

BOOK REVIEWS

PLUMB, C. M. *Warship propulsion system selection*. London, Institute of Marine Engineers. 1987. 265 pp. ISBN 0 907206 16 6. Price £30 (£21 for members of I.Mar.E.)

(reviewed by Rear-Admiral R. A. Isaac)

The author makes a bold attempt to enclose between covers a large and diverse subject. He is to be commended for covering so much ground with economy of paper under the broad heading of the title and providing useful background reading for those with a certain amount of basic knowledge of marine engineering.

Despite the spread of technology covered, the book provides a good summary of the relevant theory of the various choices today (gas turbines, diesels, steam propulsion, nuclear, etc.) and an introduction and understanding of the complexities, compromises and inter-relationships involved in the selection of the propulsion system.

In parts the subject matter is treated superficially and in others there are omissions. Chapter 4 presents the topic of nuclear power but the reader is left without a clear recognition of the immense effort and large resources necessary to satisfy SAFETY and provide the shore side support infrastructure. Perhaps the selection, or rather non-selection, of a surface nuclear ship programme (naval or civil) has something to do with traffic density in the Dover Straits? What is the Maximum Credible Accident (MCA) and what risk assessments take place?

Chapter 11 guides the reader at some length through the selection process of a new gas turbine. In the Royal Navy today the size and nature of particular gas turbines in reality are largely driven by industrial and commercial factors—we must take what is on offer, a point which evades emphasis.

The future is but lightly touched upon and this, together with a shifting scene, means that the book will soon become dated. Providing that this is recognized and the reader differentiates between statements of fact and opinion, then here is a useful background document and certainly one which should be read by all those involved in this business but not treated as a book of reference.

BARNETT, Correlli: *The audit of war. The illusion & reality of Britain as a great nation*. London, Macmillan. 1987. 359 pp. ISBN 0 333 43458 7 Price £7.95 (paperback)

(reviewed by D. K. Brown, R.C.N.C.)

This is a fascinating and disturbing book which deserves a very wide readership. The proposition put forward by Correlli Barnett is one familiar to readers of his earlier books, that of the decay of British industry. This book argues the case that the triumphs of British invention and technology during World War II were creations of the propaganda machine, that the concentration of resources on weapon production was possible only because food and other essentials were supplied free by the U.S.A. and Commonwealth and that the U.K. relied almost entirely on machine tools from America.

Against the background of a decayed industry and lost investments, the Beveridge report which led to such a great extension of the Welfare State is seen as an impossible dream and the attempts to bring it to reality as the last straw which led to the collapse of British economic power.

Having stated his thesis, the author then considers coal, steel, shipbuilding, aircraft, and radar industries as examples of decay which support his views. Even in the most modern industries there is, he says, the familiar picture of ill-educated management and unions dedicated to their rights and demarcation rather than to increasing production.

Since this reviewer, and many readers, will be most familiar with the shipbuilding industry, that chapter will be taken as an example of Barnett's approach and of the merits of his case. There are many surviving papers from DNC Department and in Sir Stanley Goodall's diary which support the general thrust of the author's argument. A point in these papers which Barnett does not bring out is that from early 1941 onwards, Churchill's heroic speeches were seen by the workforce as showing that victory was inevitable, that they did not have to make any special efforts other than to preserve their post-war bargaining position.

Despite the reviewer's general support for Barnett, there are irritating errors and omissions in this book. For example, he says 'By 1914 few firms had yet equipped themselves with laboratories or testing tanks' (p. 110). These 'few' included Vickers, Denny, John Brown and Thornycroft; Yarrow paid for the NPL tank for the benefit of the whole industry, whilst Armstrong took advantage of their close connections with the Admiralty in using Haslar results. This represents a greater involvement of industry in hydrodynamic research than in other countries—or in the U.K. today. Similarly the 'family' firms usually saw that their sons were well educated, and the Yarrows and Barnabys (returned to Thornycroft) in particular made important contributions.

