CHINA'S GLOBAL PORT EXPANSION:

A Maritime Security Threat to U.S. Geographic Combatant Commands

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT DATE *(DD-MM-YYYY)*
24-03-2020

2. REPORT TYPE
FINAL

3. DATES COVERED *(From - To)*
N/A

4. TITLE AND SUBTITLE

CHINA'S GLOBAL PORT EXPANSION:

A Maritime Security Threat to U.S. Geographic Combatant Commands

5a. CONTRACT NUMBER
N/A

5b. GRANT NUMBER
N/A

5c. PROGRAM ELEMENT NUMBER
N/A

6. AUTHOR(S)

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5d. PROJECT NUMBER
N/A

5e. TASK NUMBER
N/A

5f. WORK UNIT NUMBER
N/A

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Writing & Teaching Excellence Center
Naval War College
686 Cushing Road
Newport, RI 02841-1207

8. PERFORMING ORGANIZATION REPORT NUMBER
N/A

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

N/A

10. SPONSOR/MONITOR'S ACRONYM(S)
N/A

11. SPONSOR/MONITOR'S REPORT NUMBER(S)
N/A

12. DISTRIBUTION / AVAILABILITY STATEMENT
Distribution Statement A: Approved for public release; Distribution is unlimited.

13. SUPPLEMENTARY NOTES A paper submitted to the faculty of the NWC in partial satisfaction of the requirements of the curriculum. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.

14. ABSTRACT

In October 2013, the Maritime Silk Road focused primarily on the Western Pacific and the Indian Ocean; however, by 2020, port development interests expanded to the South Pacific, the Mediterranean, and the Atlantic with access to an extensive network of sea lines of communication. China's activities invite concerns regarding maritime security in each geographic combatant commands' area of responsibility. With a network of ports in 69 countries, China has become a serious threat to U.S. maritime superiority. The dual-use potential of these ports manifests as the COCOMs' greatest threat, the "civ-mil port conversion." This paper reviews the commercial, political, and military objectives of Beijing's port acquisition in a global strategic context, identifies three risks to COCOMs associated with Chinese port infrastructure projects, and examines China's acquisition of or access to global strategic locations within each COCOM. The main conclusion is ports 1) being operated, funded, and built by a Chinese firm, 2) ports where China owns over 50 percent equity shares, and or 3) ports in strategic locations are vulnerable to exploitation by China as strategic weapons during times of conflict or political impasse.

15. SUBJECT TERMS (Key words)
China, Civ-Mil Port Conversion, Combatant Commands, Maritime Security, Maritime Silk Road

16. SECURITY CLASSIFICATION OF: UNCLASSIFIED

a. REPORT: UNCLASSIFIED

b. ABSTRACT: UNCLASSIFIED

c. THIS PAGE: UNCLASSIFIED

17. LIMITATION OF ABSTRACT: N/A

18. NUMBER OF PAGES:

19a. NAME OF RESPONSIBLE PERSON: Director, Writing Center

19b. TELEPHONE NUMBER *(include area code)*: 401-841-6499

Standard Form 298 (Rev. 8-98)

Introduction

Conversations about maritime security often provoke interests in piracy, illegal, unreported, and unregulated fishing, and other threats to the blue economy. However, as the discussion of great power competition matures, China's practice of economic statecraft is now a threat to maritime security. Since 2013, China has exercised strategic patience in acquiring global support for the Belt and Road Initiative (BRI). A key component of the BRI is the Maritime Silk Road (MSR), which is Beijing's strategy to enhance global connectivity through port development. In October 2013, the MSR focused primarily on the Western Pacific and the Indian Ocean; however, by 2020, port development interests expanded to the South Pacific, the Mediterranean, and the Atlantic with access to an extensive network of sea lines of communication (SLOCs). China's activities invite concerns regarding maritime security in each geographic combatant commands' (COCOM) area of responsibility (AOR).[1] With a network of ports in strategic locations, China has become a serious threat to U.S. maritime superiority.

