

14 Asymmetric but uneven

The China–India conventional military balance

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The strategic competition between China and India has had a conventional military dimension for decades. The two countries fought a limited war on their disputed land border in 1962 and have engaged in perennial confrontations over the Line of Actual Control (LAC) ever since. But the conventional military balance has taken on a new complexion in the past decade, as both China and India have modernized their forces and given them new missions. Both countries have equipped their forces with increasingly lethal and long-range weapons, from nuclear submarines to cruise missiles. And both have begun to use their militaries to defend ever-wider security interests, so their forces encounter each other in new locales, from the Red Sea to Southeast Asia. Where do these changes leave the conventional military balance?

Military capabilities are founded, most basically, on quantities of materiel and personnel. China, for example, has just over two million active duty personnel, whereas India has just under 1.4 million; China operates 6,740 main battle tanks, and India operates 3,097; China operates fifty-seven attack submarines, and India operates fourteen. China has 3,736 more artillery pieces, 55 more major surface combatants, 1,181 more fighter/multi-role aircraft, and 162 more bombers than India (IISS 2019). But military capabilities are determined by a much wider and more important range of factors. In this chapter, we assess the conventional military balance in three parts: first, by explaining the context of each military force's main priorities; second, by outlining key factors in military modernization; and third, by directly comparing India and China's relative advantages as they face each other across the LAC and in the Indian Ocean. We show that the conventional balance is asymmetric but uneven—that is, China has a larger and more powerful military overall, but this may not translate into military superiority in every scenario. The relative advantages are highly context dependent.

Military priorities

For the past three decades, the primary mission of the Chinese People's Liberation Army (PLA) has been to support the main strategic objective of safeguarding China's national sovereignty and territorial integrity as Beijing defines it. This has meant developing the capabilities to deter and defeat the US military within the first and second island chains.¹ To do so, China has adopted an anti-access area-denial (A2AD) approach to warfare. Anti-access refers to China's focus on capabilities designed to prevent the US military from entering into an area of operations, for example by disrupting mobilization or excluding US forces from certain bases and thus forcing them to operate farther from the center of conflict. Area denial focuses on disruption: China's integrated air

defense systems, anti-ship cruise and ballistic missiles, maritime bombers, and missile and torpedo-carrying submarines would all inflict high costs on the United States in the event of war, limiting its freedom of maneuver within the first island chain.

Because of China's focus on deterring, disrupting, delaying, and degrading the deployment of US forces into the region in a Taiwan, South China Sea, or East China Sea scenario, Chinese forces are heavily concentrated in the eastern part of the country. The A2AD approach also affects China's investments: resources are increasingly diverted away from ground forces and toward the People's Liberation Army Navy (PLAN) and the People's Liberation Army Air Force (PLAAF). In other words, while China and India share a disputed border and are competing in the Indian Ocean, India falls relatively low on China's list of threats to its national security and ability to rise to great power status (Ren 2017; Mastro 2019).

The Indian military's primary mission is the defense of India's territorial integrity. Most of India's uses of force have been intended to consolidate or defend its territorial unity, including several minor actions soon after independence in Goa, Hyderabad, and Kashmir and the more recent annexation of the Siachen glacier. India's threat perceptions have long been dominated by land threats on its northern borders from China and Pakistan. Its four wars against Pakistan and one against China were all fought over disputed territories. Those territories remain disputed, and they are heavily militarized. India routinely exchanges artillery fire—and occasional special-forces raids—with Pakistan. It also seeks to fend off frequent incursions by Chinese troops across the LAC.

These continental threats, unsurprisingly, dominate India's military procurement and planning. The Indian Army attracts the lion's share of the country's defense budget and personnel: in the 2018–2019 budget, it was allocated fifty-five percent of the military services' budget (whereas the Air Force was allocated twenty-three percent and the Navy, fifteen percent), in large part because it accounts for over eighty-five percent of India's military personnel (Behera 2018a). The continental bias is even more pronounced when we include the paramilitary security forces outside the conventional military—a total of another 1,586,000 personnel (IISS 2019).

In contrast, New Delhi has traditionally perceived less acute threats from its southern maritime approaches. It regards the Indian Ocean, including its islands and littoral states, as an area of natural Indian influence. India has occasionally intervened militarily to assert its primacy over smaller states—for example, in Sri Lanka in 1987–1990 and in the Maldives in 1988—especially in the face of perceived encroachment by extra-regional powers. In the past decade, India has recognized new maritime threats such as terrorism. To address these threats, and especially because the perpetrators of the “26/11” Bombay attacks in 2008 infiltrated from the harbor, India is redoubling its coastal security defenses.

Military modernization to date

Thanks to China's significantly larger economy and greater defense allocations, the PLA has modernized its forces much more ambitiously in the past decade than has India. India's modernization has been encumbered not only by its comparative lack of resources, but also by its low bureaucratic capacity. The PLA's key modernization initiatives (often driven by other requirements such as its competition with the United States) affect the dyadic China–India balance, creating a growing military capabilities gap between the two countries. The different trajectories of modernization are vividly apparent in four dimensions.

