal states.¹⁹ Apparently a COSCO subsidiary, COSCO West Africa, Ltd., has become the PLAN's largest partner in procuring supplies for escort ships.²⁰ According to COSCO's website, at the close of fiscal year 2011 the company operated a fleet of 157 vessels, which were active at 159 ports in forty-eight countries.²¹ These preexisting relationships have helped facilitate coordination between PLAN ships at sea and suppliers in littoral states. They also embody the PRC's growing comprehensive overseas presence in regions viewed as critical to China's future economic and energy security.

In May 2009 the COSCO ship *Taicang* supplied *Weishanhu* with twenty tons of Chinese-made products, the first transaction of its kind and a new form of PLAN logistical support in which Chinese commercial vessels transport supplies from China directly to the navy.²² Indeed, Liao Xilong writes that to date PLAN refueling and replenishment in the Gulf of Aden have relied primarily on Chinese overseas commercial enterprises, in what Liao views as a successful instance of civil-military integration.²³ In an interview shortly after the initial task force deployment, Senior Capt. Shen Hao (沈浩), director of the Operations Department in PLAN Headquarters, explained, "[Logistical support] is based on self-provision, and will, according to needs, in accordance with the ways of other relevant countries, actively expand relevant cooperation with any relevant coastal states in the maritime region [in order to] properly resolve logistics and supply problems."²⁴

Of course, China's Gulf of Aden civil-military relationship is not one-sided. Vessels owned by COSCO and other SOEs regularly take advantage of the safety of PLAN escorts. According to Xu Minjie, by the end of October 2011 the PLAN had escorted COSCO ships 685 times, with 100 percent safety.²⁵

Above-noted scholar Wang Weiyuan highlights two problems associated with this civil-military supply coordination:

First, this type of purchasing model relies on the COSCO Group (state-owned) to a very high degree. The navy has to no way to control information safety at every segment of the buying process. [It also] has no way to ensure that it can initiate effective supervision and control during each segment. Second, the implementing of oil security is not sufficiently standardized. [It] lacks guiding laws and documents, the security process has a high degree of unpredictability, [and] elements of employee uncertainty are numerous.²⁶

Some logistical challenges for China's navy are neither routine nor predictable. In August 2009, for instance, *Weishanhu*'s starboard engine failed. A severely damaged gearbox required heavy repairs. To minimize loss of time, the PLAN dispatched a small team to the port of Djibouti, where *Weishanhu* was allowed to call for six days of extensive maintenance.²⁷ This independent repair capability represents a tremendous improvement over what was available in the PLAN's first-ever global circumnavigation in 2002. During that

cruise the destroyer *Qingdao*'s diesel engines failed in the Mediterranean, and the crew was unable to fix them. Technicians from Germany's MTU Corporation, the manufacturer, had to be flown in.²⁸

PLAN task forces have also experienced situations in which vessels under escort encountered problems that forced warships to react on the fly.²⁹ For example, in November 2011 Russian-flagged fishing boat *Powei*, with a crew of seventy-six Chinese citizens, was crossing the Gulf of Aden for the first time.³⁰ A slow ship with a low freeboard and no security cabin, *Powei* fell behind the convoy, whose escort was led by *Yulin*, and was specially accompanied by *Qiandaohu*.³¹ In September 2009, a PLAN sailor aboard a task force vessel suffered an acute attack of appendicitis; his condition became too severe for shipboard treatment. In the first real-life test of the PLAN's Far Seas medical emergency support system, the sailor was airlifted to Salalah Royal Hospital in Oman.³² Two years later, in response to a request by radiotelegraph, the ninth escort fleet provided basic medical treatment to a British crew member of the foreign vessel *Orion Trader* (猎户贸易者) who had torn his calf open on barbed wire that had been strung to protect against pirate attack.³³

In both cases, to obtain the necessary assistance the PLAN relied on the effective coordination systems often supported by other PLAN agencies, such as the Armament Department. Experiences such as these will undoubtedly shape the future development of China's Far Seas logistical systems and practices as well as emergency-response coordination mechanisms within the military. Relatedly, and regarding speed of response to piracy threats, Wei Jianhua, director of an ESF division's political department, stated in December 2012 that PLAN task forces had, after over a thousand tests, lowered "decision time" to ten seconds and "antipiracy deployment" time to two minutes.³⁴ These statistics and the enormous sample size that was used to generate them reflect a heavy emphasis on improving emergency-response capabilities.³⁵

Effectiveness of Logistical Support in Practice Absent Formal Basing Agreements

Despite notable logistical innovations and resulting efficiency gains since 2008, Chinese planners are keenly aware of the great expense of sustaining the Far Seas antipiracy mission. While responding to a query following his speech at the National Defense University in Washington, D.C., in May 2011, PLA Chief of General Staff Chen Bingde suggested that China's navy might not be able to support the Gulf of Aden mission much longer. Referring to deploying naval power to protect the maritime commons, Chen acknowledged that "if the situation continues like this, it will create great difficulties for us to continue with such operations. Although the development of the Chinese PLAN has come a long way in recent years and we have developed a number of new ships . . . we

are not that strong yet.”³⁶ He continued, “Then we have this dilemma: on the one hand, if we continue to build new ships we will [face the] constraints of [the] national defense budget. And what is more, it will lead to the issue of hype of the ‘China threat’ again because of our growing capabilities. On the other hand, if we stop building those new ships, we will not only be unable to send more ships to Gulf of Aden, but we will find it even difficult to protect and maintain our own maritime interests. So I think we still need a long-term solution to that.”³⁷

At the time, Chen’s authoritative speech seemed to suggest a scaling-back or even an imminent end of China’s Gulf of Aden presence. Yet as this study went to press, China’s naval operations in the Gulf of Aden were going strong, as the fifteenth task force executed its antipiracy escort duties. The fourteenth task force comprises slightly older naval warships, which could perhaps signal the start of a gradual scale-back. The fifteenth task force, however, is composed of newer platforms: guided-missile frigate *Hengshui*, amphibious dock landing ship *Jinggangshan*, and comprehensive supply ship *Taihu*. Regardless, one thing is clear—the PLAN has maintained a robust antipiracy presence in the Gulf of Aden well after Chen’s speech in Washington.

Given the immense logistical and operational benefits obtained during the first four years of escorting, it is understandable that Beijing was initially willing to pay a premium to send forces to the Gulf of Aden. After all, absent these operations there would have been virtually no other near-term opportunities to project military power outside China’s immediate maritime periphery.³⁸ However, while logistical and operational efficiency gains continue to accumulate, the PLAN’s learning curve has flattened progressively. High-ranking PLAN officials are quickly becoming proficient in shipboard diplomacy, and China’s navy has a growing list of completed joint exercises and antipiracy operations with foreign navies. All of this raises the larger questions: Do the benefits of future escort task forces outweigh the costs, and, if so, to what extent, using which metrics?

The most obvious direct costs of the mission include fuel, food, and health supplies, and the ammunition and equipment used in training exercises and live fire, as well as depreciation of PLAN vessels and equipment. Additionally, Chinese naval planners are surely calculating the opportunity cost of deploying supply and landing ships to the Gulf of Aden when these ships could be preparing for more regionally based operations, such as a potential Taiwan contingency or, even more likely, a militarized South China Sea dispute or an escalation in the East China Sea. Some basic operational procedures applicable to the Gulf of Aden mission may be transferrable to these hypothetical regional initiatives, but amphibious vessels like the Yuzhao-class Type 071 landing platform dock (LPD) could derive more strategic benefits from specialized training in regional waters.

This strategic reality has long been on the minds of such Chinese strategic planners as Liu Jiangping. Referring to the PLAN's evolving Near Seas active defense strategy shortly after the first task force deployment in 2009, Liu stated that the benefits of the mission include not only experience fighting against pirates "but also an experience for the navy's capability to conduct Far Oceans quasi-combat operations" (还是对海军执行远洋准作战能力一次经验).³⁹

That said, Beijing may view its Gulf of Aden cost structure quite differently from what has been outlined above. For example, the PLAN may well desire to continue to spread experience and operational gains from the Gulf of Aden mission farther through its ranks. That would help explain the NSF's deployment of the eleventh escort task force in early 2012, and it would also suggest that task forces may continue to be deployed for some three to five more years to expose additional destroyers and frigates to Far Seas operations. China is clearly using its Gulf of Aden mission to provide learning experiences for its most advanced surface vessels. For example, as of October 2012, 79 percent of all frigates deployed off the coast of Somalia had been Jiangkai II air-defense ships, currently the PLAN's most advanced frigate platform. Similarly, 57 percent of PLAN destroyers used in the antipiracy mission have been members of the Luyang I and Luyang II classes, the PLAN's leading area-air-defense ships.⁴⁰ Viewed in larger perspective, the emphasis on sending elite ships to the Gulf of Aden becomes even clearer.

The Gulf of Aden mission has provided tremendous opportunities for operational gains for China's small number of advanced replenishment ships. For example, CCTV-7's *Military Report* program stated in May 2012 that *Weishanhu* had broken several replenishment records while serving in the Gulf of Aden, using a variety of methods, including "abeam replenishment, vertical replenishment, and lighterage."⁴¹

Alternatively, perhaps China's navy wants to continue to derive benefits incrementally by adjusting and adding features to its current missions. One area where value might be added is the Z-9 helicopter; the Gulf of Aden mission could provide more opportunities for testing Chinese-made platforms. Rear Adm. Yin Zhuo (Ret.) believes that helicopters are central to raising escort forces' productivity and dynamism, because the extended coverage range they provide makes operations more efficient and allows the PLAN to respond more effectively to nontraditional attacks.⁴² By making its escort operations more dynamic, the PLAN can continue to make modest operational discoveries that will be applicable in other areas of PLA modernization.

For example, a 2012 issue of Chinese journal *Aviation World* recorded the experience of Guo Xichun, deputy commander of the Seaborne Aircraft Division of the seventh escort task force, as a naval aviation commander in the Gulf of Aden. In May 2010, Guo's division performed live-fire training exercises a thousand meters above the sea. This

training exercise was the first in which PLAN ship-based helicopters fired .50-caliber machine guns in the Gulf of Aden.⁴³ In March 2011, helicopter units began nighttime training to raise combat readiness against the possibility of a pirate attack during the night, including “blackout procedures” (灯火管制), in which pilots were hard-pressed to distinguish precisely the sea surface. They had to rely on dim lights of PLAN vessels to discern their locations in relation to the flight decks.⁴⁴ In another example, the eleventh task force conducted its first “day-into-night ship-aircraft training exercises” in March 2012. Commenting on the training, helicopter group commander Ma Lei stated, “When we fly under dark night conditions at high seas, there are no reference features whatsoever. From the moment you take off from the deck, what you see ahead of you is the black bottom of a wok. You cannot make out anything visually. You have to rely entirely on instrumentation to judge the altitude, velocity, and all other statuses.”⁴⁵



Guo further remarked, “The Gulf of Aden airspace is a stage for navies of the world to display their level of ship-based helicopters. As the ‘national team’ of China’s ship-based helicopter field, we are representing our country’s helicopter division’s image and actual capabilities. In front of foreign militaries, we certainly want to strive to be number one, achieving the ‘gold medal, strive for our mother country’s honor.’”⁴⁶ The enhanced role of helicopter units is thus recognized as an important component of the PLAN’s image and abilities manifested in the Gulf of Aden. For example, the PLAN’s first ship-based aircraft unit commander, Qi Xianglong, remarked: “Practice proves that ship-based

helicopters in the Gulf of Aden and Somali waters executing antipiracy operations and rescue operations for hijacked ships displayed uses irreplaceable by other equipment.”⁴⁷ The sixth escort task force appears to have been the first task force to utilize “ship-boat-helicopter” escort methods during its time in the Gulf of Aden, reflecting how helicopter use allows for escort innovation.⁴⁸

Ultimately, the costs and benefits of PLAN antipiracy operations must be considered in light of logistical alternatives. China’s navy could deploy other platforms to Somalia or pursue some form of basing agreements with a state or states in the region, both of which would lower logistical costs substantially but would likely carry heavy political baggage. Chinese scholars continue to debate the best approach. North Sea Fleet commander Wang Dengping has questioned the current underpinnings of PLAN logistics, suggesting that during the next five years PLAN deployments should continue to improve logistical support in the Far Seas through practice and exploration.⁴⁹

Utilization of Different Platforms

Considering the lack of other opportunities to deploy naval platforms in the Far Seas, it is understandable that the PLAN is eager to send its most advanced platforms to the Gulf of Aden. While not all PLAN destroyers and frigates are modern, all PLAN task forces to date have employed a combination of one or two Type 052 Luyang-class destroyers or Type 054 Jiangkai-class frigates. The largest platforms used in China’s antipiracy operations have been those performing supply and replenishment functions. Thus far, the PLAN has dispatched Type 903 *Qiandaohu*-class replenishment ships as the base platform throughout its escort operations. *Weishanhu* served during the initial deployment and has since participated in the second, fifth, sixth, and eleventh task forces. *Qiandaohu*, meanwhile, has served in various capacities during several escort task force deployments. With displacements of twenty-three thousand tons, Type 903s were the PRC’s most experienced replenishment ships at the outset of the antipiracy mission. In 2007 *Weishanhu* participated in the Sino-British FRIENDSHIP 2007 and Sino-French FRIENDSHIP 2007 exercises.⁵⁰

Three Yuzhao-class Type 071 LPDs, the PLAN’s largest vessels aside from the recently commissioned aircraft carrier *Liaoning*, remain the most formidable platforms available for supporting PLAN antipiracy operations in the Gulf of Aden.⁵¹ The Type 071 flagship *Kunlunshan* participated in the sixth escort task force. It was deployed to the Gulf of Aden in 2010, shortly after being commissioned in late 2007, reflecting the PLAN’s eagerness to deploy its best platforms in the Far Seas. On 28 August 2010, as part of the sixth task force, *Kunlunshan* helped to repel three different pirate groups. Having itself discovered the first group, it brought special operations personnel into position and dispatched helicopters before intercepting the pirates at full speed. It repeated this process

with a second wave of pirates.⁵² In each case, when pirate skiffs approached the PLAN escort column, *Kunlunshan*-launched helicopters circled above the suspects, eventually firing concussion rounds and causing them to retreat.⁵³

Jinggangshan, a two-hundred-meter-long Type 071 commissioned into the South Sea Fleet in October 2011, engaged in joint training with PLAN helicopters in February 2012 and is likely to participate in future task forces.⁵⁴ It cost \$300 million to build, comes equipped with four hovercraft vehicles and two Z-8 helicopters, and requires a crew of roughly eight hundred. As several analysts have noted, Type 071 ships, in addition to supporting the PLAN's current antipiracy mission, move China's navy closer to an ability to assemble a comprehensive carrier group.⁵⁵ Type 071 LPDs provide antipiracy task forces with unprecedented capacity—one ship can hold fifteen to twenty amphibious armored vehicles, a number of landing craft, and helicopters for extended voyages. As Dennis Blasko points out, these features give the PLAN "its first true 'blue water' amphibious capability."⁵⁶

The deployment of Type 071 LPDs has allowed China's navy to test smaller platforms during Far Seas operations as well, such as an air-cushion vehicle, hull 3320.⁵⁷ During September 2010 the hovercraft was deployed from *Kunlunshan* and conducted patrols in the Gulf of Aden, successfully identifying a benign target six nautical miles away.⁵⁸ This is in addition to the indigenously developed speedboats that Chinese LPDs carry, boats that are very maneuverable and suitable for chases.⁵⁹ Moreover, helicopters deployed from *Kunlunshan* have been shown to play important roles in deterring suspected pirates, especially when flotillas include a large number of ships.⁶⁰

One observer has suggested that China's Gulf of Aden mission reflects the need for more warships capable of operating for extended periods in the Far Seas. The PLAN entered the international fight against Somali piracy to protect national interests, and executing this Gulf of Aden mission has utilized a large portion of China's most advanced warships. If similar threats to China's economic security arise in other regions throughout the world, they could impose excessive demands on China's existing Far Seas-relevant inventory.⁶¹

At least some PLAN vessels tasked to the Gulf of Aden mission appear to have propulsion systems optimized for such long-range voyages. For instance, Type 052C Luyang II area-air-defense destroyers reportedly use a combination of two QC-280, twenty-eight-megawatt, aero-derivative gas turbines (reverse-engineered Ukrainian GT2500 marine gas turbines) and two six-megawatt diesel engines.⁶² While reliability remains unproven, no significant propulsion problems have been reported. This dual arrangement, known as combined diesel or gas, enables warships to enjoy maximum speeds significantly faster than their cruising speeds. It gives vessels the best of both worlds. Marine gas

turbines offer a number of tactical advantages over diesel power plants, including a high power-to-size ratio that allows powerful units to drive small ships without occupying much space; rapid start-up, acceleration, and maneuvering; and minimal low-frequency mechanical noise, although cavitation from ships' screws tends to be the most important factor in acoustic detection.⁶³ Diesels, for their part, are far more efficient than fuel-hungry gas turbines, particularly at low speeds.

If the PLAN adopts gas turbines widely and conducts extensive high-speed operations, it will require additional oilers, the exact number depending on the scope of operations envisioned. China is already building one or two new replenishment ships, but this is far from sufficient to support substantial out-of-area operations. On a related note, submarines need nuclear propulsion to engage in such long-distance operations efficiently, but China only has a total of five operational nuclear-powered attack submarines at present, and they remain relatively noisy.⁶⁴

Prospects for New Platforms, Such as Aircraft Carriers

The commissioning of China's first aircraft carrier, *Liaoning*, on 25 September 2012, coupled with the present lack of overseas bases, raises the question whether the PLAN might eventually use that carrier to support antipiracy efforts and collect experience in the process.⁶⁵ A PLAN officer told one of the authors in 2011 that the naval platforms China then possessed were "still not enough" to achieve its security goals: "The majority of our ships are small, and can't navigate on the high seas. Even the Gulf of Aden task groups had a very hard time. In the future, China will have three or four carrier groups, with one operating at a given time." Similarly, Chinese naval expert Li Jie believes China should possess a minimum of three aircraft carriers "to accomplish sea combat missions and fulfill international obligations."⁶⁶ The same article suggests a greater role for larger PLAN warships in future nontraditional security operations, such as antipiracy: "As a responsible major power and one of the five permanent members of the United Nations Security Council, China will shoulder more international responsibility in various fields such as disaster relief and combat against terrorism and piracy. Therefore, the country's naval force, particularly large warships, will become more and more useful."⁶⁷

Initial Chinese scholarly reactions view China's first aircraft carrier, the 990-foot-long then-*Varyag*, purchased for \$20 million from Ukraine in 1998, as a necessary step in China's self-defense-based military modernization and not primarily as a resource for winning bilateral regional disputes.⁶⁸ Chinese carriers may add substantially more value when deployed abroad for contemporary noncombat operations, such as peacekeeping, disaster relief, and antipiracy, at least in the near term.⁶⁹ Indeed, when *Liaoning* was delivered to China's navy, *People's Daily* noted the carrier's importance for developing Far Seas cooperation and the nation's ability to respond to nontraditional security threats.