One last error must be mentioned 'the magnetic mine, swining lethally on its mooring towards the steel mass of a passing vessel' (p. 166)! In a letter to the Times, Prof. Ryall has drawn attention to another such error in describing radar production. The author seems too much in love with his thesis and is too selective and sometimes inaccurate in supporting it. This is a pity since his case seems so strong.

In the next section of his book Barnett discusses how the rot set in. There is the legacy of mistrust from the harsh early days of the Industrial Revolution and what he sees as the false aims of much of British education. He rightly castigates the lack of engineering in Universities but fails to point out that the teaching of engineering was often so dull as to fail to attract bright students. The pay scales and prospects offered after graduation were and are another disincentive. Training of tradesmen was also inadequate, though I think more credit could have been given to the Mechanics Institutes.

The author does not mention that the old Admiralty did better than most with its professional engineers trained at R.N.E.C., Manadon, or Greenwich and tradesmen and supervisors in the Dockyard Schools (from 1840). Largely as a result, in the years before the first World War, the Royal Dockyards could build battleships in about 30 months, the best part of a year faster than private industry. Better labour relations through the 'establishment' scheme and greater capital investment also contributed to the Admiralty success. Such an exception would strengthen Barnett's case.

Even in the Admiralty, the voice of the Engineers was not heard at the top. In World War I, the DNC, d'Eyncourt, wrote to the Prime Minister complaining that such a great technical business as the Navy should have an engineer on the Board. With rare exceptions, there are still no engineers at the top in Whitehall; one must hope for the success of the Defence Engineering Service.

Overall, Correlli Barnett's depressing picture of industry in World War II rings true even today. There is much to learn for everyone in the book; it is very readable and it is strongly recommended.

FRIEDMAN, Norman.: *The postwar naval revolution*. London, Conway Maritime Press. 1986. 240 pp. ISBN 0 85177 414 8 Price £18
(reviewed by D. K. Brown, R.C.N.C.)

In this book the author describes how the Royal Navy, the United States Navy and, to some extent, other navies, came to terms with political and economic realities and with nuclear weapons during the period 1945–55. The R.N. had a particularly difficult set of problems since, though the retreat from Empire proceeded rapidly, there were many remaining overseas commitments and very little money.

The book is based almost entirely on official documents, British and American, recently declassified, and hence the picture given is generally authentic. Those who have had occasion to refer to old Ministry files will know that they only tell part of the truth and that it is often difficult to tell why and when one plan is succeeded by another. There is fascinating detail and many drawings of ships that were considered and sketched but not built. For the ships which were completed there are numerous, well-chosen photographs.

After an introductory section, successive chapters deal with carriers, cruisers, destroyers and frigates, mine warfare, submarines, and inshore warfare. Perhaps the most fascinating sections are those dealing with efforts to get guided missiles—the monstrous Sea Slug—to sea. Amongst the schemes proposed were converted battleships or aircraft carriers, big cruisers, small cruisers and converted merchant ships. The final solution, the COUNTY Class, had a mixed ancestry from a series of fast escorts and cruiser-destroyers.

Inevitably there were a number of blind alleys and decisions made which can be criticised with hindsight, but overall the Royal Navy that emerged was fit for purpose. Norman Friedman has done us another great service in guiding the reader so well through the confusing political, economic and technical problems. The book is essential reading for those who wish to know how today's Navy has the shape we see.

WINTON, John: *Carrier Glorious the life and death of an aircraft carrier*. London, Leo Cooper and Secker & Warburg. 1986. 254 pp. Price £16. ISBN 0 436 57806 9

(reviewed by D. K. Brown, R.C.N.C.)

This book is subtitled 'The life and death of an aircraft carrier' and lives up very well indeed to this aim. *Glorious* was designed as a big 'light cruiser' for Fisher's Baltic operation of World War I. As such she went into action on 17 November 1917 off Heligoland, firing 57 rounds for one possible hit on the *Pillau*. Removed after the war, *Glorious*'s turrets eventually became X and Y mountings of *Vanguard*.

