

A guide to China's critical maritime infrastructure (CMI) protection

Telecommunication cables

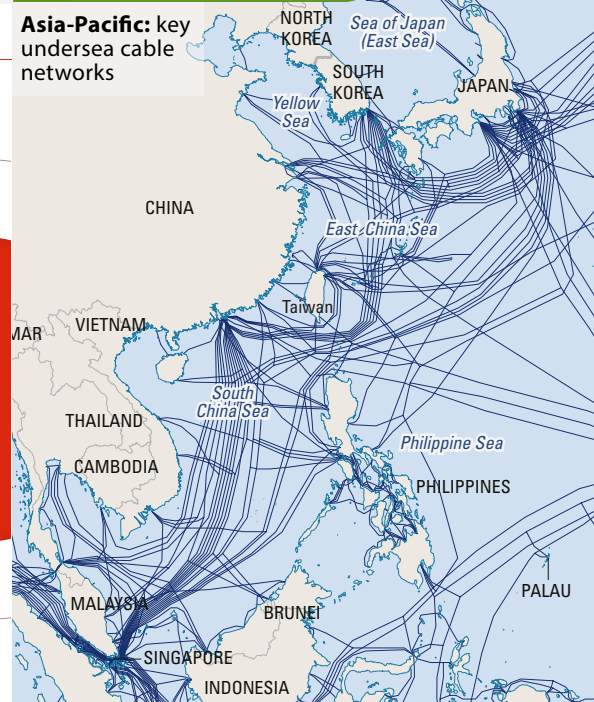
CMI sectors protected by the Chinese navy and coast guard

Telecommunication cables



Source: IISS China Programme research

Asia-Pacific: key undersea cable networks



- China seeks to compete in the global market for undersea cables, through which more than US\$10 trillion's worth of financial transactions are transmitted every day.

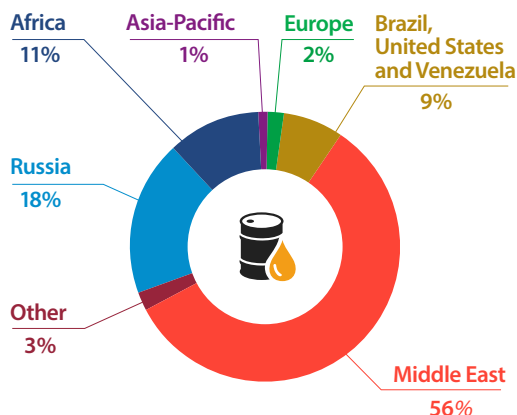
Developing technologies for cable projects has enabled Chinese firms to become more adept in operating at greater depths. These activities closely align with China's strategy to 'safeguard maritime rights and interests' within its near seas too, strengthening the PLA Navy's (PLAN) deep-sea operations and maritime-awareness activities.

- China has doubled the number of its 'modern' submarines from a decade ago, and half of its research and surveillance vessels are dedicated to undersea monitoring and intelligence collection.

Source: Military Balance+, milbalplus.iiss.org

Energy

China's oil imports by source, 2022



- China relies on seaborne oil deliveries from the Middle East that transit through the Malacca and Lombok straits.
- With the Middle East providing more than half of China's oil imports in 2022, China has deployed its navy to protect Indian Ocean sea lines of communication – partly owing to the lack of alternative routes and expectations of growing consumption.

Trade



- The PLAN has sustained a counter-piracy naval task-group presence since the attempted hijacking of a Chinese commercial ship in December 2008. Since 2008, the PLAN has deployed approximately 47 rotational task-force deployments, or 'escort formations' (护航编队) in or around the Gulf of Aden to conduct anti-piracy operations under a UN mandate to protect maritime trade.
- Whilst the patterns of these missions do change, they demonstrate the PLAN's capacity to sustain operations beyond the island chains and into the Indian Ocean.

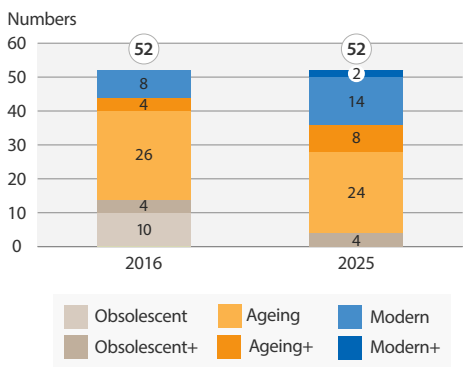
Sources: IISS China Programme research; IISS Asia-Pacific Regional Security Assessment 2022

Top 10 countries by total fisheries production, 2022

Country	Total fisheries production (metric tonnes)	Capture fisheries production (metric tonnes)	Aquaculture production (metric tonnes)
China	88,567,716	13,179,077	75,388,639
Indonesia	22,032,425	7,398,555	14,633,869
India	15,774,325	5,539,025	10,235,300
Vietnam	8,760,378	3,590,003	5,170,375
Peru	5,509,031	5,368,101	140,931
Russia	5,339,717	4,991,530	348,187
Bangladesh	4,758,731	2,027,661	2,731,070
United States	4,741,660	4,262,836	478,824
Norway	4,262,103	2,613,634	1,648,469
Chile	4,214,240	2,690,091	1,524,149

