India’s Ocean **December 06, 2012** / [***Dhruva Jaishankar***](http://www.gmfus.org/expert/experts_dirc/dhruva-jaishankar/)   
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Is the Indian Navy about to start mixing it up with China on the high seas? For years, as the Chinese have modernized their naval fleet, Indian strategists have worried about what that might mean for India's political and economic interests. A recent book by C. Raja Mohan, one of India's most influential strategic thinkers, **[explores](http://www.amazon.com/Samudra-Manthan-Sino-Indian-Rivalry-Indo-Pacific/dp/0870032712" \t "_blank)** the prospect of Sino-Indian competition spilling from the Himalayas to the Indian and Pacific Oceans, risking a struggle for maritime influence in the region among the United States, China, and India.

So it was all the more interesting, when, at a press conference Monday, India's top admiral **[appeared to suggest](http://www.indianexpress.com/news/ready-to-protect-indian-interests-in-south-china-sea-navy-chief/1040119/" \t "_blank)** that his navy would defend Indo-Vietnamese oil exploration efforts in the South China Sea against Chinese aggression. An Indian state-owned oil company, ONGC Videsh, has been involved in deepwater explorations with Vietnam in the South China Sea since 2006, despite Chinese claims of sovereignty over that area.

But the reality of Admiral D.K. Joshi's statement was far less sensational. Rather than signalling a **[deployment](http://www.reuters.com/article/2012/12/03/us-china-sea-india-idUSBRE8B20KY20121203" \t "_blank)**, he merely reinforced the longstanding Indian position that China's naval modernization concerned India, and that like other maritime powers, India was preparing for worst-case scenarios. It wasn't even a signal to clear the decks, let alone a shot across the bow.

Nonetheless, India is far more likely to become a regular naval presence in the Pacific than many previously imagined, due to its rapidly expanding economy, improving military technologies, and growing energy interests. The Indian Navy has historically been the smallest and most poorly-resourced of India's three military services, in keeping with the country's security preoccupations at home and its unresolved land border disputes with Pakistan and China. It has just 60,000 active personnel and a $7 billion annual budget, roughly a quarter of the strength and resources of China's People's Liberation Army Navy. Its long-range capabilities come from a single aircraft carrier, a second-hand amphibious transport dock, 14 German- or Russian-designed diesel-powered submarines, and about 20 destroyers and frigates.

But power is relative, and this seemingly small flotilla today constitutes the largest naval presence in the Indian Ocean after the U.S. Navy. Beyond the United States and China, only Japan, South Korea, and perhaps Taiwan boast even comparable capacities for the region, although their navies are more narrowly focused. But India's navy dwarfs those of other countries embroiled in territorial disputes with Beijing in the South China Sea. The two strongest rival claimants to China, Vietnam and the Philippines, boast just three active frigates between them. The temporary presence of even a small Indian squadron in the Pacific could make a meaningful difference to the region's balance of power.

India's growing interests, resources, and technological capabilities will likely lead it to increased naval activity east of the Strait of Malacca**,** the critical junction of the Pacific and Indian Oceans through which 40 percent of the world's trade and most of East Asia's oil imports flow. India is **[conducting](http://navaltoday.com/2012/08/13/ins-arihant-prepares-for-sea-trials/" \t "_blank)** sea trials of an indigenously-designed nuclear-powered submarine, which will significantly increase its navy's operational range. In the next two years, India will **[induct](http://www.thehindu.com/news/national/article3893679.ece" \t "_blank)** a second aircraft carrier and modern French submarines into active service, to upgrade its aging fleet. The navy's share of the defense budget has steadily grown from less than 15 percent of India's annual military expenditure in 2000 to 19 percent in 2012, outpacing India's overall defense spending. And the 2009 agreement to **[purchase](http://www.janes.com/events/exhibitions/farnborough-2012/news/july-11/Indian-P-8I-kicks-flight-trials-2013-delivery.aspx" \t "_blank)** P-8 aircraft from the United States, capable of interdicting ships and tracking submarines, signals India's technological ambitions in the high seas.

Perhaps more importantly, India is able to work with other regional navies. Beginning with basic exercises in the early 2000s, the Indian Navy's collaboration with the U.S. Pacific Command has evolved into complex war games. In 2004, India tested its ability to respond to regional crises in coordination with the United States, Japan, and Australia by **[performing](http://www.ipcs.org/article/navy/indian-naval-diplomacy-post-tsunami-1640.html" \t "_blank)** humanitarian relief operations in Southeast Asia following the devastating Indian Ocean tsunami. And the **[Malabar series](http://www.navy.mil/submit/display.asp?story_id=44602" \t "_blank)** of naval exercises between India and the United States, which have also involved Japan, Australia, and Singapore, has strengthened the Indian Navy's ability to work closely with partners far from its shores. Contrast this to China: Beyond dustups with Southeast Asian countries, and with Japan **[over disputed islands](http://online.wsj.com/article/SB10001424052970203922804578082371509569896.html" \t "_blank)** -- which only generate further suspicion of Chinese military intentions -- Beijing is also quick to **[break off](http://globalpublicsquare.blogs.cnn.com/2012/09/18/time-to-fix-u-s-military-ties-with-china/" \t "_blank)** military ties, like it did after Washington sold weapons to Taiwan in 2010.