Economic resources

First, the Chinese military has access to significantly greater national economic resources with which to modernize, while the Indian military must make do with a smaller share of a smaller pie. Thanks to decades of high economic growth, China now has the second-largest defense budget in the world, after the United States. The official defense budget continues to enjoy real growth, even as national economic growth has slowed in the past decade. The actual defense budget is probably about twenty to twenty-five percent larger than official figures suggest, because these figures omit major spending categories such as research and development and foreign acquisitions. As the PLA's modernization reduces the number of active duty personnel, a greater share of the Chinese defense budget will be available for capital expenditure and operations (Office of the Secretary of Defense 2018).

In contrast, India's defense allocations as a share of the national budget have been stagnant for the past decade (Behera 2018b). Despite vocal calls for increased defense spending—including from parliamentary committees—New Delhi is unlikely to summon the political will to increase defense spending significantly at the cost of other urgent priorities. Even more damaging, however, is the fact that a growing share of the defense budget is being spent on pay and pensions rather than on new equipment for military modernization (Behera 2018a).

India's military services, as a result, cannot replace aging equipment, let alone expand their inventory. The Air Force is in a particularly problematic position: its aircraft strength has dwindled in recent decades as its older aircraft reach obsolescence, while insufficient resources and inefficient procurement processes delay the acquisition of replacements. It can now field only thirty-three fighter and multi-role aircraft squadrons out of a mandated strength of forty-two squadrons (IISS 2019). The core of its fighting power comes from eleven squadrons of Su-30MKI multi-role aircraft, but even they suffer extremely low serviceability rates of approximately fifty-five to sixty percent (Bedi 2017). The centerpiece of the Indian Army's offensive capability against China has also been gutted by resource constraints. The Mountain Strike Corps, which had been bedeviled by funding shortfalls since the announcement of its creation in 2013, was suspended in 2018, and its future remains in doubt (Dutta 2018).

More generally, the Indian military lacks the resources to maintain its mandated "war wastage reserves" (WWR)—the stock of equipment and ammunition required to fight expected contingencies. The Indian Army, for example, has revised downward its WWR requirement in some categories of ammunition such as anti-tank missiles. Although the new requirement mandates sufficient reserves for just ten days of intense combat, the army cannot meet even these modest demands (Joshi 2018). The Indian military uses a planning construct of fighting a simultaneous two-front conventional war against Pakistan and China, but its resourcing and readiness shortfalls suggest that such a benchmark is grossly unrealistic.

Indigenous production

Second, the PLA has access to a burgeoning defense industrial sector that develops and produces advanced capabilities indigenously at improving efficiency. In contrast, India's inefficient defense industries have struggled to deliver major systems. China's defense industry has undergone serious reform and modernization in the past decade, largely

in response to President Xi Jinping's strategic push for science and technology innovation to help rejuvenate China by 2050. This 2050 rejuvenation strategy has four major milestones, two of which necessitate indigenous innovation (Office of the Secretary of Defense 2018: 121). Furthermore, the PRC has taken numerous steps to maximize domestic defense development through mixed-ownership reform, which includes extensive civilian–military integration (Yang 2017), and the implementation of the Strategic Support Force, which is intended to pursue “leapfrog development” and the advancement of military innovation (Kania 2017).

As a result, most of the PLA's equipment, weapons, and platforms are made indigenously, with a number of major Chinese state-owned companies competing for contracts. For example, the China State Shipbuilding Corporation and the China Shipbuilding Industry Company have built most of the hundred or so ships purchased by the PLAN over the past ten years (Yeo 2018). In aviation, fighters like the J-10, J-11, and J-20 are built at home, though with Russian knowhow and engines. Three Chinese firms are within the top ten defense companies in the world (Nouwens and Béraud-Sudreau 2018). In the strategic sector of shipbuilding, China now produces its own engine plants and almost all of its shipboard weapons and electronic systems and is almost entirely self-sufficient (Office of the Secretary of Defense 2018).

Critics of China's defense industry point out that its inefficient monopolistic structure undermines domestic innovation, resulting in the need to procure high-tech military equipment abroad (Chase et al. 2015: 125–134). To mitigate these problems, China has recently launched initiatives such as the 13th Defense Science and Technology and Industry Five-Year Plan and the 2025 Defense Science and Technology Plan prepared by the State Administration for Science, Technology, and Industry for National Defense. While some quality deficiencies remain and the aircraft defense industry remains reliant on foreign-sourced aircraft engine components, the remarkable advances in the PLA's capabilities demonstrate that China is rapidly becoming self-sufficient in producing high-quality advanced capabilities and is arguably already self-sufficient in many areas.