Even so, deploying a carrier out of area would not simply entail “showing the flag” but reflect China’s arrival as a blue-water naval power.⁷⁰

Regarding the value added by deploying a carrier near the Gulf of Aden, CASS researcher Wang Hanlin wrote in 2009 that “the rotation of warships sent to the region has also revealed the necessity of an aircraft carrier for China. . . . It will be much easier for an aircraft carrier combat unit to safeguard merchant vessels in such a remote area.”⁷¹ Similarly, a *China Daily* op-ed stresses the relationship between carrier deployment and nontraditional security: “The increasing threat from nontraditional elements like terrorism and piracy also require China to have its aircraft carrier to ensure the security of its transportation in the sea.”⁷² Rear Adm. Yin Zhuo (Ret.) echoes this sentiment, suggesting that deploying a carrier should enhance, not detract from, the global fight against common security threats in nonsovereign waters. According to Yin, “[Seeking] harmonious oceans, with aircraft carriers, it will be even more possible to implement our aim of harmonious oceans.”⁷³

Of course, rather than as simply enhancing global maritime security, CCP and PLA officials may view this option as a convenient way eventually to gain invaluable operational experience under the legitimate mandate of promoting SLOC security and making an even greater contribution to the fight against regional piracy. For example, *Modern Ships* editor Cui Yiliang views the accumulation of experience as the foremost function of China’s first carrier.⁷⁴ Current Chinese operations in the Gulf of Aden have limited air coverage, because they rely solely on shipborne helicopters.⁷⁵ The relatively brief endurance of these airframes has been identified as a shortcoming of PLAN antipiracy operations.

As China fields a fixed-wing, carrier-deployed aircraft such as the J-15, or if it fields a capable carrier-based unmanned aerial vehicle in significant numbers, in operating it *Liaoning* will provide the Chinese antipiracy mission with much greater aerial coverage, in addition to alleviating the constraints imposed by limited deck space of other surface vessels. Additionally, antipiracy operations could also represent excellent opportunities to learn important lessons on logistics, training, and operations. Relatively low-risk missions against pirate crews could serve as effective training. Carrier crew members at all levels would benefit substantially from participation in PLAN efforts off the Horn of Africa.⁷⁶ Already, Gulf of Aden deployments allow experimentation with PLAN task group composition, as will be necessary when new vessels enter the fleet, particularly in preparation for a carrier group.⁷⁷

Type 081 LHD Landing Ship

Although *Liaoning* has dominated Chinese and international media coverage of China's naval modernization, the reported development of the Type 081 landing helicopter dock (LHD) provides another advanced platform suitable for Gulf of Aden and other antipiracy missions. Chinese analysts such as Ye Qi have suggested that further development of amphibious ships would make a great contribution to antipiracy operations.⁷⁸ As was revealed at the International Maritime Defence Exhibition and Conference in May 2007, China is developing an LHD landing ship.⁷⁹ A *Global Times* article reported that the ship was identified as the rumored Type 081 and that it will be comparable in displacement and size to the Type 071 LPDs, which carry helicopters and transport and deploy ground forces, but with a flat, or "flush," helicopter deck.⁸⁰ The same article, citing *Jane's*, suggests that the Type 081 will possess greater aviation capabilities than its Type 071 predecessor and that the PLAN may construct from three to six of them. Reportedly, the Type 081 will be able to transport twelve helicopters and a crew of over a thousand uninterruptedly for approximately one month.⁸¹

Many observers believe that Type 071 and Type 081 amphibious ships between them provide substantial utility and are suited for nontraditional operations beyond the Near Seas, as opposed to regional missions.⁸² Large deck space is conducive to military-to-military exchanges and other peacetime naval activities, and the dynamic ability of amphibious ships to deploy ground, air, and sea support in a short time is particularly suitable for rescue and emergency situations outside China.⁸³ Chinese scholar Chen Chuanming asserts that China's future amphibious platforms need to upgrade from "traditional beachhead warfare" (抢滩登陆作战) to amphibious assault vehicles and to incorporate such modern weapons technology as amphibious transport docks, helicopters, and unmanned aircraft.⁸⁴

There is no open opposition to continued deployments to the Gulf of Aden of the PLAN's most advanced amphibious platforms, such as newly commissioned Type 071 LPDs, though efficiency concerns are emerging. You Ji finds that the large PLAN vessels currently tasked to the Gulf of Aden are inflexible, ill suited to the antipiracy mission, and extremely expensive to operate there.⁸⁵ Perhaps, as part of a global pattern whereby navies are shifting missions to smaller and smaller ships, the PLAN may increasingly search for opportunities to balance its desire to adapt to this trend while still providing operational experience for some of its major platforms. For example, You Ji writes, "Rear Admiral Yin Zhuo (尹卓) raised the idea of building simplified Type 054 frigates to cater to IHA [international humanitarian assistance] and antipiracy operations. These frigates would have smaller displacement of three thousand tons, fewer weapons systems—such as missiles—and enhanced special equipment for HA [humanitarian assistance] and other NTS [nontraditional security] tasks. In order to cut cost, their construction

standards could be set as half military, half civilian.”⁸⁶ Yin has also stated that antipiracy operations have “shown the Navy’s equipment is not particularly suited to blue water operations . . . [and] our equipment, our technology, especially our level of information infrastructure and communication means, as well as our blue water deployment capabilities . . . still have a relatively long way to go to catch up with that of the Western countries.”⁸⁷

The notion that China’s navy needs more efficient ships to perform new missions such as antipiracy operations may be gaining acceptance in Beijing, as evidenced by the commissioning in early 2013 of four hulls of the *Jiangdao*-class Type 056 corvette. According to Xinhua, “The new [light] frigate requires only one-third of the crew needed by its predecessor, the Type-053, and it is expected to be deployed primarily for escort missions and antisubmarine operations.”⁸⁸

The entrance of larger and more advanced PLAN naval platforms into the fight against piracy would be a significant event in Chinese naval modernization. Navy planners simultaneously face an even more significant decision—whether China should use antipiracy operations, which have continued uninterrupted for five years and have no end in sight, as a rationale for pursuing military basing arrangements in other countries. There are strong opinions among Chinese observers both for and against basing. Proponents assert that China’s global interests are too large to ignore anymore, while advocates of the status quo stress the ideological contradiction between basing and China’s traditional stance of noninterference.

Basing Prospects for Antipiracy Missions

Modern naval platforms can improve the efficacy of PLAN antipiracy operations markedly. However, resource constraints limit investments in large naval platforms, including carriers and landing ships, and thereby the PLAN’s ability to project force in the Far Seas in the long term. Without permanent bases as platforms for the antipiracy mission in the Indian Ocean and off the Horn of Africa, PLAN escort forces must refuel at sea or during official port calls arranged well in advance. Carriers, modern landing ships, and auxiliary vessels are simply unable to provide the same services as would permanent onshore basing facilities.⁸⁹ This section examines the potential for China to pursue basing arrangements to bolster its antipiracy operations.

As of May 2011, PLAN escort forces had completed port calls in nineteen countries to refuel and replenish, as well as to enhance bilateral military ties through joint drills and other onshore exchanges. PLAN vessels have called primarily in ports in countries surrounding the Gulf of Aden, such as Djibouti, Yemen, Saudi Arabia, and Oman. They have also stopped in countries such as Pakistan and Seychelles, the ports of which have

increasing strategic importance both for combating pirates willing to attack ships far from the Gulf of Aden and for enhancing China's broader presence in the IOR. While the frontispiece depicts the locations and purposes for which China's antipiracy task forces have visited, Exhibit 4 compares their respective escort statistics.

Exhibit 4. *PLAN Gulf of Aden Escort Statistics by Task Force, 2008–12*

Task Force	1	2	3	4	5	6	7
Time at Sea	26 December 2008–28 April 2009 (124 days)	2 April 2009–21 August 2009 (142)	16 July 2009–20 December 2009 (158)	30 October 2009–23 April 2010 (176)	4 March 2010–11 September 2010 (192)	30 June 2010–7 January 2011 (192)	2 November 2010–9 May 2011 (189)
Escorts	212	393	582	660	588	615	578
Batches	41	45	53	46	41	49	38

Sources:

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In early December 2011, the foreign affairs minister of Seychelles, a small island nation situated strategically in the southern Indian Ocean, formally invited China to establish a base for refueling and replenishing warships involved in antipiracy operations in the region. As an article written by an author from the PLA Border Defense Academy (中国人民解放军边防学院) explains, in March 2012 China confirmed that it planned to establish a presence on Seychelles to contribute to its antipiracy mission.⁹⁰ The invitation came after China donated two Y-12 twin-engine, turbo-prop reconnaissance and utility aircraft to Seychelles earlier in 2011.⁹¹

The Chinese were defensive about Seychelles's offer, insisting that use of Seychelles's ports for logistical and supply purposes would in no way be tantamount to establishing a military base.⁹² China's Ministry of Defense stated on its website, “According to escort needs and the needs of other long-range missions, China will consider seeking supply facilities at appropriate harbors in the Seychelles or other countries.”⁹³

Sino-Seychellois military ties had been initiated in 2004, when a military cooperation agreement sent roughly fifty Seychellois soldiers to China, but they have since grown over the years.⁹⁴ China's *Peace Ark* hospital ship visited Seychelles in November 2010, and two Chinese frigates called in April 2011.⁹⁵ In May 2012 the two countries finalized an agreement to allow China's navy to transfer detained suspected pirates to Seychelles

for further legal proceedings.⁹⁶ In July 2012, Gen. Ma Xiaotian, deputy chief of staff of the General Staff Department of the PLA, visited President James Michel in Victoria to discuss implementation of defense programs and to enhance bilateral cooperation.⁹⁷ By 2011, logistical support for PLAN efforts in the Gulf of Aden must have been seen as the natural next step. Accordingly, notwithstanding China's firm refusal to establish a long-

8	9	10	11	12	13	14	Total
21 February 2011–28 August 2011 (189)	2 July 2011–24 December 2011 (175)	2 November 2011–5 May 2012 (188)	27 February 2012–Sep- tember 2012 (191)	3 July 2012–19 January 2013 (201)	9 November 2012–23 May 2013 (196)	16 February 2013–28 September 2013 (225)	4+ years
507	280	240	184	198	166	181	5,000+
46	41	40	43	45	36	63	500+

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term military base in Seychelles, Victoria's offer spurred internal debates on how best to supply an increasingly global PLAN. Remarks have come against a backdrop of suspicion from India, whose southern coast lies just three thousand kilometers from Seychelles.

Official Chinese responses to the offer in 2012 essentially deflected the notion that China is beginning its military expansion into the Indian Ocean. One official remarked, "It is common practice for all navies of the world to seek supplies in nearby international ports while carrying out long-distance missions." He refused to discuss the potential nature or details of the agreement.⁹⁸ Chinese responses more generally have defended a potential PLAN base at Seychelles as both legal and rational, pointing out that the United States and India already have permanent military presences there.⁹⁹ Chinese media have also noted Japan's establishment of a military base in Djibouti to fight piracy.¹⁰⁰ Pan Chunming, a deputy director of a political department under a division of the SSF, notes that China's basing arrangements as of 2012 were far inferior to, and could even be negatively influenced by, those of other navies.¹⁰¹ Pan states, "Once we coordinated with a foreign port to berth for three days. However, the port later only allowed us to stay for one day, because a Japanese ship was coming."¹⁰² Pan Zhiqiang, of the ESF, also cites Japan's relatively advanced basing presence abroad as motivation for reconsidering China's conservative approach.¹⁰³ Pan remarks, "China has invested a large amount of money

in Djibouti, and helped the country build its infrastructure. However, our influence over the country cannot compete with that of Japan[;] . . . maybe it's time to adjust our strategy to reverse the passive position."¹⁰⁴ In March 2013, Djibouti reportedly invited China to establish a military facility there, where PLAN antipiracy task force vessels have docked more than fifty times over the past four years.¹⁰⁵

At least one Chinese observer, Rear Adm. Yin Zhuo (Ret.), has lobbied, on the basis of existing logistical deficiencies in the PLAN antipiracy mission, for fixed port access along China's vital sea lifelines.¹⁰⁶ Most nations around the Gulf of Aden being Muslim, there is essentially no supply of pork, critical for feeding a Chinese crew of eight hundred affordably. Essential fruits and vegetables also have to be shipped long distances. Yin further argues that current refueling and replenishment arrangements are inadequate in the long run and need to be replaced by port agreements that allow large PLAN warships to moor alongside, shut down their engineering plants, and receive proper inspection and maintenance.¹⁰⁷

Others have also promoted a more global PLAN presence to protect all of China's overseas interests. Chen Chundi advocates a Chinese naval presence in what he terms the "Islamic Crescent" of Chinese Transport" (中国国运的“伊斯兰弧带”), a band of largely Muslim states, encompassing a quarter of the world's countries, running from Southeast Asia through South Asia, Central Asia, and the Middle East, to North Africa.¹⁰⁸ Chen maintains that this zone contains two-thirds of global petroleum reserves and is one of its most politically and socially unstable regions. Chinese assets based in "Islamic Crescent" nations are not only critical for economic growth and energy security but also potentially the most vulnerable to disruption. For example, Chen argues that China should use its good relations with "Islamic Crescent" states to establish mutually beneficial port-call agreements. Such arrangements would mitigate serious logistical challenges that Far Seas antipiracy operations create for the PLAN, and they would show respect for the sovereignty of China's littoral hosts.¹⁰⁹ That said, even Chen's modest policy recommendation might unnerve many of China's trading partners, as he calls for destroyers and frigates to be deployed in the Mediterranean Sea, Gulf of Aden, Bay of Bengal, and the Arabian Sea.

The notion of establishing "Far Oceans footholds" (远洋立足点) in relative proximity to vulnerable maritime regions has been supported by multiple PLA scholars, including retired PLA general Peng Guangqian, who argues that such footholds are fundamentally different from military bases. The former are bilateral, mutually beneficial access agreements that have no effect on the host nation's sovereignty.¹¹⁰ These fixed access points would ensure that PLAN task forces have access to supplies and emergency support. Reflecting a slightly different perspective based on a review of the escort operations to date, scholars Xu Ge and Zhu Qianwang of China's Naval Engineering University suggest that

given the rapid and unpredictable nature of issues arising at sea, future missions require better overall planning.¹¹¹ Solid preparation is needed with respect to equipment. To ensure effective responses to challenges that might conceivably arise, the authors argue, reliance on coastal bases and ports may be needed for comprehensive support.¹¹² In their opinion, perhaps the most significant revelation of escort operations over the past three years has been the need for fixed supply access.

Other Chinese observers are more explicit in their advocacy of some form of bases or “places.” Ni Lexiong has suggested that Seychelles would become a basing location if China’s navy determined that a permanent presence closer to the Gulf of Aden was needed to continue antipiracy operations.¹¹³ Fudan University professor Shen Dingli agrees that China should establish overseas bases to protect its many economic channels, stating that such bases would contribute to regional security in the Indian Ocean and global security as a whole, rather than escalating interstate tension.¹¹⁴ Mounting unrest in Oman, for example, provides a material incentive to look for new ports in which to refuel and replenish supplies for operations that contribute to maritime security.¹¹⁵

Similarly, PLAN scholar Jing Aiming argues that the PLAN’s future Far Seas development will rely on three levels of “support points” (支撑点). First, on the most basic level, the PLAN should rely on ports such as Djibouti, Aden, and Salalah for routine refueling and resupply. In these areas, China’s navy could meet its supply needs using commercial standards. The second class of support points would include such ports as Victoria, Seychelles, that can support relatively fixed schedules of PLAN ship supply, routine air-based reconnaissance operations, and replenishment stops. The third level of support relies on longer-term contractual agreements that would permit China to perform more comprehensive supplying, replenishment, and large-scale repairs of shipboard weapons. Jing suggests Pakistan as a likely third-level support point that would primarily use mid-to-long-term agreements for supply, replenishment, and large-scale warship and weapon repair.¹¹⁶

The need for various levels of overseas maritime support, according to Jing, is the result of the PLAN’s current status of “Three Lacks and One Without” (三无一没有), a reality that many Chinese analysts see as stifling the PLAN’s Far Seas development.¹¹⁷ This phrase refers to “lacking fixed supply points” (无固定补给点), “lacking rest and replenishment bases” (无固定修整地), “lacking fixed-wing aircraft support” (无固定翼飞机支援), and “being without a large-scale equipment supply and maintenance center” (没有大型装备修理中心).¹¹⁸ A system such as the one Jing articulates would ensure for future task forces stable access to replenishment and combat supplies, not just in the Gulf of Aden, but throughout much of the IOR. That prospect may provide Beijing with sufficient incentive to seek basing arrangements that, if realized, would certainly improve the PLAN’s effectiveness in and around the Gulf of Aden.

While Beijing has been mute on its plans for overseas bases, there are, as mentioned above, several littoral states with port facilities that could potentially add value to anti-piracy and other PLAN Far Seas operations. As Chinese analyst Wang Zhongsheng noted shortly after China's first task force deployment in 2009, China needs to enhance research on overseas basing and facilities, particularly in regions close to areas where China's navy is likely to be charged with future "diversified tasks."¹¹⁹ Exhibit 5 examines ports along the IOR and near the Middle East that have received Chinese attention in recent years.

Exhibit 5. *Ports for Potential PLAN Overseas Access and PLAN Visits Thereto*

Port	Country	Quality of Repair Facilities	# PLAN Antipiracy-Related Visits since 28 December 2008	Nature of Visits
Salalah	Oman	Only small craft facilities currently available.	15+ ^a	Replenish/overhaul
Aden	Yemen	National Dockyard Company offers range of limited facilities, services. Workshops, large lathes, electrical, casting, refrigeration, other repair shops; in-water repair services. Two floating docks.	8+	Replenish/overhaul
Djibouti	Djibouti	Multiple foreign naval/military bases; China reportedly invited to establish its own military facility. Small repairs possible; container terminal phase 1 construction completed; can berth two large container vessels together.	11+	Replenish/overhaul
Gwadar	Pakistan	500-acre shipyard two 600,000 DWT dry docks planned. Very large crude carrier + ultra large crude carrier construction planned. Expansive second phase of the port was supposed to be completed in 2010 but has not yet begun construction. Further development to include fifteen to twenty berths, ship cargo handling equipment, port machinery, and warehouses; not commercially viable at present. China contributed \$198 million of initial \$250 million port investment. China Overseas Ports Holding Company Limited assumed port management control on 23 May 2013, with China Communications Construction Company as project contractor. Nineteen million tonnes/yr. capacity oil refinery planned. ^b	N/A	N/A
Karachi	Pakistan	PLAN's preferred Indian Ocean repair facility. Two dry docks available; 18,000/25,000 DWT; development of bulk cargo, deepwater container terminals, and other expansion under way, including 18 m container terminal.	4+	Friendly visits/joint drills
Hambantota	Sri Lanka	Ship-serving capabilities planned; port to be constructed in four stages over fifteen years. Phase 1 accommodated first vessel in 2010; general cargo berth of 610 m; handles vessels up to 100,000 DWT; phase 2 initiated.	N/A	N/A

Exhibit 5. (continued)

Port	Country	Quality of Repair Facilities	# PLAN Antipiracy-Related Visits since 28 December 2008	Nature of Visits
Colombo	Sri Lanka	Multiple afloat repair berths. Dry docks available up to 120,000 DWT; deep-water port opened in 2012; Colombo South Harbor Development project will increase depth to 18 m, then 23 m; phased development of four new terminals with three to four berths each.	N/A	N/A
Trincomalee	Sri Lanka	Minor repairs possible. Slipways for naval, commercial vessels.	N/A	N/A
Chittagong	Bangladesh	Private repair yards available. Dry dock available for vessels up to 16,500 DWT. New collocated port to be completed in three phases by 2015; will increase capacity from current 1.1 million to 3 million TEU for container traffic, and 30.5 million to 100 million tons for bulk cargo.	2	Replenish/overhaul/joint drills
Sittwe	Burma	Available; Kyaukpyu deep-sea port on Maday Island by Thanzit river mouth; initiated in 2009, project will produce ninety-one berths, accommodate 300,000-ton oil tankers.	1	Friendly visits
Victoria	Seychelles	Limited repairs. Divers, underwater welding equipment available. Dry dock shipways available for vessels <300 gross tonnage.	1+	Friendly visits
Singapore	Singapore	Excellent; one terminal, nine subports; military ports.	1	Replenish/overhaul/friendly visits
Bagamoyo	Tanzania	Not yet built. Announced in March/April 2013 that China plans to fund Bagamoyo port with capacity of 20 million TEU/year to be completed by 2017. China to commit 800 billion Tanzanian shillings (\$500 million) in 2013 for starting port construction; remainder of Chinese financial aid package will follow in 2014–15; \$10 billion total Chinese investment; will include the building of new 34 km road joining Bagamoyo to Mlandizi, 65 km railway connecting Bagamoyo to Tanzania-Zambia Railway and Central Railway.	N/A	N/A

Notes

a. Plus signs indicate the possibility that not all port calls have been included. For more information on possible PLAN overseas access points, see Andrew Erickson, "China's Modernization of Its Naval and Air Power Capabilities," in *Strategic Asia 2012–13: China's Military Challenge*, ed. Ashley J. Tellis and Travis Tanner (Seattle, Wash.: National Bureau of Asian Research, 2012), pp. 89–91; "Djibouti Welcomes China to Build a Base"; Deodatus Balile, "Tanzania and China Sign Port Development Package," *Sabahi*, 27 March 2013, sabahionline.com/.

b. "China Takes Over Operational Control of Gwadar Port," *Pakistan News Service*, 24 May 2013, paktribune.com/.