None of this means that India is looking to pick a fight with China in the South China Sea, particularly as India has no territorial stakes there. Other facets of the Sino-Indian relationship -- the fragile boundary talks over disputed Himalayan territory and bilateral trade of more than **[$70 billion](http://usa.chinadaily.com.cn/opinion/2012-11/27/content_15964596.htm" \t "_blank)** and growing -- are of far greater importance to New Delhi. At the same time, renouncing claims to its **[assets in Vietnam](http://www.ongcvidesh.com/Assets.aspx?AspxAutoDetectCookieSupport=1" \t "_blank)** in response to perceived Chinese pressure could embarrass the Indian government, both domestically and internationally. When confronted with pressure from Beijing -- as during the Dalai Lama's 2009 **[visit](http://www.time.com/time/world/article/0,8599,1934948,00.html" \t "_blank)** to the disputed border town of Tawang or periods when China has **[refused](http://news.outlookindia.com/items.aspx?artid=756940" \t "_blank)** to issue visas in some Indian passports -- New Delhi's response has generally been to stick to its guns.

India evidently needs to do a better job of managing its message. Its National Security Advisor Shivshankar Menon, who was in Beijing for border negotiations when Joshi made his statement, **[countered](http://www.thehindu.com/news/national/media-needs-to-more-accurately-reflect-ties-says-menon-after-navy-chiefs-comments/article4164760.ece" \t "_blank)** that the Indian media had "manufactured" the story. For its part, China needs to appreciate that its aggressive pursuit of maritime territory compels India to cooperate more closely with Vietnam and the Philippines. Beijing's issuing of passports this November **[featuring](http://www.guardian.co.uk/world/2012/nov/27/chinese-passport-row-diplomatic-dispute" \t "_blank)** a map showing the fullest extent of its territorial claims was a remarkably clumsy gesture, provoking simultaneous outrage in India, Vietnam, the Philippines, and Taiwan. China may have only itself to blame if these states find greater common cause with one another, and with other regional maritime powers.

India's steadily growing naval capabilities and its deepening commercial engagements in the Pacific Rim means that it now has the ability to provide security in the region to ensure open and secure sea lines of communication. For many countries invested in the region -- not least the United States -- that is welcome. For China too, this presents another opportunity for improving cooperation with New Delhi, but that would require it to accept India's ability to play the role of a Pacific power.

***Dhruva Jaishankar is a Transatlantic Fellow for the Asia Program at the German Marshall Fund of the United States.***

* See more at: <http://www.gmfus.org/archives/indias-ocean/#sthash.bMGGuT2n.dpuf>

USNI News

# Essay: China’s Island Building Campaign Could Hint Toward Further Expansions in Indian Ocean

By: [Andrew Erickson and Kevin Bond](https://news.usni.org/author/aerickson)

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China’s creation of military-relevant facilities on its newly-created islands in the South China Sea is a cause for concern for countries in Southeast Asia, and several of its investments in the Indian Ocean are raising more questions over the possibility of China’s first dedicated naval support facility overseas.

As China expands its reach into the Indian Ocean and wraps up construction in Southeast Asia, the same sort of assets that built-up the seven Spratly features that China occupies into artificial islands may decamp for ports in the Indian Ocean, potentially strengthening China’s logistics chain for its naval activities in what its strategists term the Far Seas.

## Dredging up ‘Pearls’

[](https://i2.wp.com/news.usni.org/wp-content/uploads/2015/05/china-building-aircraft-runway.jpg?ssl=1)

Airstrip construction on the Fiery Cross Reef in the South China Sea is pictured in this April 2, 2015.

China’s controversial island-building in the South China Sea — especially in the Spratlys — has been the subject of foreign speculation as well as international litigation since it began on an industrial scale more than 18 months ago.

While some foreign sources prematurely asserted that China was already establishing a “[String of Pearls](http://csis.org/files/publication/140624_issuesinsights_vol14no7.pdf" \t "_blank)” composed of formal military “bases” across the Indian Ocean, China’s extant reclamation efforts have instead constituted a step toward establishing militarily-relevant facilities in the South China Sea. China’s construction work on the reefs in the Spratlys is by no means new, though; in 1988 the [PLA had already started stationing](http://www.360doc.com/content/14/0913/10/11532035_409103841.shtml" \t "_blank) troops in huts on bamboo poles in the island chain.

Rather than novelty, the main reasons that China’s construction has only recently made headlines is because of both the [sheer scale and speed](http://www.360doc.com/content/14/0913/10/11532035_409103841.shtml" \t "_blank) at which it was executed and the implications it has for neighboring countries. China is also the [first country in the area](http://www.andrewerickson.com/2015/07/right-over-might-keeping-the-south-china-sea-a-peaceful-part-of-the-global-commons/" \t "_blank) to turn fully submerged reefs into full-fledged man-made “islands,” and is the only one to build at least one high-capacity 3,000 meter airstrip with a taxiway on a feature it controls. Such a runway has already been completed at Fiery Cross Reef, with another well underway [on Subi Reef](http://www.andrewerickson.com/2015/09/south-china-sea-satellite-imagery-makes-clear-chinas-runway-work-at-subi-reef/" \t "_blank) and yet another possibly emerging at Mischief Reef. The last is suggested by grading and tamping by bulldozers in two strips visible in satellite imagery of Mischief’s northwest portion.

