

Review & Forecast

The US-China ASW Calculus In the South China Sea

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The South China Sea is set to remain the maritime defense topic de jour for two good reasons. First, China's intent to maintain a forward South China Sea presence is manifest in the establishment of the Chinese People's Liberation Army's Southern Theater Command, one of China's five externally oriented theater commands. As veteran China-military watchers John Lewis and Xue Litai have argued (<http://stanford.io/2gZ4DLq>), President Xi Jinping's plans for the next phase of China's rise, for which the South China Sea is a critical opening play, focus on sea power. "Whether we are able to solve successfully the problems of the oceans," said Xi in 2013, "is related to the existence and development of our nation, the rise and fall of our country."

Second, it is clear that the Barack Obama Administration's strategy of waiting for China to over-reach in East and Southeast Asian territorial challenges paid off with the combination of China's artificial island construction, its resistance to regional multilateral negotiation and its poorly calibrated diplomatic response to the UNCLOS Permanent Court of Arbitration (PCA) ruling in the Philippines v. China case over disputed maritime territory. Inevitably, the theme of Chinese aggression took hold in the international press. The difficulties of U.S. allies such as the Philippines and Malaysia aside, the longer-run diplomatic score remains U.S.-10, China-0.

At first glance, the strategic balance appears to have tilted China's way with the fait accompli of the installation of airfields, fighter aircraft, supply facilities and base defense on several newly constructed islands in the hotly contested Spratly Islands chain in the South China Sea. The PCA judgement may have ruled against China, but Chinese military facts on the ground appear to have placed the United States and its regional allies on the back foot, with limited short-term politically viable options for response; basically a U.S.-only Freedom of Navigation Operation with no serious allied or regional support.

In all of this, the key transformational issue is China's plan to deploy intercontinental nuclear missile-capable submarines to provide China with a survivable sea-based second-strike nuclear-deterrent capability. The fundamental requirement for that capability—apart from questions of missile range, crew training and naval submarine-launched ballistic missiles (SLBM) and nuclear submarine doctrinal development—is that the submarines are able to reach the deeps of the western Pacific undetected by U.S. and Japanese anti-submarine warfare (ASW) sensor nets (<http://bit.ly/2h6LCTo>). Only there do they have any chance of fulfilling their role as a nuclear deterrent force immune to U.S. attack. The current four *Jin*-class SSBNs, mainly deployed to Longposan naval base on the island of Hainan at the

north border of the South China Sea, are to carry the JL-2 SLBM, with a missile range in the order of 7,000 km/s. The *Jins* are reportedly noisy (<http://bit.ly/2gZ1LOQ>), and it is unclear that they have been tested for missile-carrying patrols. Chinese SSBNs will undoubtedly become quieter and carry a more capable missile, but the already highly capable U.S.-Japanese ASW nets will continue to evolve further.

Exiting from Hainan, Chinese SSBNs must cross the South China Sea either east to pass through the Bashi Channel between Taiwan and the Philippines, north through the Taiwan Strait and then the Ryukyu Islands, or south toward the Philippines or straits leaving the Java Sea.

All of these exits require Chinese SSBNs to pass undetected through the formidable "fish-hook" undersea ASW sensor network (<http://bit.ly/2h6HCCv>) long deployed by the U.S. and Japan from Hokkaido, Japan, to Luzon, Philippines.

The Chinese air bases on the newly created islands have little chance of surviving the opening hours of a full-scale China-U.S. war, but their main strategic (as opposed to diplomatic) use prior to that possibility will be to inhibit habitual uncontested access (<http://bit.ly/2gudCRh>) of adversary ASW forces to both shallow and deeper portions of the South China Sea. Certainly, they allow enhancement of Chinese ASW capabilities south and east of Hainan, in both the shallow and deeper parts of those waters.

Given the low odds against Chinese SSBNs successfully exiting the fish-hook sensor line, even the regional diplomatic costs of the island-construction campaign probably look like a small price for China to pay to at least minimally redress the nuclear balance within the crowded waters of the South China Sea.

In an important 2014 review of Chinese SSBN development and basing in Hainan and Qingdao, the veteran nuclear watcher Hans Kristensen concluded (<http://bit.ly/2gZa0KD>) that the noisiness and range limitations of the *Jin*-class submarines render the Chinese force too insecure for reliable second-strike purposes. Rather, Kristensen argued, the SSBNs are "a symbol of great power status". This conclusion, intended to calm alarmist rhetoric from the Pentagon, is doubtful. If discussing India's SSBN capability (<http://bit.ly/1RKMs2E>), such a claim would be more convincing, as India's nuclear force is only required to deter Pakistan's limited land-based force. For China, however, the combination of the U.S. nuclear triad plus missile defense makes the need for a second-strike capability a matter of urgency. Given that perceived need, it is likely the Chinese leadership see no option but to set out on the slow path to building an effective SSBN force, even with the diplomatic costs of the island-construction campaign and the unavoidable weaknesses of the current force.

At the moment, the U.S. may have the lead in ASW capabilities (<http://bit.ly/2gl4XgU>), but China is making it known that it is playing catch up. How well it can advance its technology relative to the U.S. remains to be seen. The South China Sea will continue to be the locus of a heightened strategic technological contest between China and their ASW opponents, with potentially existential stakes. **ST**