India's defense industrial sector is also largely state-owned and monopolistic, but it is highly inefficient due to cumbersome bureaucratic processes and weak institutional capacity. Hindustan Aeronautics Ltd., the monopoly aircraft producer, has long built airframes on license, including the Russian-origin Su-30MKI. But its flagship indigenously developed platform, the Tejas light combat aircraft, was initiated in the early 1980s and did not enter service until 2016—over a decade late, by which time many of its capabilities were already obsolete (Migliani and Wilkes 2015). As a result of such inefficiencies, the Indian military is still heavily reliant on foreign sources of weaponry.

To mitigate its foreign dependence, New Delhi has sought to encourage domestic co-development or co-production of equipment, along with foreign partners. With the Modi government encouraging more indigenous development and production through its “Make in India” program, Indian companies have entered into joint ventures with foreign suppliers. The Defence Research and Development Organisation (DRDO) has a long association with various Russian suppliers and has succeeded in developing some state-of-the-art weapons such as the BrahMos cruise missile. More recently, other joint ventures—for example, between BAE Systems and Mahindra for M-777 self-propelled artillery, and between Boeing and Tata for Apache helicopter fuselages—promise several benefits. They will not only provide technology transfer to India and integrate India into global supply chains for some equipment but also forge deeper strategic partnerships with a more diverse range of suppliers, including the United States, Israel, and France.

Organizational structure

Third, the PLA has made major organizational changes to consolidate its operational-level command arrangements and improve joint war-fighting, whereas the Indian military continues to lack inter-service coordination at both the strategic and operational levels. The PLA aims to complete its most comprehensive push for restructuring and modernization over the next decade. These reforms will “reinforce the CCP’s control of the military, improve the PLA’s ability to perform joint operations, increase combat effectiveness, and curb corruption” (Office of the Secretary of Defense 2018: 2). During the 19th Party Congress in October 2017, China reduced the membership of the Central Military Commission from eleven to seven (Office of the Secretary of Defense 2018: 2). The service chiefs were removed from the body, leaving the chairman, vice chairmen, minister of national defense, joint staff department chief, political work department director, and discipline inspection commission secretary (DIA 2019: 15). In theory, the new command structure should facilitate joint operations and decision-making in times of crisis. To improve its ability to conduct joint operations, the PLA has also reorganized its forces from internally focused military regions into a smaller number of joint operational commands.

In contrast, India’s Army, Navy, and Air Force have separate command arrangements, acquisition programs, and doctrines. Each service designs and prioritizes its own acquisitions independently of other services. This may create difficulties of interoperability, which undermine combat effectiveness, or it may lead to duplication and inefficiencies. For example, each service operates the Israeli-origin unmanned aerial vehicles (UAVs) Searcher Mk. II and Heron—but each service placed a separate order for each type.

In command and control, in August 2019, Prime Minister Modi announced an intent to establish a Chief of Defense Staff (CDS), who would oversee the military and provide unified military advice to the government—although it remains unclear whether the position will be endowed with the necessary authority. At the operational level, the Army, Navy, and Air Force continue to operate their own single-service geographic commands—seventeen in all, none of which are co-located. India’s only tri-service joint command, the Andaman and Nicobar Command, was established to test and develop the practice of joint commands, but it has been starved of resources and institutional support from each of the services. Certain other advances have given the illusion of progress on jointness, such as the creation of an Integrated Defense Staff, the establishment of “joint” agencies for cyber, space, and special operations (each commanded by a single service), and even the promulgation of India’s first joint doctrine. But none of these initiatives amount to true jointness in the form of unified operational command or interdependent operational concepts. At the operational level, the absence of joint theater commands impedes the Indian military’s ability to coordinate plans, doctrine, and operations. Despite the recommendations of several review commissions, the concept of jointness, at both the strategic and operational levels, has been stillborn due to the resistance or lethargy of individual services, civilian bureaucrats, and political parties (Mukherjee 2016).

Networked capabilities

Fourth, the PLA has aggressively pursued command, control, computer, communication, intelligence, surveillance and reconnaissance (C4ISR) enabling capabilities, whereas the Indian military retains a personnel-intensive force lacking in networked capabilities. In this pursuit of capabilities for “informatized” war, the PLA has emphasized advanced networked C4ISR and counter-C4ISR technologies, while simultaneously

reducing the number of personnel in its force. Chinese strategists have determined that defeating an enemy like the United States or Japan will require integration among services and a more robust command and control network. President Xi has also set the following overarching goals for the Chinese military: by 2020, the Chinese military should have basically realized mechanization, made significant progress in information technology, and made a big leap in strategic ability; by 2035, the modernization of national defense and the military should have been largely achieved; and by 2050, the Chinese military should be a world-class force (Gao 2017).