The speed at which China was able to create these islands owes itself completely to [China’s dredger development](http://nationalinterest.org/feature/dredging-under-the-radar-china-expands-south-sea-foothold-13701" \t "_blank) over the past decade, and the movements of several of China’s largest dredgers have been tracked in the area. [China’s large self-propelled cutter-suction dredger (CSD) Tianjing](https://janes.ihs.com/CustomPages/Janes/DisplayPage.aspx?DocType=News&ItemId=+++1736265" \t "_blank) was spotted at the Union Banks and Tizard Banks in 2013 and early 2014, then at Hughes Reef between 20 March and 3 April 2014 conducting land reclamation. The [trailing suction hopper dredger (TSHD) Tiankai](https://janes.ihs.com/CustomPages/Janes/DisplayPage.aspx?DocType=News&ItemId=+++1738234" \t "_blank) was also seen operating at Mischief Reef between 14 January and 16 February of this year, while [the CSD Xinhaitun](https://janes.ihs.com/CustomPages/Janes/DisplayPage.aspx?DocType=News&ItemId=+++1738234" \t "_blank) was identified in the same location from 24-28 February. According to a *[Sina.com report](http://mil.news.sina.com.cn/2014-09-18/1539801873.html" \t "_blank)*, China’s dredgers were able to expand two different islands in the Spratlys to the point that they could support normal construction in the span of only three months, a concrete manifestation of China’s large and rapid construction capacity. Both Tianjing and Tiankai are operated by [China Communications Construction Company (CCCC) Tianjin](http://www.tjhdj.com/index.php?mod=product&act=list" \t "_blank), though their website makes no mention of any active projects in the South China Sea region. Pictures in an article on the *[New York Times](http://www.nytimes.com/interactive/2015/07/30/world/asia/what-china-has-been-building-in-the-south-china-sea.html?hp&action=click&pgtype=Homepage&module=photo-spot-region%C2%AEion=top-news&WT.nav=top-news&_r=1" \t "_blank)* website also show dozens of Chinese dredgers working simultaneously at Mischief Reef, demonstrating the sheer numbers China has deployed for feature augmentation.

The Pentagon has stated that although these sand castles are of [limited military utility due to their smallness and vulnerability](http://mil.news.sina.com.cn/2014-09-18/1539801873.html" \t "_blank), they could be used to provide logistics support to maritime patrols or an air defense identification zone (ADIZ) in the long term. The idea of using these islands as a way to extend patrols fits China’s larger [“maritime rights” enforcement strategy](http://www.dw.com/zh/%E4%B8%AD%E5%9B%BD%E6%98%AF%E5%A6%82%E4%BD%95%E6%94%B9%E9%80%A0%E5%8D%97%E6%B5%B7%E7%9A%84/a-18272720" \t "_blank) in the South China Sea, whereby it prevents other countries from pursuing fishing, energy exploration, construction, or other activities in the area, regardless of whether other countries accept China’s claims or not, thereby asserting effective control. This strategy already seems to be paying dividends for China. As [Ding Zhile](http://news.china.com/focus/nanhai/11156618/20140827/18739627.html" \t "_blank), Chairman of the Qionghai Tanmen Fisheries Association in Hainan province, relates, when fishermen previously went to the disputed Huangyan Island (Scarborough Shoal), they would always see fishermen from the Philippines, whereas now all they see are Chinese government vessels. Chinese fishermen now feel much safer fishing in disputed waters, Ding adds, as they know Chinese patrol boats are poised to intercede should they encounter trouble.

Beijing’s assertiveness regarding its position in the South China Sea is thus far unwavering, even in the face of [international litigation](http://www.pca-cpa.org/showpage65f2.html?pag_id=1529" \t "_blank) brought against it by Manila and increasing pressure from Washington. The United States has been [conducting freedom of navigation exercises](http://www.reuters.com/article/2015/05/21/us-southchinasea-usa-china-idUSKBN0O60AY20150521" \t "_blank) in the area in an attempt to ensure that China’s “islands” do not interfere with innocent passage, though [Chinese officials](http://www.foxnews.com/world/2015/08/12/chinese-diplomat-foreign-warships-and-planes-cant-invoke-freedom-navigation-to/" \t "_blank) have taken the position that freedom of navigation does not extend to warships and planes in territorial waters. Flights near the islands have repeatedly been subject to [warnings from China’s navy](http://www.reuters.com/article/2015/05/21/us-southchinasea-usa-china-idUSKBN0O60AY20150521" \t "_blank) that they are entering a military zone and should turn back, lending credibility to the possibility of China setting up an ADIZ in the area—as it did over much of the East China Sea in 2013. However, the recent sailing of several Chinese warships [within 12 nautical miles](https://news.usni.org/2015/09/03/chinese-warships-made-innocent-passage-through-u-s-territorial-waters-off-alaska) of U.S. soil in the Aleutian Islands off Alaska presents a contradiction between China’s words and its actions, and [will make it harder for Beijing to object](http://www.wsj.com/articles/chinese-navy-ships-off-alaska-passed-through-u-s-territorial-waters-1441350488" \t "_blank) to U.S. naval ships operating closer to China’s “islands” in the Spratlys.

