

China's Future Nuclear Submarine Force edited by Andrew S. Erickson et al. Naval Institute Press, 2007, 412 pp., \$29.42.

The United States faces new challenges around the globe, China's geostrategic challenges are not well understood, and the US Navy may have a peer challenger in the Chinese nuclear submarine force in five to ten years' time. The Naval War College in Newport, Rhode Island, under RADM Jacob Shuford, created the China Maritime Studies Institute to study changes the Chinese People's Liberation Army Navy (PLAN) is undergoing. This book, a collection of essays presented at a conference on Chinese submarines in 2006, shows how the Chinese nuclear navy has developed to date and possible future trajectories it could take. Nuclear submarines—both attack (SSN) and ballistic missile (SSBN) versions—should be taken as a sign that China intends to become a true global military power. The book also explores the development of Chinese diesel submarines, which play an increasingly important role in littoral warfare, especially when equipped with air-independent propulsion systems. The acquisition and incorporation of Western (French and German) and Russian submarine technology is allowing Chinese submarines to “leap a generation” and emerge as serious peer competitors.

The launching of second generation nuclear submarines—the 093 attack submarine and the 094 ballistic missile submarine in 2002 and 2006—heralded the arrival of a new era in Chinese maritime operations. The opaque nature of Chinese military writings forces the authors and editors to use history and likely scenarios to chart future courses. The acquisition of eight Kilo class diesel submarines from Russia, with each pair of boats growing in sophistication and capability, has allowed the PLAN to move to the forefront of Asian navies. A salient point made here is that the US Navy has eroded its strategic antisubmarine warfare (ASW) forces since the demise of the Soviet Union; in a future East Asian or Strait of Taiwan conflict, US naval commanders would have to shift assets from protecting carriers to conducting strategic ASW. The development and size of the Chinese ballistic submarine force is closely tied to the long and painful development of solid-fueled ballistic missiles. As Soviet, now Russian, know-how and practices enter Chinese naval thinking, a bastion concept of operations to protect the ballistic missile sub may emerge.

Chinese strategies—“first island/second island” as well as offshore and active defenses—allow the writers to explore how and where Chinese submarines could be placed and used in various conflict scenarios. The use of a carrier in Chinese naval operations makes for interesting reading as technology acquisitions from East and West are examined along with the role they play in Chinese naval and submarine developments. The authors cannot arrive at a definitive conclusion since Chinese directions in some areas have not yet emerged. China's use of weapons on its submarines and the possible uses of a nuclear submarine force to thwart US intervention in a Taiwan Strait scenario will show the reader that the PLAN is well aware it must use weapons in different or modified roles to neutralize US advantages. Some authors use

indirect methodology to break down gaps and show what the Chinese navy has and will likely accomplish in the next five to ten years. The acquisition of Soviet diesel submarines and the continued construction of the Ming class boat show that the PLAN may be employing a strategy that allows its nuclear boats to become true blue water forces, since they have no logistical needs and thus can operate unhindered in the Pacific Ocean.

By mimicking Soviet concepts in submarine operations, the PLAN has opted for a strategy that is affordable, practical, and comprehensive. It also embodies technical challenges that Beijing must overcome for its combined naval, air, and strategic missile forces to be successful. Effective and timely open-ocean surveillance is essential, and the PLAN will therefore mirror-image the United States in becoming increasingly reliant on space-based surveillance and communications to meet this requirement.

The book also examined command and control issues for a Chinese nuclear submarine force and logistics issues that any variant of a future Chinese submarine force would face. The texts are well sourced and provide readers with references to conduct more extensive research and reading if desired. In summary, any student of Chinese military developments should read this book. Future texts by the China Maritime Studies Institute will examine other aspects of Chinese naval development. The other services would benefit from similar research; it is important not to focus exclusively on current defense problems but also to study future strategic challenges.

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