In contrast, India's investments and doctrine have not emphasized intelligence or information technology as a key enabler. The Air Force has sought to upgrade its fighters with the addition of Israeli-made Litening Intelligence, Surveillance, and Reconnaissance (ISR) pods (Egozi 2016), and all of the services are acquiring various types of UAVs to improve their situational awareness. The communications and battlefield management systems, however, lag behind. India's recently acquired P-8I maritime patrol aircraft are highly capable, but for years could not realize their potential without secure communications and data links (Rosen and Jackson 2017: 14). In 2018, India and the United States signed the Communications Compatibility and Security Agreement (COMCASA), which will over time improve India's ability to share secure data and communications with US forces. The Indian Army's battlefield management system is accessible only down to the Brigade level (Katoch 2017), which significantly limits the lower echelons' situational awareness and ability to operate autonomously.

These differences, in areas ranging from national resource allocation to tactical equipment and doctrine, show clearly that the Chinese military has made greater strides in modernization than India's military has. On balance, it is larger, better-equipped, better-organized, and better-prepared for the battlefield of the future. The balance of forces is generally asymmetric. Conflicts, however, are not decided on the basis of arithmetic comparisons between adversaries. A richer analysis of the conventional balance should also consider the strategic context in specific locations where India and China are likely to engage each other.

Local military balances

A military crisis or conflict between China and India is most likely to occur either on their shared land border or, with increasing likelihood, in the Indian Ocean. The land border was the site of China and India's only war, in 1962, and has seen several tense crises and innumerable non-violent troop incursions since then. The Indian Ocean is a more recent arena of strategic competition, as the PLAN now regularly deploys into the area that the Indian Navy for decades considered its sphere of influence. Other geographic locales, such as the South China Sea and other East Asian waters, are unlikely to witness China-India security crises, at least for the next decade, because India has negligible direct security interests or military presence there.

On the land border, military geography favors China. The Tibetan plateau and Taklimakan Desert in Xinjiang are sparsely populated and offer China enormous strategic depth—its major population and industrial centers are far from the LAC. In that relatively flat terrain, China has built all-weather road and rail infrastructure and dual-use airfields that it can use to quickly reinforce its military presence at the border. This infrastructure includes the landmark Qinghai-Tibet railway, which was the first (in 2006) to connect Lhasa to the rest of China and was subsequently extended further toward the border; a new multi-lane expressway along a similar path, construction for which began in 2018; and a host of other road and rail links connecting the border to China's interior.

China has also built or expanded several airfields in Tibet and Xinjiang, many of which are dual-use facilities, to support economic development and Beijing's political control over its restive provinces. This ground and air infrastructure has been supplemented by telecommunications infrastructure, with an extensive satellite and fiber optic network for both civilian and military communications (Chansoria 2011).

In contrast, the Indian side of the border is extremely mountainous and much closer to major population and industrial centers. Because of its lack of strategic depth and its scarring historical memories of the loss of the 1962 war, India deliberately neglected transport infrastructure near the border for decades, with the expectation that parlous roads would impede any Chinese invasion. Over the past decade, India has sought to reverse this neglect with an ambitious program to build seventy-three new border roads, mostly in the northeast. Bureaucratic delays and a lack of resources, however, have caused the road-building program as a whole to fall severely behind schedule (Singh 2018). Railway construction is even further delayed. But some significant advances have been made, such as the Bogibeel road and rail bridge across the Brahmaputra River, which has greatly improved access to northern Assam and eastern Arunachal Pradesh (Shukla 2018). For the Air Force, India has reactivated fourteen Advance Landing Grounds, bare bases disused since the 1962 war, which can be used to forward deploy aircraft closer to the border in contingencies.

India has deployed more forces close to the LAC than China has; indeed, given India's lack of strategic depth, even Indian garrisons and rear areas are closer to the LAC than their Chinese counterparts. However, given the steep uphill terrain and inadequate lines of communication, these Indian forces would still face delays in reinforcing the border. While recognizing these ground-force shortfalls, the Indian military has sought to develop a more robust offensive capability against China with a combination of armor, aircraft, and missiles. Thus, it raised two new divisions as part of the new Mountain Strike Corps and plans to deploy new variants of BrahMos cruise missiles and its latest Rafale multi-role fighters in Arunachal Pradesh.

China, in contrast, maintains a relatively small (though expanding) force on the border. Consequently, the Indian Army can often assert a stronger tactical position on the LAC—although such advantages may be short-lived and highly localized. In the summer of 2017, for example, Chinese and Indian troops faced off at Doklam, a disputed area at the China–India–Bhutan border tri-junction. Indian soldiers had physically impeded a PLA attempt to extend a road into territory that India recognized as Bhutanese. While the crisis remained non-violent, and both India and China reinforced their positions to the rear, the Indian contingent held a local tactical advantage. The Chinese road-building crew eventually withdrew (Mastro and Tarapore 2017). Within months of the crisis, however, China had built an array of permanent facilities to house a larger forward troop presence adjacent to the Doklam standoff site and a new road extension, also in disputed territory, that Indian forces could not interdict (Bhat 2018).