The dual-use potential of these ports manifests as the COCOMs' greatest threat, the "civ-mil port conversion." Civ-mil port conversion is the conversion of a civilian port to military infrastructure or to routinely use a commercial port for military benefit. Chinese Academy of Social Sciences scholar Zhang Jie highlights the steps to achieve the civ-mil port conversion in stating that, China should

> Use main ports as investment points, use local resources, establish an economic development zone, complete steel industry, shipbuilding industry, mineral processing industry… [and] make these ports gradually possess the capability for offering logistical support to Chinese vessels and become China's strategic support points in Southeast Asia to create an advantageous external environment for China's rise.[2]

In three sections, this paper reviews the commercial, political, and military objectives of Beijing's port acquisition in a global strategic context, identifies three risks to COCOMs associated with Chinese port infrastructure projects[3], and examines China's acquisition of or access to global strategic locations within each COCOM.

China's Port Expansion Objectives

Beijing's port investments achieve three objectives: to gain a commercial, political, and military foothold in specific strategic locations around the globe. Commercially, ports are used to establish a gateway for trade and economic development using investment, loans, and financial aid. The Economist Intelligence Unit noted that "besides facilitating trade, ports provide broader economic value, such as valuable data on logistics and the local economy."[4] These data help China determine which countries are likely to benefit from and would be less resistant to Chinese partnership on future infrastructure development projects. In addition to providing economic benefits to both China and the host country, these partnerships also serve as a "release valve" for China's construction and machinery sectors, which suffer from domestic overcapacity.[5] Port construction affords China the opportunity to export domestic capacity (labor and equipment) to other global economies.

In addition to establishing a commercial foothold, the second objective is to use port investments to gain political leverage and expand political influence in new regions of the world. China's success in port development is attributed to the manner in which it, initially, respectfully interacts with future business partners and political influencers. For example, since 2000, President Xi visited Latin America six times with frequent engagements in Argentina, Brazil, Cuba, Chile, and Mexico. In July 2014, he conducted a 10-day visit to Latin America with 70 bilateral and multilateral meetings with more than 20 heads of states or governments and signing over 150 contracts totaling an estimated $70 billion.[6] Similarly, over the past ten years, China's top leadership (the president, premier and foreign minister) made a total of 79 visits to 43 different African countries and visited 26 of the total 33 African countries classified as least developed by the United Nations.[7] These visits eventually translate to commercial contracts with diplomatic ties that are further matured to gain political leverage.

China's third objective of port investment projects is to use commercial and political currency to facilitate People's Liberation Army (PLA) mobility also known as "strategic delivery."[8] According to the U.S.-China Economic and Security Review Commission,

> China's growing economic strength and overseas strategic interests and commitments, such as the [BRI] and peacekeeping operations, are providing impetus for the PLA's development of strategic delivery capabilities and overseas bases. The PLA considers a strategic delivery capability as a strategic deterrent, an important factor in determining the outcome of a war, an important requirement enabling overseas logistic support and joint operations, and an important means for gaining global influence…The threat to U.S. and allied interests globally will likely increase in the future, as the PLA's joint logistics, strategic delivery, and integrated joint operations capabilities and experience increase both quantitatively and qualitatively, combined with Beijing's more aggressive strategy.[9]

Similar to other world powers, The Economist Intelligence Unit noted that China recognizes the "strategic advantages [of] port investment…as they bring with them tighter control of key sea lanes and energy supply routes."[10] Commercial ports serve the dual purpose of facilitating trade and providing the People's Liberation Army Navy (PLAN) access to key areas and mobility across the globe.[11] The possibility of dual-use facilities is evidenced by Djibouti serving as home to a contingent of the PLAN. Similarly, PLAN port visits, also serve as confirmation that the PLAN deploys to ports in advance of contractual negotiations to assess strategic locations for future investment, as well as during and post construction.[12] For example, China Harbor Engineering Company (CHEC) signed the Port of Walvis Bay's New Container Terminal construction contract in November 2013[13] and while under construction, the 16th escort task force visited in June 2014.[14] Correspondingly, China started contractual negotiations for the Lagos, Nigeria Lekki Deep Sea Port in 2012[15], followed by the 16th escort task force visit in May 2014[16], then the 28th escort task force visit in May 2018[17], consequently followed by a $629 million agreement in 2019 to build, fund, and operate the port.[18] From 2014 to 2018, five different PLAN task force made a total of 16 visits to nine different African countries.[19] As of 2020, eight of the nine countries are engaged in port contracts or contract negotiations for a total of 13 different port projects with four completed. According to Timothy Heath, "analysts have noted a strong correlation between where Chinese antipiracy warships have docked ashore and Chinese-funded port development projects in South Asia, the Middle East, and Africa."[20] Attention to China's port visits pre and post construction highlight the value of commercial port investments as a strategic advantage over the U.S., resulting in significant risks for the COCOMs.

