



Chinese Naval Shipbuilding: An Ambitious and Uncertain Course (Studies in Chinese Maritime Development)

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One of this century's most significant events, China's maritime transformation is already making waves. Yet China's course and its implications, including at sea, remain highly uncertain?triggering intense speculation and concern from many quarters and in many directions. It has never been more important to assess what ships China can supply its navy and other maritime forces with, today and in the future. China's shipbuilding industry has grown more rapidly than any other in modern history. Commercial shipbuilding output jumped thirteen-fold from 2002-12. Beijing has largely met its goal of becoming the world's largest shipbuilder by 2015. Yet progress is uneven, with military shipbuilding leading overall but with significant weakness in propulsion and electronics for military and civilian applications alike. Moreover, no other book has answered three pressing questions: What are China's prospects for success in key areas of naval shipbuilding? What are the likely results for China's navy? What are the implications for the U.S. Navy?

To address these critical, complex issues, this volume brings together some of the world's leading experts and linguistic analysts, often pairing them in research teams. These sailors, scholars, analysts, industry experts, and other professionals have commanded ships at sea, led shipbuilding programs ashore, toured Chinese vessels and production facilities, invested in Chinese shipyards and advised others in their investment, and analyzed and presented important data to top-level decision-makers in times of crisis. In synthesizing their collective insights, the book fills a key gap in our understanding of China, its shipbuilding, its navy, and what it all means.

Their findings will fascinate and concern you. While offering different perspectives, they largely agree on several important points. Through a process of "imitative innovation," China has been able to "leap frog" some naval development, engineering, and production steps and achieve tremendous cost and time savings by leveraging work done by the U.S. and other countries. China's shipbuilding industry is poised to make the People's Liberation Army Navy

(PLAN) the second largest navy in the world by 2020, and if current trends continue a combat fleet that in overall order of battle (i.e., hardware-specific terms) is quantitatively and even perhaps qualitatively on a par with that of the U.S. Navy by 2030. Already, Chinese ship-design and -building advances are increasing the PLAN's ability to contest sea control in a widening arc of the Western Pacific.

China continues to lack transparency in important respects, but much is knowable through the interdisciplinary research approach pioneered by the Naval War College's China Maritime Studies Institute in the series "Studies in Chinese Maritime Development," of which this is the sixth volume.

"To understand China's naval future, we must understand what its shipbuilding industry can provide. This path-breaking volume points the way."

--Evan S. Medeiros, former Senior Director for Asian Affairs, U.S. National Security Council

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Editorial Review

Review

"A nation's shipbuilding capabilities and capacities can promote or constrain its strategy and ambitions at sea. Mahan knew this, and so do the Chinese. This new volume from CMSI is a great source of insights on China's shipbuilding industrial base and the means that will be at Beijing's disposal in the future. I would recommend it to anyone who wants to better understand the competition for maritime superiority that is looming before us."

--Congressman J. Randy Forbes, Chairman, House Seapower and Projection Forces Subcommittee

"A good book on a very important set of questions. Now and in the future we need to know as much as we can about the capabilities and practices of the organizations that design, build, and maintain the ships of China's navy and its auxiliaries."

--Andrew W. Marshall, former Director, Office of Net Assessment, Pentagon

"The contributors to this volume shed new light on an important but under-studied topic: the industrial sinews of China's naval modernization and expansion. It deserves to be studied by scholars and policy makers alike."

--Thomas G. Mahnken, President and CEO, Center for Strategic and Budgetary Assessments

"China's intention to become a major maritime power in the coming decades is well known, but much less appreciated are the means by which it will attain that status. Andrew Erickson's *Chinese Naval Shipbuilding: An Ambitious and Uncertain Course* thoughtfully, clearly, and factually presents the many facets of China's commercial and naval shipbuilding ambition and the sobering scope of that national enterprise. To project China's direction and pace in maritime and global affairs and their impact on U.S. maritime power without absorbing the insights of this book's extraordinary contributors would be a huge mistake and a sure way to get the future wrong. A must at the top of every national security reading list."

