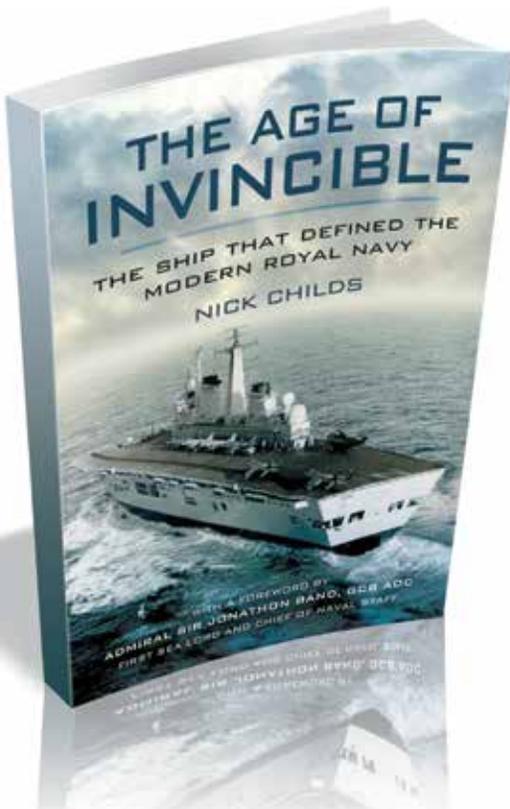


PROFESSIONAL READING LIST

The Defense Acquisition Professional Reading List is intended to enrich the knowledge and understanding of the civilian, military, contractor, and industrial workforce who participate in the entire defense acquisition enterprise. These book reviews/recommendations are designed to complement the education and training that are vital to developing the essential competencies and skills required of the Defense Acquisition Workforce. Each issue of the *Defense Acquisition Research Journal (ARJ)* will contain one or more reviews of suggested books, with more available on the *ARJ* Web site.

We encourage *ARJ* readers to submit reviews of books they believe should be required reading for the defense acquisition professional. The reviews should be 400 words or fewer, describe the book and its major ideas, and explain its relevance to defense acquisition. Please send your reviews to the Managing Editor, *Defense Acquisition Research Journal*:
Norene.Fagan-Blanch@dau.mil.



Featured Book

The Age of Invincible: The Ship That Defined the Modern Royal Navy

Author(s):

Nick Childs

Publisher:

Pen & Sword Maritime

Copyright Date:

2009

ISBN:

978-1844158577

Hard/Softcover:

Hardcover, 208 pages

Reviewed by:

Professor David Andrews, FREng, RCNC, Professor of Engineering Design, Department of Mechanical Engineering, University College London, and former Project Director, Defence Procurement Agency, United Kingdom, Ministry of Defence

Review:

This book has a foreword by then First Sea Lord Admiral Jonathan Band, which nicely summarizes it: “this excellent and very readable account of the life [of the ship]... and the worlds from which it sprang and into which she emerged.” The book also describes the politics that led to the current build program of much larger Carrier Vessel Future (CVF) vessels. Initially, the sorry story is told of the cancellation of the CVA-01, lead ship of the first post-war carrier class. Louis Rydill, as the design manager, is quoted as feeling he was on the rack trying to achieve the capability of a Forrestal design within a displacement of 53,000 tons and a necessary, but daunting level of innovation. Meanwhile, there was ineptitude by the Royal Navy’s hierarchy in the corridors of power (contrasted later with the “A Team” 16 years on, which won the Falklands Campaign). Following the demise of British naval aviation, there was the subsequent slow and painful climb back to a fleet led by three “Through-Deck Cruisers”—only “carriers” in a limited sense once the short take off and vertical landing (STOVL) provision was incorporated.

Next, *Invincible* and her design intent is described (familiar to those involved, including this reviewer, who contributed to Nick Childs’ research, as well as coauthored the definitive technical paper in 1980 on the design—more appropriate for those who would like something technically detailed rather than this essentially strategic and personalities-focused history). Childs has caught the essentially innovative nature of this quite new concept—based on Rydill’s early helicopter cruiser studies and then Tony Austin’s coherent through-deck and all gas turbine propelled design, developed without any previous ship on which to base it (Honor & Andrews, 1982). The book then covers the Harrier ramp story well, if un-technically—there was a lot more to it than being “just welded on to the forward end of the runway.”

The nadir was reached with the early Thatcher government’s defense cutting regime with a chapter entitled “For Sale,” yet followed—mercifully, for the Navy—with the Falklands redemption of maritime capability and a chapter on “*Invincible* at War.” This should be the key chapter of the book, but is a mere 10 pages covering the immediate perspective of the Commanding Officer (then) Captain Jeremy Black, and little on how well the ship and its embarked aircraft performed. The subsequent chapter “What Lessons” focuses on the strategic rather than the tactical- or design-related lessons.

The last part of the book addresses post-Cold War peacekeeping, where the ability of carriers to project power ashore was shown to be limited with the *Invincibles* and thus made the case for the two big (65,000-ton)

carriers. On the vexing question of naval ship costs, despite the fact that it dominates the whole fleet acquisition process, Childs does not ask why the Queen Elizabeth Class (QEC) carriers, which are large but slow and minimally armed, have been subject to ever rising costs. Clearly, each major program has been, successively, the only significant United Kingdom shipbuilding program, and therefore had to shoulder the added burden of sustaining that national capability. However, this writer believes the cost escalation is also due to the persistent but false belief by politicians and wider government (including the naval hierarchy) that “value-for-money” could be delivered by giving industry the responsibility for designing and project managing naval shipbuilding, instead of leaving both in-house.

However, none of the above is addressed in Childs’ book, which largely focuses on the contributions of a succession of senior naval officers. It is a fascinating, if dispiriting, story of sacrificing the size of the rest of the fleet to keep carrier aviation alive. The uphill nature of this struggle seems consistent with the sense of a nation that has collectively lost sight of its maritime *raison d’être*. However, this is only part of the story that Childs could have addressed, as his story has a worrying lack of engagement with the underpinning engineering narrative. Could that be coincidental?

Reference

- Honnor, A. F., & Andrews, D. J. (1982). HMS Invincible: The first of a new genus of aircraft carrying ships. *Trans. RINA*, 124,5.