Trends and Best Practices in Operational Thinking

In the absence of overseas basing agreements and radically new platforms, at least for the short term, the PLAN has focused on executing missions with limited resources essentially unchanged since late 2008. At the two-year anniversary, in December 2010, of the PLAN's Gulf of Aden mission, top-level naval officials met to discuss breakthroughs made, lessons learned, and challenges remaining.¹²⁰ Starting with the departure of the eleventh task force in February 2012, China's navy has increased its focus on training special operations troops. Dozens of such soldiers have joined each task force and have actively conducted a variety of training drills, including live-fire exercises, climbing, and "helicopter gliding." A growing emphasis is also being placed on dispelling pirate attacks at night and in the rain (a logical precaution, given seasonal Indian Ocean monsoons), including how to coordinate between helicopters and shipboard officers to ensure proper landings.¹²¹

Specifically, "equipment support" (装备保障), "maritime intelligence" (海上情报), and "telecommunications support" (通信保障) have been identified as major challenges for China's blue-water operations.¹²² This is a problem not just of technology but also of personnel. According to one article in *Modern Navy*, "With regard to systems integration, in order to facilitate utilization and decrease manning, various types of information integration must be on display. Currently, the degree of integration among various types of information is insufficient, equipment is dispersed, [and] the number of operating personnel is high."¹²³

China has learned that it can study the equipment, tactics, and operations of advanced navies in the Gulf of Aden. Task forces reportedly enjoy access to information on foreign intelligence, telecommunications, and radar signals;¹²⁴ they are even able to turn foreign surveillance into countersurveillance opportunities. You Ji asserts that

the Chinese fleet has been followed by "unidentified spy planes, surface ships, and submarines" throughout the journey from Chinese waters to the Gulf of Aden. These vessels try to pick up the PLAN's communication signals, the pattern of coordination between ships in the formation, and their contact-management behavior. In fact, to Chinese naval officers the escort mission itself can be viewed as quasi electronic warfare, ASW warfare, and air-defense warfare.¹²⁵

For example, the PLAN has observed trends concerning U.S. unmanned aircraft and satellites and has begun to develop similar capabilities to address maritime intelligence shortcomings.¹²⁶ A *Liberation Army Daily* article from June 2012 hinted that the eleventh task force had benefited substantially from upgraded satellite systems.¹²⁷ Xu Guangjin, communication officer of the task force, told reporters that "the convenient satellite communication network has played a crucial role in expeditious handling of emergencies and successful accomplishment of escort missions. This drill has once again verified

that the communication network system of the task force can meet the needs for the implementation and successful completion of escort missions.”¹²⁸

Just as the U.S. Navy has been building up its Broad Area Maritime Surveillance capabilities with unmanned aerial vehicles (UAVs), so too are the Chinese beginning to look at their own.¹²⁹ There is also recent reporting from the Chinese press about use of UAVs for maritime domain awareness (MDA) patrols in the Yellow Sea and perhaps also in the East China Sea. According to a detailed Project 2049 Institute study,

The PLAN appears to have an unidentified UAV regiment. Its ship-based systems possibly include the V750 unmanned helicopter. The PLAN has conducted research on utilizing ship-based UAVs as communications relay platforms for over-the-horizon missile strikes on shore targets. This body of PLAN sponsored research has included using helicopters as a guidance platform for long range missile strikes. The PLAN’s South Sea Fleet began training on the use of fixed wing UAVs for battlefield communications support over long distances in 2011. . . . The PLAN has also utilized target drone UAVs in air defense drills used to train destroyer squadron commanders.¹³⁰

China may apply its burgeoning UAV, and even perhaps some form of unmanned underwater vehicle (UUV), capabilities to the Gulf of Aden when it is confident of its ability to use them successfully and to avoid embarrassing mistakes in front of foreign militaries and observers.¹³¹

One of the most valuable aspects of the Gulf of Aden mission is the PLAN’s commitment to exposing officers and crewmen to the irreplaceable crucible of unpredictability. Less certain is the extent to which training and procedures enable effective responses to truly challenging events. Official media reports in 2012 reflected the growing level of difficulty in PLAN escort task force training. One video showed Special Forces sailors conducting a “real-battle” exercise composed of rappelling from a helicopter, live firing on a ship’s deck, and performing in-cabin search and rescue under pitch-dark conditions.¹³² A February 2012 helicopter training exercise required special operations personnel to communicate via sign language owing to loud rotor noises as they fast-rope down from helicopters to ships’ decks.¹³³ After landing, they boarded skiffs—apparently small PLAN rigid-hulled inflatable boats—and practiced firing at floating targets from the skiffs.¹³⁴ Yuan Xinyuan, commanding officer of the Special Forces of the tenth escort task force, declared, “Live-ammunition firing from a skiff is an essential skill of SOF soldiers for maritime patrol, investigation, and chasing away of suspects. It has to be strengthened and enhanced on an ongoing basis as an important part of training.”¹³⁵

Special Forces had previously practiced live sniper-rifle shooting in windy conditions in a December 2011 exercise, firing a total of sixty rounds at balloons twenty centimeters in diameter approximately 150 meters away.¹³⁶ Aboard *Haikou*, Yuan Xinyuan commented, “In today’s fire drill, the sea current, sea wind, and the movement of the ship posed a

significant challenge. Three snipers hit 54 balloons with 60 rounds. This is consistent with our intended training result.” Of course, PLAN officials value other aspects of live-fire exercises, especially ones that require team coordination in simulated emergency situations. Such aspects arose in ninth task force exercises in August 2011 that involved live firing and boarding of vessels.¹³⁷ Zhao Zhenfeng, an instructor in the ninth task force, stated, “This is not simply a matter of marksmanship skills. It is an issue of coordination between the tactical teams. Through this exercise, our targeted drills can be used in the event of an armed rescue situation.”¹³⁸

A video clip aired on CCTV-7 in April 2012 showcased helicopter training exercises by the eleventh task force, scenarios that included “battle alert switch for ship and helicopter, night-time coordination between ship and helicopter, and coordination among helicopter and [special operations forces] soldiers.”¹³⁹ Ma Lei, commander of the eleventh task force helicopter group, was quoted as saying, “When scrambling for Level One emergency deployment, we hardly have any preparation time. Therefore, we have to know all the conditions in a given sea area like the back of our hand in advance and memorize all the contingency plans. This is the only guarantee that every takeoff we perform is swift and timely and that we can accomplish our mission safely and effectively in compliance with the intentions of the formation command post.”¹⁴⁰

This commander’s focus on memorizing contingency plans rather than learning how to react to the unexpected raises a distinct possibility that Chinese personnel have difficulty handling events for which they have not rehearsed detailed responses. In a possible example of this centralized approach, ninth escort task force commander Guan Jianguo insisted, “We have prepared ourselves for all manner of difficulties and challenges. We have revised and perfected our escort contingency plan, with focus on the strengthening of various types of targeted training. We have the confidence and competence to successfully accomplish the ninth escort mission.”¹⁴¹

Rote training constitutes an important aspect of learning to perform new missions in new environments, but there is no substitute for thinking effectively on one’s feet. PLAN officials are certainly aware of this reality and are working to address it—at least to some extent. This awareness was reflected during an August 2011 training session of the ninth escort task force.¹⁴² To ensure that “program” (报幕) had no “script” (节目单), during the drill commanders sent no “advance orders” (预先号令) to crewmen. When the alarm sounded, crews reportedly were unaware whether they were participating in a drill or there was an actual pirate attack. As *People’s Navy* reporters Li De and Li Gencheng document,

measuring the actual power [of a naval force], often lies not in the theatrical troupe’s brilliant performance of the existing script, but [rather] how [they] sing and dance to a few impromptu sound tracks live without prior rehearsal. This exercise, the guiding

adjustment group adopted a “point-play” [点戏] method tailored to the actual situation of increasingly concealed and intense pirate attacks. It emphasized anticipating “sudden outbreaks” [突发], composed test questions based on “emergency response” [应急], gave no advance notification for any “situational scenarios” [情况想定], did not allow for prerehearsal. [This] really tested the task force’s rapid-reaction and emergency response ability.¹⁴³

The tenth task force likewise conducted training geared at improving rapid-response capability.¹⁴⁴ Relevant exercises emphasized training topics like “maritime verification” (海上查证), “joint ship-aircraft deterrence” (舰机联合慑阻), and “flying under complex conditions” (复杂条件飞行).¹⁴⁵ As previously mentioned, in April 2012 the eleventh task force also conducted training designed to boost emergency response capabilities and carried out “rappelling, live-fire shooting on the deck of a maneuvering vessel, and conducting search-and-rescue mission in cabins in pitch darkness.”¹⁴⁶ In mid-May 2012 the eleventh task force also carried out exercises along Gulf of Aden escort routes designed to improve rapid response.¹⁴⁷

Earlier, in November 2010, the sixth escort task force conducted a drill attempting to simulate real-time conditions.¹⁴⁸ Simulated pirates in two speedboats attacked a ship and boarded despite antipiracy measures. The vessel’s crew shut off the engines and retreated to a safety compartment. Amphibious assault ship *Kunlunshan* dispatched helicopters, air-cushion craft, patrol boats, and Special Forces (舰艇, 直升机, 气垫艇, 巡逻艇以及特战队员).¹⁴⁹ Despite pirate resistance, the crew was rescued without casualties.¹⁵⁰ This raises the question of how realistic this exercise actually was and the extent to which conditions are simulated in which things go wrong.¹⁵¹

En route to the Gulf of Aden in July 2012, the twelfth escort task force conducted in the South China Sea a day-into-night helicopter training exercise designed to simulate the stormy and windy conditions typically experienced off the coast of Somalia. A CCTV video mentions the difficulties of such conditions, particularly at night: “It is much harder to take off and land while at sea. The pilot has to overcome turbulence and the erratic movement of the deck. At night, in the absence of lighting on the ground, it is easy to misjudge heading, velocity and altitude by relying only on visual indicators. It is even harder to establish the deck landing approach at night. A slight lapse may lead to unforeseen consequences.” This statement further underscores the difficulties of dealing with “unforeseen consequences” when training has not progressed beyond “memorization” to deal with “contingencies.”¹⁵² PLAN escort task forces en route to the Gulf of Aden, leaving the South China Sea, transit such maritime choke points as the Strait of Malacca.¹⁵³ PLAN forces prepare for their passages through this potentially treacherous waterway. Tenth escort task force command team leader Liu Haitao remarked, “The shipping lanes in the Straits of Singapore and the Strait of Malacca are rather complex, heavily trafficked, and periodically plagued by pirate activities. In view of this situation,

we drafted very detailed plans to respond to various emergencies. We demanded that all vessels organize their navigation in strict accordance with the rules, keep a close watch, and strengthen duty shifts, to ensure that our formation can pass through this area safely and smoothly.”¹⁵⁴

Besides consistent emphasis on Special Forces and helicopter training, such PLAN warships as *Wuhan* have used the Gulf of Aden mission to foster their own unique training methods and cultures.¹⁵⁵ Almost weekly, *Wuhan* holds asymmetrical training that pits a “Blue Force” of experienced officers against a less experienced “Red Force.”¹⁵⁶ Referring to the Blue Force’s role in the training exercise, *Wuhan*’s Communications Department commander Wang Min stated in January 2012, “Actually we play the role of a ‘whetstone’; and yet we are no ordinary ‘whetstone,’ because we know the weaknesses of our opponents. That is why we are often able to hit them where it hurts.”¹⁵⁷ The exercise is preceded by simulations and followed by playbacks and stocktaking; there are also weekly methodology seminars focused on the newest combat and training methods.¹⁵⁸ Chen Yueqi, *Wuhan*’s SSF destroyer flotilla commander, lauded the ship, commenting, “Our high-quality officers and men ensure the level of quality to which our missions are accomplished. It is fair to say that *Wuhan* is a benchmark for our flotilla’s development. It is a sharp knife that the commanding officers are confident about and not hesitant to use, to win battles.”¹⁵⁹

Additional aspects of PLAN special operations training in the Gulf of Aden are probably designed to prepare for rescuing captured ships and crews in the future, which suggests that Beijing is eager to join the ranks of the most capable military powers and to demonstrate a capacity to conduct high-intensity rescues. A successful mission of this sort could end the humiliation of having to pay pirate ransoms. Training events have therefore begun to incorporate moving-target shooting, long-range blocking and attacking, and other rescue-related exercises.¹⁶⁰ Additionally, the PLAN has begun to categorize antipiracy mission requirements and train to them systematically. In March 2012 an ESF flotilla organized thirty ships of various types to “comprehensive assistance support exercise in adverse weather conditions using scenario-based tactical subjects.”¹⁶¹

Clearly, China’s navy is ensuring that it spreads the “fruit” gained from the Gulf of Aden mission throughout its ranks through systematic training. This is a good first step toward achieving the foundational expertise necessary to deal with the many routine tasks that antipiracy operations require. However, there is less evidence to suggest that Chinese naval officers and sailors are being trained to think through on their own how to deal successfully with unexpected conditions.

Regardless, the PLAN clearly hopes to introduce lessons learned in the Gulf of Aden service-wide. Chinese analysts express the opinion that China’s navy must use its

antipiracy experience to diversify China's operational abilities for military operations other than war. They state, "The Navy should, through summing up the experience of the escort actions in the Gulf of Aden, explore the 'task-oriented' force organizational form that is suited to independent operations, joint operations, and nonwar military actions at sea."¹⁶²

Under the PLAN's current antipiracy framework, adjusting the rules of engagement is likely the most pressing issue, but it is one that can be mitigated with adequate preparation over time, without fundamentally changing the mission's nature. While a more permissive approach would open up a broader range of operational possibilities, the PLAN is unlikely to adopt a more aggressive "shoot first, ask questions later" approach, as some observers describe the Indian navy as having done in encounters with suspected pirate vessels.¹⁶³ That said, some observers seem skeptical about Chinese restraint in actual practice, and there is always the possibility that PLAN antipiracy rules of engagement are looser in reality than in doctrine. The PLAN is tactically aware and may be quite aggressive in specific situations. There could indeed be a scenario in which PLAN forces would be willing to shoot whereas the "three forces" may be unable to do so because of more stringent restrictions.¹⁶⁴

If this is indeed true, there are several possible explanations.¹⁶⁵ First, as for any military force, incentives and local objectives could outweigh written guidance and influence behavior in contingencies at tactical levels. Second, some of what actually occurs at the operational level may not be reported back to higher authorities or be noticed by the outside world, leaving room for improvisation. Third is the possibility that a departure from official doctrine could be an intentional move at the service level—the PLAN may be beginning to think more like other navies, which tend to exercise relative autonomy, and less like an adjunct of the PLA. Common characteristics of navies include independence in action and thought, willingness to act with initiative, and addressing circumstances creatively—all without openly violating instructions but perhaps not fully complying, either. A final possibility is that Beijing is purposefully instructing the PLAN to pursue more aggressive rules of engagement than official statements may imply, so as to exploit a divergence between strategic communications and operational necessity that is largely invisible to outsiders and thereby achieve the "bonus without the onus."

China's navy is also concerned with taking advantage of best practices from industry. For example, in July 2012 thirteen Chinese sailors on board Taiwan fishing boat *Shiuh-fu 1* were released from pirate captivity along with the vessel's Taiwanese captain and twelve Vietnamese shipmates, after being captured in late 2010.¹⁶⁶ In response to such incidents, Chinese scholar Sheng Qingbo has examined the possibility of installing "security cabins" (安全舱) on commercial vessels that would allow seafarers to avoid capture while awaiting naval rescue forces. Sheng cites the Russian navy's successful rescue of

twenty-three crewmen from the oil tanker *Moscow University* as an example: The “*Moscow University* oil tanker sent out a danger warning after being attacked by pirates, all of the crew hid inside a safe place, which is crucial for a navy to have a successful boarding rescue mission. It is critical that ships install ‘security cabins.’”¹⁶⁷ It will be interesting to see whether Chinese government organizations attempt to encourage such measures to reduce the need for the PLAN to render assistance after the fact.

