

26 January 2023

Isaac B. Kardon

Carnegie Endowment for International Peace

Statement for the Record before the U.S.-China Economic and Security Review Commission

Hearing: “China’s Military Diplomacy and Overseas Security Activities”

1. *Please describe the services that the PLA Navy vessels can obtain from China’s network of dual-use commercial facilities abroad (e.g. repairs, resupply). To what extent is the PLA already making use of these benefits in peacetime? How do commercial ports support the PLA through indirect methods such as providing opportunities for collection or economic coercion?*

PLA Navy (PLAN) vessels make extensive use of Chinese firms’ network of commercial transport infrastructure around the globe. The most significant observations of this existing dual-use capability emerge from the network of nearly 100 ocean ports owned and/or operated by PRC firms in foreign jurisdictions.¹ PLAN warships have now called at over one third of these facilities, utilizing China’s trade-centric infrastructure network with growing scope and intensity to fulfill an increasingly global mission-set.²

In peacetime, the primary dual-use function of port terminals is to service the routine needs of ocean-going ships, commercial and military alike. All vessels require regular refueling of petroleum, oil, and lubricant (POL) stores, replenishment and resupply of other critical consumables like fresh food, water, power, parts, as well as all manner of other husbanding services. Naval vessels are no different in this regard (though they have additional requirements, discussed below). Where there is no organic naval support at a site, local agents must be contracted to perform a wide array of services: disposing of trash and sewage, employing tugs, ferries, cranes, and forklifts to transfer supplies and equipment to and from vessels and warehouses, managing transactions with local vendors, arranging lodging and recreation for sailors on liberty, and a host of other incidental services associated with the varied particulars of a given ship’s port visit.

Such activities are carried out under the auspices of port operating firms, which typically hold some or all of the lease or concession on a given terminal. Several PRC multinationals are among the industry leaders, operating port terminals across the planet. Some have become preferred facilities for the PLAN as they expand their operations abroad. The scale and concentration of assets under the control of firms like China Ocean Shipping Corp (COSCO) and China Merchants Group (CMG) create a globally-distributed, vertically-integrated transport and logistics network serving

¹ Statements in this testimony draw from the following published works and testimony, unless otherwise specified: Isaac B. Kardon and Wendy Leutert, “Pier Competitor: China’s Power Position in Global Ports,” *International Security* 46, no. 4 (Summer 2022), pp. 9–47 (see also data appendix at <https://doi.org/10.7910/DVN/LL9BKX>); Isaac B. Kardon, “China’s Global Maritime Access: Alternatives to Overseas Military Bases in the Twenty-First Century,” *Security Studies* 31, no. 5 (2022), pp. 885-916; Isaac B. Kardon, “Pier Competitor: Testimony on China’s Global Ports,” *Naval War College Review* 74, no. 1 (Winter 2021); Isaac B. Kardon, “China’s Overseas Base, Places, and Far Seas Logistics,” in Phillip C. Saunders, et al. (eds), *The PLA Beyond Borders: Military Activities Outside the PRC* (NDU Press, 2021); Isaac B. Kardon, Testimony prepared for “Hearing: A ‘World Class’ Military: Assessing China’s Global Military Ambitions,” *U.S.-China Economic and Security Review Commission*, 20 June 2019; Isaac B. Kardon, Testimony prepared for “Hearing: China’s Military Power Projection and U.S. National Interests,” *U.S.-China Economic and Security Review Commission* (20 February 2020).

² Jennifer Rice and Erik Robb, “The Origins of ‘Near Seas Defense and Far Seas Protection,’” *CMSI China Maritime Report*, no. 13 (February 2021).

many of China's international trade needs. The primary functions of this network are plainly commercial; its secondary and tertiary functions, however, enable the PLA to sustain a range of peacetime operations far from its shores. These dual-use functions are prescribed in China's domestic law and policy, which oblige PRC firms to give preferential access to PLA vessels their terminals, share information, and actively support defense transportation and mobilization.