In 1924 it was decided to convert *Glorious* and her sister to aircraft carriers with a nominal complement of 48 aircraft. The conversion took a considerable time, not helped when Rosyth Dockyard was closed and the incomplete carrier had to be towed to Devonport. The *Glorious* finally commissioned in 1930 and at this point the book becomes the fascinating story of the development of the Fleet Air Arm.

The author covers the story, in all its aspects, in most readable detail. There is discussion of high politics with great and angry dispute between admirals and air marshals, mixed with story of the dedication and skill of the R.A.F. pilots appointed to sea. Flying from carriers was a hazardous occupation and there were many deaths, but there was a lot of fun in the pre-war Mediterranean fleet with regattas, picnics—and the rest.

The aircraft carried were usually adapted from contemporary R.A.F. designs and were little inferior in performance. The torpedo bomber squadrons reached a very high level of skill; for example, in 1931 Ripons dropped 14 torpedoes against a battle squadron steaming at 19 knots and taking avoiding action, and scored 8 hits. In another attack against the fleet at anchor, 57 torpedoes were dropped for 17 hits. The umpires then (and on other occasions) made some strange rulings. 6 hits were disallowed and it was decided that the *Queen Elizabeth* had had her speed reduced to 20 knots by 2 hits, and *Resolution* was down to 14 knots after 7 hits! Dive bombing, too, was tried with success.

The tactical employment of carriers was studied and the advantages of using more than one carrier in company demonstrated, as was the need for the fleet to conform to the carrier's movements in order to protect her whilst flying on and off. It was not entirely peaceful, with a collision and involvement in both the Abyssinian war and the Spanish Civil War. Performance in exercises and in regattas make it clear that *Glorious* was a most efficient ship and she was also a very happy ship.

There is abundant evidence that this changed with the new captain in May 1939. There was continual friction, reported not only by the ship's officers but also by visitors from other services. Despite this, the carrier's air group made a valuable contribution to the Norwegian campaign and *Glorious* was also used to ferry R.A.F. fighters to Norway. When it was decided to evacuate Norway, 10 surviving Hurricanes under Squadron-Leader Cross landed on *Glorious*, the first time single seat monoplane fighters had landed on a British carrier.

Their brave effort was wasted as, due to a series of errors, *Glorious* was encountered by *Scharnhorst* and *Gneisenau* on the way home and sunk with very heavy loss of life on 8 June 1940. It was not realized that the carrier and her escorts, *Ardent* and *Acasta*, were lost and it would seem that most deaths occurred in the water, with 1,519 men killed or missing from the three ships. Behind the loss lie some incomprehensible decisions by the captain explored in detail, and with sympathy, by John Winton.

It is a most fascinating book, carefully researched, and of very great interest to all those concerned with the development of flying in the R.N.

WHITLEY, M. J.: *German cruisers of World War II*. London, Arms & Armour Press. 1985. 176 pp. Price £14.95. ISBN 0 85368 746 3 (reviewed by D. K. Brown, R.C.N.C.)

This well illustrated book is a worthy successor to the author's previous book on German destroyers. The first five chapters deal with the design aspects of the light cruisers from *Emden* through to the wartime projects that were not built and the heavy cruisers of the *Hipper* class. The remaining nine chapters deal with the generally disappointing wartime careers of these ships and are followed by annexes containing data.

On the whole, these ships came out as conventional designs with no very unusual features. Their damage resistance seems to have been poor, blamed by the Germans on inadequate damage control. It seems to have been difficult to limit flooding in some cases and one may wonder if the German's early introduction of welding led to battle failures under explosive loading. Several cruisers had to be re-built to improve seakeeping and their machinery was not very reliable.

It is a very readable book and tells a little-known story.

RODGER, N. A. M.: *The wooden world—an anatomy of the Georgian Navy*. London, Collins. 1986. 445 pp. ISBN 0 00 216548 1. Price £17.50.
(reviewed by D. K. Brown, R.C.N.C.)

Most of those casually interested in naval history will probably see the 18th century Navy as incompetent, corrupt and brutal. The author points out that such an image is totally at variance with what is known of British society as a whole in that era, and, as far as the Navy is concerned, is based on a very few, biased sources. In particular, history is telescoped: because one isolated incident occurred in 'say 1690, it may be assumed to have been common at any period from the Restoration to the Regency'.