While successful cases of civilian defense against pirates, such as the case of China’s *Zhenhua 4*, have been lauded as heroic acts, MoT official Ju Chengzhi has suggested that self-defense alone remains insufficient. Naval support is necessary to ensure the safety of Chinese civilian vessels: “I think the ‘Zhenhua 4’ example is a case with larger significance, but is not typical [or universally applicable].” Further, “This ship constantly maintained close contact with support elements, using INMARSAT [international maritime satellites] to call them [with updates] once every five minutes. [This] made the support elements very clear of the ship’s movements, [and allowed for] effective command.”¹⁶⁸ Ju described how *Zhenhua 4* worked with Malaysian naval forces to thwart the pirate attack:

I think “Zhenhua 4’s” escape hinged on more than the abilities of its crew alone. If warships and aircraft had not arrived in time, it is very difficult to say what the outcome would have been. At the outset of being attacked, the captain contacted Malaysia’s Antipiracy Center in Kuala Lumpur, [and] coordinated the dispatch of a [nearby] helicopter, [which] sank a pirate boat, and forced the pirates on board “Zhenhua 4” into one corner of the ship’s deck. But the helicopter was running low on fuel after 20 minutes and had to return for refueling, when our support elements received information, the helicopter has already returned. We again contacted the Antipiracy Center urgently. Fortunately, a Malaysian warship was in nearby waters, and [could] rush to the site of the incident within an hour and a half to two hours. Moreover, additional dispatched helicopter(s) could arrive within half an hour.¹⁶⁹

Ju asserts that *Zhenhua 4*’s brave crew relied on both its own courage and ability as well as the support of naval forces, but he also admits that even as navies polish their antipiracy operations, commercial sailors must remain vigilant:

Looking at the actual situation of the first escort convoy, it was effective. I dare say there were no major problems, it’s just that we need to make improvements in adapting and perfecting operations. Additionally, it must be emphasized [that] just because we have warships it does not mean that everything is all right. This maritime region is 550 nautical miles long, which is 1,020 kilometers. The maritime region is [thus] immense, [and] warships certainly cannot take care of all of it. It therefore remains necessary for ships to continue doing a good job of “self-protection, self-prevention” [自防自救].¹⁷⁰

Trends in Engagement with Other Navies

Since its first deployment in 2008, China's navy has cooperated with other navies and international organizations in various capacities. Most recently, the aforementioned symposium hosted by the PLAN in late February 2012 assembled naval officials from twenty countries with experience in antipiracy in the Gulf of Aden.¹⁷¹ At this symposium it was revealed that the PLAN provided each participant nation with its detailed escort schedules and planned to serve as the reference point and coordinator for navies in the region performing escorts.¹⁷² Also at the symposium, PLAN officials lauded EU NAVFOR's Mercury Information Technology information-sharing system but also expressed the need to make further improvements to the e-mail-and-data-transmission-based platform. Mercury is used by China's navy to interface with commercial vessels applying for Chinese escorts.¹⁷³ In late 2012 Wang Fanchun, on-duty translator for the twelfth escort task force warship *Yiyang*, lauded the PLAN's use of Mercury.¹⁷⁴ He told *Liberation Army Daily*, "MERCURY Net is a web-based information platform where international antipiracy forces can communicate with each other; exchange piracy related unclassified information, and is also an important bridge and window of military diplomacy. As active users of the MERCURY Net, the Chinese naval escort task forces have been outstanding in terms of the quantity and quality of its shared information and intelligence on it."¹⁷⁵ Moreover, Zhang Jianhua, "leader of the commanding group" of the twelfth escort task force, states, "Based on the MERCURY Net, the task force will expand the space for military exchanges and disclose more information on piracy, take-off and landing of helicopters and escort situations. On the private chat channel, the reporters also saw some records of communications and liaison between commanders of Chinese and foreign naval escort task forces on their invitation to meet with each other."¹⁷⁶

PLAN captain Hu Weibiao asserts that Mercury cannot guarantee sufficiently timely internavy communication to thwart pirates that are expanding their range of attack. Here it is worth revisiting a statement of Du Jingchen, commander of the first Gulf of Aden task force, after visiting CTF-151 and EU NAVFOR flagships: "First the construction of [their] intelligence information security systems merits our study. Foreign militaries have a complete, strict and tight intelligence security system, including satellite methods. [They] can carry out surveillance for the entire Gulf of Aden maritime region. We are still awaiting strengthening of development and usage in this regard."¹⁷⁷

Achievements in Practice

The aforementioned decline in piracy attacks worldwide reflects the collective success of the international community in combating piracy. The year 2011 was the first in which Somali pirate attacks declined since the international community first deployed naval vessels on a large scale to the Gulf of Aden and surrounding waters.¹⁷⁸ In mid-2012 the

New York Times reported that pirate attacks worldwide had “plummeted,” due largely to the efforts of many nations’ navies.¹⁷⁹ According to the International Maritime Bureau, there were no pirate attacks off Somalia for the entire month of July 2012.¹⁸⁰ The PLAN’s efforts to fight piracy since 2008 contributed significantly to this reduction and should be recognized for their positive contribution.

Moreover, in the context of China’s antipiracy mission, by their own calculations PLAN task forces have achieved various improvements over the past four years. Most noteworthy is that the PLAN rose from its previous character as a regional navy to the stature of one with meaningful blue-water reach. The initial, 2008–2009 deployment—a task force of two destroyers, *Wuhan* and *Haikou*—established several new “firsts”:

- “The first time multiple naval service arms, including surface vessels, seaborne aircraft, and Special Forces, were organized to cross the ocean and execute operational tasks.”
- “The first long-term ocean task execution that did not include port calls throughout its entire course, breaking records in continuous time under way and sailing distance of a PLAN vessel formation and in flight sorties and flight time of seaborne helicopters.”
- “The first execution of escort tasks with the navies of multiple countries in the same sea area and holding of shipboard exchanges and information cooperation.”
- “The first sustained, high-intensity organization of logistical and equipment support in unfamiliar seas far from coastal bases, accumulating comprehensive ocean support experience.”
- “The first organization of base-oriented logistical support using commercial methods in a foreign port.”
- “The first time civilian vessels delivered replenishment materials for a distant sea formation.”
- “The first all-dimensional examination of multiple replenishment methods, including underway, alongside connected, helicopter, and small vessel replenishment.”
- “The first long-range video transmission of medical consultations and humanitarian assistance such as medical care for casualties from other vessels conducted on the ocean.”
- “Finally, this first escort formation set a record of 61 days for the longest sustained support of a formation at sea, without calling at port for replenishment, and also set a record for the longest number of days of sustained support of a combatant vessel at sea without calling at port.”¹⁸¹

More broadly, the PLAN Gulf of Aden escort mission represented the following:

- “The first time that the Chinese Navy organized warships, shipborne aircraft and special operations to carry out trans-oceanic missions engaging combined service arms, defended national strategic interests effectively and displayed to the full the resolution and capabilities of the Chinese Navy to accomplish multiple military missions.”
- “The first time that the Chinese Navy carried tasks for long period in the ocean without docking for the whole voyage. The convoy formation set new records for continuous sailing time, farthest voyage, flight sorties of ship-borne aircrafts, and flight hours.”
- “The first time the Chinese Navy organized rear services and equipment support and accumulated experience of synthesis support in the ocean.”¹⁸²

Other “firsts” achieved by task forces to date include

- “Executing integrated military operations with warships, aircraft and Special Forces”
- “Executing prolonged Far Seas operations without relying on ports”
- “Discharging responsibilities in a maritime region with other navies”
- “Sustainably organizing high-intensity logistics and equipment supply”
- “Executing joint escorts with foreign navies.”¹⁸³

Long-Distance Communications

A particular area of operational achievements yielded by the Gulf of Aden mission is that of telecommunications. Utilizing cutting-edge communications platforms was an operational priority from the time of the genesis of China’s Gulf of Aden mission, as evidenced by demands from the PLAN commander, Adm. Wu Shengli, and PLAN political commissar Adm. Liu Xiaojiang for “comprehensive coverage, all-time linkage, and full-course support” in advance of China’s December 2008 deployment to the Gulf of Aden.¹⁸⁴ The notion that the PLAN was eager to equip its escort warships with the latest satellite capabilities is underscored further by an interview with Ju Chengzhi of the MoT. During the interview published in January 2009, shortly after the inaugural deployment, Ju stated, “In terms of technology, we have adopted cutting-edge world-class communications methods—ship movement tracking systems. The Ministry of Transportation has maritime satellite ground stations; once escort information is confirmed, [we] can instantly track a ship, and can connect [with it] through video.”¹⁸⁵ According to *People’s Navy*, the PLAN Political Department, PLAN Headquarters Communications Department, and State Information Center worked to provide a communications platform that

integrates a land base information collection and transmission system, an information integration and distribution system, a shore-to-ship information wireless transmission

system, and an information terminal receiving system. They also sent technical personnel to Sanya [on Hainan Island] to conduct satellite receiving equipment debugging, system installation, and personnel training on the three combat ships that were about to set sail for escort operations. Moreover, they specially developed and improved a total of seven information processing software programs, which can send text, images, as well as video and audio documents quickly.¹⁸⁶

The PLAN Control Center (海军指挥中心) and MoT's China Maritime Search and Rescue Center (中国海上搜救中心) now track all relevant Chinese merchant ships, on board which the MoT has installed devices to support a "maritime satellite-based ship movement tracking system" (船舶动态跟踪系统). Supported by newly developed software, this architecture permits "all-dimensional tracking" (全方位跟踪) and video-based communications "at all times."¹⁸⁷ Beijing's ability to locate PRC-flagged vessels clearly benefits from the China Ship Reporting system, which requires "all Chinese-registered ships of gross tonnage (GT) over three hundred tons engaged in international routes" to report a daily position to the PRC Shanghai Maritime Safety Administration.¹⁸⁸

In April 2009, General Political Department Director and CMC member Li Jinai praised China's navy for "active exploration of the new 'shore and ship integrated' political work mode." This entails a shift from transmission of political materials via "plain code telegraph" (明码电报), a process that once took as long as an entire day during a month-long deployment, to more sophisticated satellite communications. The deployment witnessed many other communications firsts, including "a communication satellite [being] used to provide 24-hour coverage for the oceangoing formation[,]. . . shipborne helicopters [being] used to provide surveillance on battlefield situations, and . . . the formation [being] connected to the Internet." A web-based Internet protocol network was developed to allow crew members to call any landline or cell phone in mainland China.¹⁸⁹

The PLAN's satellite use for the Gulf of Aden mission exemplifies the PLA's gradual realization of the "scientific development" component of China's military modernization. As of June 2012, escort deployments used a satellite communications network for "organizational command" (组织指挥), "intelligence acquisition" (情报获取), "information sharing systems" (信息共享系统), and "logistics and supply security" (后勤和装备保障). Moreover, task force commander Yang Junfei states that communication systems now allow escorting ships to exchange information with commercial escorts.¹⁹⁰

A major reason these improvements in satellite usage could be made is that deployed units rely on services provided by China Transport Telecommunications and Information Center (CTTIC), a company formed in 1989 by various Chinese ministries and commissions and now considered a "first-level organization unit" (一级事业单位) of

the MoT. CTTIC handles a variety of tasks, including “communications for the transportation industry” (实施交通运输行业通信), “navigation” (导航), “wireless and informatized management technology policies” (无线电和信息化管理的技术政策), and “technology standards” (技术标准). Among its other duties, CTTIC represents China in the International Telecommunication Union of the United Nations and in related IMO activities. CTTIC is responsible for Chinese international maritime satellites and establishing a search-and-rescue satellite system and thus works closely with PLAN escort task forces in the Gulf of Aden.¹⁹¹

According to CTTIC’s website, information support to the Gulf of Aden mission is provided primarily for the Escort Activities Command Department (护航行动指挥部), the China Maritime Search and Rescue Center, and PLAN escort warships and commercial ships applying for escort. Principal services include “regulating the process of examining and approving escort applications” (主要内容包括规定护航申请审批流程), “ship-to-ship and ship-to-command center audio and visual communications” (船舶与船舶及船舶与指挥部之间的语音和视频通信), and “comprehensive platforms for ship monitoring and control command management” (船舶监控指挥管理综合平台). This comprehensive system, based on “international mobile satellite” technology, offers PLAN vessels global audiovisual and locating and surveillance, making deterrence of piracy far more effective and efficient. Since CTTIC also provides services for China’s commercial sector, PLAN use of satellites during Gulf of Aden deployments demonstrates effective application of dual-use space technology as part of China’s military development.

Additionally, Beidou, China’s budding positioning, navigation, and timing system, is playing an important role. Beidou offers PLAN surface vessels deployed to the Gulf of Aden real-time positioning and the ability to plot vessel locations accurately. Unlike its GPS counterpart, Beidou includes a “two-way short digital message communications function” that facilitates intership communication. Zhao Huashu, the destroyer *Qingdao*’s observation and communication chief, states, “The Beidou system is highly secure, sends messages rapidly[,] . . . can satisfy general message and communications needs [and] has greatly reduced our communications time.” Apparently the entire NSF has been upgraded with Beidou systems that complemented NSF surface vessels’ “Far Seas training needs.”¹⁹² By flattening intership information flows and arming PLAN vessels with accurate maritime surface location capabilities, Beidou is quickly raising PLAN antipiracy operational performance.

Information Sharing to Support MDA

Related to the PLAN’s enhanced long-range communication ability is its capacity to develop and share relevant tactical information to enhance MDA. As the PLAN’s reliance on satellite communications for Far Seas operations grew, such Chinese researchers as

Zhou Youliang and Xu Xiaoming of the PLA Naval Engineering University explored ways in which China's navy could improve its intelligence operations during antipiracy operations. They suggested that PLAN deployed units should

first, positively strive [to] provide civilian satellites and military reconnaissance, satellite information support, [and] use satellite surveillance advance warning methods for near-real-time long-distance advance warning intelligence support for military operations. Secondly, [the PLAN should] fully display ship-based helicopter reconnaissance advantages, adopt the linking of planned flight surveillance and emergency takeoff verification, take off quickly [as needed], and ensure and verify that commanders have control of conditions on the ocean surface while passing through high-risk maritime regions.¹⁹³

Overseas Crisis Response

A final area of operational advancement is the ability of China's navy to respond to incidents overseas and thereby for the first time to add a military component to China's efforts to protect its interests. In March 2011, the seventh task force responded to the crisis in Libya, making its presence felt, however symbolically, during the evacuations of Chinese citizens from Libya. On 24 February, Type 054A Jiangkai II-class guided-missile frigate *Xuzhou* (hull 530) was ordered to depart the Gulf of Aden for the Mediterranean. On 1 March 2011, it escorted a chartered civilian vessel transporting Chinese evacuees in the PLAN's first noncombatant evacuation operation overseas.¹⁹⁴ Wei Jianhua, director of the political department of an ESF division deployed in the task force, stated, "If we hadn't been on an escort mission in the Gulf of Aden, it would have taken at least three weeks for us to get there from a Chinese port."¹⁹⁵ According to official Chinese media reports, *Xuzhou* provided support and protection for commercial vessels evacuating Chinese citizens from Libya.¹⁹⁶ Reportedly 4,200 Chinese citizens were evacuated to the island of Crete, Greece, on two Greek passenger ships chartered by China's embassy in Athens. Two thousand more Chinese citizens were shipped to Tunisia and another 2,100 to Malta.¹⁹⁷

The task force was later cited for having made five breakthroughs—only one of which was related to the assistance it provided to noncombatant evacuation operations in Libya:

- "The first long-distance rescue of commercial vessels under pirate attack" (首次千里驰援接护遭海盗袭击船舶) (of *Taiankou*, described in chapter 4)
- "The first armed rescue of a commercial ship boarded by pirates" (首次武力营救遭海盗登船袭击船舶)
- "The first successful thwarting of consecutive pirate attacks on commercial ships in a PLAN escort flotilla" (首次成功挫败海盗对我被护航商船编队发动的连续袭击)

- “The first armed comprehensive training exercise rescuing vessels held hostage by pirates at night” (首次进行夜间武力营救被劫船舶综合演练)
- “The first evacuation escort of endangered Chinese citizens overseas” (首次为撤离我国驻海外受困人员船舶护航).¹⁹⁸

“It is important to note that the PLA naval ship was on a mission to solve a humanitarian crisis and not a ploy by China to wield political and military influence in the Middle East,” writes Cai Penghong, director of the Shanghai Academy of Social Sciences’ APEC Research Center. Nevertheless,

The *Xuzhou* mission is an example of the People’s Liberation Army Navy (PLAN) implementing its new mission to maintain Chinese overseas interests. . . . The action has upgraded and expanded the navy’s mission to a new level in line with President Hu’s emphasis for it to be prepared for contingencies in distant regions to protect China’s national interests. This is not simply a naval mission but more importantly is a rising power’s strategy to use military assets to respond to its citizens’ needs. It serves to demonstrate how an independent country is confident enough in its capacity to protect its nationals overseas, action which also builds a positive image.¹⁹⁹

Clearly, the PLAN has achieved breakthroughs in preparation and operations. Yet despite these encouraging developments, the piracy problem remains unsolved: the area is vast, pirates are hard to identify in advance of their piracy attempts, and the sources on land of their activities remain largely unaddressed. As previously mentioned, both Chinese and other naval experts are prepared for potential increases in Somali pirate activity, which is poised to remain as a nagging security threat to SLOCs for the foreseeable future. It comes as no surprise that China’s navy, like other navies, has recognized the seriousness of piracy, by sending no fewer than thirteen escort task forces to the Gulf of Aden during the period covered in this study (2008–12). With no end to the mission in sight, China’s navy is poised to accrue further benefits, the scale of which depends on China’s choices regarding various operational aspects of these deployments.

Notes

1. Yao Yijiang et al., “Dreams and Reality of Chinese Overseas Bases.”
2. Correspondence with U.S. Navy officer, January 2013.
3. Yang Yi and Cheng Hong, “Let Chinese Navy Warships Go Farther,” pp. 66–69.
4. Though the article does not mention it, in U.S. Navy ships, water produced by shipboard evaporators is also used in auxiliary boilers. It has to be extremely soft, and therefore its taste is generally regarded as unpleasant.
5. 黄富民 [Huang Fumin] et al., “舰船饮用水二次消毒方法选择的研究进展” [Study on the Selection of Supplementary Disinfection Methods for Potable Water on Board Naval Vessels], 海军医学杂志 [Journal of Navy Medicine] 33, no. 2 (March 2012), pp. 132–34.
6. 庞文强 [Pang Wenqiang], 陈洪钧 [Chen Hongjun], and 邓显伟 [Deng Xianwei], “海水淡化通航舰船的生命之源” [Purifying Salt Water: The Lifeline of Far Seas Warships], 海洋经纬 [Maritime Latitude and Longitude], 人民海军 [People’s Navy], 27 February 2012, p. 4.