The Chinese port network also offers a ready platform for intelligence-collection. In the normal course of business at a port terminal, port operators will collect and process huge volumes of proprietary information about vessels and their various fuel and supply requirements, routes and destinations, cargos, personnel, and other salient details. These data are potentially valuable for military intelligence purposes – especially given the relative ease with which the same observations may be taken of military vessels calling in commercial ports. It bears emphasizing that such commercial port calls are the norm for navies operating out of area, including the U.S. Navy (USN) – but only the PLA can do so in an extensive network of Chinese-owned and -operated facilities.

Leverage that may be used for economic coercion is also resident in the PRC port network. Because ports are the primary circulating nodes for global trade, China's status as the world's leading trading nation makes its terminals particularly effective instruments for exploiting its many asymmetric trade relationships. At the tactical level, dependencies created by flows of Chinese trade are localized at ports, where a local operator may permit or deny service on specific vessels or cargos.

At the strategic level, certain Chinese firms involved in foreign ports can indirectly represent China's national trading relations with a given country. PRC-controlled ports and the transportation networks they connect are key enablers of China's trade – and thus its overall economic interest – in major markets around the globe. This leverage was vividly demonstrated in Germany's deference to China on COSCO's bid for a stake in a terminal at Hamburg in 2022. Chancellor Olaf Scholz overrode his cabinet and strong public disfavor to champion the controversial deal, a costly action that illustrated German dependence on access to Chinese markets and its lucrative trade with the PRC.³ Ports facilitate a credible threat to quickly divert trade or otherwise push foreign economic actors, complementing Beijing's well-practice repertoire of economic coercion techniques.⁴

2. *What are the limits of China's commercial ports in supporting PLA activity? For example, how much of the utility that the PLA gains from commercial ports in peacetime is likely to remain available to China in wartime? Would any of China's commercial port facilities be able to provide meaningful combat support?*

Commercial ports are generally ill-suited to provide specialized, military support for more complex and contested military operations. While many peacetime logistics and intelligence missions are readily achievable from most facilities, most wartime uses are likely to be severely constrained. The potential for Chinese forces in a conflict scenario to utilize a commercial port terminal leased to Chinese firms in a foreign country is limited and complicated by a host of political and technical factors.

³ Thorsten Benner, "Turning the Tables on COSCO," *Global Public Policy Institute* (21 October 2022).

⁴ See, for example, Darren J. Lim, Victor A. Ferguson, and Rosa Bishop, "Chinese Outbound Tourism as an Instrument of Economic Statecraft," *Journal of Contemporary China* 29, no. 126, 916-933; Jonathan Hackenbroich, "Tough Trade: The Hidden Costs of Economic Coercion," *European Council on Foreign Relations* (1 February 2022); see generally William K. Norris, *Chinese Economic Statecraft: Commercial Actors, Grand Strategy, and State Control* (Cornell, 2016).

Politically, host governments will generally have discretion to determine the type and degree of PLA use of any facility on its territory. Because China does not have treaty alliances or other defined external security commitments, its leaders are not obliged to maintain forces abroad or directly participate in any overseas conflict. Should Beijing intend to deploy combat forces or otherwise engage in belligerent activities, any use of host nation infrastructure would have to be negotiated bilaterally. Whether and when Beijing would seek to negotiate such access raises important questions about PRC external strategy, and requires that we take stock of China's historically low levels of interest in engaging directly in militarized conflicts beyond its immediate periphery.⁵

In the absence of standing status of forces and other military access agreements, the PLA cannot be guaranteed access and use of foreign port terminals. This is not a prohibitive obstacle for all military use, as there are many scenarios in which host nations will permit PLA forces to operate – like humanitarian assistance, disaster relief, non-combatant evacuations, and counter-piracy, among other non-combat operations in which the PLA has already engaged abroad, with varied levels of effectiveness.⁶ However, the bar for PLA participation in active hostilities staging from a host nation's territory must be judged considerably higher.