Beyond the LAC, the PLA can more readily reinforce its positions. It garrisons heavy maneuver formations near major cities such as Urumqi, Nyingchi, and Lhasa that are well-connected to the border with high-capacity roads and railways. In case of contingency, they could be forward deployed to the border and sustained in part through pre-positioned logistics and the rapidly expanding civilian infrastructure for energy and water (Jha 2017). For either side, reinforcing border security or preparing for offensive operations would be a significant logistical undertaking, requiring a large and slow movement of forces that would be observable by the other side.

Meanwhile, in the Indian Ocean, military geography favors India. The Indian Navy enjoys the advantage of having several home ports nearby, on the Indian Ocean. It can therefore more readily deploy vessels across the area and sustain them for longer periods or at greater distances compared to an extra-regional power like China, whose vessels require greater endurance to operate in the Indian Ocean. India also has the geographic advantage of sitting astride the sea lines of communication (SLOC) upon which China (like all other East Asian states) depends for trade and energy supplies—giving the Indian Navy leverage to interdict Chinese shipping.

From Indian home ports, the Indian Navy can easily deploy to loiter at or screen the Indian Ocean's key chokepoints: the Malacca, Lombok, and Sunda Straits, leading to the Pacific Ocean; the Strait of Hormuz, leading to the Persian Gulf; and the Bab el-Mandeb, leading to the Red Sea. In addition to ships, the Indian Navy operates US-origin P-8I maritime patrol aircraft and has the added advantage of shore-based surveillance and, in a conflict scenario, shore-based cruise missile and air interdiction support. These operating advantages are extended by the Andaman and Nicobar Islands, an Indian territory next to the Malacca Strait. Indian naval and air platforms can project from several bases in the island chain, the home of the Indian military's only joint command, the Andaman and Nicobar Command.

In contrast, the Chinese military must operate in the Indian Ocean with extended supply lines, reducing its vessels' endurance and increasing their vulnerability. While the PLAN has a viable A2AD capability off the Chinese mainland's east coast, any activity in the Indian Ocean is expeditionary: vessels must cross the Malacca Strait and face the constraints of limited logistics and maintenance support. An Indian Ocean presence is, however, an important strategic mission for the Chinese military. Such a presence would allow it to overcome its "Malacca dilemma"—a recognition that China's economic power is highly vulnerable to interdiction through narrow chokepoints, especially the Strait of Malacca.

To mitigate those challenges, China has sought to establish permanent bases and access to facilities across the Indian Ocean littoral. China's first overseas military base, established in Djibouti in 2017, is more than a naval logistics base; it also includes an underground facility, UAVs, and a contingent of marines (US Department of Defense 2018).

China also has various levels of access or control at several other civilian ports in the Indian Ocean under the rubric of the Belt and Road Initiative, Beijing's overall strategy for building transport and energy infrastructure, and through it, economic and political influence across Eurasia (Rolland 2017). China's most secure Indian Ocean foothold is in Pakistan, where it has begun a decades-long program to develop the port of Gwadar and may develop another military base nearby, at Jiwani. China also took control of Hambantota port in Sri Lanka when the local authorities could not make adequate debt repayments. In a similar way, it may gain control of more ports across the Indian Ocean littoral, from Mombasa in Kenya to Kyaukpyu in Myanmar (Szechenyi 2018). While these are all civilian ports, they could serve a military logistics or maintenance function in the future.

India has similarly sought to develop infrastructure across the Indian Ocean, both for its own military uses and to deepen security cooperation with its regional partners. To support its priority mission of enhancing its maritime domain awareness, India has built shore-based surveillance radars in Mauritius, the Seychelles, and Sri Lanka. It fuses data from these and other sensors at the newly established Information Management and Analysis Centre. It has also undertaken to develop port facilities in Sabang, Indonesia at the entrance to the Strait of Malacca and has secured military logistics access to Duqm port in Oman. And it has signed logistics-sharing agreements with the United States

and France, enabling Indian ships to receive logistics support from Indian Ocean territories such as Diego Garcia and Réunion (Samanta 2018).

This infrastructure supports an expanding Indian Navy operational presence in the region. India's 2015 maritime security strategy defined the entire Indian Ocean as its primary area of interest. The country's priorities as outlined in this strategy are to protect energy supplies and shipping, provide humanitarian assistance and disaster relief, combat terrorism and piracy, and deter aggression and coercion (Indian Navy 2015). Operationally, the Indian Navy has since 2017 conducted near-constant "mission-based deployments" at several critical locations in the Indian Ocean, including chokepoints, that allow it to monitor the PLAN's presence and to position itself to respond quickly to emergencies (Pandit 2018). The Indian Navy has aggressively accelerated its combined training exercises, both bilaterally and multilaterally, with a growing range of partners, including the United States, Japan, Australia, Singapore, and Indonesia. It has also undertaken a wide range of humanitarian assistance and disaster relief operations, from the Boxing Day tsunami relief across Southeast Asia in 2004 to noncombatant evacuations in Yemen in 2015.

