

documents his sources by chapter and his bibliography provides references and resources for exploring the narrative further.

As with all accounts written by participants in a conflict, the work should be viewed in a larger context. The author uses war diaries and ship histories rather than individual memoirs and recollections, which helps with a balanced narrative. Even though Facchin does not delve into his own role in the conflict, the story occasionally becomes personal and less objective. On the other hand, it offers English-language speakers an introduction to the Falklands War through one of its ships, and provides a useful contribution to current and future historical study of a conflict that remains unresolved.

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**Stan Fisher. *Sustaining the Carrier War: The Deployment of US Naval Air Power to the Pacific*. Annapolis, MD: Naval Institute Press, [www.usni.org](http://www.usni.org), 2023. xv+288 pp., illustrations, tables, notes, bibliography, index. US \$32.95, hardback; ISBN 9781682478479. (E-book available)**

Anyone visiting an academic library can find plenty of shelves bowing under the weight of books about the naval air battles in the Pacific during the Second World War. In the decades since that war, a veritable mountain of memoirs, popular histories, and scholarly monographs have been published recounting the campaigns waged in the Pacific theatre, most of which feature the role played by naval air power within it. Given the sheer weight of these accumulated works, it is difficult to imagine that there is anything new to add about the subject. Yet in writing a book about how the United States Navy addressed the challenges of aircraft maintenance in the Pacific during the war, not only has Stan Fisher identified an important aspect of it that has long gone unaddressed, he has written a book that goes a long way towards filling this regrettable gap in our knowledge of the conflict.

The core problem, of course, is a longstanding one when it comes to military history, namely the traditional focus on the “teeth” at the expense of any proportionate coverage of the “tail.” Yet numbers alone demonstrate the folly of such neglect. To support the eighty-two planes which comprised the original aircraft complement on the Essex-class aircraft carriers, for example, it was estimated that a crew of over 200 officers and 2,171 enlisted personnel would be needed, with approximately half of them assigned to air group operations. Such numbers reflected the effort required to equip and maintain the planes, an effort that as Fisher explains only grew with the increasing complexity of the aircraft. How the Navy addressed the challenge of training these men for their

roles as maintenance personnel, and the ways in which aircraft maintenance operations changed over the course of the war, is the focus of his work. In the process, he demonstrates how the USN adapted to the demands of a new type of naval warfare, one that was key to victory in the Pacific in 1945.

Fisher begins by describing the development of aircraft maintenance training in the interwar era. This was a problem that became increasingly important given the size of both the carrier fleet during this period and the carriers themselves, as the navy went from operating only a dozen planes aboard the USS Langley in 1924 to over six times as many aboard each carrier of the Yorktown class by the late 1930s. These numbers, along with the growing capability of such aircraft, created an increasing need for technical personnel, which was filled throughout the period by an ad hoc collection of trade schools, supplemented by apprenticing at assembly and repair facilities. While this proved adequate for interwar needs, by 1940 the Navy estimated that this would meet at most just 15 percent of the demand for aircraft technicians anticipated to support its planned force expansion. It was clear to everyone that the aviation training program needed to be not just expanded, but reorganized completely.

In response, new schools for aviation technical training were established in both Florida and Illinois, while existing facilities were expanded or consolidated. Here Fisher details the challenges faced during this period, particularly with the tension between efforts to standardize the curriculum at these schools and the rapid advance of naval aviation technology. Addressing this required a reorganization of the administration of such programs, with the awkward, shared responsibility between the bureaus of Aeronautics and Personnel. Eventually, a new Naval Air Technical Training Command (NATTC) was created in September 1942. Reorganization proved especially beneficial in terms of financing such programs, and removed training from the whims of district commandants, allowing a more efficient allocation of resources. This, along with changes in ratings classifications, reflected the growing appreciation of the value of aircraft technicians. Yet even with the expansion of training to include women and Blacks (both of whom were restricted to shore assignments), keeping up with the demand remained a formidable challenge throughout the war.

Once trained and deployed, the aircraft technicians faced challenges unknown to their counterparts in the Army Air Forces. Not only were they required to maintain an enormous number of high-performance aircraft, they typically did so in cramped working spaces, often while coping with the pitch and roll of vessels and the corrosion caused by the environment in which they operated. Over the course of the war, the Navy modified their aircraft maintenance practices to address these problems, most notably through

increased specialization and the commissioning of dedicated assembly and repair vessels. Yet Fisher notes that, over time, the heavy tempo of air group operations fueled the emergence of a “throwaway culture” in maintenance, as the enormous output of American factories made it simpler to replace damaged planes rather than to undertake major repairs. Formalized by the 1944 Radford Board, their conclusion had the added benefit of reducing the need to have large amounts of spare parts at hand, which freed up space in hangars for more airplanes and, in turn, increased the combat capability of the carriers.

While such a label may seem pejorative, Fisher argues that this throwaway culture made sense within the context of the war in which the United States Navy was engaged. It also underscores his larger argument about the role played by naval aircraft technicians in defining the scale and the pace of the carrier war. In giving these men the recognition that they have long been denied, he provides a valuable study of how the USN met the need for skilled labour and adds significantly to our understanding of the broader subject of naval logistics in the Pacific theatre during the conflict. His book should become necessary reading for anyone interested in naval logistics or the larger challenges of developing a technical workforce in an industrial war.

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**Ian Friel. *Breaking Seas, Broken Ships. People, Shipwrecks and Britain, 1854–2007*. Barnsley, S. Yorks: Pen & Sword History, [www-pen-and-sword.co.uk](http://www-pen-and-sword.co.uk), 2021. 176 pp., illustrations, maps, notes, bibliography, index. UK £25.00, US \$49.95, cloth; ISBN 978-1-52677-150-6.**

Ian Friel’s latest book tells seven stories of sunken vessels, hardship, death, and destruction covering 153 years of British seafaring. In this era, Britain moved from ruling the waves in the centre of an empire to an island nation with a large network of trading partners. Although the stories themselves do not connect, the theme of their swansong is the same. The author shows that it sometimes takes more than bad luck or foul weather to create a catastrophe at sea. Sheer incompetence, criminal negligence, greed or mistakes in a ship’s design, or slow development in laws and regulation are, by themselves, or in combination, often the cause of disaster. And yet, as we stand on the shoulders of giants, we learn from mistakes, don’t we? As vessels become larger, the cargo per ship has a higher value than a decade ago. Once the exclusive riches of the East, the ‘high end’ products were the aim of western trade. Nowadays, the factories in the East produce western-designed products in high volumes. Asia has become the factory of the world. The volume of goods transported