7. Ibid. Original text: “亚丁湾附近海域多为沙漠缺水地带,淡水甚至卖到50~60美元 | 吨,高出国内城市水价100多倍。如果船舰要从沿岸补给淡水的话,不仅难度较大,所花的外汇也是一笔极大的数目,而当时军舰自身淡化海水的成本也极为高昂:数百天战备值班,有限的淡水补给,护航官兵们想方设法节约用水,护航期间接连刺了好几茬的光头。” The discussion of shipboard potable water in the next paragraph is drawn from this source.
8. Bernard Cole, e-mail correspondence with authors, 20 March 2013.
9. The company's Chinese name is 秦皇岛山 船重工机械有限公司.
10. Pang Wenqiang, Chen Hongjun, and Deng Xianwei, “Purifying Salt Water,” p. 4. The original Chinese text from which this information is derived is “原来今每艘护航舰艇上都安装了两台海水淡化装置,平均每天能生产近40吨的淡水,满足了舰员洗澡、洗漱、洗衣服及舰上清洁扫除等日常生活用水。”
11. Ibid. Original text: “据统计,船员每天需饮用水5~10升,需洗涤水约20升,对于编制200人的船舶,每天需生活用水5~6吨;而机械设用水量更大,如采用闭式冷却系统的柴油发电机、高压空气压缩机、蓄电池补充水等,尤其对于大型蒸汽动力船舶,锅炉补充水量约为动力系统蒸汽耗量的如此大的淡水需求,单靠船舶自身携带的淡水是远远不够的,严重限制了船舶远洋活动,所以,大中型船舶都装备有高产量的海水淡化装置,以提供船员和设备用淡水,保证船舶的续航力。”
12. 梁庆松 [Liang Qingsong], “护航保障,我们创新了什么--人民海军执行护航任务两周年回眸(四)” [Escort Support, How Have We Innovated? A Robust Review of Two Years of Carrying Out Escort Responsibilities by the People's Navy (Part 4)], 人民海军 [People's Navy], 28 December 2010, p. 1. Original text: “一 按照建制保障与随舰加强保障、专用保障与通用保障、军内保障与地方保障、国内保障与前出支援保障相结合的方式,逐步建立了由舰员级力量、随舰加强力量、远程维修技术支援保障力量、国内前出支援保障力量、国外应急保障力量等构成的各种保障力量体系。一建立了商船捎带、人员携带、国外采购、航空托运等多方式、多渠道的备品备件应急前送机制,保证编队装备故障能够及时得到排除,确保生活物资的及时供应。一建立国外靠港补给和紧急伤病员医疗救治与后送机制:借鉴外国护航编队保障经验,研究提出缩短综合补给舰靠港补给休整周期、建立国外综合保障点等意见,进一步巩固完善国外后勤保障长效机制。”
13. Cheng Bijie and Hou Rui, “Twelfth and Thirteenth Chinese Naval Escort Task Forces Conduct Mission Handover,” *Liberation Army Daily*, 23 November 2012, eng.chinamil.com.cn/news-channels/china-military-news/2012-11/23/content_5109609.htm.
14. 王维源 [Wang Weiyuan], “亚丁湾护航行动油料保障问题刍议” [Humble Opinion on the Fuel Security Issues of Gulf of Aden Escort Operations], 军事物流 [Military Affairs Logistics] (August 2012), pp. 139-40. Original text: “针对不同形式的护航任务,综合补给舰也必须采取相应油料保障方式,如在巡逻区域内设置临时油料补给点,在接力护航中实施定点补给方式和在伴随护航中实施横向油料补给的方式。多样化的保障方式对综合补给舰上油料保障人员的工作能力提出了很高要求。由于护航舰艇续航能力的限制,平均每3周左右必须进行一次油料补给,而综合补给舰的装货时间通常需要3天(包括油料、淡水和给养),这使我护航编队唯一的综合补给舰必需频繁奔波于港口和护航舰艇之间,不仅综合补给舰的工作强度很大,而且也极大牵制了护航舰任务执行。” In a U.S. naval expert's assessment, “refueling every three weeks” describes dangerous underway practices by the PLAN. Allowing a ship's fuel level to get below even 60% significantly reduces stability and safety in rough weather.” Cole, e-mail correspondence.
15. You Ji, “PLA Navy's Gulf of Aden Mission as Capability Building against NTS Threats,” p. 38.
16. Discussions with retired U.S. Navy officers and other experts on China's military following Andrew S. Erickson's presentation “Chinese Sea Power in Action: The Counter-piracy Mission in the Gulf of Aden and Beyond,” at “The PLA at Home and Abroad: Assessing the Operational Capabilities of China's Military,” U.S. Army War College, Carlisle, Pa., 26 September 2009.
17. 景爱明 [Jing Aiming], “中国海外军事基地渐行渐近” [China's Overseas Military Basing Proceeding Gradually], 晚霞 [Sunset], no. 2 (February 2012), p. 25.
18. Yao Yijiang et al., “Dreams and Reality of Chinese Overseas Bases.”
19. 林红梅 [Lin Hongmei], “中国海军‘亮剑’打海盗--中国海军护航两周年综述” [Chinese Navy a “Bright Sword” in Fighting Pirates: A Summary of the Chinese Navy's Two Years of Escorts], 新华 [Xinhua], 6 January 2011, chn.chinamil.com.cn/xwpdxw/2011-01/06/content_4364446.htm.
20. Yang Jingjie, “Captains Courageous.”
21. “Corporate Profile,” *COSCO Holdings Company*, www.chinacosco.com/ChinaCosco/articleList.do?method=viewCatalog&catalogId=2c91c2c40d0a8ca9010d0a912cf70005&orderBy=createdate&sort=desc&showListId=2c91c2c40d0a8ca9010d0a912cf70005&secondCatalogId=null.

22. Lin Hongmei, "Chinese Navy a 'Bright Sword' in Fighting Pirates."
23. 廖锡龙 [Liao Xilong], "加快推进军队保障社会化: 走出一条军民融合式发展路子" [More Quickly Promote Military Support Socialization, Blaze a Trail of Military-Civilian Integrated Development], 求是 [Seeking Truth] (October 2012), pp. 50–53, www.qstheory.cn/zxdk/2012/201210/201205/t20120511_157242.htm.
24. Senior Captain Shen is director of the Operations Department (second level) within the Command Department (first level) in PLAN Headquarters. The position is important, but it is only division grade. 李韬伟 [Li Taowei], "中国海军作战部长答本刊记者问" [Chinese Navy Command Operations Department Commander Answers Reporter's Questions], 本刊特稿 [Special Story], 当代海军 [Modern Navy] (February 2009), p. 17. Original text: "我们立足于自我保障, 并将根据需要, 参照相关国家做法, 积极与任何海区沿岸有关国家开展相关合作, 妥善解决后勤补给问题。"
25. 栾大龙 [Luan Dalong] and 刘江平 [Liu Jiangping], "中远集团受益于海军护航—对话中远集团总公司徐敏杰副总裁" [COSCO Benefits from Naval Escorts: Conversation with COSCO Group Vice-CEO Xu Minjie], 中国海军在行动 [Chinese Navy in Action], 当代海军 [Modern Navy] (March 2012), pp. 42–43.
26. Wang Weiyuan, "Humble Opinion on the Fuel Security Issues of Gulf of Aden Escort Operations," pp. 139–40. Original text: "其一, 这种采购模式, 很大程度上依赖中远集团(国有), 海军无法在采购各个环节做到信息全面掌握, 无法对保障各个环节实施有效监管。其二, 油料保障的实施不够规范, 缺少指导性的法规或文件, 保障过程随意性大, 人员的不确定性因素较多。"
27. Liang Qingsong, "Escort Support," p. 1.
28. Gabriel Collins and Michael Grubb, *A Comprehensive Survey of China's Dynamic Shipbuilding Industry: Commercial Development and Strategic Implications*, China Maritime Study 1 (Newport, R.I.: Naval War College Press, 2008), p. 32.
29. "PLA Navy Ninth Escort Fleet Completes Mission in Gulf of Aden," *CCTV News Content* (English), 13 November 2011, newscontent.cctv.com/.
30. Ibid.
31. Ibid. Escort task force commander Pan Yifeng explained the significance of properly protecting *Powei*: "Our fleet has attached great importance to the escort mission. We have done much technical planning and organization to ensure the safe passage of the boats. Especially when the main engine of the *Powei* failed, the *Yulin* ship kept watch in surrounding areas while the repairs were taking place. After more than 120 hours, the fleet successfully escorted the fishing-boat away from the dangerous sea area."
32. 梁庆松 [Liang Qingsong], "护航保障, 我们创新了什么--人民海军执行护航任务两周年回眸 (四)" [Escort Support, How Have We Innovated? A Robust Review of Two Years of Carrying Out Escort Responsibilities by the People's Navy (Part 4)], 人民海军 [People's Navy], 28 December 2010, p. 1.
33. 刘楠 [Liu Nan] and 李根成 [Li Gencheng], "我永远记住中国海军--第九批护航编队救治受伤外籍船员侧记" [I Will Always Remember the Chinese Navy: Highlighting an Injured Foreign Crew Member's Being Assisted by the Ninth Escort Fleet], 人民海军 [People's Navy], 16 August 2011, p. 2. After the successful treatment, Li Min, chief physician of the ninth escort task force medical team, stated, "He had a badly infected cut in the upper middle part of his right lower leg. We cleaned the wound, stopped the bleeding, and checked the blood vessels. We found that one of the veins was evidently bleeding"; "Ninth Escort Formation of PLA Navy Successfully Treats a British Sailor," 军事报道 [Military Report], *CCTV-7* (Mandarin), 13 September 2011.
34. Yang Jingjie, "Captains Courageous."
35. Wang Wei of Nanjing University summarized, in a February 2012 publication, the deficiencies and areas for improvement with respect to PLAN task force logistics: "Under the situation of escort operations gradually becoming more 'regularized' [常态化], Far Seas escort logistic security mechanisms need to be improved. [We need to] progressively solve the difficulties of 'maintaining variety in food consumed' [伙食调剂], 'supply and provision equipment' [补给设备] is awaiting improvement, elements of overseas supply uncertainty are numerous. Mechanisms for supply by passing commercial vessels are incomplete and have other problems. [Task forces] need to rely on Chinese overseas companies to improve cooperation and do a good job of overseas port supply work, [as well as] transition from 'temporary reliance to long-term reliance' [临时依托向长期依托], [and] transition from 'short-term mechanisms toward long-term and efficient mechanisms' [短期机制向长效机制]. Meanwhile, [the PLAN] needs to do good propaganda work, explore effective forms of local maritime capabilities to support the army and front under new conditions, [and] strengthen the logistical security ability of far seas operations realistically." 王伟 [Wang Wei], "海军亚丁湾护航三周年启示" [Insights from

- Three Years of Naval Gulf of Aden Escorts], 政治研究 [Political Research Section], 学理论 [Theory Research] (21 February 2012), pp. 29–30.
36. Chen Bingde, “Speech Delivered at the U.S. National Defense University” (Washington, D.C., 18 May 2011).
 37. Ibid.
 38. While China has routinely sent PLA units for UN peacekeeping and medical assistance throughout the world, the benefits of such experiences are not comparable to the experience gained by PLAN antipiracy deployments. Also, China’s contribution to peacekeeping operations has been under the umbrella of the UN rather than a unilateral PLA mandate.
 39. Liu Yanxun, Chen Xiaoshu, Wang Jing, He Jing, Li Haoran, and Yao Yijiang, “Background of Expedition to Somalia.” By way of background, Liu explains: “After entering the twenty-first century, with the leap of long-range precision strike capability of a modern navy as well as the situation that the world’s naval powers are increasingly implementing new strategy for offshore operations ‘from sea to land,’ the traditional defense concept of the Chinese Navy began to change. . . . It is imminent to deviate from sea to ocean by increasing maritime defense in depth and implementation of comprehensive strategy to defend the coastal areas and territorial seas.”
 40. Authors’ calculations; see exhibit 2. Note that the U.S. Department of Defense defines “modern” Chinese surface combatants as “multi-mission platforms with significant capabilities in at least two warfare areas.” See U.S. Defense Dept., *Military and Security Developments Involving the People’s Republic of China 2011*, p. 43.
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- 空打击能力,能够遂行由海到岸登陆、提供火力支援和对陆攻击等作战任务,在局部冲突中大有‘用武之地’,甚至还成为某些国家干涉别国内政的重要‘帮凶’。此外,在反海盗、反恐等非战争军事行动中,同样也能大显身手。美海军‘拳师’号两栖攻击舰在亚丁湾护航行动中,曾担任多国联合任务部队的旗舰。其使用舰载直升机所带来的远程大范围侦察能力,使之能对‘海盗’行动作出快速反应。”肖邦明 [Xiao Bangming], 朱旭 [Zhu Xu], and 程勇 [Cheng Yong], “两栖攻击舰分饰‘N’种角色” [Amphibious Assault Ships Play Many Roles], 当代海军 [Modern Navy] (April 2011), p. 4.
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"[Officer's voice] 'Ready to fire from portside.'"

"[Yuan Xinyuan, commanding officer, SOF Detachment, Tenth Escort Formation] 'Live-ammunition firing from a skiff is an essential skill of SOF soldiers for maritime patrol, investigation, and chasing away of suspects. It has to be strengthened and enhanced on an ongoing basis as an important part of training.'"

"As night falls, the helicopter takes off from *Haikou* to commence its nighttime takeoff and deck landing training. During a night flight, the pilot cannot look for an effective reference object with the naked eye. He has to perform the landing with the help of on-board instruments and the ship's signal lights. In the mid-section of the *Haikou*, a nighttime skiff release and recovery drill also begins at the same time. In very low light, the soldiers operate the hoisting equipment skillfully to release and recover the skiff."
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143. Ibid. Original text: "衡量其实力高低, 往往不在于看戏班子事先确定曲目演得如何精彩, 而是要看在现场临时抽点曲目演唱中表现如何. 此次演练, 导调组针对海盗活动日趋隐蔽和猖獗的实际情况, 采取行家 '点戏' 的方式, 着眼 '突发' 做文章、立足 '应急' 设考题, 对所有 '情况想定' 都做到不事先通报、不提前彩排, 其正检验了编队的快速反应和应急处置能力."
144. 陈典宏 [Chen Dianhong] and 米晋国 [Mi Jinguo], "风高浪急砺兵黑夜浓雾出击: 第十一批护航编队抓住时机开展大洋练兵活动" [Drilling Troops in High Winds and Waves Crashing in Rapid Succession, Attacking in Black Night and Thick Fog: Eleventh Escort Task Force Seizes the Opportunity to Expand Big Ocean Military Activities], 人民海军 [People's Navy], 15 May 2012, p. 1.
145. Ibid. Original text: "护航编队还着重进行了海上查证、观察预警、舰机联合慑阻, 复杂条件飞行等训练科目, 提升了编队快速反应能力和反劫持营救能力."
146. "PLA Navy Holds Drill in Gulf of Aden to Boost Emergency-Response Abilities."
147. Chen Dianhong and Mi Jinguo, "Drilling Troops in High Winds and Waves Crashing in Rapid Succession, Attacking in Black Night and Thick Fog: Eleventh Escort Task Force Seizes the Opportunity to Expand Big Ocean Military Activities," p. 1. The exercises "made escort officials and sailors better understand various characteristics of the use of equipment operations [and] law. They raised the escort task force's and crew's operational ability to fulfill Far Seas escort responsibilities for long periods, [as well as] the ability of commanders to apply combat tactics, [and] coordination ability among various battle stations. They tested the comprehensive functional performance of equipment. [Various abilities were improved, such as] escort command coordination, situational proceedings, maritime zone control, rapid reaction, [and] Special Forces [employment]." Original text: "使护航官兵进一步摸清了各种装备操作使用特点、规律, 提高了护航编队长时间远海执行护航任务时舰员的操作能力、指挥员的战术应用能力、各战位间的协同能力, 检验了装备的整体性能, 编队指挥协同、情况处置、海区控制、快速反应、特种作战等多种能力得到全面提升"
148. 廖志勇 [Liao Zhiyong] and 张鑫鑫 [Zhang Xinxin], "海空 '营救' 2小时: 目击海军第六批护航编队营救被劫持船舶演练" [Two Hours of Air-Sea "Rescue": Witnessing Drills Involving the Navy's Sixth Escort Fleet Rescuing a Hijacked Ship], 人民海军 [People's Navy], 17 November 2010, p. 2.
149. Ibid.
150. Ibid.
151. Ibid.
152. "[视频] 中国海军第十二批护航编队进行直升机跨昼夜飞行训练" [(Video) Chinese Navy's Escort Task Force Conducts Daytime and Nighttime Helicopter Flight Training], CCTV, 7 July 2012, military.cntv.cn/program/jsbd/20120707/108917.shtml.
153. "PLA Navy's Tenth Escort Formation Sails into Strait of Malacca," 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 7 November 2011.
154. Ibid.
155. "Navy's 'Wuhan' Ship: Pioneer in Sharpening the Sword in Distant Seas" 军事报道 [Military Report], CCTV-7 (Mandarin), 1130 GMT, 14 January 2012.
156. Ibid.
157. Ibid.
158. Ibid.
159. Ibid.
160. Daniel Houpt, "Assessing China's Response Options to Kidnappings Abroad," Jamestown Foundation *China Brief* 12, no. 10 (11 May 2012), available at www.jamestown.org/.
161. 姚维军 [Yao Weijun] and 虞起正 [Yu Qizheng], "东海舰队某支队扎实做好成果转化工作: 经

- 验之花结出丰硕果”[A Certain Flotilla of the East Sea Fleet Handles Work of Transforming Results Pragmatically: Flowers of Experience Produce Abundant Fruit], 人民海军 [People's Navy], 30 March 2012, p. 2. According to this article, the exercise incorporated valuable lessons learned from various naval tasks, including Gulf of Aden escorts, to enhance the ESF's operational ability comprehensively: “To learn more effectively from these rich experiences, they deeply and systematically uncovered and summarized the successful methods used in major tasks, standardizing them and systemizing them into a series of experiences and results with a better guiding effect and operability. They carefully considered the major tasks executed by the units, such as Gulf of Aden escort and goodwill missions, and successively consolidated and perfected sixty-five schemes and plans in five categories, such as organization and command, political work, and logistics and armament support. In full consideration of escort operations, they drafted and perfected six plans for rescue/recovery by force such as the ‘Overall Operations Plan for Rescue/Recovery by Force’ and the ‘Plan for Damage Control Assistance.’ In full consideration of oceangoing survey tasks, they established the education and guidance mechanism of ‘education follows the task, and the classroom accompanies the ship,’ publishing a pocket book of innovative theory and providing mobile bookcases. They made sensitive sea areas and ports into ‘sea territory classrooms,’ organizing ‘going out to the sea’ oath-taking ceremonies and ‘having a sense of shame and clear aspirations’ lectures to concentrate the minds and temper crew members’ will during the tasks. This allowed the officers and sailors to be able to maintain a positive fighting spirit throughout the tests faced in the tasks.” Original Chinese: “为了更好地从这笔经验财富中汲取营养,他们认真挖掘总结重大任务中的好做法,将其规范化、制度化,形成了一系列具有较强指导性、操作性的经验成果。他们紧密结合近年来部队执行亚丁湾护航、和谐使命等重大任务,先后固化完善了组织指挥、政治工作、后装保障等5类65个方案预案。结合护航行动,他们拟制完善了《武力营救行动总体方案》、《支援损管方案》等6个武力营救方案。结合远洋测量任务,他们建立了‘教育跟着任务走,课堂伴着舰艇行’教育引导机制,编印创新理论口袋书、配备流动图书箱,对敏感海区、靠泊港口作‘为海疆讲堂’组织‘走向大洋’宣誓、‘知耻明志’演讲,在任务中凝兵心、砺兵志,使官兵在任务考验中保持昂扬斗志。”
162. Han Qinggui, principal writer; Chen Yushu and Chen Peng, participating writers; Hu Guangzheng, coordinator; “IV. Further Optimize the Structural Composition of the Armed Forces” section of chapter 9, “Invigorating the Armed Forces Organizationally (Part 2)—Reforming and Improving the Armed Forces’ Structural Establishment,” in 中国和平发展中的强军战略 [China’s Strategy for Invigorating the Armed Forces amid Peaceful Development] (Beijing: Military Science Press, 2011), pp. 266–70.
 163. U.S. Navy officer who had served in the region and observed live footage of Indian navy attacks on suspected pirate vessels, interview with one of the authors, Newport, Rhode Island, 1 December 2012.
 164. Correspondence with SHADE participants, March 2013.
 165. The authors thank CMSI director Peter Dutton for the insights throughout the rest of this paragraph.
 166. “Somali Pirates Release Taiwan Fishing Boat,” Agence France-Presse, 18 July 2012, sundaytimes.lk/.
 167. 盛清波 [Sheng Qingbo], “船舶如何建立反海盜劫持的安全舱:‘莫斯科大学’号油轮获救的启示” [How Ships Establish Security Cabins to Oppose Pirate Attacks: Insights from the “Moscow University” Oil Tanker Rescue], 中国水运 [China Water Transport] 10, no. 8 (August 2010), pp. 10–11. Similarly, Zhang Yunfa of Guangdong Maritime Affairs Department writes, “On 17 December 2008, *Zhenhua-4* fishing vessel abided by the ship safety plan, facing a pirate attack, locked all passages leading to the living area, organized crew members using oil bottles and other simple tools to successfully block pirate hijackings, issued [an] emergency report and waited for rescue. This successful case . . . provided rare material for researching how captains and crew members use effective methods to defend against pirates and armed hijackings.” 张运发 [Zhang Yunfa], “防御海盜和武装劫匪袭击的新思路” [New Thinking for Defending against Pirate and Armed Robbery Attacks], 中国水运 [China Water Transport] 10, no. 7 (July 2010), pp. 45–46.
 168. Xu Jingjing, “Why We Want to Escort.” Original text: “我认为‘振华4号’的案例有代表意义,但没有普遍性;” . . . “该船一直和后方保持密切联系,通过海事卫星5分钟通话一次,使后方对船上的动态都很清楚,能够有效指挥。”
 169. Ibid. Original text: “我认为‘振华4号’的脱身,不仅是依靠船员的力量,如果当时没有军舰、飞机及时到达,很难说结果如何。遇袭最初,船长与马来西亚吉隆坡的反海盜中心取得了联系,协调了一架直升机,击沉了一艘海盜船,并把‘振华4号’甲板上的海盜逼到了角落。但20分钟后直升机没有油料补给只能返航,我们后方接到信息的时候,飞机已经返航了。我们再