The PLAN has a smaller presence, but it is sufficiently capable to concern New Delhi. China's naval strategy moved explicitly from a coastal defense to an expeditionary posture in 2015, incorporating the newly expanded mission of "open seas protection" of Chinese SLOCs and global maritime interests (The State Council Information Office of the People's Republic of China 2015). China's shipbuilding program has also shifted to favor larger ocean-going platforms (Koh 2018). The PLAN's Indian Ocean deployments are the responsibility of its largest fleet, the South Sea Fleet, which in recent years has begun to launch combat readiness patrols through the South China Sea and—briefly—to cross the Lombok and Sunda Straits into the Indian Ocean (US-China Economic and Security Review Commission 2014). To the Indian Navy's surprise and chagrin, PLAN submarines have also docked at Karachi and Colombo ports.

The PLAN has maintained a constant presence in the Indian Ocean since 2008, when it began to deploy a three-ship anti-piracy task force in the Gulf of Aden. With the decline of piracy and the expansion of Chinese security interests, that task force now provides naval support for a range of China's regional interests, including noncombatant evacuations from Yemen and Libya, and is supported by the new Chinese base in Djibouti. Critically, the Gulf of Aden deployment now also serves an important training function for the PLAN, which gains vital expeditionary experience for a wide array of vessels, including submarines (Erickson and Strange 2013; Shinn 2017).

Conclusion: relative advantages and implications

As the foregoing discussion has shown, the conventional military balance between China and India is highly contextual. The PLA remains, in aggregate, a more powerful military. It has the resources to quickly—and, to an increasing extent, indigenously—produce large numbers of key weapons systems such as submarines, surface combatants, long-range bombers, tanks, and artillery. It is also more technologically advanced; it fields some fifth-generation aircraft, for example, and has a more robust enabling network of C4ISR. And it has undertaken painful organizational reforms, shedding large numbers of personnel and establishing new joint operational structures to improve its combat effectiveness. On all those measures, the Indian military lags.

Nevertheless, China's advantages are uneven, and the outcome of any specific scenario is unpredictable. The dynamics of a crisis on the LAC would depend on the tactical balance

at that particular locale, which varies along the length of the LAC. If such a crisis were to flare into a limited war, the PLA would be better positioned to quickly surge offensive forces to the border, using standoff strikes to gain an operational advantage. In the Indian Ocean, India holds significant advantages and could inflict extensive harm on Chinese military interests by threatening China's shipping, SLOCs, or fixed bases. Depending on the scenario, India may also benefit from military or nonmilitary assistance from its regional partners, with which it has increasingly close defense relationships and shared security interests. However, such options would be highly escalatory, and they would be viable only if India had the political will to expand a local coercive confrontation.

In any scenario, the conventional military balance will play only one part in the strategic outcome. Whether in peacetime deterrence, crisis, or open conflict, contemporary strategic competition involves a wide suite of national capabilities. Nonconventional military power, including cyber exploitation and attacks, ballistic missiles, space-based C4ISR, special forces, and information operations, may play at least as important a role in conflict outcomes as conventional capabilities. Nonconventional and nonmilitary instruments of power, especially political warfare, have become particularly salient in recent years as certain states have begun to use "gray zone" tactics to achieve political goals short of conventional conflict. Indeed, such methods—sometimes known as the "three warfares"—have become a staple of Chinese strategic behavior (Mattis 2018). Thus, while conventional military capabilities offer a highly visible way of comparing China's and India's national power, they are an imprecise and unreliable measure of the likelihood that either state would prevail in strategic competition.

Note

- 1 The first island chain stretches from the Kuril Islands to the Ryukus, Taiwan, the Philippines, and Indonesia. The second island chain stretches from Japan to the Marianas and Micronesia (Vorndick 2018).

Bibliography

- Bedi, R. (2017) "Painful Progress: Indian Air Modernization Inches Forward," *Jane's Defence Weekly* (4 January): 75–88.
- Behera, L. K. (2018a) "Defence Budget 2018–19: The Imperative of Controlling Manpower Cost," *IDS A Issue Brief* (5 February), available online at <https://idsa.in/system/files/issue-brief/ib-defence-budget-2018-19-manpower-cost-lkbehera.pdf>.
- Behera, L. K. (2018b) "Examining the Feasibility and Affordability of Raising the Share of Defence Expenditure to Three Percent of GDP," *IDS A Issue Brief* (20 August), available online at <https://idsa.in/system/files/issuebrief/ib-defence-expenditure-gdp-lkbehera-200818.pdf>.
- Bhat, V. (2018) "China Quietly & Cleverly Finds a New Route to S. Doklam, 7 Months after India Stopped It," *The Print* (19 March), available online at <https://theprint.in/security/china-quietly-finds-new-route-to-s-doklam-7-months-after-india-stopped-it/43070/> (accessed 5 February 2019).
- Chansoria, M. (2011) *China's Infrastructure Development in Tibet: Evaluating Trendlines* (New Delhi: Centre for Land Warfare Studies).
- Chase, M. S., Engstrom, J., Tai, M. C., Gunness, K. A., Harold, S. W., Puska, S. and Berkowitz, S.K. (2015) *China's Incomplete Military Transformation: Assessing the Weakness of the People's Liberation Army (PLA)* (Santa Monica, CA: RAND Corporation).
- DIA (Defense Intelligence Agency) (2019) *China Military Power: Modernizing a Force to Fight and Win* (3 January), available online at www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/China_Military_Power_FINAL_5MB_20190103.pdf.

