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Network-centric Warfare: How Navies Learned to Fight Smarter through Three Wars

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Norman Friedman

BOOK REVIEWS

NODES, NETWORKS, PLATFORMS, AND PICTURES

Friedman, Norman. *Network-centric Warfare: How Navies Learned to Fight Smarter through Three Wars.* Annapolis, Md.: Naval Institute Press, 2009. 424pp. $32.95

Norman Friedman's latest book, *Network-centric Warfare,* should find a place on the shelves of all students of naval warfare. It provides a wealth of insights into contemporary and future wars, by focusing on networks—the connection between weapons and systems, the front line and the rear echelon, decision makers and analysts, and domains of warfare from land to sea to air to space to cyberspace. Friedman's central thesis is that network-centric warfare (NWCW) as articulated by advocates like the late vice admiral and former Naval War College president Arthur Cebrowski is really "picture-centric warfare"—that is, as he explains, warfare is "based on using a more or less real time picture of what is happening." Friedman then demonstrates the evolution of picture-centric/network-centric warfare by examining naval programs from British admiral Sir John Fisher's Mediterranean surveillance program at the beginning of the twentieth century to the sound surveillance system (SOSUS) in the latter half of that century.

Whether one agrees with Friedman or not, his account challenges many past and current conceptions of warfare and represents a frontal challenge to theorists of network-centric warfare. As such, this work deserves to be read and responded to by scholars and analysts alike.

Network-centric warfare and its precepts, for better or worse, acknowledged or not, are now embedded in much of current thinking about military operations in both the United States and countries as diverse as the United Kingdom, Sweden, Singapore, and China. At the most basic level, proponents of NWCW urge strategists, planners, operators, and even members of the acquisition community to think about war fighting in terms of nodes and networks rather than of weapons platforms. At its most simple, this means that developing, sustaining, and protecting connectivity (i.e., networks, ranging from radios to fiber optics) is at least as important as ships, tanks, aircraft, satellites, and sensors. Everything from combat power and combat effectiveness to logistical efficiency is

improved by taking full advantage of the computer and telecommunications advances made over the last half-century. Friedman challenges NWCW proponents by redefining their central arguments about the relationship between nodes and networks. In effect, he argues that the "picture" is more important than the network itself for conducting military operations. The network serves the development of ever more complex and, presumably, accurate "pictures" available to operators and analysts.

If I have a problem with Friedman, it is with his definition and explanation of network-centric warfare, at least the variant espoused by Vice Admiral Cebrowski. (Full disclosure: Vice Admiral Cebrowski was the president of the Naval War College when I was hired there, and I enjoyed more than a few hours hashing out the intricacies of network-centric warfare in his presence.) I do not agree that picture-centric warfare is equivalent to network-centric warfare: the "pictures" highlighted by Friedman constitute only one dimension (albeit an important one) of the theory and practice of network-centric warfare. Another relatively minor quibble is that although the book's title refers to three world wars, and indeed the narrative contains analysis and examples from all three—World War I, World War II, and the Cold War—this is somewhat misleading. As the table of contents suggests, the real structure underlying the work is instead three *technological eras,* those associated with radios, radar, and computers.

Network-centric Warfare is not an easy read. It is filled with jargon and focuses largely on relatively obscure developments. It is not a popular history or an anecdote-filled volume designed to thrill devotees of warfare. It lists nearly fourteen pages of acronyms!

These complaints aside, this book is worth buying, reading, and studying. It is a most useful corrective to histories focusing on specific wars, campaigns, battles, personalities, or weapons systems.

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Finkelstein, Sydney, Jo Whitehead, and Andrew Campbell. *Think Again: Why Good Leaders Make Bad Decisions and How to Keep It from Happening to You.* Boston: Harvard Business School, 2008. 204pp. $27.95

Bad decisions are common, but bad decisions by good leaders are perplexing. This book delves into the root causes of faulty decisions made by leaders who should have known better. The reader will be intrigued by the cognitive dynamics underlying defective decisions. Neuroscience is making aspects of traditional wisdom about decision making obsolete. It turns out that rational decision making is not really all that rational.

The book's lead author, Sydney Finkelstein, teaches at Tuck School of Business, Dartmouth, and has written extensively on leadership. His coauthors both earned their MBAs at Harvard and teach at the Strategic Management Center at Ashridge Business School, outside London. Finkelstein also authored *Why Smart Executives Fail.*