- 次紧急联系反海盗中心,幸运的是,附近海域有一艘马来西亚军舰,一个半小时到两小时可以赶到出事海域。而另外派出的直升机在半小时也可以到达。”Ju further elaborated on the crew members' experience with pirates: “This half-hour [witnessed] a stalemate between the two sides, [and] was very hard for ‘Zhenhua 4.’ Throughout the process, our overall policy was to put safeguarding the lives of the crew members first and to resist capture if there remained room for maneuver; and if other options were exhausted, to still put ensuring the crew members' safety as the top responsibility [and surrender to the pirates if necessary]. We asked the captain: ‘Do you still have the capability to hold out?’ When the captain heard the aircraft would arrive [within half an hour], he remained confident, asserting: ‘A half-hour is manageable.’” Original text: “这个小时是一个双方僵持的时间,对于‘振华4号’来说很艰难。整个过程中,我们总体的政策还是把保护船员的生命放在首位,有周旋的余地就周旋,实在不行,还是以保证船员生命安全为第一要务。我们问船长:‘你还有没有能力坚持下去?’船长听说飞机还要来,心里也比较有底,他说:‘半个小时还可以。’Ju continued: “Combined with the [crew's] resistance on board, the hasty arrival of the warship and helicopter formed an effective deterrent against the pirates: ‘when two meet on a narrow path, the braver will prevail’ [狭路相逢勇者胜]。[Confronted] with this situation, the pirates abandoned their hijacking [attempt]. Dispatching escort warships is thus the most effective measure against pirates.” Original text: “直升机和军舰的及时赶到对海盗形成了有效的威慑,再加上船上的对峙,‘狭路相逢勇者胜’,海盗在这种情况下放弃了劫船。因此派出军舰护航是抵御海盗的最有效举措。”
170. Ibid. Original text: “从第一次护航的实际情况看,效果不错。我敢说大的方面不存在什么问题,只是在操作上还需要进一步磨合和完善。此外,需要强调的是,并不是有了军舰护航就万事大吉。该海域长550海里,也就是1020公里,海区太大,军舰并不是全都照顾得到。所以,继续做好船舶的自防自救工作仍然是必要的。”
 171. 秦若云 [Qin Ruoyun] and 沈抒 [Shen Shu], “海军举办国际护航研讨会: 一平出席开幕式并致辞” [The Navy Holds International Symposium on Escort Operations: Ding Yiping Attends Opening Ceremony and Gives Speech], 人民海军 [People's Navy], 27 February 2012, p. 1.
 172. Zhao Shengnan, “PLA Navy Calls for More Cooperation against Piracy,” *China Daily*, 24 February 2012, www.chinadaily.com.cn/china/2012-02/24/content_14680613.htm.
 173. Yang Jingjie, “Captains Courageous.”
 174. Cheng Bijie and Hou Rui, “Mercury Net Boosts Exchange between Chinese and Foreign Escort Task Forces.”
 175. Ibid.
 176. Ibid.
 177. Cai Nianchi, “Far Oceans Sudden Attacks, What Have We Experienced and Practiced? (Part 2)” pp. 12–15. Original text: “首先是情报信息保障系统建设很值得我们学习。外军有一整套严密的情报保障系统,包括卫星手段,可对整个亚丁湾海区进行监控。我们在这方面的开发,利用还有待加强。”
 178. Melissa Rudd, “Horn of Africa Piracy Declines by Almost Half in 2011,” *African Business Review*, 12 January 2012, www.africanbusinessreview.co.za/.
 179. Thom Shanker, “U.S. Reports That Piracy off Africa Has Plunged,” *New York Times*, 28 August 2012, www.nytimes.com/.
 180. “Piracy Attacks Drop to Zero for First Full Month in Five Years,” *Telegraph*, 8 August 2012, www.telegraph.co.uk/.
 181. Sun Yanxin and Zhu Hongliang, “Chinese Naval First Escort Task Force Achieves Multiple ‘Firsts’ in History of People’s Navy.”
 182. Gao Xiaoxing et al., *PLA Navy*, p. 156. The text has been modified slightly to correct obvious grammatical errors and fit the text format, without altering the substantive meaning.
 183. Li Jie and Liang Chunhui, “Great Results of Chinese Navy’s Warship Task Force Escorts Catches People’s Attention,” pp. 8–13. Original text: “亚,索海域护航行动,是我国首次使用军事力量赴海外维护国家海上战略利益,首次组织海上作战力量赴海外履行国际人道主义义务,首次组织海军兵力赴海外保护国家重要海上运输线。这是我军应对多种安全威胁,遂行多样化军事任务的一次成功实践,创造了海军史上多个第一。”
 184. Peter Brown, “China’s Navy Cruises into Pacific Ascendancy,” *Asia Times*, 22 April 2010, www.atimes.com/.
 185. Xu Jingjing, “Why We Want to Escort.” Original text: “技术设备方面,我们采取了世界上最先进的通讯手段--船舶动态跟踪系统。交通运输部有海事卫星地面站,只要护航信息确定,就立刻可以全方位跟踪这条船,并且可以视频联系。”
 186. Translated in Brown, “China’s Navy Cruises into Pacific Ascendancy.”
 187. Zhang Qingbao, “We Should Protect Our Overseas Economic Interests,” p. 4; Xu Jingjing, “Why We Want to Escort.”

188. "China Ship Reporting System," *PRC Shanghai Maritime Safety Administration*, www.shmsa.gov.cn/news/200702095400641785.html. The system also allows Beijing to summon civilian vessels for national purposes. In January 2008, following paralyzing snowstorms that caused many parts of China to run short on coal, the MoT requisitioned bulk carriers from China Shipping Group and COSCO and pressed them into service hauling coal to help replenish stockpiles. "Coal Prices Jump, Hit by the Perfect Storm," *SeaTrade Asia*, 30 January 2008, www.seatradeasia-online.com/print/2264.html.
189. 于春光 [Yu Chunguang] and 张日军 [Zhang Rijun], "一网联三军, 天涯若比邻: 新一代通信网铺就我军信息高速公路" [One Network Connects the Three Services, and We Are Close like Next-Door Neighbors Although We Are in Different Parts of the World: New Generation Communications Network Paves Our Military's Information Superhighway], 解放军报 [Liberation Army Daily], 25 September 2009, p. 5; "新一代通信网铺就我军信息高速公路" [New Generation Communications Network Paves Our Military's Information Superhighway], 中国军网 [China Military Online], 24 September 2009, topics.huanqiu.com/border/guard/2009-09/586409.html; Tang Bo and Zhang Rijun, "Oceanic Warships Covered in Day-to-Day Communications," *Liberation Army Daily*, 4 November 2009, eng.mod.gov.cn/DefenseNews/2009-11/04/content_4101031.htm.
190. 陈典宏 [Chen Dianhong] and 米晋国 [Mi Jinguo], "中国海军护航编队亚丁湾通信演练检验护航能力" [Chinese Naval Task Force Gulf of Aden Communication Training Exercise Tests Escort Ability], 中国新闻网 [China News Service], 27 June 2012, www.chinanews.com/mil/2012/06-27/3989707.shtml.
191. Information in this and the following paragraph is based on content directly from CTTIC's website, www.cttic.cn/zxgk/zxgk.aspx, as well as from relevant sections of the Ministry of Transportation's website, lwlk.mot.gov.cn/html/ReleasePage/lwlk-dwjs.html.
192. "Beidou Navigation System Plays Key Role in PLA Navy's Distant Sea Training," *Xinhua*, 1 February 2013, news.xinhuanet.com/mil/2013-02/01/c_124312928.htm.
193. 周尤良 [Zhou Youliang] and 许晓明 [Xu Xiaoming], "亚丁湾护航行动中军事情报支援研究" [A Study of Intelligence Support to the Navy Operations Countering Piracy off the Somali Coast], 海军工程大学学报 [Journal of Naval University of Engineering] 8, no. 4 (December 2011), pp. 62–65. Original text: "首先, 积极争取民用卫星和军用侦察卫星的信息支援, 利用卫星侦察预警手段为远海军事行动提供近实时的远程预警情报支援. 其次, 要充分发挥舰载直升机空中侦察优势, 采取计划飞行巡逻和应急起飞查证相结合的方式, 在通过高危海区和发现可疑目标时主动、及时升空查证, 保证指挥员对海上态势的掌握."
194. 梁庆松 [Liang Qingsong], responsible ed., "海军首赴利比亚参与撤侨旨在力保侨民生命安全--访海军装备论证研究中心综合论证研究所高级研究员尹卓少将" [Navy's First Trip to Libya to Participate in Evacuations Aimed at Best Protecting the Safety of the Lives of Overseas Chinese: Interview with Naval Armament Evidence Research Center Comprehensive Evidence Research Institute Senior Researcher Rear Adm. Yin Zhuo], 专版 [Special Edition], 人民海军 [People's Navy], 28 February 2011, p. 4; "Chinese Navy Frigate Arrives Waters off Libya for Escort Mission," *Xinhua*, 1 March 2011, www.chinadaily.com.cn/xinhua/2011-03-01/content_1899475.html.
195. Yang Jingjie, "Captains Courageous."
196. 田源 [Tian Yuan], "为撤离我在利比亚人员的船舶提供支持和保护 我'徐州'舰赶赴利附近海域 在利比亚中国公民陆续撤离回国" ["Xuzhou" Rushes to Waters near Libya to Provide Support and Protection for Ships Evacuating Chinese Citizens from Libya: Chinese Citizens in Libya Evacuate and Return Home Successfully], 解放军报 [Liberation Army Daily], 25 February 2011, news.mod.gov.cn/headlines/2011-02/25/content_4226742.htm.
197. Ibid.
198. 郭长博 [Guo Changbo], 李建文 [Li Jianwen], and 方立华 [Fang Lihua], "仗剑走大洋--海军'徐州'舰执行多样化军事任务风采录" [Striding toward the Open Ocean Brandishing a Sword: The Resplendent Odyssey of Naval Warship 'Xuzhou' in Carrying Out Diverse Military Tasks], 综合新闻 [General News], 人民海军 [People's Navy], 17 May 2011, p. 3.
199. Cai Penghong, "Libya Rescue Mission and the Prospects of US-China Cooperation for Non-traditional Security at Sea," *China-US Focus*, 14 March 2011, www.chinausfocus.com/peace-security/libya-rescue-mission-and-the-prospects-of-us-china-cooperation-for-non-traditional-security-at-sea/.

Lessons Learned and Implications for Global Maritime Governance

What is the larger significance, the legacy, of China's Far Seas antipiracy mission thus far? MoT official Ju Chengzhi encapsulates what China's initial task force deployment has meant for the Chinese strategic mind-set:

This instance of China's dispatching warships to escort Chinese commercial ships has brought us a new concept: as a government, in order to ensure that Chinese commercial ships are able to perform regular seaborne transportation overseas, facing some suddenly erupting situations, appropriately adhering to international common practices, [and] adopting more effective measures. This is a transformation in thinking [思路上的转变].¹

Over four years later, what specifically has Beijing learned from the PLAN's experiences in the Gulf of Aden thus far, and what lessons will it seek to apply in the future? Given the opportunities and challenges documented in this study, what are the prospects for Chinese engagement in future nontraditional security missions? What are the implications for global maritime governance, particularly with respect to Sino-American relations? This final chapter will address these important questions and suggest possible implications and future prospects.

China's Antipiracy Experience and Future Nontraditional Security Missions

By and large, Beijing will surely take away more positives than negatives from its experience in the Gulf of Aden during the period from December 2008 to December 2012. In 2011 a former PLAN official told one of the authors of this book that he was "very satisfied with the performance" of China's antipiracy operations: "Long-distance operations offer good lessons for us," such as "how to coordinate well with foreign navies, conduct joint operations with other navies, and exchange views with foreign navies regarding approaches."

For the foreseeable future, it is not difficult to envision a trend in which China's national strategic interests continue to impel more substantive PLAN contributions to maritime stability operations in the Gulf of Aden and other places where nonstate actors are disruptive. Indeed, as Ju Chengzhi, MoT, asserts:

As a rapidly developing economic power, China should interact with other countries and engage in trade. Looking from a long-term perspective, the government must establish an effective long-term mechanism to safeguard China's overseas economic and security interests. [The] Somali escorts should not just be an isolated, short-term event; rather [we] should regard this as a regular, ongoing practice.²

These situations conveniently marry China's own security interests—such as enhancing its economic, political, and military influence in regions critical to China's energy security—with its interest in contributing to the broader well-being and stability of the global commons. As demonstrated by Beijing's tendency to exploit the pre- and post-operational movement to the Gulf of Aden to accomplish diplomatic exchanges, China is eager to derive maximum political benefits from its antipiracy mission.

Chinese leaders have certainly learned valuable lessons that will guide the ways in which Beijing formulates policy on other issues involving substate actors. While a combination of domestic and international pressures originally catalyzed China's involvement in the Gulf of Aden antipiracy operations, it is worth noting that to date all of China's substantial international, military, noncombat, operational deployments have occurred in areas deemed vital to its national security and for specific material reasons, as opposed to the more abstract, normative ends that the United States and other Western powers sometimes pursue.³ Similarly, future Chinese decisions about participation in international maritime security efforts will likely seek to balance, on one hand, the expectations of China's domestic audience and the international community that China will make increasing contributions against, on the other hand, the direct strategic relevance of the issue or region in question to China's concrete national interests. As American policy makers in the future seek ways to cooperate with China and benefit from its participation in larger initiatives, they will have to search for such potential areas of intersection.

Chinese Thinking about Nontraditional Maritime Security Operations as a Function of Maritime Strategy

Nontraditional maritime security operations will likely become, collectively, a larger component of China's overall approach to maritime operations and strategy. Rear Adm. Yin Zhuo (Ret.) stated in early 2011 that "the Chinese people occupy two large areas of both land and sea, so we must develop a national maritime strategy as soon as possible."⁴ China's millennia-old strategic posture as a continental power with significant maritime potential was permanently altered as a result of the naval wars from 1839 (Opium War) through 1945 (the Second Sino-Japanese War / World War II), which ensured that China would refocus its strategic attention on the sea. It was given particular geographic focus by the Chinese Civil War, in which Nationalist forces led by Jiang Jieshi (Chiang Kai-shek) fled to the island of Taiwan.⁵ Subsequently, the PLA has gradually become more

maritime oriented, particularly since the Soviet Union's collapse and the surfacing of Near Seas territorial and maritime disputes in the East and South China Seas.

These factors, plus Taiwan's increasingly assertive push for independence during the 1990s and early 2000s and the growing intimacy of U.S.-Taiwan relations in the same period, compelled the PLA to redirect its focus to China's maritime periphery. The PLAN's antipiracy efforts largely complement the navy's transition from a Near Seas counterintervention force to one increasingly capable of addressing nontraditional security threats and protecting China's interests farther afield. In the process, China is increasingly becoming a continental and maritime power, as opposed to the solely continental power that it was in the past. Wu Chao and Li Daguang of *Modern Navy* assert that antipiracy operations are a manifestation of this shift: "Escort operations in the Gulf of Aden and [off the coast of] Somalia already are behavior of a maritime state. Maritime states require that their navy protect overseas interests and 'maritime lifelines' that affect the national economy and the people's livelihood, and [whose mission] is not just limited to 'preventing imperialists from invading [its] continental territory.'"⁶

Amid the push for a more maritime orientation, various Chinese scholars are calling for a greater emphasis to be placed on the legal framework of maritime security. Hainan University Law School professor Zou Ligang argues that poor domestic laws on maritime defense are accompanied by an inadequate research system and the absence of a comprehensive maritime security strategy.⁷ From a perspective that highlights China's continuing sense of vulnerability from the sea, Zou contends that China's peaceful development in the twenty-first century relies directly on Beijing's ability to achieve maritime security.⁸ Chinese scholar Feng Xinhua has written that in the post-Cold War international system, such nontraditional security threats as piracy, maritime terrorism, and "accidental channel jams" (海峡航道的意外堵塞) have become the main threats to the security of strategic international SLOCs.⁹ An article by Xin Jingping in *People's Daily* called on the central government to take three steps in protecting overseas Chinese citizens. First, it should send police attachés to countries where local forces are incapable of effectively protecting Chinese citizens living there. Second, China should deploy armed convoys in accordance with international law in regions plagued with piracy and drug smuggling. Finally, China should create a "risk-assessment" system to gauge the security of its periphery and overseas regions.¹⁰

Regional counterintervention centered on Taiwan and other disputed Near Seas areas remains the cornerstone of China's military modernization. But under both Jiang Zemin and Hu Jintao, the PLA has also been called on to sharpen its ability to win nontraditional wars under modern, high-technology circumstances. As China's commercial interests and activities become ever more enmeshed in the global economy, China's navy will increasingly be charged with protecting China's interests beyond the nation's

immediate nautical borders. Gulf of Aden antipiracy operations exemplify this trend, but they also highlight the sensitivity for Beijing of military operations beyond China's periphery. While China has been cautious in institutionalizing a strategy of protecting its national interests in the Far Seas, PLAN antipiracy operations to date demonstrate that China's national security strategy is evolving to allow China's armed forces to be increasingly assertive abroad. On the basis of this principle, PLAN officers like Zhang Huachen, former ESF deputy commander, assert that their service should integrate systems, ideas, and practices from its Near Seas and Far Seas operations, especially as capabilities in the latter fall far short of what is required to protect China's overseas interests.¹¹

More broadly, the rationale for protecting vital SLOCs helps to propel a larger PLAN focus on critical international, commercial waterways. Deployments off the Horn of Africa help secure the Gulf of Aden, Bab el Mandeb, Strait of Hormuz, western Indian Ocean, and East African coastal regions. But China's heavy SLOC-security dependence is certainly not limited to these crucial maritime zones. Goods and services flow into and out of China to and from every direction, transiting vital international waterways. Even after safely traversing the zones just mentioned, commercial vessels en route to China typically must transit the Strait of Malacca, the Strait of Singapore, and the South China Sea. China relies on stable SLOCs also for trade in goods and services with countries and regions in the Western Hemisphere, such as the United States, Canada, Mexico, Central America, and South America.¹² It is conceivable that China will broaden its perspective on maritime stability operations accordingly. As Zhao Yang writes,

Escorts have allowed China's navy to liberalize its mentality; it did not just go out of the first Island Chain, but also rid itself of the inner, self-designed line of defense. And China's open-mindedness and undertakings put an end to preexisting international suspicion. . . . As a permanent member of the UNSC, China's dispatching [of] warships to participate in escorts near Somalia is more the embodiment of actively participating in global public governance. A nation's authority is not just decided by the size of its power, but also by whether it is willing and able to take responsibility.¹³

The PLAN's escort mission has been described by Chinese media as that of a "strategic, comprehensive and international armed service" (战略性, 综合性, 国际性军种), one that has changed Chinese naval philosophy fundamentally. Now many sailors fully understand the concept of "being at home at sea and a guest on land" (海上为家, 陆上做客).¹⁴ Furthermore, escorting has transformed China's military thinking fundamentally from "maintain an army for a thousand days to use it for an hour" (养兵千日, 用兵一时) to "maintain an army for a thousand days to use it for a thousand days" (养兵千日, 用兵千日).¹⁵

Beyond all this, antipiracy escorts have furthered China's strategic and doctrinal shift from a purely land-based power to an oceanic power, in part by fostering maritime

culture in and through the PLAN. When PLAN escort task forces cross “China’s traditional maritime boundary” on their way to the Gulf of Aden, the ships’ crews each reportedly conduct a solemn ceremony of taking and signing pledges.¹⁶ Indeed, many Chinese view escort operations as only the beginning of a larger process in which China’s military development will increasingly mirror its rapidly expanding national interests.¹⁷ If indeed this proves true in practice, decades from now China’s Gulf of Aden mission will be seen as the genesis of the nation’s ascent as a global maritime power. Indeed, at a symposium in Beijing in January 2012 to mark the three-year anniversary of China’s Gulf of Aden mission, Adm. Wu Shengli remarked that escort operations were a landmark event in the historical development of China’s navy.¹⁸

China’s View of the Proper Role of State Power in Achieving Global Governance

PLAN antipiracy missions since late 2008 mirror larger developments in Chinese military foreign policy. Thus far, as has been seen, Beijing has proceeded with caution. Official PLAN statements constantly reiterate that while China will increase its presence and influence throughout the global commons to protect the world economy, it is firmly opposed to “gunboat diplomacy” and will project naval power only to secure shipping lanes, conduct search and rescue, and carry out disaster relief.¹⁹ During times of peace, the PLAN is viewed as the only means for China to protect “overseas interests” (海外利益) that are actually “national interests abroad” (境外的国家利益).²⁰ The PLAN can extend into the international public domain and perform operations like armed deterrence, crisis management, humanitarian assistance, antipiracy activity, and preventive defense.