Technically, commercial terminals impose significant limitations at the high end. For a port to effectively support contested military operations, it requires high levels of armament and force protection, secure communications, specialized personnel, and a host of weapons systems, equipment, and munitions – as well as secure logistical lines to supporting facilities. Naval vessels and aircraft require particular shipboard and aviation fuels, maintenance, parts, and qualified technicians to service them. None of these special conditions are likely to be met in total at any commercial facility, even those wholly-owned and operated by PRC firms in permissive countries.

These limitations are not absolute. Host country naval bases are frequently collocated with commercial ports, and China could be authorized to use both under mutual agreement. Naval facilities are often proximate to naval shipyards where combat repairs and other maintenance could be undertaken, and virtually all have ready access to airfields and other transport modalities that can accommodate military aircraft and vehicles. Not every facility needs to provide comprehensive combat support for PLA forces to stitch together a workable solution for certain operations from the range of commercial ports, foreign bases, and underway support. Such options are likely most feasible in states where Chinese firms have built ports and airfields, host-nation military facilities, and/or have sold naval platforms with requirements comparable to those of the PLAN fleet.

3. *How does PLA access to a network of overseas commercial facilities differ from the more traditional method of power projection through overseas military bases employed by the United States? What are the geographic, geopolitical, and technological factors driving China's adoption of approach?*

⁵ Allen S. Whiting, "China's Use of Force, 1950-96, and Taiwan," *Quarterly Journal: International Security* 26, no. 2. (Fall 2001); M. Taylor Fravel, "Securing Borders: China's Doctrine and Force Structure for Frontier Defense," *Journal of Strategic Studies* 30, no. 4 (2007).

⁶ A thorough review of PLA activities beyond PRC borders is available in Joel Wuthnow, et al (eds), *The PLA Beyond Borders* (NDU Press, 2021). On the PLA's seminal experience with the 2011 Libya NEO, see 陈晓雷, 王智涛, 肖勇利 [Chen Xiaolei, Wang Zhitao, Xiao Yongli], "闻令而动,特殊战场建勋: 海军遂行非战争军事行动任务 5 年主要成就回眸," 人民海军 [*People's Navy*], (28 November 2011), 1.

With only one dedicated military base, at Djibouti, the PLA does not yet possess the means to forward-deploy its forces and persistently project power into multiple world regions. However, American observers should take caution not to mirror-image American strategic objectives and global security interests onto the PRC's quite distinct circumstances. In fact, the familiar Anglo-American model of power projection from a far-flung constellation of military bases is not the only—nor even the likely—pathway for China to achieve its objectives of building a “world-class military” and becoming a “great maritime power.”⁷

Even if leaders in Beijing were determined to replicate the U.S. overseas force posture (an extreme assumption), they do not have an existing network of bases, nor any clear pathway toward building one. Rather, the strategic problem facing China is to determine what kind of overseas military footprint is desirable and feasible – rather than the Pentagon's quite distinct problem of how to make the best use of its legacy architecture of global bases.⁸ The commercial port assets of Chinese firms are one piece of this puzzle for PLA planners, who must meet Beijing's demands to project power overseas within relatively narrow political parameters.

China's opportunities for foreign basing are further diminished by certain structural features of the contemporary international security environment.⁹ Most significant among them is the permanent reality of China's continental geography. The PRC shares long land boundaries with many powerful neighbors and must prioritize its periphery as a first-order national security concern. This does not preclude China from developing security interests and military capabilities in distant regions, as it clearly has – it simply means that diverting resources and strategic attention away from its primary strategic theater will entail significant opportunity costs.

A second near-constant feature of China's geostrategic position is its “encirclement” by the U.S. and its allies across Asia, Oceania, and Europe.¹⁰ This problem is especially acute in maritime East Asia, the locus of China's strategic threat perceptions. With Taiwan as the central problem, and the U.S. security architecture a pressing concern in China's immediate littoral areas, the utility of bases far out of the likely theater of operations is much diminished.¹¹ American bases in allied and partner nations do not so much “crowd out” China's opportunities as make them more costly in an international security environment where every increase in PLA capabilities presents as a conspicuous challenge to the American-led alliance system.