China’s island construction in the Spratlys is not quite finished, with [recent photos](http://www.andrewerickson.com/2015/09/runway-construction-at-subi-reef/" \t "_blank) of Subi Reef showing another 3,000m runway under construction, China’s third on South China Sea features, along with several ships from China’s large dredging fleet. However, [this part of construction should wind down soon](http://www.theguardian.com/world/2015/jun/16/land-reclamation-work-in-part-of-south-china-sea-is-near-completion-china-says" \t "_blank), with China shifting to fortification of islands thus built, and then these dredgers will leave to find work elsewhere. The question remains of where they might go once their Spratlys building is finished. While China’s own domestic market is impressive, expected to reach between [5 and 7.5 billion cubic meters](http://mall.cnki.net/magazine/Article/CANB201205001.htm" \t "_blank) by sometime this year, the country’s “Maritime Silk Road” program also has a heavy emphasis on port construction, channel dredging, and land reclamation. China’s large construction capacity and new dredger technology will undoubtedly find itself useful along the Maritime Silk Road, expanding ports in the Indian Ocean Region (IOR) and beyond through investment both from the Chinese government and China’s State-owned Enterprises (SOEs). This construction and expansion has raised the concern of other countries active in the region, notably India, leading to fears of the eventual implementation of some form of a “String of Pearls” network—however difficult and uncertain it might be for China to attempt this in practice.

## China’s Maritime Silk Road

Chinese president Xi Jinping onboard PLAN destroyer Haikou. News.cn Photo

China’s Maritime Silk Road project, [initially proposed by Xi Jinping in 2013](http://usa.chinadaily.com.cn/china/2013-10/04/content_17008940.htm" \t "_blank), was initially pitched as a way to develop economic ties between ASEAN countries and China. It has expanded to also include countries in south Asia and possibly even east Africa. This policy envisions the investment in and building of large infrastructure projects along the historic Maritime Silk Road from Fujian province, through the Indian Ocean, and over to the Mediterranean, including several high-profile projects within in the IOR.

Since the proposal of this new strategy, China has invested in the expansion and operation of several ports throughout South and Southeast Asia. Projects extend from Pakistan to Sudan to Singapore. Several prominently feature China’s large SOEs, including CCCC, China Merchants Holdings (International) (CMHI), and China State Construction and Engineering Company (CSCEC). CCCC recently integrated its three dredging subsidiaries, CCCC Tianjin, CCCC Shanghai, and CCCC Guangzhou, into one company—CCCC Dredging—which controls more than half of China’s [1 billion+ m](http://mall.cnki.net/magazine/Article/CANB201205001.htm" \t "_blank)[3](http://mall.cnki.net/magazine/Article/CANB201205001.htm" \t "_blank)[/year dredging capacity](http://mall.cnki.net/magazine/Article/CANB201205001.htm" \t "_blank). The majority of CCCC’s overseas business is conducted through its overseas subsidiary, China Harbor Engineering Company (CHEC).

CCCC, through CHEC and other branches, has been involved in several large infrastructure projects in the IOR. In Pakistan’s Karachi, [CHEC has signed a contract](http://www.dredgingtoday.com/2014/01/13/pakistan-cccc-second-harbor-inks-karachi-port-contract/" \t "_blank) for a container terminal yard and housing construction at Karachi Deepwater Port, which is the fourth continuing project undertaken by CHEC at Karachi. At the port of Qasim, also in Karachi, CHEC carried out [maintenance and channel dredging](http://www.chec.bj.cn/tabid/652/Default.aspx" \t "_blank), as well as dredging for a U-turn extension project from 2010-11. It is currently involved in constructing the [Qasim International Container Terminal (QICT)](http://www.chec.bj.cn/tabid/733/InfoID/3762/Default.aspx" \t "_blank), which involves the dredging of the waterway to a depth of 16m and will result in an annual capacity of 1.17 million TEU. Outside of Karachi, CHEC was also involved in the deep-water port of Gwadar, [reportedly engaging in talks](http://www.portfinanceinternational.com/categories/finance-deals/item/364-cccc-subsidiary,-chec-named-as-alleged-company-behind-psa-exit-talks-at-gwadar" \t "_blank) with Port of Singapore Authority (PSA) about taking over operation of the port in 2012 before the port was [handed over to China Overseas Port Holdings in 2013](http://www.nytimes.com/2013/02/01/world/asia/chinese-firm-will-run-strategic-pakistani-port-at-gwadar.html" \t "_blank). CHEC was involved in the original construction of the port at Gwadar.

CCCC has also funded the $1.4 billion (US) [Colombo Port City project in Sri Lanka](http://www.ipcs.org/article/india/the-geopolitics-of-chinese-investments-in-sri-lanka-4862.html" \t "_blank), which involved the expansion of the port and the services of several dredgers, including CCCC Guangzhou’s [10,000m](http://www.chida.org/news/View.asp?ID=2842&t=1" \t "_blank)[3](http://www.chida.org/news/View.asp?ID=2842&t=1" \t "_blank) [Junhai-02 TSHD](http://www.chida.org/news/View.asp?ID=2842&t=1" \t "_blank). While this project initially came [under scrutiny](http://www.ipcs.org/article/india/the-geopolitics-of-chinese-investments-in-sri-lanka-4862.html" \t "_blank) in 2014 for corruption, environmental issues, high interest rates and exclusive rights over air space above the Colombo Port City land, work has continued, and the port is currently under a [35-year build, operate, and transfer](http://www.cmhi.com.hk/Catalog_253.aspx" \t "_blank) agreement between the Sri Lanka Ports Authority (SLPA) and China Merchants Holdings (International) (CMHI), which owns an 85 percent stake in the port. On the other side of the island, CHEC, along with Chinese partner Synohydro, also [constructed Phase I of Hambantota Port](http://www.clingendael.nl/sites/default/files/China%20Europe%20and%20the%20Maritime%20Silk%20Road.pdf" \t "_blank). In 2013, Sri Lanka [granted CMHI and CCCC operating rights](http://www.sundaytimes.lk/141019/news/china-gets-controlling-stake-at-hambantota-port-123262.html" \t "_blank) to four berths at Hambantota Port in exchange for an easing of loan conditions for the port’s development. Loan relief was needed, with Phase I costing over $300 million (US) and Phase II, also involving CHEC, totaling around $800 million. Whereas Chinese companies have [effective control](http://www.sundaytimes.lk/141019/news/china-gets-controlling-stake-at-hambantota-port-123262.html" \t "_blank) of over 100 hectares of land in Colombo, all of the land in Hambantota will be owned by SLPA, including Phase II’s artificial island.