- Dutta, S. (2018) "Indian Army puts Mountain Strike Corps Aimed at China in Cold Storage," *The Print* (12 July), available online at <https://theprint.in/defence/indian-army-puts-mountain-strike-corps-aimed-at-china-in-cold-storage/82319/> (accessed 8 January 2020).
- Egozie, A. (2016) "Rafael Will Supply 164 Examples of Its Litening Targeting Pod to the Indian Air Force, for Use on Four Types of Combat Aircraft Including New Delhi's Sukhoi Su-30 Fighters," *Fight Global* (blog) (29 June), available online at www.fightglobal.com/news/articles/india-acquires-litening-targeting-pod-426811/ (accessed 5 February 2019).
- Erickson, A. and Strange, A. M. (2013) "No Substitute for Experience: Chinese Antipiracy Operations in the Gulf of Aden," *US Naval War College China Maritime Studies* 10, available online at www.andrewerickson.com/wp-content/uploads/2013/11/China-Antipiracy-Ops-in-GoA_CMS10_201311.pdf (accessed 5 February 2019).
- Gao, C. (2017) "3 Major Takeaways from Xi Jinping's Speech at the 19th Party Congress," *The Diplomat* (18 October), available online at <https://thediplomat.com/2017/10/3-major-takeaways-from-xi-jinpings-speech-at-the-19th-party-congress/> (accessed 5 February 2019).
- IISS (International Institute for Strategic Studies) (2019) *The Military Balance 2019* (London: IISS).
- Indian Navy (2015) "Ensuring Secure Seas: Indian Maritime Security Strategy," available online at www.indiannavy.nic.in/sites/default/files/Indian_Maritime_Security_Strategy_Document_25Jan16.pdf (accessed 5 February 2019).
- Jha, S. (2017) "China's Creeping Invasion of India," *The Diplomat* (6 July), available online at <https://thediplomat.com/2017/07/chinas-creeping-invasion-of-india/> (accessed 5 February 2019).
- Joshi, M. (2018) "Scraping the Bottom of the Barrel: Budgets, Organisation and Leadership in the Indian Defence System," *ORF Special Report* 74 (August), available online at www.orfonline.org/wp-content/uploads/2018/08/ORF_Special_Report_74_Defence_1.pdf.
- Kania, E. (2017) "China's Strategic Support Force: A Force for Innovation?" *The Diplomat* (18 February), available online at <https://thediplomat.com/2017/02/chinas-strategic-support-force-a-force-for-innovation/> (accessed 5 February 2019).
- Katoch, P. (2017) "Battlefield Management System for Indian Army—Where Are We?" *Indian Defence Review* (31 December), available online at www.indiandefencereview.com/news/battlefield-management-system-for-indian-army-where-are-we/ (accessed 5 February 2019).
- Koh, C. (2018) "China-India Rivalry at Sea: Capability, Trends and Challenges," *Asian Security* (November), doi: 10.1080/14799855.2019.1539820.
- Mastro, O. (2019) "It Takes Two to Tango: Autocratic Underbalancing, Regime Legitimacy and China's Responses to India's Rise," *Journal of Strategic Studies* 42(1): 114–152.
- Mastro, O. and Tarapore, A. (2017) "Countering Chinese Coercion: The Case of Doklam," *War on the Rocks*, available online at <https://warontherocks.com/2017/08/countering-chinese-coercion-the-case-of-doklam/> (accessed 5 February 2019).
- Mattis, P. (2018) "China's 'Three Warfares' in Perspective," *War on the Rocks* (30 January), available online at <https://warontherocks.com/2018/01/chinas-three-warfares-perspective/> (accessed 5 February 2019).
- Miglani, S. and Wilkes, T. (2015) "Exclusive: Modi Pushes 'Obsolete' Made-in-India Plane on Reluctant Military," *Reuters* (7 October), available online at www.reuters.com/article/us-india-defence-aircraft-idUSKCN0S10DD20151007 (accessed 5 February 2019).
- Mukherjee, A. (2016) "Fighting Separately: Jointness and Civil-Military Relations in India," *Journal of Strategic Studies* 40(1–2), doi: 10.1080/01402390.2016.1196357.
- Nouwens, M. and Béraud-Sudreau, L. (2018) "Global Defence-Industry League: Where Is China?" *Military Balance Blog* (blog) (28 August), available online at www.iiss.org/blogs/military-balance/2018/08/china-global-defence-industry-league (accessed 5 February 2019).
- Office of the Secretary of Defense (2018) *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2018* (16 May) (Washington, DC: US Department of Defense), available online at <https://media.defense.gov/2018/Aug/16/2001955282/-1/-1/1/2018-CHINA-MILITARY-POWER-REPORT.PDF> (accessed 5 February 2019).

