



Hunters and Killers, vol. 1: Anti-Submarine Warfare from 1776 to 1943

by Norman Polmar and Edward Whitman.

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This large format coffee-table-style book is billed as the first volume of a comprehensive history of Anti-Submarine Warfare (ASW) from 1776 to 1943. Its coauthors are uniquely qualified for that daunting task. The well known naval analyst Norman Polmar has written extensively on warships, naval aviation, and submarines,¹ drawing on his encyclopedic knowledge of the history of the US Navy. Edward Whitman, an electrical engineer by training, was for forty years a civilian employee of the Navy Department, including its Defense Advanced Research Projects Agency. After retiring in 1998, he was for five years senior editor of the journal *Undersea Warfare*. As the authors state in the introduction, “Perspective,” their book “examines and addresses the strategic contexts, technologies, platforms, and tactics that evolved on both sides of the submarine/anti-submarine struggles since the early 20th [sic; late 18th?] Century” (ix). By and large, they have succeeded in carrying out their ambitious project.

Hunters and Killers comprises nine chapters, each devoted to a particular theme and arranged chronologically. Interspersed in the text are eleven sidebars containing terse biographies of key Allied naval leaders and civilian scientists who made significant contributions to the ASW effort. A twelfth sidebar describes German Großadmiral Karl Dönitz.

Chapter 1 concerns the invention, design, and operational history of the first three American submersible warships: David Bushnell’s *Turtle* of 1776, the CSS *Hunley*, and the USS *Holland*, the Navy’s first submarine, launched in 1897. The presentation of this often studied material will best appeal to general readers. Notable is the chapter’s concentration on the operational and developmental history of these vessels; scant notice is given to ASW—two sentences on the defenders’ evasion of the submarine threat by moving their warships up the Hudson River (to avoid the *Turtle*) or farther out to sea (to avoid the *Hunley*). This disproportionate emphasis recurs throughout the book.

Chapter 2 begins with the sinking of the British merchant ship SS *Glitra* by the German submarine U-17 in 1914. A few pages trace Royal Navy losses to German U-boats in the early months of the Great War. The authors then describe anti-submarine measures adopted by the Royal Navy in reaction to the German submarine threat. They astutely observe that “Because the submarine offensive against merchant shipping was so largely unexpected and the effectiveness of submarines against surface warships widely doubted ... neither the Allies nor the Central Powers began the war with either an ASW strategy or the specialized tools—weapons, sensors, and tactics—needed to implement one” (21). The rest of the chapter describes various ASW weapons, tactics, and radio intelligence developed late in the war, as well as the German submarine campaign in the Atlantic.

Chapter 3’s title, “ASW in Other Areas,” like the book’s subtitle, is misleading, since only half of it deals with ASW as opposed to submarine warfare broadly speaking. It begins with the Dardanelles

1. E.g., *Death of the USS Thresher: The Story Behind History’s Deadliest Submarine Disaster* (1964; rpt. Guilford, CT: Lyons Pr, 2004), *Aircraft Carriers: A History of Carrier Aviation and Its Influence on World Events*, vol. 1: 1909–1945, 2nd ed. (Washington: Potomac, 2007), *The Naval Institute Guide to Ships and Aircraft of the U.S. Fleet*, 19th ed. (Annapolis: Naval Inst Pr, 2013).

Campaign and operations in the Adriatic and the wider Mediterranean. Then comes an account of Allied ASW operations late in World War I, including the use of submarines as ASW weapons.

Chapter 4, the book's most interesting, details how submarines transformed warfare conducted at sea and the countermeasures devised to neutralize them, including operations by air forces and surface craft. After sections on underwater acoustics and detection systems, the chapter closes with a summary of the lessons learned during World War I.

Chapter 5 offers a succinct treatment of underwater sensors (SONAR in the US Navy and ASDIC in the Royal Navy) and the advent of radar in the interwar period.

Chapter 6, "Building ASW Forces," begins with an examination of the new classes of destroyers built by the major navies between the world wars. Short sections look at the development of airborne ASW, the Royal Navy's ASDIC training program, and the US Navy's fleet difficulties with submarine warfare. Last comes an outline of the operational results achieved during the Spanish Civil War and in Germany prior to World War II.

Chapters 7 through 9—on the Battle of the Atlantic from 1939 to 1943—cover both offensive and defensive aspects of the conflict as well as the introduction of new weapons and platforms. This portion of the book also examines the "War in the Mediterranean," the German campaign (Operation Drumbeat²) along the east coast of the United States, and the Murmansk Arctic convoy run. Inexplicably, submarine warfare in the Pacific theater apparently fell outside the book's purview.

Although (or because) it is densely packed with information, *Hunters and Killers* lacks a cohesive theme or thesis. Readers get little sense that the invention and introduction of the submarine revolutionized naval warfare and changed the battlefield from a two-dimensional space to a three-dimensional one. Nor do the authors comment on the cycle of innovation in offensive weapons eliciting new defensive measures, which in turn spur further innovations in offense ad infinitum. This phenomenon has been especially evident in undersea warfare.

Other flaws include the short shrift given to the origin, composition, and command structure of the World War II Auxiliary Patrol (mentioned several times). Omitted altogether is the QA, the US Navy's first active sonar, which was installed on several destroyers in 1933.³ A disheartening amount of factual material is interred in the endnotes, one of which runs 270 words (190). Finally a bibliography would have benefited the nonspecialist readership for whom the book seems intended.

Hunters and Killers will most strongly appeal as a general reference book to submarine enthusiasts, naval history buffs, and perhaps undergraduates interested in military history. Academic historians and naval professionals concerned with the course of technological advances in naval warfare and their repercussions will find it less valuable.

2. Oddly, the authors do not use this standard designation.

3. See Norman Friedman, *U.S. Naval Weapons: Every Gun, Missile, Mine and Torpedo Used by the U.S. Navy from 1883 to the Present Day* (Annapolis: Naval Inst Pr, 1988) 257.