The company’s extensive projects also include the $705 million (US) construction of an [underwater tunnel](http://www.ajot.com/news/chinas-cccc-wins-705-mln-tunnel-contract-in-bangladesh" \t "_blank) below the Karnaphuli river and [port expansion](http://www.tjhdj.com/index.php?mod=service&act=view&cid=93&id=592" \t "_blank) at Chittagong in Bangladesh, the design, construction and maintenance of [proposed docks](http://www.chec.bj.cn/tabid/492/Default.aspx" \t "_blank) and related structures at Tuas South port in Singapore, a $213 million contract for a [crude oil terminal and channel dredging](http://www.chec.bj.cn/tabid/654/Default.aspx" \t "_blank) project in Myanmar, as well as the [construction of a salt pier](http://www.chec.bj.cn/tabid/733/InfoID/6868/Default.aspx" \t "_blank) in Djibouti. In 2013, CHEC also signed a cooperative agreement on [the expansion of the Aden Container Terminal](http://defence.pk/threads/yemen-china-ink-aden-port-development-deal.287509/" \t "_blank) in Yemen before internal instability in the country came to a head.

CCCC is far from the only company operating in the IOR, though, as other Chinese SOEs have further augmented regional investments. CMHI holds [23.5% stake in Port de Djibouti S.A.,](http://www.infinitycargo.com/index.php/en/careers/104-news-and-events/news/641-china-merchants-buys-control-of-djiboutis-red-sea-container-terminal" \t "_blank) which includes two-thirds of the port’s Doraleh Container Terminal. Construction of the Damerjog livestock port and the multipurpose Doraleh port, with both projects launching in 2013, are being [funded by China Merchants Group](http://www.dredgingtoday.com/2013/09/13/djibouti-begins-construction-of-two-major-ports/" \t "_blank). [CSCEC won the bid](http://english.cscec.com/art/2014/8/8/art_211_171473.html" \t "_blank) for the engineering, procurement, and construction (EPC) project of Phase I of the Doraleh Wharf in August of 2014, which includes the construction of a 1,200m long frontage for five multi-purpose deep water berths, a 175m long service berth, and related supporting facilities, all in Djibouti.

On land, Chinese companies also [opened a new oil pipeline](http://www.forbes.com/sites/ericrmeyer/2015/02/09/oil-and-gas-china-takes-a-shortcut/" \t "_blank) from the Chinese-built Kyaukpyu port in Myanmar to Kunming, Yunnan province, in early 2015. Additionally, CCCC subsidiaries are involved in building [educational infrastructure in Djibouti](http://jjhzj.mofcom.gov.cn/article/y/201412/20141200846986.shtml" \t "_blank) and [three highways in Sri Lanka](http://www.chec.bj.cn/tabid/630/Default.aspx" \t "_blank), although a [proposed a railroad line](http://www.wantchinatimes.com/news-subclass-cnt.aspx?id=20140723000057&cid=1101" \t "_blank) in Myanmar between Kyaukpyu and Kunming has been cancelled.

## Ports or Pearls?

[](https://i0.wp.com/news.usni.org/wp-content/uploads/2015/09/Chinese-Navy.jpg?ssl=1)

Chinese overseas investment is nothing new, and has steadily increased since China’s reform and opening up period. From January-June 2015, the [turnover from Chinese overseas contracted projects](http://www.mofcom.gov.cn/article/tongjiziliao/dgzz/201507/20150701053879.shtml" \t "_blank) reached $67.54 billion (US), with a total contract value of China’s contracted projects overseas totaling $1.4485 trillion. While investment in the IOR is partially encouraged by Xi Jinping’s Maritime Silk Road Strategy and related grants and loans, Chinese investment in this region also accompanies increased Chinese investments in other regions, including ports in [Piraeus, Greece](http://www.wsj.com/articles/chinese-transform-greek-port-winning-over-critics-1416516560" \t "_blank) and the [west coast of Africa](http://www.joc.com/port-news/dredging/african-ports-scramble-land-expand-demand-expands_20150709.html" \t "_blank).