Finally, technology also renders the “traditional method” of foreign basing less strategically viable for China in the 21st century than it may have been for powers in an earlier era. In particular, widely-

⁷ See, respectively, M. Taylor Fravel, “China's ‘World-Class Military’ Ambitions: Origins and Implications,” *The Washington Quarterly* 43 (no. 1), 85-99, and Liza Tobin, “Underway: Beijing's Strategy to Build China into a Maritime Great Power,” *Naval War College Review* 71, no. 2, art. 5.

⁸ Becca Wasser, “The Unmet Promise of the Global Posture Review,” *War on the Rocks* (31 December 2021); Cristina L. Garafola, et al, “The People's Liberation Army's Search for Overseas Basing and Access: A Framework to Assess Potential Host Nations,” *RAND Corp.* no. RR-A1496-2 (2022).

⁹ These arguments draw specifically from analysis in Kardon, “China's Global Maritime Access.”

¹⁰ John W. Garver and Fei-Ling Wang, “China's Anti-encirclement Struggle,” *Asian Security* 6, no. 3 (2010), 238-261.

¹¹ For a helpful analysis of the operational implications of the PLA potentially operating from Taiwan as a “base,” see Caitlin Talmadge and Brendan Green, “Then What? Assessing the Military Implications of Chinese Control of Taiwan,” *International Security* 47, no. 1, 7-45.

diffused precision strike technologies make all prospective Chinese bases soft targets.¹² Building dedicated basing infrastructure may well yield greater liabilities than assets in high-end conflict – a problem with which the U.S. joint force is also contending as it seeks to blunt China’s threat to its many fixed positions across the Indo-Pacific.¹³ In this sense, China may enjoy somewhat of a “second-mover” advantage in building a global force posture better suited to the present and emerging international security environment.

4. *How do you expect China’s model of overseas power projection support to evolve in the future? What implications does this have for U.S. and allied engagement in long-term strategic competition with China?*

China is pursuing many power projection modalities simultaneously. We should expect efforts to establish formal military bases overseas to continue – and likely succeed in some cases.¹⁴ Military utilization of PRC-operated foreign infrastructure is also set to proceed with greater intensity over time as key projects and security relationships mature. These PRC companies’ assets are not purpose-built for PLA use, but they are a viable option for meeting certain pressing demands on the PLA to “safeguard China’s overseas interests” and carry out “far seas protection” across the long, vulnerable sea lanes stretching back to coastal China. Further improvements to various modes of underway support and rotational deployment are also probable methods for sustaining out of area PLA operations.

This multi-faceted Chinese approach to overseas power projection entails several strategic implications for the United States and its allies. Three bear special emphasis:

- The PLA is becoming more capable of expeditionary operations over time. Meanwhile, a wide array of real and perceived security threats to “China’s overseas interests” offer ready justifications for deploying forces to protect PRC assets, personnel, and supply lines. Yet because Beijing remains wary of direct engagement in external military conflicts, and because the primary mission-set for the PLA will remain Taiwan-related, PLA forces are unlikely to be committed in all but the most extreme circumstances.
- Military use of Chinese-owned and -operated commercial infrastructure has already created a distinctive (if limited) mode of military power projection for the PLA. The primary use of these dual-use facilities, however, will remain commercial activity. Episodic port calls from PLAN vessels account for only a tiny fraction of the utilization of Chinese port terminals. This dominant economic function should not be overlooked, as China’s power position in global ports allows it to observe and control maritime flows of critical goods across the globe. In peacetime, this confers leverage to China in its trading relationships; in wartime, the implications are unknowable – but deep US and allied dependence on commercial supply chains (including foreign shipping and ports) for military operations presents a foreseeable vulnerability.