--Admiral Gary Roughead, USN (Ret.), 29th Chief of Naval Operations

"Does China have the means to become a leading global naval power? In the coming decades, can China's design bureaus, shipyards, and supporting industries build the fleet it will need to fulfill this lofty ambition? This thorough, well-researched, and original volume provides answers to these vitally important questions. Essential reading for analysts, policymakers, naval officers, and American citizens concerned with their country's future as the world's preponderant sea power."

--Aaron L. Friedberg, Professor of Politics and International Affairs, Princeton University

??a professor of naval strategy at the Naval War College, presents 17 chapters written by naval, academic, and industry experts and linguistics to penetrate the shroud over the Chinese shipbuilding industry??-
Seapower Magazine

?The contributors ? comprising sailors, scholars and industry professionals ? seek to assess China?s prospects in key areas of shipbuilding and the potential implications for the US Navy.? ? **Survival: Global Politics and Strategy**

?The book makes it obvious that the next decade will be very important and probably exciting as far as US/China naval relations are concerned.? ? **Work Boat World**

"This excellent and wide-ranging book represents a very strong expression of interest in Chinese maritime matters." - **Ausmarine**

?What are China?s prospects for success in key areas of naval shipbuilding? What are the likely results for China?s Navy? What are the implications for the U.S. Navy? To address these critical, complex issues, this book brings together some of the world?s leading experts and linguistic analysts, often pairing them in research teams. These professionals have commanded ships at sea, led shipbuilding programs ashore, toured Chinese vessels and production facilities, invested in Chinese shipyards and advised others in their investment, and analyzed and presented important data to top-level decision makers in times of crisis. This book fills a key gap in our understanding of China, its shipbuilding, its navy, and what it all means.? ? **Sea Technology**

?So what are the Chinese thinking?... To what end? I don?t know.' Hopefully, we?ll get more books like *Chinese Naval Shipbuilding* to help us figure that out.? - **Naval History Book Reviews**

?This is an important, timely and indeed ambitious book at a pivotal moment in world history. In understanding China?s shipbuilding and designs one also gains a glimpse into the cultural knowledge, technologies and enduring artefacts necessary to sustain a Navy.? ? **The Navy, Navy League of Australia**

From the Author

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As with all CMSI events and conference volumes, countless individuals have made vital contributions. While it is not possible to list them individually, the editor extends his sincere gratitude to all concerned. The support of the leadership of NWC, and of the U.S. Navy more broadly, has been crucial to our efforts. Finally, the Naval Institute Press is to be commended for its professionalism and dedication to the Studies in Chinese Maritime Development series in which this sixth volume appears. That series is the product of nearly a decade of constructive collaboration between two vital historic centers of American thinking on sea power: Annapolis and Newport.

Andrew Sven Erickson
Newport, Rhode Island
December 2015

From the Inside Flap **"Studies in Chinese Maritime Development" Book Series**

Powered by the world's second largest economy and defense budget, China is going to sea with a scale and sophistication that no continental power ever before sustained in the modern era. Its three sea forces are all leaders in their own right: the world's second-largest blue water navy, the world's largest blue water coastguard, and the world's largest (and virtually only) maritime militia.

While paramount leader Xi Jinping is working to transform his nation further into a "great maritime power," at a minimum today's Middle Kingdom is already a hybrid land-sea power. Amid European decline and American fiscal and strategic challenges, this historic transformation has the potential to end six centuries of largely Western dominance of the world's oceans. To properly inform its strategy and policy, the U.S. Navy and nation must understand this momentous sea change.

Since its establishment in 2006 the China Maritime Studies Institute has been conducting research and holding conferences covering the broad waterfront of Chinese oceanic efforts in order to advise U.S. Navy leadership and support the Naval War College in its core mission area of helping to define the future Navy. The Studies in Chinese Maritime Development series assembles the resulting proceedings into edited volumes focusing on specific topics of importance to further understand the dynamics of these changes.

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