CCCC Second Harbor Consultants Co., Ltd. even signed the contract for a [feasibility study project](http://www.dredgingtoday.com/2013/08/05/cccc-second-harbor-inks-nicaragua-canal-feasibility-study-contract/" \t "_blank) of the port part of Nicaragua Canal, with a contract value of $4.32 million in 2013. *[The Economist](http://www.economist.com/news/international/21579039-chinas-growing-empire-ports-abroad-mainly-about-trade-not-aggression-new-masters" \t "_blank)* has argued that far from pursuing geopolitical goals, China is simply exploiting lower prices sparked by a downturn in trade between 2007 and 2008, and subscribing to a “supersized vision of the industry in which an elite group of ports caters to a new generation of mega-vessels,” supporting the argument that Chinese interests in these ports are purely commercial. Increased trade, improved architecture, and better trade relations benefit both China and the countries receiving the investment. However, Chinese port investments have generated rumors of Chinese overseas naval support facilities creation. Rumors aside, they are offering China a larger, more reliable logistics network with potential military applications.

Such an emerging network can better support the [protection of its citizens overseas and of Chinese overseas interests](http://ndupress.ndu.edu/Portals/68/Documents/stratperspective/china/ChinaPerspectives-7.pdf" \t "_blank). Examples include PLAN anti-piracy operations in the Gulf of Aden, the evacuation of Chinese and foreign citizens from Libya and Yemen, and the escorting of Syrian chemical weapons for destruction. Protection of overseas Chinese citizens is increasingly important for China’s government, with the case of Chinese workers being [taken hostage](http://www.internationalpolicydigest.org/2015/07/22/beijing-feels-pressure-from-its-soft-power-strategy/" \t "_blank) by rebel groups in Sudan in 2012 but one of many challenges to which Beijing must respond. These overseas actions require a logistics network that would allow for China’s navy to [operate efficiently and effectively](https://www.stratfor.com/analysis/mapping-chinas-maritime-ambition" \t "_blank) for extended periods of time in international waters. Recently, Chinese ships have relied on commercial ports and facilities to support anti-piracy patrols in the Gulf of Aden, [mainly using](http://amti.csis.org/dragon-tracks-emerging-chinese-access-points-in-the-indian-ocean-region/" \t "_blank) the commercial port facilities in Oman’s Salalah, Yemen’s Aden, Djibouti, and Singapore to replenish, refuel, and overhaul. They have also called on Pakistan’s Karachi, the Seychelles, Sri Lanka, Bangladesh’s Chittagong, and Myanmar’s Sittwe for friendly visits or joint drills. China also has active investment projects in all of these locations, as well as several others; these have the potential to expand the number of ports available to the PLAN for resupply during anti-piracy missions and any future peacetime operations. As the crisis in Yemen shows, a diversity of possible access points is necessary in order to ensure constant, reliable support.

China’s infrastructure investment has also revived [Indian fears of encirclement](http://www.theguardian.com/world/2012/mar/22/china-seychelles-indian-fears-encirclement" \t "_blank), especially as it pertains to the Seychelles, Pakistan and Sri Lanka. In 2011, China’s Minister of Defense [responded to a report](http://www.chinadaily.com.cn/china/2011-12/13/content_14254395.htm" \t "_blank) that China was invited to establish a base in the Seychelles, stating that, “According to escort needs and the needs of other long-range missions, China will consider seeking supply facilities at appropriate harbors in the Seychelles or other countries.” In Pakistan, China’s Yuan-class submarine hull 335 [reportedly docked in Karachi](http://timesofindia.indiatimes.com/india/Chinese-submarine-in-Karachi-India-alarmed/articleshow/47845930.cms" \t "_blank) for replenishment in May, and in 2014, [two PLAN vessels](http://csis.org/publication/pacnet-7-pla-n-chinese-maritime-bases-indian-ocean" \t "_blank), a submarine and a submarine support vessel, docked at the Chinese-run Colombo South Container Terminal instead of the SLPA berths mandated to host military vessels, raising anxiety in India about a greater Chinese presence in the Indian Ocean. While visits to foreign ports to refuel and replenish are not out of the norm, the manner in which the ships docked in Sri Lanka, India’s strained relationship with Pakistan and China’s failure to deny the possibility of a supply facility in the Seychelles have all increased concern over a renewed Chinese push for a permanent presence in the IOR.

The Seychelles also is not alone in offering China its first possible overseas support facility. Djibouti’s [President Guelleh acknowledged](http://www.aljazeera.com/news/africa/2015/05/150509084913175.html" \t "_blank) in an interview in May that China has been engaged with Djibouti in negotiations for a naval “base” in the small African nation, which already hosts American, Japanese, and French forces, saying that Beijing’s presence would be “welcomed.” In February 2014, Chinese General Chang Wanquan and Djibouti’s Minister of Defense signed a [security and defense strategic partnership agreement](http://www.dpworld-doraleh.com/djibouti-and-china-sign-a-security-and-defense-agreement/" \t "_blank), under which Djibouti is offering itself as a home port for China’s navy, in exchange for rent and military cooperation to strengthen the Djiboutian armed forces’ operational capacities. When asked about negotiations concerning a Chinese military base in Djibouti, [China’s Foreign Ministry responded](http://news.qq.com/a/20150511/063745.htm" \t "_blank) by neither denying nor confirming reports, instead saying that regional stability is beneficial for all countries and China is willing to increase its contributions towards this goal.