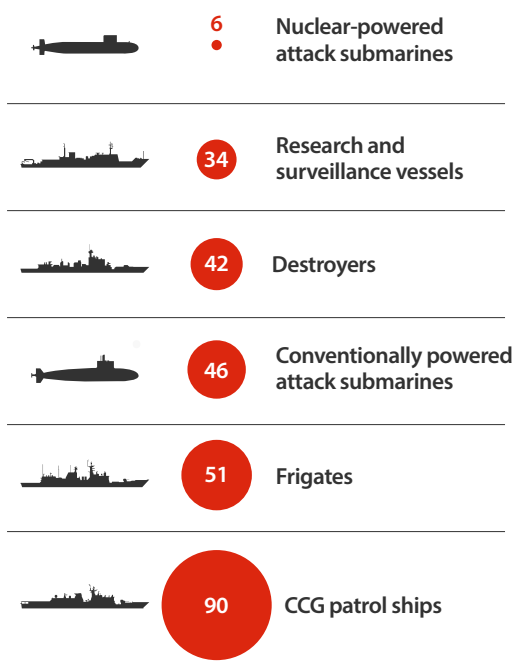
PLAN and CCG capability insights

Comparison of China's attack-submarine fleet, 2016 and 2025



- China is both the world's largest consumer and producer of fish.
- This industry is dependent on China's mariculture sector, as well as its domestic and distant-water fishing fleets.
- In recent years, the CCG has enforced fishery laws as well as implemented summer-fisheries moratoria in coastal waters.
- This is in line with domestic policy goals, such as the '[consolidation of] the foundation for food security on all fronts' and the utilisation of the sea as a 'blue granary' (蓝色粮仓).

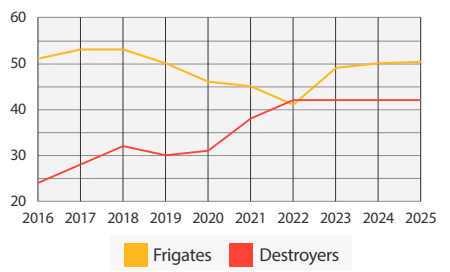
Selected current PLAN and CCG maritime platforms



- China has invested heavily in new capabilities to boost awareness of the undersea environment; its active fleet of 52 tactical submarines is the largest in the world, although its six nuclear-powered boats falls significantly behind Russia (20) and the United States (51).*
- China's fleet of surface vessels is vast. Between the PLAN and CCG, China operates well over 1,000 surface vessels, with 558 in the PLAN and 546 in the CCG.
- The capabilities and sheer number of vessels within these two forces allow China to exert influence in its near seas, far seas and the underwater domain, granting it significant ability to safeguard sectors and infrastructure critical to the Chinese state.

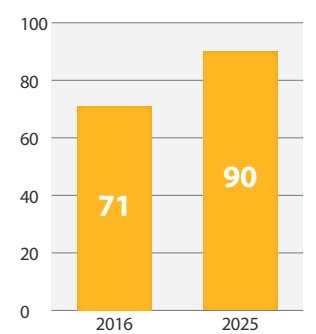
*Excludes coastal and midget submarines
Source: Military Balance+, milbalplus.iiss.org

PLAN destroyer and frigate numbers, 2016-25

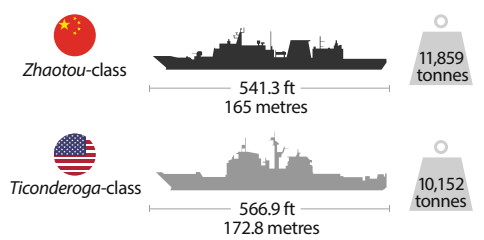


- China has doubled its 'modern' attack submarines over the last decade from eight to 16. Of the 16, two have been further upgraded.
- At the other end of the spectrum, China has reduced its 'obsolescent' submarines from 14 in 2016 to only four in 2025.
- China's PLAN now operates 93 destroyers and frigates, and also has eight cruisers in its inventory.
- China's frigate and destroyer numbers have risen overall over the past decade.

Number of CCG patrol ships, 2016 and 2025



CCG Zhaotou patrol ship vs US Navy Ticonderoga cruiser: size comparison



- The CCG has grown significantly over the last decade, with 546 vessels overall.
- Of these, 90 are patrol ships, up from 71 in 2016. 14 of these vessels displace more than 4,000 tonnes, while the two Zhaotou-class vessels displace almost 12,000 tonnes, which is more than most countries' heaviest destroyers.

Sources: Military Balance+, milbalplus.iiss.org; IISS China Programme research