

1991

Science and the Navy: The History of the Office of Naval Research

Dale Pace

Harvey M. Sapolsky

Follow this and additional works at: <https://digital-commons.usnwc.edu/nwc-review>

Recommended Citation

Pace, Dale and Sapolsky, Harvey M. (1991) "Science and the Navy: The History of the Office of Naval Research," *Naval War College Review*: Vol. 44 : No. 4 , Article 14.

Available at: <https://digital-commons.usnwc.edu/nwc-review/vol44/iss4/14>

This Book Review is brought to you for free and open access by the Journals at U.S. Naval War College Digital Commons. It has been accepted for inclusion in Naval War College Review by an authorized editor of U.S. Naval War College Digital Commons. For more information, please contact repository.inquiries@usnwc.edu.

and military operations and exercises, can answers be sought. I hope that those who are involved in professional wargaming will remember Perla's thoughts, "never allowing the tools to dominate the process of recognizing the ultimately central importance of the human being as both player and warrior."

TIMOTHY SOMES
Captain, U.S. Navy (Ret.)
Naval War College

Sapolsky, Harvey M. *Science and the Navy: The History of the Office of Naval Research*. New Jersey: Princeton Univ. Press, 1990. 142pp. \$24.95

Administrative histories tend to be tedious, but *Science and the Navy* is an exception. Indeed, how to gain maximum benefit from science for the navy is a challenge in this era of declining resources, and Sapolsky's insights may allow the current and future navy leadership to avoid past pitfalls. One such hazard is personal animus between civilian scientists and the military; we learn here that bad feeling excluded the navy from the Manhattan Project, even though the Naval Research Laboratory had begun exploring nuclear fission as a potential submarine power source in 1939.

Science and the Navy illustrates a number of ways of managing navy-supported science, and points out some of the benefits, problems, and political factors historically associated with each. The objectivity

of scientific advice to the navy is also addressed, especially in connection with the history of the Naval Research Advisory committee (NRAC) since 1946. The complex relationships among navy and other military research activities and with scientific and academic communities outside the defense department are discussed in a manner that should enlighten many naval officers.

The way in which the executive branch, Congress, and the secretary of defense work to accomplish programmatic objectives is emphasized in mid-career education of naval officers; unfortunately, similar attention is not given to the research and development (R&D) community, even though this is the source of the equipment that defines effective operational options. As a result, many naval officers enter the decision-making process with little understanding of the complexities of R&D, no knowledge of its historical evolution, and few insights about what has proven effective in the past.

The navy can not afford many mistakes if it is to fulfill its national security purposes, while U.S. defense funds are shrinking, in the coming multipolar and technologically sophisticated world. *Science and the Navy* has much to offer navy leadership, and also to mid-career officers who would like to make the best possible contribution to the navy when they reach senior command. All within the R&D community, both

“blue-suiter” and civilian, will find this book fascinating.

DALE PACE
Johns Hopkins University

Bond, Larry, designer. *Harpoon*. Campbell, Calif.: Three-Sixty Pacific, Inc., 1990. \$59.95

Harpoon is the best tactical or operational simulation of modern naval warfare currently available for the personal computer. The player controls ships, submarines, and aircraft in an attempt to achieve victory in one of the game's thirteen scenarios. The player can control either Soviet or Nato forces—United States, British, and Norwegian—in battles for control of the northeastern Atlantic.

The designer, Larry Bond, is a former naval officer best known as the coauthor of Tom Clancey's *Red Storm Rising* and as the author of the best-selling *Red Phoenix*. Bond is also the designer of the original *Harpoon*, a sophisticated manually played game that was first released about ten years ago.

Manual *Harpoon*, while “realistic” for a commercial simulation, requires an enormous amount of tiresome bookkeeping and also a third player—an umpire—to introduce the fog of war into the play. In PC *Harpoon*, the computer serves as opponent, umpire, and bookkeeper. The result is a fast moving and easy to play (although not so easily mastered) simulation of modern naval combat.

Bond has designed a game that allows the player to perform as a modern naval commander faced with multidimensional threats. Although there are simple scenarios that allow the player to control a single force only, facing a one-dimensional threat (submarines versus submarines), the more elaborate scenarios involve air, surface, and subsurface forces, a three-dimensional threat, and include weather fronts that must also be considered while operations are planned. The player should be aware that some of the larger scenarios can cover up to four days of operations in real time!

The scenarios cover most types of action that would occur between Nato and the Soviets in the northeastern Atlantic. The player must escort convoys to Norwegian or Icelandic ports, shepherd amphibious forces to Iceland, execute antisubmarine sweeps and patrols, and intercept Soviet naval sorties and amphibious assaults. Conversely, the player may take command of Soviet forces in each of the scenarios. Starting units and locations differ in successive sessions, but of course the first playing of a scenario usually packs the biggest surprises and is the most challenging.

One criticism I have of the scenarios is that only one involves an American carrier—conducting an operation against Soviet submarines and land-based aircraft on Iceland. Given the focus of the Maritime Strategy, it seems almost criminal not to have included a plot that pitted a single aircraft carrier task force against