India’s fear of encirclement by China is, in part, a result of the perception that China is constructing a “String of Pearls,” or military-relevant facilities in ports around the Indian subcontinent. India’s fears may be misplaced, though, as the potential locations for a Chinese presence all present strategic vulnerabilities that would make it difficult to covertly [construct a base and then protect it](http://ndupress.ndu.edu/Portals/68/Documents/stratperspective/china/ChinaPerspectives-7.pdf" \t "_blank) from the aircraft and missiles of India or another major power. Instead, what appears more likely, according to [an October 2014 NDU report](http://ndupress.ndu.edu/Portals/68/Documents/stratperspective/china/ChinaPerspectives-7.pdf" \t "_blank), is the creation of several “dual-use” facilities, or commercial facilities that would provide limited Chinese Naval deployments in the IOR with logistics support, along with a few logistics bases that would house 100-500 Chinese personnel. However, both a “String of Pearls” model and a “dual-use” model require that China maintain a strong enough political and economic relationship with the host country to ensure Chinese access to commercial facilities, and China’s extensive investments in the region have set the foundation for this kind of strong economic and political relationship.

## Conclusion

[](https://i0.wp.com/news.usni.org/wp-content/uploads/2013/02/china_Songs.jpeg?ssl=1)

Song-class submarines of China’s People’s Liberation Army Navy (PLAN).

With the large number of Chinese investments and renewed focus in the Indian Ocean, China’s navy is here to stay. Beijing’s push to develop a “Far-seas”-capable navy that can project increasing influence and reach out as necessary to protect its citizens and economic interests overseas requires a strong logistics chain. This likely means the adoption of a “dual-use” strategy whereby PLAN ships use largely commercial facilities for resupply and replenishment with the host nation’s approval, necessitating strong political and economic relationships. Investments from the Chinese government and SOEs have proven that China has laid the foundations for these relationships in several IOR countries. China’s dredger fleet in the South China Sea has proven China’s construction capacity and the speed at which it can bend shorelines to Beijing’s will.

Now that island construction in the Spratlys appears almost complete for now, many dredgers and related machinery recently engaged there may move to the Indian Ocean, where they can accelerate ongoing port construction projects. Should China seek to establish any official logistics “bases” or other facilities capable of providing naval support, China’s dredging fleet has proven in the South China Sea that it has the horsepower to construct the required infrastructure expeditiously. China has the requisite tools and a firm foundation already set to build the supporting infrastructure for a strong logistics chain in the IOR. The idea of at least one Chinese logistics “base” is appearing more and more to be more a question of when and not if. [Keep an eye on Djibouti.](http://www.chinasignpost.com/2015/07/11/djibouti-likely-to-become-chinas-first-indian-ocean-outpost/" \t "_blank)

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## India’s “Undersea Wall” in the Eastern Indian Ocean

[Abhijit Singh](http://amti.csis.org/author/asingh/)

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[India](http://amti.csis.org/category/india/), [Indian Ocean](http://amti.csis.org/category/indian-ocean/)

Is India planning to install undersea surveillance sensors in the Bay of Bengal?

It is a question that has animated discussions in maritime circles recently. A recent report in the Indian media suggests New Delhi is planning to undertake joint projects with [Japan](http://www.nytimes.com/2016/03/12/world/asia/india-japan-china-andaman-nicobar-islands.html?_r=0) and the [United States](http://www.newindianexpress.com/nation/India-US-to-identify-new-ways-in-defence-cooperation/2016/06/04/article3466031.ece) for the defense of its littoral spaces, including one for the installation of a sound surveillance sensors (SOSUS) chain in India’s near seas. In an [article](http://www.forceindia.net/Defexpo2016Day2_UnderseaWeb.aspx) for a Indian defense magazine in April this year, Prasun Sengupta, a well-known analyst and commentator, surmises that New Delhi is considering Japanese assistance in the construction of an undersea network of seabed-based sensors stretching from the tip of Sumatra right up to Indira Point in the Bay of Bengal to prevent Chinese submarines from approaching Indian exclusive economic zone. According to Sengupta, besides providing funds for the upgrading of naval air bases and construction of new electronic/signals intelligence stations along the Andaman and Nicobar chain of islands, Tokyo plans to finance an undersea optical fiber cable from Chennai to Port Blair. Once completed, this network is likely to be integrated with the existing U.S.-Japan “Fish Hook” SOSUS network meant specifically to monitor People’s Liberation Army-Navy(PLAN) submarine activity in the South China Sea and the Indian Ocean Rim.

The starting point for this collaboration is supposed to have been Prime Minister Narendra Modi’s visit to Washington last year, when India and the United States agreed to intensify cooperation in maritime security. New Delhi is said to have decided to move forward with its plans to strengthen its near-seas defenses after ASEAN defense ministers at the ASEAN Defense Ministers Meeting-Plus gathering in Lankawi, Malaysia, in March collectively stated their desire for India to play a security role beyond the Indian Ocean,

There is no official confirmation of these developments. However, it is entirely possible China’s anti-access/area denial (A2/AD) plans in Southeast Asia may have served as a trigger for an Indian response in the Bay of Bengal. In an [article](http://nationalinterest.org/feature/chinas-undersea-great-wall-16222) last month, Lyle Goldstein, a well known China specialist, claimed Beijing was in the process of creating an undersea “Great Wall” in the South China Sea by establishing an array of ocean-floor acoustic sensors to detect U.S. submarines. China’s hydrophone system is reportedly modeled on the U.S. Navy’s SOSUS, meant originally to track Soviet submarines in the mid-1950s. Reports that the PLAN is on the verge of operationalizing its sensor chain may have prompted New Delhi to pursue an undersea sensor project in the South Asian littoral.