Risks Associated with Port Investment Projects

As China works to achieve its three objectives of gaining a commercial, political, and then a military foothold, there are three risks to the COCOMs associated with port investment projects. First, China could potentially restrict access to its rivals in two ways. China could use restrictive contractual terms to prevent competitors from engaging in contractual negotiations for similar projects in the same country. Even if China fails to complete a particular project as agreed, it could hold true to the terms of restricting competition within the respective country to block third party involvement. Additionally, based on China's equity shares, it could also restrict access to adversaries during times of military conflict or political impasse. For example, with a 50-year contract granting control of the entry and exit points of the Panama Canal (i.e. Panama's Margarita Island Port), China now has influence over a key global maritime chokepoint.[21] In essence, restricting port access could provide China a strategic advantage in future conflicts and challenge COCOMs to consider other routes to transit around the globe.

To further gain an advantage, the second risk of China's port investment projects is the potential to exploit ports during times of political impasse. For example, Christopher O'Dea noted that after acquiring a 67 percent equity in the Piraeus Port Authority SA (PPA),[22] State-Owned Enterprise (SOE) China Ocean Shipping Company Limited (COSCO) acting as owner, operator, and developer for the Piraeus Port used heavy-handed diplomacy to motivate "Greece [to block] a European Union statement at the United Nations criticizing China's human rights record," calling the statement "unconstructive criticism of China."[23] Such behavior is an indicator of possible diplomatic threats forthcoming in the COCOMs where China has high investment stakes and economic influence. Essentially, China's success in gaining political leverage is also a significant risk to the U.S. during times of crisis when countries may be challenged to choose between the U.S. and China.

As important as political leverage, the third risk is China's use of commercial ports as listening posts to collect intelligence about the host country or visiting international forces. Eyal Pinko[24] told *Asia Times* that, "Chinese port operators could closely monitor the movement of U.S. and NATO warships, gather information about their maintenance operations and have access to sensitive systems and equipment through interception of electromagnetic signals, intelligence-gathering by use of electronic sensors, visual and human intelligence."[25] Matt Youkee expanded on this concern by highlighting former U.S. Ambassador John Feely's warning about the Panama Canal that China could engage in "industrial espionage" by accessing detailed shipping schedules and confidential information stored in offline port databases.[26] Consequently, any port asset managed, operated, or developed by Chinese state-owned corporations is at risk for exposing allied and friendly information for use at a more opportune time in the future.

These three risks collectively indicate that single-ownership ports or port terminals, where China is the majority stakeholder, are vulnerable to exploitation by China as strategic weapons during times of conflict. This could be achieved by restricting access to gain an advantage, using political leverage to gain diplomatic support, and using commercial infrastructure to collect intelligence.

China's USCOCOM Port Infrastructure Blueprint

China's success in achieving its first two objectives is evidenced by its growing international port portfolio[27] of 128 port assets in 69 countries[28] providing access to key trade routes, SLOCs, and political alliances (see Table 1). In light of this success, the greatest threat to COCOMs is China achieving the third objective of civ-mil port conversions, which may result in future challenges for the U.S. Navy specific to forward presence, deterrence, sea control, and power projection.

Table 1. Chinese Port Assets in each COCOM

USCOCOM AOR	Countries	Ports
AFRICOM	24	48
CENTCOM	8	12
EUCOM	11	19
INDOPACOM	13	24
NORTHCOM	1	3
SOUTHCOM	12	22

Although civ-mil port conversion appears to be a long-range objective, China's military leaders are eager to disperse around the globe. Liu Zhe, captain of the *Liaoning* aircraft carrier, stated that China needs to employ an "exterior strategy"[29] to secure the "motherland" out of fear that the United States' 'Pivot to the Pacific' has restricted the PLAN's strategic mobility to the South China Sea.[30] According to Martinson, "an exterior strategy would involve deploying Chinese forces beyond China's near-seas defence perimeter in order to exert effects on the strategic situation within it." [31] To address this issue, China's port assets are positioned to provide the PLAN strategic delivery capability with "exterior lines"[32] to "expand great power competition contention to other parts of the world" [33] instead of fighting at China's doorstep. Martinson notes that exterior lines enable China to get "more involved in the Atlantic…[to] …'pin down' the US and contain its 'hegemonism'." [34] Moreover, PLA generals view economic cooperation and ports access as ways to achieve the ends of "toppling and reorganizing the international political and economic order."[35]

With PLA leadership ready to deploy around the globe to achieve China's third objective, it is important to clarify the four roles that enable China's global port acquisition: ownership, financing, construction, and operation.