- Pandit, R. (2018) "Increase in Deployment of Chinese Ships in Indian Ocean Region: Admiral Sunil Lanba," *The Times of India* (26 February), available online at <https://timesofindia.indiatimes.com/india/committeed-to-provide-capacity-building-assistance-to-friendly-navies-admiral-sunil-lanba/articleshow/63072419.cms> (accessed 5 February 2019).
- Ren, T. (2017) "Jianchi Junshi Fucong Zhengzhi, Zhanlve Fucong Zhanlvu" (Supporting Politics over Military, Political Strategy over Military Strategy), *Zhongguo jun wang* (6 January), available online at www.81.cn/jmywyl/2017-01/06/content_7439669.htm (accessed 5 February 2019).
- Rolland, N. (2017) *China's Eurasian Century? Political and Strategic Implications of the Belt and Road Initiative* (Seattle, WA: National Bureau of Asian Research).
- Rosen, M. and Jackson, D. (2017) *The U.S.-India Defense Relationship: Putting the Foundational Agreements in Perspective* (February) (Washington, DC: Center for Naval Analyses).
- Samanta, P. D. (2018) "Trailing China, a New Defence Deal with France Gives India a Foothold in Indian Ocean," *The Print* (31 January), available online at <https://theprint.in/opinion/state-of-play/a-new-defence-deal-with-france-gives-india-a-foothold-in-indian-ocean/32604/> (accessed 5 February 2019).
- Shinn, D. (2017) "China's Power Projection in the Western Indian Ocean," *China Brief* 17(6), available online at <https://jamestown.org/program/chinas-power-projection-western-indian-ocean/>.
- Shukla, A. (2018) "Brahmaputra Bridge to Connect Arunachal through New 'Strategic Railway' Line," *Business Standard* (26 December), available online at <http://ajaishukla.blogspot.com/2018/12/brahmaputra-bridge-to-connect-arunachal.html> (accessed 5 February 2019).
- Singh, V. (2018) "Govt. Puts Delayed Road Projects on Indo-China Border on Track," *The Hindu* (4 March), available online at www.thehindu.com/news/national/govt-puts-delayed-road-projects-on-indo-china-border-on-track/article22920308.ece (accessed 5 February 2019).
- Szechenyi, N. (2018) "China's Maritime Silk Road Strategic and Economic Implications for the Indo-Pacific Region," *Center for Strategic and International Studies* (March), available online at https://csis-prod.s3.amazonaws.com/s3fs-public/publication/180404_Szechenyi_ChinaMaritimeSilkRoad.pdf?yZSpudmFyARwcHuJnNx3metxXnEksVX3.
- The State Council Information Office of the People's Republic of China (2015) "China's Military Strategy," available online at www.scio.gov.cn/zfbps/ndhf/2015/Document/1435159/1435159.htm (accessed 5 February 2019).
- US-China Economic and Security Review Commission (2014) "China's Navy Extends Its Combat Reach to the Indian Ocean" (14 March), available online at www.uscc.gov/research/chinas-navy-extends-its-combat-reach-indian-ocean (accessed 5 February 2019).
- US Department of Defense (2018) *Assessment on US Defense Implications of China's Expanding Global Access* (December), available online at <https://media.defense.gov/2019/Jan/14/2002079292/-1/-1/1/EXPANDING-GLOBAL-ACCESS-REPORT-FINAL.PDF> (accessed 5 February 2019).
- Vorndick, W. (2018) "China's Reach Has Grown; So Should the Island Chains," *Center for Strategic and International Studies* (22 October), available online at <https://amti.csis.org/chinas-reach-grown-island-chains/> (accessed 5 February 2019).
- Yang, Z. (2017) "Privatizing China's Defense Industry," *The Diplomat* (7 June), available online at <https://thediplomat.com/2017/06/privatizing-chinas-defense-industry> (accessed 5 February 2019).
- Yeo, M. (2018) "China's Military Capabilities Are Booming, But Does Its Defense Industry Mirror That Trend?" *Defense News* (14 August), available online at www.defensenews.com/top-100/2018/08/14/chinas-military-capabilities-are-booming-but-does-its-defense-industry-mirror-that-trend/ (accessed 5 February 2019).