The more interesting venture, from an Indian perspective, is between Japan and the United States in the wider Pacific. Since the early 2000s, when PLAN submarine patrols are supposed to have turned aggressive, the U.S. Navy and the Japan Maritime Self Defense Force (JMSDF) began setting up a chain of fixed arrays to monitor the movement of Chinese submarines in the East China Sea and South China Sea. This resulted in the establishment of the “[Fish Hook Undersea Defense Line](https://www.thesaturdaypaper.com.au/news/defence/2015/04/18/japan-and-us-enclose-chinese-coast-within-sensor-net/14293190401772)” in early 2005, stretching from Japan to Southeast Asia with key nodes at Okinawa, Guam, and Taiwan. The system reportedly consists of two separate networks of hydrophones, one stretching from Okinawa to southern Kyushu, and the other from Okinawa to Taiwan.

In July 2013, Beijing [claimed](https://www.thesaturdaypaper.com.au/news/defence/2015/04/18/japan-and-us-enclose-chinese-coast-within-sensor-net/14293190401772) that the United States and Japan had established “very large underwater monitoring systems” at the northern and southern ends of Taiwan. One supposedly stretched from Yonaguni to the Senkaku Islands, while the other covered the Bashi Channel down to the Philippines. In addition, Chinese analysts contended, large numbers of hydrophones had been installed “in Chinese waters” close to China’s submarine bases in Qingdao, Xiaopingdao, and Yulin on Hainan Island, even though it wasn’t fully clear if these sensors were all operational.

Fewer doubts remain about the efficacy of an older version of the SOSUS in the northeastern Pacific (off the Tsugaru Strait) and the southwestern Pacific (the Tsushima Strait) that Japan and the United States have jointly managed since the days of the Cold War. Analysts aver that Japan’s experience with working the system for over six decades has provided Japanese engineers and technicians with the proficiency and professionalism to install sea-based sensors in distant littoral spaces, including in the Indian Ocean.

New Delhi, however, would need to consider the implications of operating sensitive equipment with a foreign partner– especially the sharing of critical sensor data. In the case of the joint Japan-U.S.SOSUS, for instance, while the JMSDF and U.S. Navy personnel jointly manage the JMSDF Oceanographic Observation Centre in Okinawa, all the information is available to the U.S. Pacific Command,as the facility is under the operational control of the U.S. Navy. Needless to say, there are concerns that India may be required to provide its foreign collaborators with a level of informational access with which the Indian navy may not be too comfortable.

Some observers worry that placing undersea sensors around the Andaman and Nicobar islands may ultimately result in deployment of other A2/AD tools that China might find provocative. Japan’s [activation](http://nationalinterest.org/blog/the-buzz/japans-master-plan-destroy-the-chinese-navy-battle-14779) of a coastal surveillance unit on Yonaguni Island, only 67 miles from the east coast of Taiwan, has been widely perceived to be an A2/AD measure. [Reports](http://www.reuters.com/article/us-japan-military-china-exclusive-idUSKBN0U107220151218) suggest that Japan’s far-flung islands may soon see the placement of [mobile anti-ship missile batteries and air-defense systems to bolster A2/AD capabilities](http://www.reuters.com/article/us-japan-military-china-exclusive-idUSKBN0U107220151218).

Against the backdrop of a recent logistical agreement with the United States, and with other foundational pacts like the Communication Interoperability and Security Memorandum Agreement and Basic Exchange and Cooperation Agreement for Geo-Spatial Cooperation in the pipeline, there are concerns that the establishment of an undersea sensor chainaround the [Andaman and Nicobar](http://thediplomat.com/2014/05/andaman-and-nicobar-islands-as-strategic-deterrent/) islands might be a precursor to the placement of area-denial weapons – a move that Beijing would deem “escalatory.”

Inadequate return on investment constitutes another source of worry. The setting up of a listening array, experts aver, goes well beyond the placement of hydrophones on the seabed. A sound surveillance system requires steady economic and human investment, with the careful cultivation of an entire cadre of specialists able to interpret the array’s data output. The United States and Japan invested in their system for years before it began producing results. India could seek Japanese assistance in installing a SOSUS but could take years on training specialists and refining the related technologies.

Moreover, undersea sensors produce enormous quantities of raw data that require a dedicated system to sift and sort through. Over the years, the task of organizingthe data collected has become increasingly unviable. The lack of resources to manage data-collection facilities has led navies to consider a proposal to treat the data as a marketable commodity, by sharing it with environmental scientists and civilian agencies for a price. In order to allow the access of data in real-time,however, the hydrophones have had to be connected online, therebyraising concerns about the possible misuse of data.

Despite such worries, an Indian sound sensor array in the Indian Ocean could prove invaluable. For a country that has a major anti-submarine warfare handicap and a lack of operational submarines, an undersea sensor would be a godsend. India has so far not made any major investments in improving its sub-hunting capabilities. If it can install a deterrence system and operate it with a degree of competence, it could retain its strategic primacy in the Indian Ocean.



**About Abhijit Singh**

Abhijit Singh is a senior fellow and head of the Maritime Security Initiative at the Observer Research Foundation (ORF) in New Delhi. A former Indian naval officer, he has written extensively on security issues in maritime Asia, including. He is author and co-editor of two books on maritime security Indian Ocean Challenges: A Quest for Cooperative Solutions (2013) and Geopolitics of the Indo-Pacific (2014).