- Ownership, tied to financing large equity shares, involves SOE and private firms owning and operating ports in control of the "inbound supply chain for essential commodities …[providing] China with a higher degree of self-reliance and decreases the amount of political and economic leverage that other countries can apply."[36]
- Financing involves "Chinese-backed loans or the purchase of minority equity shares." [37] The Chinese government, through SOEs and state-owned banks, finance most international port construction projects. For example, state-owned China Development Bank provided COSCO shipping $26.1 billion for BRI projects.[38]
- "Construction enables China to collect intelligence on port infrastructure, establish a dependency on Chinese technology [i.e. Huawei] and expertise, and ensure long-term interoperability with Chinese materials and technology."[39]
- Operation is defined as "ports in which Chinese entities are contractually granted the right to operate facilities or ports in which Chinese entities own more than a 50 percent

equity share."[40] The top three SOE terminal operators are Hutchison Ports (Hong Kong), COSCO, and China Merchants Port Holdings (CMPorts), also ranked 4th, 5th, and 6th in the world for terminal operation in the major economic regions.[41]

Of the 128 port assets in China's international portfolio, 49 are classified as high risk due to: 1) being financed, constructed, or operated by a Chinese company, 2) China owning over 50 percent equity shares, and or 3) the port's strategic location. Based on these three criteria, a global assessment using the COCOM framework further identifies areas of high risks in each COCOM's AOR. (COCOMs are presented in order from least to most at risk AOR).

NORTHCOM

Notably, China has already made significant inroads regarding port control in the United States. The NORTHCOM threat includes 49 percent Chinese ownership in both Houston's Terminal Link Texas and Miami's South Florida Container Terminal and 13 percent ownership in the Port of Seattle.[42] While in a national emergency, these ports could be denied to Chinese firms, the same is not true outside the United States.

SOUTHCOM

In Latin America, China has 22 port assets in 12 countries: Bahamas, Brazil, Chile, Cuba, Ecuador, Honduras, Jamaica, Mexico, Panama, Peru, Uruguay, and Venezuela.[43] Chinese companies have been contracted to build 14 port assets, is the majority stakeholder for two, and owns three out-right. Of strategic importance is China's ownership of Panama's Margarita Island Port, Balboa Port, and Cristobal Port. These ports collectively provide "access to one of the most important goods distribution centers in the world."[44] Shandong Landbridge Group purchased Margarita Island Port for $900 million.[45] Unique, in comparison to most privately held companies, Landbridge's deputy CEO is a former military officer, the company has its own militia, and Landbridge works with the Chinese military in sharing technology and scientific research.[46] According to Peter Jennings, of the Australian Strategic Policy Institute, "less than a year after Landbridge invested in Panama, the country dropped its recognition of Taiwan."[47] In recognizing the mainland instead, Panama acceded to one of China's most significant political requests.

CENTCOM

In the Middle East, China's 12 port assets span nine countries: Egypt, Iraq, Israel, Oman, Pakistan, Saudi Arabia, Turkey, and the United Arab Emirates (UAE). In this region, there are three strategic locations of value to China. First, China's Shanghai International Ports Group will build and serve as Israel's Haifa Port operator for 25-years providing China access to a key shipping lane through the Suez Canal.[48] Second, Pakistan's Gwadar Port is under China's control with a 43-year port lease and a 99-year land lease to SOE China Overseas Port Holding Company (COPHC).[49] Gwadar is 400 kilometers from the Straits of Hormuz, recognized as one of the world's largest crude importers with a strategic oil route in and out of the Gulf.[50] China intends to use Gwadar as the economic artery to connect China to Africa and Europe, now referred to as the China-Pakistan Economic Corridor.[51] Third, China is building the China-Egypt Suez Economic and Trade Cooperation Zone with 20 percent equity in the Suez Canal Container Terminal[52] which is the primary connection between the Red Sea and the Mediterranean Sea. The canal extends to Egypt's Port of Said where China holds a 20 percent equity.[53] In the future, this geo-economics dynamic may affect the 70 percent of the U.S. Navy based in the Pacific with an estimated 35 to 45 naval ships transiting through the Suez Canal annually.[54]