¹² See discussion of the implications of long-range land-, sea-, and air-launched missiles for fixed basing in the Spratlys in M. Taylor Fravel and Charles Glaser, “How Much Risk Should the United States Run in the South China Sea?” *International Security* 47, no. 2 (Fall 2022), 113-115.

¹³ See, for example, Statement of Admiral Philip S. Davidson (USN), Commander U.S. Indo-Pacific Command, Before the Senate Armed Services Committee on U.S. Indo-Pacific Command Posture (9 March 2021)

¹⁴ See Dept. of Defense serial reporting on Chinese efforts to acquire access, basing, and logistical facilities at dozens of sites, including Cambodia, Equatorial Guinea, Pakistan, Tanzania, United Arab Emirates. Office of the Secretary of Defense, “Military and Security Developments Involving the People’s Republic of China,” Annual Report to Congress.

- “Long-term strategic competition” should not imply that our strategic objectives are perfectly counterposed. There are certain clear asymmetries: China and the US are not competing to be the dominant global security provider, and the PLA is not postured or prepared for high-end conflict outside of East Asia. Chinese ports do not directly displace American military power; rather, China’s inextricability from global transportation networks gives Beijing a potent, asymmetric platform to observe, assess, delay – and potentially deny – certain US and allied activities. This asymmetry is of a piece with many other facets of US-China peacetime competition, where China’s main advantage is often economic and thus not readily denied with military power alone.
5. *What are the biggest remaining knowledge gaps on this topic? Are there areas that policymakers should pay greater attention to?*

China’s global position in critical infrastructure is yielding significant advantages in long-term competition with the United States. Ports, in particular, warrant continuing focus as the vital nodes in growing networks of Chinese maritime power and transportation power (both goals in the PRC’s 14th Five Year Plan approved March 2021).¹⁵ But many of the other network attributes remain unobserved or inchoate.

One important area that remains to be investigated is the physical-digital interface created by PRC infrastructure. The ships, ports, cranes, containers, and other major components enabling trade to flow physically are also elements of an overlapping digital network. Chinese firms operating these assets gain access to proprietary information about the many transactions and movements conducted through its increasingly integrated trade and communications networks. This Commission has already produced a brief on some of the risks associated with the Chinese government’s efforts to accumulate sensitive trade and logistics data.¹⁶ Further inquiry is required into the various streams of data that flow through the many increasingly “smart,” digitally-networked components of global trading networks and supply chains. As an initial step, further research should map the nature and extent of China’s access to information through these networks. That descriptive effort can fuel further analysis into how Chinese leaders, state and party organs, and firms may aggregate and use these data.

6. *The Commission is mandated to make policy recommendations to Congress based on its hearings and other research. What are your recommendations for Congressional action related to the topic of your testimony?*

The US is not well-equipped to compete directly with China in building, owning, and operating ports and other transport infrastructure. However, many firms in US ally and partner states are leaders in these industries. Several are motivated, at a minimum, to compete economically with Chinese firms like COSCO perceived to wield unfair advantages due to their scale and state backing. American diplomatic and financial capital are required to stand up collective efforts to build some resilience into allied transportation networks and supply chains.

¹⁵ PRC National Development and Reform Commission, “Outline of the People’s Republic of China 14th Five-Year Plan for National Economic and Social Development and Long-Range Objectives for 2035”

¹⁶ U.S.-China Economic and Security Review Commission, “LOGINK: Risks from China’s Promotion of a Global Logistics Management Platform,” 20 September 2022.

The Department of State's Strategic Ports Initiative is one laudable effort in this direction, and should be complemented by sustained Congressional action to align actors across the U.S. government and private sector to support a global interest in countering PRC advantages in maritime transport networks. The intent and purpose of such ventures should be calibrated to meet partner interest in competition for global market share rather than long-term strategic (military) competition with China. That stark framing risks alienating partners who do not perceive acute threats from the PLA and generally seek to advance their economic relationships with the PRC. American initiatives that recognize and advance the national interests of our partners – and respect their ambivalence about China – will produce more robust cooperation.