China’s overseas economic interests are increasingly perceived as vulnerable to external shocks triggered by a myriad of possible disturbances, including political turmoil in other states and their economic ramifications. For example, an article in *Modern Ships* asserts that fifty Chinese projects in Libya were halted during the Arab Spring uprisings in February 2011, resulting in an aggregate loss of nearly \$20 billion.²¹ The same article also emphasizes the enormous economic and strategic value to China of the “Islamic Crescent,” characterized as it is by high levels of both intrastate and interstate political conflict.²² More broadly, it is revealing that as of December 2012 roughly 60 percent of PLAN-escorted merchant vessels had been “connected with China’s international trade.”²³

But if Beijing still adheres steadfastly in official statements and publications to its noninterference policy, China’s foreign policy is subtly but definitely shifting toward interactions beyond China’s periphery. There has been at least some evidence for this claim since the start of the twenty-first century, such as China’s initiative to lead the Six Party

Talks in 2003. Many observers now believe that more intervention overseas by China is inevitable as it seeks to protect its growing interests.²⁴ China has an estimated 5.5 million citizens living abroad at any given time, a nearly 40 percent increase since 2005.²⁵ Strongly connected to the PRC in most cases, they, like their compatriots back home, have rising expectations of governmental protection in times of crisis. As Yang Rui, the bureaucratically well-connected, fiercely nationalistic host of the CCTV program *Dialogue*, stated in a February 2012 broadcast, “China has been cautious but determined to send its own fleets on different overseas missions as our global economic stakes and the safety of Chinese workers could become easy targets of international terrorism. The military buildup enjoys the backing of a majority of Chinese taxpayers to define and defend our growing national security interests the world over.”²⁶

By “buildup” Yang meant China’s rapidly increasing military spending. Following this political line, during the 2013 annual meetings of the NPC and the CPPCC—referred to in China colloquially as “the two meetings” (两会), because of their policy importance—China revealed its latest official defense budget: a projected 10.7 percent nominal increase to 720.2 billion yuan (U.S.\$114.3 billion) for 2013;²⁷ this sum is thrice that of India and second only to that of the United States. Thus, in future crises China’s populace will watch any misfortunes afflicting fellow citizens overseas more closely and with more expectation that the Chinese government will respond. Since the state is perceived to have the means, military and otherwise, to come to their aid, Beijing will not be able to sit idly by. Chinese leaders will be expected to employ the new tools they have purchased to help Chinese citizens affected by such critical, if ideologically inconvenient, events.

Beyond China’s own expanding interests, the key variable is Beijing’s perception of its appropriate contributions to the international community, particularly in the security realm. As Ju Chengzhi of China’s MoT explains, China is also aware of how other states, such as the United States, perceive its global contributions:

Americans have [the following critical] opinion: “For many years, China’s overseas economic interests have been protected by others; now China is a responsible great power, [so] it [should] protect its own ships.” This is indeed a tremendous change. I handled the entire escort issue, [and] deeply understand the whole process. The reform and opening up policy has given our government considerable inspiration; this is an excellent example of what a service-oriented government should do.²⁸

Robust debate continues in Chinese scholarly and policy circles concerning how Beijing should conceptualize and fulfill its global responsibilities, particularly in light of foreign encouragement and pressure. There is widespread concern that U.S. and other Western efforts to encourage Chinese contributions do not serve Beijing’s interests and may even be designed specifically to constrain China’s rise by tricking it into assuming overambitious burdens that in fact further parochial Western objectives.²⁹ A more politic and

positive expression of such concerns may be found in the remarks of Le Yucheng, assistant minister of foreign affairs, who acknowledges that “some have criticized China as a ‘selective stakeholder’ [选择性的利益攸关方], one that speaks of itself as an ‘elephant’ or an ‘ant’ as needed, and hope that China can become a ‘comprehensive stakeholder’ [全面的利益攸关方].” What they must understand, Le counters, is that while Beijing contributes where it can, such as in the Gulf of Aden, “China’s ‘limitations’ remain numerous, [and it] is both unwilling and unable to assume more international obligations and play the role of a major power.”³⁰

More encouragingly, however, a growing school of thought suggests that China should increasingly contribute public goods in proportion to its overall national power. “With increasing national strength, China’s international standing has been in constant ascendance,” Zhang Ming maintains. “Its international influence has continuously expanded and is increasingly expressed in the area of ‘global commons’ security governance.” Citing the PLAN’s Gulf of Aden deployments as a key example, Zhang adds, “China must not only participate proactively in discussions on ‘global commons’ security governance; it should actively work to maintain the security of the ‘global commons.’”³¹ This approach is given official, if qualified, sanction in a State Council white paper insisting that Beijing is already “actively living up to its international responsibility” but allowing that “China will assume more international responsibility as its comprehensive strength increases.”³²

Prospects for Leading Operations and for Continued Participation Otherwise

As China’s interests, capabilities, and presence grow in key SLOCs, its naval forces will of necessity interact with other nations’. This prospect raises important questions as to what shape such interaction should take. China’s previously noted reluctance to subordinate itself to a higher multilateral maritime authority initially constituted an obstacle for those desiring to see China’s navy assume a leadership role in the Gulf of Aden. To Beijing’s credit, however, the PLAN has made an effort to coordinate with various navies the better to integrate its antipiracy efforts with those of others, as was underscored by the aforementioned support that PLAN commanders contributed to the SHADE process. The signals are currently mixed as to whether Beijing wants to play a leadership role in the international antipiracy mission.³³

One issue is the evolution of operational approaches to countering Somali pirates. While China has been at the forefront of innovation and collaboration concerning escort-based operations, other navies in the region are slowly adopting more assertive approaches, such as land-based preventive measures.³⁴ The PLAN is less forceful in its antipiracy tactics than most naval counterparts; unless China undertakes significant changes in its international-relations strategy, it is unlikely to participate directly in operations ashore.

Moreover, as others have contended, and from a purely practical standpoint, current PLAN command and control (C2) capabilities likely limit the extent to which China would be able to lead an international contingency representing tens of navies. As You Ji explains, “The warships participating in the PLAN’s Somalia operations are all capable of real-time vertical and horizontal communications—that is, with headquarters and among themselves—a key criterion for their selection for the mission.”³⁵ But international leadership requires even more advanced C2 capacity, which means that China’s navy would have to invest heavily in new systems. As Zhang Ming writes,

We must work hard and provide a solid foundation for China’s taking part in “global commons” security governance. In terms of capability, there is a certain threshold in technologies and capabilities for the exploitation and security governance of the “global commons.” . . . At the present stage, so as to heighten China’s situational awareness in all “global commons” areas, for force projection, and for conducting nonmilitary humanitarian aid and disaster relief missions, it is necessary to build as quickly as possible a complete space infrastructure and network infrastructure as well as a mighty air force and blue sea navy.³⁶

Given these enduring realities, China is likely to continue antipiracy operations, while limiting overt leadership, even avoiding it outright when it cannot be arranged on Beijing’s terms. China’s prospects for cooperation with other major parties have certainly brightened since the announcement of Sino-Indian coordination of Gulf of Aden merchant escorts and the conduct of PLAN on-ship exchanges with the U.S. Navy. When the twelfth task force left China for the Gulf of Aden on 5 July 2012, its commander (and East Sea Fleet deputy chief of staff), Zhou Xuming, stated that he planned to increase the intensity of exchanges and cooperation with international antipiracy forces.³⁷ Nevertheless, it seems highly likely that China’s navy will continue to carry out task force operations independently.

Success and Deficiencies: U.S. and PRC Perspectives

Beijing is likely satisfied with the PLAN’s quasi-leadership position among the navies committed to fighting piracy. It has technically assumed a leadership position within a multilateral antipiracy mechanism without having to subordinate itself to the U.S. Navy and other traditional forces in the Gulf of Aden. These two major sources of Chinese pride—antipiracy participation and its leadership position, however limited—are viewed as great contributions to the stability of the global trading system. A Xinhua article embodies this perspective: “Despite some ideological differences with the West, China has increasingly integrated in the international system by accepting its rules and practices rather than trying to build a new one, and is now interacting positively for the world’s peace and stability.”³⁸ In particular, Chinese media perceive the Gulf of Aden mission to date as a bright spot for greater cooperation between China and the international community: “Since its first naval escort mission four years ago, the Navy

of the Chinese People's Liberation Army (PLA) has undertaken extensive and in-depth cooperation and exchanges with the naval escort forces of various countries through varied means including intelligence information sharing, mutual visits, joint naval drills and international naval escort seminar."³⁹

That said, statements from high-ranking military officials, such as Vice Adm. Ding Yiping, suggest that China's leaders see ample room for improvement. Ding remarked on China National Radio in July 2012, "Clearly, China will have to assume the duties of a responsible power." He added, referring specifically to blue-water naval operations, "For a navy that aspires to reach farther, it must solve a series of problems, such as its capabilities in surveillance and early warning, secured communications, guiding and positioning, logistics and so on, in waters far away from home."⁴⁰ It is clear that China's leadership remains focused on using the piracy problem to bolster credibility with the Chinese public. Xu Zuyuan, China's vice minister of transport, announced in June 2012 that "China will provide better security for its seafarers through international communication, and speed up the preparation work to ratify the Maritime Labor Convention established in 2006."⁴¹

Examining the PLAN's dichotomy of choices between independent escorts and international cooperation, Li Ruijing used the April 2012 Iranian rescue of the Chinese-flagged *Xianghuamen* as a case in point. Li underscored the need to

understand clearly the relationship between "independent undertakings" [独立担当] and "international cooperation" [国际合作]. Even if in the future China's navy realizes a global presence, [selfishly focused] escorts in the way of "only sweeping one's doorstep of snow" [自扫门前雪] will inevitably result in many corners "beyond the reach of one's power" [鞭长莫及]. This time the *Xianghuamen* was hijacked, we also achieved successful rescue by contacting Iranian warships. Because of this, strengthening international cooperation in the field of international security is in line with China's interests. Not only can we use the world's "security resources" [安全资源], [and thereby] lower the national burden, we can also build trust and reduce strategic misunderstandings while cooperating with other navies. Of course, international cooperation also implies duty, [and] China's naval escorts in the Gulf of Aden are one show of carrying out international duties.⁴²

According to *Modern Navy*, China's eleventh task force engaged in significant information sharing with other navies and commercial vessels throughout its deployment: "Through methods such as [employing] the Internet and even intership high-frequency correspondence, [the PLAN has] proactively established hotline connections with each navy and commercial vessel, formed a mechanism for regularized multinational maritime escort power information sharing and official meetings among commanders."⁴³ *People's Daily* provides details on this mechanism: "The escort task forces of the Chinese PLA Navy have established an effective information network with over fifty warships from more than twenty countries and organizations through information resource

sharing in the Gulf of Aden and the waters off the Somali coast. They also specially set up e-mail [inboxes] on the Internet to initiate hotline connections with navies and merchant ships from various countries and send circulars through their online mailbox and radio stations about suspected ships' activities they mastered."⁴⁴ This mechanism, combined with a "commander meeting mechanism," suggests that China's navy shares nonsensitive information systematically through routine daily channels, as well as through high-level exchanges with other navies in the region, including those represented in CTF-151, NATO, and EU NAVFOR.⁴⁵

From Washington's perspective, Beijing's willingness to interact with other naval forces in the region and constructively discuss the issue of subnational piracy is certainly a welcome sign.⁴⁶ In some of the most positive language attributed to a U.S. government official to date in this regard, David Sedney, a former deputy chief of mission at the U.S. embassy in Beijing, has been quoted as stating, "The Chinese naval escort task force exerts a lot of influences in the waters off the Somali coast. The Chinese naval sailors are in command of amazing tactics and in close cooperation with the navies of other countries including the U.S."⁴⁷

That some Chinese scholars, like Huang Yingying, stress that China must provide more public goods, such as antipiracy resources for protecting SLOCs, commensurate with China's great-power aspirations is also a positive development.⁴⁸ This is especially the case for those who have criticized China for free riding on U.S.-provided public goods, such as stable SLOCs. Washington would like to see the PLAN play a substantial leadership role in antipiracy operations, so long as it respects international law and does not abuse the mission for ulterior purposes.

Opportunities for Sino-American Maritime Relations?

While on official visit to the United States in May 2011, Gen. Chen Bingde declared, "The Chinese and U.S. militaries will keep high-level contacts, institutionalized dialogues, and professional exchanges in addition to greater cooperation in nontraditional security fields including [humanitarian assistance / disaster relief] and counterpiracy." He added, "Right now we are working together with each other very well, and we will continue to do so and make it better in the future. As I agreed with Admiral Mullen, the two navies will also hold a joint exercise in Gulf of Aden in order to boost our cooperation."⁴⁹ Subsequently, during a visit to Beijing in 2011, Adm. Michael Mullen, then Chairman of the Joint Chiefs of Staff, and his counterpart, General Chen, agreed on several military exchange accords, including joint antipiracy drills.⁵⁰ Mullen's visit laid a foundation for expanding joint antipiracy operations; the two sides reportedly signed multiple collaboration agreements, despite fundamental differences with regard to South China Sea

issues. Further, in May 2012, during Liang Guanglie's visit to the United States, the sides agreed to hold antipiracy joint exercises before the end of 2012.⁵¹

In mid-September 2012 Leon Panetta, then Secretary of Defense, engaged Chinese counterparts during a three-day visit to China.⁵² His trip coincided with the peak of Chinese and Japanese tension over the highly contentious Senkaku/Diaoyu Islands dispute. As if the U.S.-Chinese military meetings were not already sufficiently overshadowed, photos of a new Chinese stealth aircraft prototype appeared online just before the visit.⁵³ Yet despite these obstacles, it was reported during Panetta's visit that the United States and China finally conducted their first-ever joint antipiracy operations.⁵⁴

This historic joint evolution took place on 17 September 2012 in the midwestern section of the Gulf of Aden.⁵⁵ The visit, board, search, and seizure exercise consisted of a U.S. naval ship, the guided-missile destroyer *Winston S. Churchill* (DDG 81), acting as a vessel overtaken by pirates. The Chinese missile frigate *Yiyang* also participated, and a team of American and Chinese crewmen carried out a simulated rescue mission. There was also a joint boarding for inspection.⁵⁶ The U.S. Navy's Fifth Fleet announced, "Executing the boarding side-by-side as a combined U.S.-Chinese team, the team successfully searched the vessel and provided assistance to the role-playing mariners."⁵⁷ *People's Navy* reported that eighteen American special operations personnel boarded *Yiyang* to take part in the exercise, which in addition to boosting bilateral cooperation contained elements of spirited competitiveness.⁵⁸

Secretary Panetta lauded the exercise, saying, "We noted that the United States and China just this week participated in a very successful counterpiracy exercise in the Gulf of Aden. . . . These exercises enhance the abilities of our navies to confront the common threat of piracy."⁵⁹ Similarly, Xinhua described the exercise as "conducive to increasing mutual understanding and trust between the two navies."⁶⁰ The fact that this exercise occurred during heightened Chinese nationalism reflects the unusual opportunities that nontraditional maritime-security operations provide for cooperation amid competition. Referring to the larger issue of security, Panetta further remarked, "We won't achieve security and prosperity in the twenty-first century without a constructive U.S.-China relationship, including a stronger military-to-military relationship."⁶¹ Also during his visit, Panetta toured the North Sea Fleet missile frigate *Yantai*, which had recently returned from antipiracy duties in the Gulf of Aden.⁶²

Chinese commentators likewise lauded the secretary's visit and the unprecedented U.S.-Chinese naval cooperation off the coast of Somalia. Ni Feng, deputy director of CASS's Institute of North American Studies, declared, "With increased strategic game between China and the United States, communication and exchanges between the armed forces of the two countries should be conducted routinely; and topics such as how China and

the United States can undertake positive interactions in the Asia-Pacific region should be discussed with an open mind. This will help the two sides reduce misjudgments.”⁶³

Moreover, Secretary Panetta’s September 2012 China visit was highlighted by the announcement that the United States had invited the PLAN to send a warship to participate in the Rim of the Pacific (RIMPAC) 2014 exercises, the world’s largest joint naval exercises. “Our fundamental goal is to build a U.S.-China military-to-military relationship that is healthy, stable, reliable, continuous and transparent,” Panetta stated then. It was reported in late March 2013 that China had accepted the invitation and is set to join the U.S.-led exercises during summer 2014.⁶⁴ Beijing had felt snubbed when excluded from RIMPAC 2012; Secretary Panetta’s announcement demonstrates American desire to improve maritime relations with China. “I hope that they bring a ship, and I hope that they bring a crew ready to learn and to be interoperable,” remarked Adm. Samuel Locklear, Commander, U.S. Pacific Command. “I think they will be welcomed by the rest of the international community in the Asia-Pacific as a productive security partner.”⁶⁵ As Secretary Panetta emphasized during his visit, the United States does not want China to misunderstand the intentions of its Asia-Pacific rebalancing, which is in part “about creating a new model in the relationship of our two Pacific powers.”⁶⁶ Shortly after the secretary’s official visit to Beijing, the United States and China held in Qingdao their annual meeting pursuant to the U.S.-Chinese Military Maritime Consultative Agreement. Both sides agreed to strengthen bilateral nontraditional security cooperation, including in the field of antipiracy operations.⁶⁷

The wave of encouraging news continued in mid-October 2012 when Brig. Gen. Mark M. McLeod, U.S. Air Force, announced that the U.S. Navy and PLAN were considering sharing logistical resources—including fuel, food supplies, and possibly parts—when undertaking joint antipiracy and humanitarian operations.⁶⁸ Rear Adm. Yang Jianyong deemed the American proposal to engage the PLAN on logistical cooperation “a good area for future discussion [and] cooperation.”⁶⁹ McLeod noted that the Chinese were “reaching out and starting to perform . . . more joint missions . . . [so] we thought this was an opportunity for us to enter into an agreement with them to share resources.”⁷⁰ Such an arrangement, if implemented broadly, consistently, and over time, would not only address the major logistical issues attached to the PLAN Far Seas operations discussed in this study but would also represent an unprecedented level of Sino-American military cooperation.