EUCOM

In the EUCOM AOR, China has 19 port assets in 11 countries: Belgium, France, Greece, Istanbul, Italy, Latvia, Malta, Netherlands, Russia, Spain, and Ukraine. Five are controlled by China with more than 50 percent equity. There are four strategic locations worth noting in this AOR. First, with 100 percent equity in the Piraeus Container Terminal[55] and 67 percent equity in Piraeus Port Authority, China intends to upgrade this port to serve as the largest port in the Mediterranean.[56] Additionally, ownership of Piraeus will further facilitate additional PLAN visits in the future similar to the PLAN's 18th Chinese naval escort task fleet's visit in 2015[57] and task force group's 150 visit in 2017.[58] Second, China has acquired significant influence in Belgium with CSP Zeebrugge Terminal, the largest roll-on/off vehicle facility in the world[59] now controlled by COSCO shipping with 85 percent equity.[60] Third, in the Netherlands, China holds a 35 percent equity in Euromax Terminal Rotterdam, Europe's largest port.[61] Last, in the Arctic, China has partnered with Russia on two port projects. First, Zarubino Port, located near the Chinese border southwest of Vladivostok, will be developed "into the biggest port in northeast Asia."[62] Second, Arkhangelsk Deep-water Port, situated on Russia's northern coast, is currently in a decade long planning phase.[63]

AFRICOM

In the AFRICOM AOR, there are a total of 48 Chinese port assets in 24 countries: Angola, Cameroon, Cape Verde, Cote d'Ivoire, Djibouti, Equatorial Guinea, Eritrea, Gabon, Ghana, Guinea, Kenya, Madagascar, Mauritania, Morocco, Mozambique, Namibia, Nigeria, Republic of Congo, São Tomé e Príncipe, Sierra Leone, South Africa, Sudan, Tanzania, and Togo.[64] In Sub-Saharan Africa, China financed 27 of 47 port projects, operates 75 percent of the financed projects, and constructed or is in the process of constructing 90 percent of these port assets.[65] Of continued concern is CMPorts' 23.5 percent equity in the Port of Djibouti[66] and the ownership and operation of the Doraleh Container Terminal, which allows the PLAN to reside within proximity to one of the world's most critical maritime chokepoints, the Gulf of Aden. Additionally, with a projected completion date of 2030, Kenya's Lamu Port will be the largest port in Africa.[67] Once constructed, other BRI infrastructure projects will allow for South Sudan's oil to be delivered through the pipelines running through the Lamu Port-South Sudan-Ethiopia corridor directly to Lamu Port.[68] Last, there should be apprehension regarding the number of deep-sea ports China has invested in. There are 12 African ports that could support extensive PLAN activity inclusive of subsurface vessels: seven in West Africa, one in Central Africa, and four in Southern Africa.[69]

INDOPACOM

In the INDOPACOM AOR, China's port portfolio includes 24 port assets in 13 countries: Australia, Brunei, Cambodia, India, Indonesia, Malaysia, Myanmar, North Korea, Singapore, Sri Lanka, Thailand, and Vietnam. Similar to Africa, China has extensive investments in areas of strategic importance to the U.S. In Australia, Darwin Port is controlled by Landbridge Group with 80 percent equity and a 99-year land lease.[70] Darwin also "hosts a military base used by US Marines."[71] Additionally, Chinese firms have a 50 percent equity in the Port of Newcastle[72] and has complete ownership of the Port of Melbourne.[73] China's investment further spans the Pacific with complete ownership of Cambodia's Koh Kong New Port, which is a part of the Chinese-backed investment zone, Dara Sakor. [74] Dara Sakor occupies 20 percent of the Cambodia coastline and is under Chinese control with a 99-year lease.[75] Fostering ties with North Korea, China owns a 60.46 percent equity in Chongjin Port.[76] With 40 percent equity accompanied by a 99-year lease and 49 percent equity accompanied by a 99-year lease, Chinese firms control Kuantan Port and Melaka Gateway Port, respectively.[77] These ports are located near the Strait of

