

UNCLASSIFIEDU.S. Navy, Office of Naval
Intelligence, December 20, 2006.**Seapower Questions on the Chinese Submarine Force****Do you expect China to deploy a credible sea-based ballistic missile submarine nuclear deterrent force in the future? When?**

The TYPE 094 SSBN, which is equipped with the 8,000+ km range, penetration aid-equipped JL-2 SLBM, will provide China with a modern and robust sea-based nuclear deterrent force. While China only built a single XIA SSBN, which is equipped with a short range (1,770+ km) SLBM, a fleet of probably five TYPE 094 SSBNs will be built in order to provide more redundancy and capacity for a near-continuous at-sea SSBN presence. Construction and sea trials of the TYPE 094 program are ongoing. A TYPE 094 could reach Initial Operating Capability (IOC) as early as 2008.

Is the XIA-Class submarine considered operational or just a test-bed?

China's XIA SSBN, which was launched in 1983 and has twice successfully fired a 1,770 km range JL-1 SLBM, remains in active service with the Chinese Navy and likely constitutes a limited component of China's current nuclear deterrent force. As such, the XIA is more than a test-bed for the Chinese Navy. Although the range of the JL-1 limits the XIA's utility as a deterrent platform, targets throughout the region, including U.S. military facilities, could be targeted with the JL-1 from launch points inside traditional Chinese Navy operating areas.

Do you expect the Chinese to produce a Project 093 follow-on SSN to the HAN class? What capabilities do you expect it to have?

Open sources suggest that China has launched units of the TYPE 093 SSN class, which is the follow-on to the HAN SSN class, and is currently conducting sea trials for this class. Incorporating foreign technologies as well as indigenous Chinese systems, the TYPE 093 is expected to be quieter than its predecessor. Furthermore, the TYPE 093 will carry more advanced weapons than the HAN, including ant-ship cruise missiles and more modern torpedoes. China has built these features into the TYPE 093 in an effort to improve the PLA(N)'s ability to conduct anti-surface warfare at greater ranges from the Chinese coast than its diesel submarine force offers.

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UNCLASSIFIED**Is the HAN-class SSN a credible threat to carrier strike groups?**

The HAN-class SSNs, of which retirement of the lead units has already begun, are relatively noisy submarines based on 1950s and 1960s technology. Although the class has benefited from several upgrade programs, it remains limited by short range weapons and noise.

China seems to be expanding its diesel-electric submarine force in terms of numbers and capability. How does this fit in with its defense strategy?

China's maritime strategy is evolving along two paths. First, China is focused on a regional anti-access capability, which is principally applicable in preventing third-party intervention in a Taiwan scenario. Second, China is simultaneously expanding its maritime strategy to include a mission to protect China's growing dependence on maritime commerce for economic development.

From China's perspective, the lessons of warfare from the mid to late 1990s – namely, that modern navies such as the USN can conduct warfare at long ranges – expanded the geographic scope of the maritime battlefield. In order to counter long-range cruise missile strikes or carrier-based aviation strikes, the Chinese Navy sought ways to extend its reach beyond the littoral regions in a manner that offered the potential to counter a modern navy's advanced assets.

Limitations in air defense capabilities for surface combatants as well as the inherent challenges of anti-submarine warfare compelled the Chinese leadership to focus much of its military modernization effort on the submarine force.

The Chinese Navy currently operates about 55 attack submarines, the majority of which are diesel-electric powered. The total number of diesel submarines in the Chinese inventory has actually declined since the 1980s, when the "People's War at Sea" concept called for high numbers of low technology combatants. The large submarine force of that period, dominated by the 1950s-era ROMEO SS class, was drawn down during the 1990s and has been replaced by a smaller but more technologically advanced force of KILO SS, SONG SS, and YUAN SS.