In November 2012, Secretary of the Navy Ray Mabus met with Minister of Defense Liang Guanglie in Beijing to discuss maritime security.⁷¹ This was the first visit by a Secretary of the Navy in twenty-eight years and occurred just two days after China’s navy successfully completed its first takeoffs and landings on the newly commissioned aircraft carrier *Liaoning*.⁷² Mabus and Liang discussed Sino-American antipiracy cooperation.⁷³

The deputy director of the Navy Military Studies Research Institute, Zhang Junshe, perceived the treatment of Mabus during his visit as displaying “China’s sincerity to improve military ties with the US” and asserted that the arrangement made by China “reflects the increasing transparency of the Chinese navy, and its growing confidence.”⁷⁴ Ultimately, Mabus’s visit proved another positive step in U.S.-Chinese antipiracy efforts, as both sides agreed to increase antipiracy cooperation and joint exercises.⁷⁵

Of course, while these announcements set an optimistic tone, they remain relatively small developments within a much more complex, multilayered U.S.-Chinese strategic maritime relationship. Nonetheless, in a speech in Washington at the close of a visit to the United States in February 2012, Vice President Xi Jinping described the U.S.-Chinese relationship as “an unstoppable river that keeps surging ahead.”⁷⁶ Xi’s high-profile trip was interpreted by many as a preview of U.S.-Chinese relations under China’s next paramount leader. Indeed, U.S.-Chinese relations comprise closely intertwined social, economic, political, and military dimensions, all of them capable of impacting significantly many aspects of the bilateral relationship. Antipiracy cooperation on the Far Seas is merely part of a larger strategic dialogue between Washington and Beijing, and it will certainly not define U.S.-Chinese relations in the twenty-first century. Nevertheless, the level of successful cooperation attained by both sides in other layers of the U.S.-Chinese relationship will influence the degree to which the U.S. Navy and PLAN are able to cooperate meaningfully in the Gulf of Aden during antipiracy operations. The two sides will engage each other only to the extent that U.S.-Chinese cooperation is perceived as beneficial to their respective larger national-security objectives. That said, neither side should underestimate the significance of building habits of cooperation or the stabilizing power that such practices can bring, especially during periods of political change.

Indeed, in a 2012 article in MoFA’s official journal, Chen Zhirui and Wu Wencheng examine global governance cooperation in the context of international piracy.⁷⁷ They conclude that the foundational importance of cooperation between great powers for addressing transnational security issues such as piracy is currently underestimated. However, Chen and Wu also contend that great-power cooperation alone is insufficient to eradicate nontraditional global-security problems. Participation by other nations, nongovernmental organizations, and multilateral institutions, they contend, is also indispensable for effective governance.⁷⁸ Beijing’s perspective on great-power relationships is evolving alongside perpetually changing twenty-first-century security threats. Of course, Chinese leaders still recognize the centrality of major bilateral relationships, such as that between China and the United States, in addressing modern security challenges. In this regard, any cooperation against piracy is seen as beneficial in both Washington and Beijing. But China also increasingly values the efforts of other actors in the region,

efforts that it perceives as critical for maintaining international stability in today's global society.⁷⁹

Notwithstanding the promise offered by high-level dialogues for what will be the most important bilateral military relationship in the early twenty-first century, events in 2012 provided somber reminders that Chinese cooperation concerning nontraditional and transnational security issues hinges on other areas of U.S.-Chinese relations. For example, Beijing canceled combined exercises with the U.S. Navy in the Gulf of Aden scheduled for late 2011 after Washington announced new arms sales to Taiwan in September.⁸⁰ Furthermore, it was reported in late February 2012 that China had withdrawn from a two-day conference on piracy and associated maritime concerns in the Indian Ocean.⁸¹ While many states are eager to build strategic trust with China through antipiracy cooperation, this behavior reflects the fact that such operations are ultimately subordinate to Beijing's larger national-security interests. Additionally, the PLAN's somewhat cooperative practice in the Gulf of Aden has unfortunately not been mirrored in waters closer to China. Chronic flare-ups with Japan, Vietnam, and the Philippines, among others, in recent years suggest that Beijing values territorial and resource claims more than cooperation with neighboring states. It is readily apparent that Chinese maritime power must be viewed through the lens of distance. Beijing's antipiracy experiences have not changed its concerns regarding American intentions, or even vis-à-vis the U.S. cooperative maritime strategy of 2008 or the "global maritime partnerships" envisioned therein. Indeed, on the whole, China still views a growing American presence in East Asia, highlighted by the announcement of a rebalancing toward the Asia-Pacific beginning in late 2011, as a pernicious grand strategy designed to contain China's rise.⁸²

Nevertheless, progress in Far Seas cooperation might gradually translate into progress in the Near Seas. While helping its allies to resist Chinese pressure and coercion in the Near Seas and to maintain freedom of navigation there, Washington must endeavor to cooperate with Beijing in Far Seas nontraditional security operations. China reached out to ASEAN counterparts in mid-2011 when it offered to cooperate in escorting commercial ships of ASEAN states across the Gulf of Aden. China has a larger navy than any ASEAN state and would likely play a commanding role in these escort operations, of which "the ideal area of operation would be as far as Oman's waters in the north, Madagascar's waters in the south and all coastal areas in the western part of the Indian Ocean."⁸³ By reaching out to its ASEAN neighbors, Beijing revealed a belief that Far Seas operations can in fact pay dividends regionally and help to improve international relations in the Asia-Pacific.

Most Promising Areas for U.S.-Chinese Cooperation and Confidence Building

While there are certainly no indications that Beijing is planning naval expansion on a global scale anytime soon, the PLAN will encounter a mature U.S. military presence in any area that it attempts to enter in coming years. This includes the western Pacific, South China Sea, Indian Ocean, Middle East littorals, Caribbean Sea, and Arctic Ocean. Professor Liang Fang of Chinese National Defense University identifies the eastern Pacific, the northwestern Indian Ocean, and parts of the Atlantic Ocean as zones where China is likely to prioritize strategic maritime access in the future.⁸⁴ If that is the case, mistrust between Washington and Beijing is likely to increase as the United States reorients its national security strategy toward the Asia-Pacific and as Chinese military development unfolds both regionally and internationally.⁸⁵ In view of this strategic mistrust, it is absolutely critical that naval officials on both sides take maximum advantage of the window for military and strategic confidence building that antipiracy operations represent. American and Chinese naval officers would do well to establish proactively a bilateral mechanism that facilitates rapid communication in the event of a crisis or incident. It is conceivable that the Chinese and American naval forces operating in the Gulf of Aden could develop such an agreement and apply it to maritime East Asia once it becomes operable.

Finally, China and the United States concur that piracy stems from deficiencies in governance ashore. The biggest contribution that Washington and Beijing could make to a solution would be to establish dialogues with the objective of developing aligning approaches toward Somali reconstruction.

Notes

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Conclusion: No Substitute for Experience

In dispatching fifteen antipiracy task forces to the Gulf of Aden from since December 2008, an uninterrupted period of nearly five years, China's navy has discovered that there is truly no substitute for experience. Select PLAN personnel have sharpened their skills, improved coordination mechanisms, and tested new technologies and platforms. In four years of active Gulf of Aden antipiracy operations, China's navy has accrued know-how and lessons that it could not have gained otherwise. It has implemented them, and thereby realized operational and procedural improvements, with impressive speed and resourcefulness. Addressing these issues is increasing PLAN capabilities and confidence.

The most important organizational impact of the mission has been to make the PLAN assume unprecedented responsibility and initiative in coordinating operations with such civilian agencies as the MoT. This marks a coming-of-age in which geographic and operational exigencies may increasingly allow the PLAN to emerge from under the PLA's shadow and come into its own as China's most externally focused military service and a growing tool for Chinese policy makers. Realizing the PLAN's full potential in this regard will hinge in part on attendant improvements in real-time interservice, inter-agency, and civil-military coordination, none of which China's governmental structure is optimized to support. Certainly the rapidity and scale of the PLAN's rise in autonomy should not be exaggerated; the PLA's bureaucratic apparatus remains ground force-dominated. Yet antipiracy and related operations can spur needed improvements and even serve as a test bed for their realization.

Operationally, a core contribution of these deployments may be imposing experience with unscripted, unpredictable situations on what might otherwise remain an unwieldy and risk-adverse service. They represent the PLAN's most intense operational experience in recent years. PLAN forces in the Gulf of Aden continue to learn intangible operational lessons that enhance China's broader naval competence. Viewed holistically, PLAN achievements in the Gulf of Aden represent far more than an amalgamation of antipiracy best practices. Beyond the Gulf of Aden and its surrounding bodies of water, they provide a broad foundation to support future capabilities. At the tactical level, many fundamental skills that the PLAN is learning from its antipiracy operations transcend naval-warfare domains and missions. The U.S. Navy refers to these as "mission-essential tasks"; for instance, a helicopter crew for a maritime special-forces mission must be proficient in taking off from and landing on a ship at night. The PLAN is developing core skills for Far Seas operations, many of which may prove to be applicable and useful

beyond the scope of antipiracy. Maintenance procedures and even ship design may be influenced as a result, with benefits that are already being applied in other areas, such as training in the Near Seas. A *Modern Navy* article encapsulates this dynamic:

China's escort task force through . . . practice, [has] accumulated beneficial experience, optimized escort methods, [and] raised escort efficiency. In summary, for the Chinese navy, Gulf of Aden and Somali escorts are just the first step in facing continuously expanding national maritime interests. Under the framework of international law, protecting the safety of China's strategic sea-lanes, carrying out protection and evacuation for overseas Chinese, participating in maritime arms control, [and] accepting the responsibilities of a great power will become the future focus areas for China's noncombat naval operations in the era of peace.¹

As this quotation suggests, China's process of gaining Far Seas experience is not simply one of increasing operational naval capabilities—it is far broader. Antipiracy operations conveniently enable China both to respond to internal and external pressures to act on the international stage and to raise significantly the overall ability of its increasingly powerful navy. The Gulf of Aden has challenged Beijing to adjudicate among multifarious, often contradictory, domestic and international forces. As the first major window into China's Far Seas operations and its approach thereto, it foreshadows how Beijing will take its place in the world as its interests expand and its actions impact others more strongly.

In this light, the PLAN's experience in the Gulf of Aden should pay dividends for China's leadership as Chinese overseas interests proliferate. As China's economic interests sprawl further beyond its continental borders, the costs of security failure will grow, especially in a “fishbowl” environment where domestic and foreign audiences observe China's behavior intently. Beijing's leaders will likely need to make more decisions about how best to protect China's national interests, and they can now use the PLAN's Gulf of Aden mission as a foundational guide for how to address economic, political, and military factors simultaneously to solve complex challenges to the security of China's overseas interests.

While PLAN antipiracy operations to date have succeeded operationally, at the strategic level they have also illuminated a growing gap between Chinese and Western perceptions of China as a “responsible stakeholder” in the international system. By contributing useful public goods the operations offer China increased global maritime influence; nevertheless, they remain insufficient in degree or scope to earn Beijing the status that it covets. As this study demonstrates, China, while conceding that there is ample room for improvement, portrays itself as an increasingly responsible actor in the global commons—yet some Western audiences are increasingly concerned about Beijing's lack of integration into, and perhaps subtle rejection of, the existing international structure. Driven by both domestic and international interests, the Gulf of Aden mission brings

China into a more rewarding yet more difficult environment in which expectations are rising in both dimensions.

As China becomes a truly global stakeholder in coming years and seeks to protect its overseas interests more effectively, Chinese and American interests overseas will intersect to an unprecedented degree. Never before have the two great Pacific nations been powerful simultaneously. Substantive cooperation between the two sides will thus be indispensable not only for U.S.-Chinese relations but also for the stability of the global commons. An open and cooperative relationship will be required in a variety of maritime regions, particularly in areas where the U.S. and other militaries are already well positioned to restrict Chinese access and development. Just as China's navy has found naval operational experience in the Gulf of Aden invaluable, China's civilian leaders will find the same to be true about public goods generally as they seek to increase their nation's global status and influence. The international and interconnected nature of such nontraditional security contributions makes cooperation with, and understanding the perspectives of, the United States and other participating nations essential for China. At the same time, the United States and other nations will have to understand better Beijing's own equities and limitations, which are unlikely to change dramatically anytime soon. China's evolving approach to antipiracy operations and larger maritime issues will likely take a tortuous, if increasingly positive, course in the Far Seas.

Note

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护航仅仅是第一步。在国际法框架下,维护国家海上战略通道安全,实施护侨撤侨行动,参与海上军备控制,承担大国责任,将成为未来中国海军和平时非战争运用的重点领域。”

Appendix: Notional PLAN Order of Battle by Fleet

Platform	North Sea Fleet	East Sea Fleet	South Sea Fleet	Total in Service 2012
Nuclear-powered ballistic-missile submarines	3	0	1	4
Attack submarines (total)	21	35		56 (62) [58–59]
Nuclear-powered attack submarines (SSNs)	3	2		5
		(0)	(2)	
Diesel-powered attack submarines (SSs)	18 (23)	30		48 (57) [57 ^a]
		(16) ^{+7a}	(18)	
SSs for ballistic-missile testing, etc.		[2]		[2 ^b]
Aircraft carriers		1 ^c		1 ^c
Destroyers	10	8	8 [10 ^d]	26 [33 ^d]
Frigates	9 (15)	44		53 (65) [62–65 ^e]
		(26)	(24)	
<i>Subtotal of above ships</i>				140 (158) [164–67]
Large amphibious ships	2	26		28 [30 ^f]
Medium amphibious ships^g	5 (9)	18		23 (87) [52 ^h]
		(27)	(51)	
Small amphibious ships		[186]		[186]
Large missile patrol craft	19 (20)	67		86 (95+) [92–93+]
		(35)	(40)	
Smaller fast-attack and patrol craft		[141]		[141 ^k]
Mine warfare ships		40		[46]
	(7)	(27)	(10)	40 (44)
Major auxiliaries		50 ^l		50 ^l
Minor auxiliaries and service/support craft		250+		250+

Notes:

Parenteses indicate that data come from Institute for International Strategic Studies, *The Military Balance 2012* (London: Routledge, 2012). While not as authoritative as the baseline U.S. government sources listed above, it offers breakdowns by fleet that none of them have offered since the 2009 Office of Naval Intelligence report. Brackets indicate that data are compiled from Andrew Erickson, "China's Modernization of Its Naval and Air Power Capabilities," in *Strategic Asia 2012–13*, ed. Tellis and Taner, pp. 98–111, and updated with selected latest *Jane's* estimates.

a. Figure excludes uncertain number of Romeo Type 033 SSs in process of being retired and includes twelve Type 041 submarines, all of which are apparently based in ESF. "Yuan Class (Type 041)," *Jane's Fighting Ships*, 12 February 2013, www.janes.com/.

b. Figure includes Golf (Type 031) test submarine and new "Qing (Type 043)" with large sail launched but apparently not yet commissioned.

c. Aircraft carrier *Liaoning* was projected to become operational in 2012 and demonstrated its first public aircraft takeoff and landing in November 2012.

d. Figure includes two 052D destroyers commissioned in January 2013 and based in SSF. "Luyang III (Type 052D) Class," *Jane's Fighting Ships*, 11 March 2013, www.janes.com/, and Qian Xiaohu, "Changchun' Warship Commissioned to PLA Navy," *Liberation Army Daily*, 4 February 2013, english.pladaily.com.cn.

e. Figure includes four 056 corvettes. "Jiangdao (Type 056) Class," *Jane's Fighting Ships*, 12 February 2013, www.janes.com/.

f. Figure includes LHDs and LSTs but not smaller LSMs, LCUs, and LCACs.

g. *The Military Balance* uses the term "Medium Landing Ships" to designate this category.

h. Figure includes LSMs but not LCUs or LCACs.

- i. Figure includes smaller LSMs, LCUs, and LCACs.
- j. Figure does not include smaller 037-IIS, 037, 062C, 062/1, 037-I ships.
- k. Figure includes smaller 037-IIS, 037, 062C, 062/1, 037-I ships, as well as three "unknown" ships on p. 104.
- l. Five are fleet AORs.

Sources: Erickson, "China's Modernization of Its Naval and Air Power Capabilities," pp. 89–91; U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2012*, annual report prepared for Congress (18 May 2012), p. 31; O'Rourke, *China Naval Modernization*, pp. 44–45; *The People's Liberation Army Navy: A Modern Navy with Chinese Characteristics* (Suitland, Md.: Office of Naval Intelligence, July 2009), pp. 13, 18, 20, 45.

Abbreviations and Definitions

A	ASEAN	Association of Southeast Asian Nations
	AU	African Union
C	C2	command and control
	CASS	Chinese Academy of Social Sciences
	CCP	Chinese Communist Party
	CCWG	Convoy Coordination Working Group
	CENTRIXS	Combined Enterprise Regional Information Exchange System
	CMC	Central Military Commission
	CMF	Coalition Maritime Forces
	CNTV	China National Television
	COSCO	China Ocean Shipping Company
	CPPCC	Chinese People's Political Consultative Conference
	CSA	China Shipowners' Association
	CTF	Combined Task Force
	CTTIC	China Transport Telecommunications and Information Center
	DWT	dead weight tonnage
E	ESF	East Sea Fleet
	EU	European Union
	EU NAVFOR	European Union Naval Forces Somalia (Operation ATALANTA)
G	GT	gross tonnage

I	IMO	International Maritime Organization
	IOR	Indian Ocean region
	IRTC	internationally recommended transit corridor
L	LHD	landing helicopter dock
	LNG	liquefied natural gas
	LPD	landing platform dock
M	MDA	maritime domain awareness
	MoFA	Ministry of Foreign Affairs
	MoT	Ministry of Transportation
	MSCHOA	Maritime Security Centre–Horn of Africa
	MV	motor vessel
N	NATO	North Atlantic Treaty Organization
	NAVCENT	U.S. Naval Forces Central Command
	NDU	National Defense University
	NEO	noncombatant evacuation operation
	NPC	National People’s Congress
	NSF	North Sea Fleet
O	OAP	Operation ALLIED PROTECTOR
	OOS	Operation OCEAN SHIELD
P	PLA	People’s Liberation Army
	PLAAF	People’s Liberation Army Air Force
	PLAN	People’s Liberation Army Navy
	PRC	People’s Republic of China
R	RAPPICC	Regional Anti-Piracy Prosecutions and Intelligence Co-ordination Centre

	RIMPAC	Rim of the Pacific
	ROE	rules of engagement
S	SASS	Shanghai Academy of Social Sciences
	SHADE	Shared Awareness and Deconfliction
	SLOC	sea line of communication
	SOE	state-owned enterprise
	SSF	South Sea Fleet
T	TFG	Transitional Federal Government (Somalia)
U	UAE	United Arab Emirates
	UAV	unmanned aerial vehicle
	UN	United Nations
	UNCLOS	United Nations Convention on the Law of the Sea
	UNSC	United Nations Security Council
	UUV	unmanned underwater vehicle
V	VHF	very high frequency

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