Malacca, which is the critical valve to the economic artery for the Indian Ocean, Pacific Ocean, and Asian economies. China also benefits from a 70 percent equity and a 99-year lease for Sri Lanka's Hambantota Port[78] and 85 percent equity in the Port of Colombo, connecting the Middle East, Africa, and Asia.[79]

From this data, it is evident that China has the economic and political upper hand to use commercial port assets to employ an exterior strategy. Based on port investment activity, one of China's desired end state is to eventually convert strategic ports to dual-use facilities or military ports to enable strategic delivery. With such a large port infrastructure footprint, when compared to the 15 U.S. Navy Forward Deployed bases around the world, China's growing global port assets are a threat to COCOMs.

Military Engagement: A Natural or Intentional Progression?

"Wherever there is Chinese business, warships will have a transportation support point."[80]

Contrary to the argument that China is a maritime threat, some scholars believe China's primary focus is to protect its investment and energy interests by engaging in security efforts to counter terrorism, conduct peace-keeping, and promote maritime and regional security.[81] Correspondingly, in 2016, PLAN Admiral Sun Jianguo argued that "opening the Djibouti [military base]… will better support China's military as it carries out escort missions, humanitarian missions, and other such tasks."[82]

To further lessen interest in China as a maritime threat, some scholars argue that heightened concerns about President Xi's aggressive global investment strategy and PLAN's increased strategic engagements are unwarranted because China's interest in the maritime domain dates back to the 1980s. Phil Baxter noted that "between 1985 and the end of 2013, warships from the [PLAN] made 127 appearances at foreign ports, from Inchon to Portsmouth to

Valparaiso."[83] Moreover, as a rising power, China is demonstrating that it is a responsible global actor by providing maritime security to facilitate global trade.[84] To do so, the PLAN needs to leave the homeland, patrol the seas, establish, and sustain global supply and logistics nodes. Moreover, Wade Shepard stated that the "Port of Singapore Authority operates terminals in 15 countries, Denmark's Maersk Line has 76 ports in 41 countries, Switzerland's Mediterranean Shipping Co (MSC) has 35 terminals in 22 countries, while Dubai's DP World runs 77 ports in 40 countries."[85] Similarly, European, Asian, and Middle Eastern firms also have large international terminal portfolios. Essentially, China's port infrastructure investments are in line with the rest of the world.

However, the important differences lie in the degree to which China's port projects are directed or exploited by Chinese leadership to support broader strategic goals. Although China's actions may appear to be in line with global investment trends, it would be strategically irresponsible to disregard China's focus on developing exterior lines. The concept of civ-mil port conversion should be recognized as a credible threat to the maritime domain. China's use of commercial development, political leverage, and PLAN engagements are indications of an intentional progression to ensure that commercial ports are being built with the goal of transitioning into what Chinese scholar Zhang Jie refers to as "strategic support points"[86] that can "assist China in defending maritime channel security and grasp[ing] key waterways."[87] According to Conor Kennedy, "strategic support points" are locations that "provide support for overseas military operations or act as a forward base for deploying military forces overseas." [88] Regardless of the risks respective to each host country, senior Chinese leaders and PLAN generals have been vocal in their desires to expand their global maritime military footprint. Moreover, PLAN leaders believe this approach avoids scrutiny from the international community,[89] protects China's national interests, and preserves strategic transportation channels.[90]

Conclusion & Strategic Implications

"China presents the greatest challenge the United States will face in the medium and long term."[91]

Opening the aperture for identifying China as a maritime threat is overdue. Although expanding, the literature and discussion of China's threat to maritime security are limited. There is relatively scarce data showing analysis of specific threats to each COCOM. What was once considered a challenge for U.S. INDOPACOM has morphed into a maritime threat across the globe. As Chairman of the House Armed Services Committee, Rep. Mac Thornberry stated, "anyone who believes that China is only concerned about the Indo-Pacific region is ignoring the clear evidence in Africa and elsewhere."[92] With the exception of NORTHCOM, every COCOM has substantial Chinese maritime interests with deep ties in economic investment and political leverage. Contractual restrictions, intelligence gathering, and military port access denial are real threats that could handicap future U.S. maritime operations. China's global maritime footprint in 69 countries and growing is the greatest maritime security threat the U.S. will face in the future.

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