Each of these submarine classes, which are quiet platforms with anti-ship cruise missiles, is an integral part of China's regional anti-access strategy. The quieting incorporated into these

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submarines is required for successful operations in the open ocean operating areas which could facilitate the PLA(N)'s wartime mission of keeping enemy combatants outside of strike range of the theater of operation. Long-range weapons are the means by which each individual submarine can influence a larger body of ocean, which is required with the expansion of the geographic scope of the maritime battlefield.

Including the recent surfacing of SONG-class SS near USS KITTY HAWK, Chinese submarines seem to be operating beyond their familiar operating areas. Is this trend likely to become routine?

China claims that its submarines have conducted long-range patrols almost since the inception of the Chinese submarine force. According to Chinese press reports, PLA(N) submarines have occasionally ventured into the Pacific Ocean and, with some degree of regularity, continue to conduct these "cruises of long duration."

Although China has apparently been satisfied with only a handful of these deployments every year, the growing technological capabilities of the PLA(N) submarine force and China's evolving maritime strategy, which calls for an operational capability beyond the littoral in support of an anti-access mission, create the conditions for Beijing to opt for an increased submarine presence in the Western Pacific Ocean east of the Ryukyu Island chain.

The PLA(N) navy seems in many ways to be modeled on the old Soviet Navy in terms of equipment and force structure. Is it optimized to counter carrier strike groups?

Much of China's military modernization effort of the past five years, and particularly the modernization of the Chinese Navy, has been designed to improve China's anti-carrier capability. China envisions an attack on a carrier strike group as incorporating submarine-launched ASCM strikes and ASBM attacks.

The PLA(N)'s weaknesses in air defense and long-range aviation prompted the heavy investment in improving the submarine force observed during the Tenth Five Year Plan (2001-2005) with a goal of enabling PLA(N) wartime operations beyond carrier-based aviation and land-attack cruise missile ranges of the mainland. As noted above, submarine-launched long-range anti-ship cruise missiles have become an important means for the PLA(N) to counter any wartime foe in the region, particularly carrier strike groups.

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Another key element in China's anti-carrier program is an anti-ship ballistic missile program. China is equipping theater ballistic missiles with maneuvering reentry vehicles (MaRVs) with radar or IR seekers to provide the accuracy necessary to attack a ship at sea.

Closer to the Chinese mainland, China could also employ its newest surface combatants and maritime aviation assets, both of which now incorporate long range strike weapons.

With Chinese expansion of maritime commerce and its increasing dependence on oil imports, do you foresee the PLA(N) developing into more of a blue-water navy - including SSNs - designed to protect or interdict trade routes and other interests overseas?

China's emergence on the global stage as an economic power and as a net importer of oil has had a significant impact on China's maritime strategy. In order to protect oil and other trade routes, the PLA(N) is beginning to develop the foundations of a naval capability that can defend sea lines of communication (SLOCs).

While China's submarine force is well suited to interdiction, protection of SLOCs with a submarine force is more challenging. To effectively protect shipping, a visible and demonstrable naval capability, generally based on surface combatants with the endurance and range to operate farther from shore for an extended period of time, is preferable. To suit this need, China is building improved classes of destroyers, including the long-range SA-N-20 SAM-equipped LUZHOU DDG and the HHQ-9 SAM equipped LUYANG II DDG. The long-range SAM systems these platforms possess will provide Chinese surface combatants with an area air defense capability as they operate farther from shore and outside of the protection of land-based air defense assets.

Under the protection afforded by these advanced area air defense destroyers, which are also equipped with long-range ASCMs, the Chinese Navy can operate combatants such as two recently acquired SOVREMENNYI II DDGs. These long-range engagement and air defense capabilities now being fielded by the PLA(N) give China a significantly improved capacity for operations beyond the littoral in support of SLOC protection. By 2020, China is likely to operate an aircraft carrier, the initial unit of which may be the refurbished ex-VARYAG acquired from Ukraine in 2000, to further support SLOC protection.