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Command and Control: The Literature and Commentaries

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Frank Snyder

scholars the author thought would wish to read his report.

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Snyder, Frank. *Command and Control: The Literature and Commentaries*. Washington: National Defense Univ., 1993. 167pp. (No price given)

There seems to be an assumption today that since technology precipitates changes in doctrine and tactics, astounding technological advances beget revolutionary leaps in military capabilities. This logic underlies a series of recent articles extolling "Revolution in Military Affairs" or "Military Technical Revolution." Corresponding theses proclaim entire new warfare doctrines, such as Space and Electronic Warfare (Navy), Command and Control (C2) Warfare (the Joint Staff), and Information Warfare (Secretary of Defense). Even the most committed technowonk, however, must wonder whether we are truly experiencing a discontinuity in the tactical continuum stimulated by extraordinary developments in digital electronics, or merely suffering from hubris in thinking that our times are unique.

Into this swirl of hype and hyperbole comes *Command and Control*, a concise but profound book that is the product of a joint collaboration between the U.S. Naval War College, Harvard University, and the Institute for National Strategic Studies.

Frank Snyder is a professor emeritus at the Naval War College, where for many years he held the Raymond A. Spruance Chair of Command and Control. Snyder has produced a jewel of a guide to this complex world. It is a Baedeker for military and civilians alike who either are part of the command and control process or involved in C2-associated systems.

This book was meant to serve as a textbook in a ten-session course of instruction. In that worthy endeavor it falls short, but not for lack of effort. Because command and control is an inseparable joining of humans and technology, the topic is so rich that, to paraphrase Aristotle, the more one learns the more one realizes how little one really knows. However, Snyder's book succeeds in a far more useful way—as an almanac of clear definitions, cogent insights, and pertinent readings within each of the ten principal areas of command and control.

The initial emphasis of Snyder's work is on establishing a framework in which to define, first, command and control itself, and then C2 systems. The official Department of Defense Joint Publication 1-02 definition is used, which places equal emphasis on the function of command, the supporting significance of systems, and the commander's use of those systems to control forces in the accomplishment of the mission. The Joint Chiefs of Staff preference for Command, Control, Communications, and Computer systems (C4) establishes the boundary of supporting C2 systems, one that contrasts with the Navy, Armed Forces Communications Electronics Association (C4I), and Marine Corps (C2I2) inclusion of intelligence systems. The central focus, however, of both the

book and the course is that of the C2 *process* (students would call this a "foot-stomper"), almost as counterpoint to the desire of many, especially Americans, to focus more centrally upon technologies. It is as if the author wishes us to heed Napoleon's caution, "Woe to the commander who arrives on the field of battle with a system."

After an initial look into the functions of command and the nature of warfare, the next five lessons gravitate around the C2 process, and the final four lessons focus on C4 systems. The book contains a chapter for each of the ten lessons, with a discussion, commentary on principal readings, and an annotated list of supplementary readings. The individual readings and the bibliography are each worth the price of the book; they encompass the very best in both historical and contemporary work. The currently fashionable "Information Warfare" appears to be absent, as well as (for the reason noted) intelligence and intelligence systems. Also, Snyder treats modelling, simulation, and wargaming only lightly. I would have included in the bibliography Wayne Hughes' succinct and useful *Fleet Tactics*.

In summary, this is a book to come back to again and again, like a map through a confusing and uncertain territory. While it works better in helping the reader understand the nature of C2, rather than any specific system, that in itself is of more enduring value in this era of instant technological obsolescence. Most of all, the reader comes away appreciating that any discussion of command and control involves an inherent joining of commanders with systems and that such "man-in-the-loop" conditions make a knowledge of history and human nature as important as of engineering physics.

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Uhlig, Frank, Jr. *How Navies Fight: The U.S. Navy and Its Allies*. Annapolis, Md.: Naval Institute Press, 1994. 455pp. $34.95

Probably the best way to begin a review of Frank Uhlig's book is to make clear to the reader what this book is not. It is not a chronologically balanced history of the U.S. Navy, nor is it an examination of policy, strategy, operations, or tactics. It is, however, and was meant to be, a review of the wartime history of the U.S. Navy and those of its various allies—the French in the American Revolution, the British during two world wars and the Falklands campaign, and the Israelis in 1973. Uhlig's focus usually rests at the operational level, although he takes the reader up and down the chain of command as necessary and appropriate.

Uhlig's aim is to set aside the debates about naval strategy and force structure, and use history to unveil the nature of the tasks the nation has called upon the Navy to perform in wartime. Uhlig asks simple and direct questions: How has the Navy actually fought during the last two hundred years? What lessons can be drawn from that experience? He concludes that there are five "ways of naval warfare that have shown themselves to be most robust, most resilient": the "strategic" movement of forces, including land and air; the acquisition of