It is time to revise such obsolete views and the author's very readable and extremely thoroughly researched book is a good starting point. The stratification of the warship society is fascinating and far removed from 'Them and Us'. The involved and generally easy relationship between sea officers, warrant officers, petty officers and ratings is of particular interest to engineers since the new steam engineer in the 19th century was to be placed with the gunner and the master. It may be that the 19th century Navy was a little less tolerant than that of the earlier century. Movement between layers was more common than is realized—some 9% of officers rose from the lower deck, including Captain John Perkins, a mulatto (and probably born a slave), commissioned in 1782 and made post in 1800.

The book deals specifically with the period of the Seven Years War 1755–1763 and caution is needed in extrapolating the characteristics of that period. During that period the Navy was the largest industrial enterprise in the world. It made great efforts to purchase good quality provisions and keep them in good condition and initiated many advances in medicine and in care for the sick.

Discipline was easy and based on mutual respect. Crimes were seen in order of seriousness as sodomy (a rare offence in a crowded mess deck), murder, theft, and (a long way behind), mutiny. There were only 8 offences carrying the death penalty, rarely enforced, compared with over 200 capital crimes ashore. Captains could only award 12 lashes and though this figure was sometimes exceeded, such excess was not common nor was it likely to go beyond 24.

The Wooden World was a very human organization; there was incompetence, political corruption and the occasional brutality but not very often. Customs were different from those of today but by and large it was a competent and caring society and this fascinating book should make all those who belong to, or work with, the Navy, very proud of their predecessors and grateful to the author.

BONNICI, Joseph, and CASSAR, Michael: *Malta Grand Harbour and some of its visitors. A pictorial review 1879–1979*. Luqa, Malta. Technographica Design Centre, 1985. Price £10 including postage. 179 pp.
(reviewed by Lieut-Cdr. John M. Maber, R.N.)

This limp-backed horizontal format book of photographs, not of uncontrollable coffee table size, is a nostalgic delight for those who have known Grand Harbour over the years between the wars and since. The volume covers the period 1879–1979 and comprises a series of well reproduced photographs taken largely from the collection of Anthony and Joseph Pavia who, before migrating on retirement to Australia, had their naval photographic business near the top of St. Johns Street in Valletta. There is much here for Mediterranean voyagers and in particular it is interesting to note the changes in the Grand Harbour waterfront over the century (who remembers the Dreadnought Bar, the Iron Duke and others?).

Joseph Bonnici is the well-known Maltese historian who helped solve the problem of the 'Sea Water Distilling Apparatus—1887' and Michael Cassar is a present-day marine photographer of international repute.

The book is available from Joseph Bonnici of 837/2 High Street, Hamrun, Malta, and is much recommended for those who knew the place as the home port of the Mediterranean Fleet. Who knows, your ship may be included; two of mine are!

RITCHIE, C.I.A.: *Q-ships*. Lavenham, Terence Dalton. 1985. ISBN 086138 0118. Price £13.95.

A comprehensive, fair and well-researched study of a little-known aspect of the Royal Navy's history. In the early days of the World War I U-boat campaign against British merchant ships it was common for the submarine to surface and attack by gunfire, saving scarce torpedoes. A decoy ship with concealed guns, which would hoist the White Ensign before opening fire, was an effective answer. In 70 actions the Q-ships sank 11 U-Boats (8% of the total sinkings in World War I) at a heavy cost; 39 out of 271 decoy ships were themselves sunk.

Intended to operate only just within the limits of international law as a response to submarines operating outside that law, there were cases of carelessness and over-reaction in which the law was broken. The author deals fairly and sympathetically with such cases and describes the murder of survivors from one decoy ship.

There are technical lessons; the later decoys manoeuvred to ensure that they were torpedoed, so reducing the submarines' suspicions. To ensure that these old tramp steamers remained afloat long enough to fight a gun duel with the U-boat their bulkheads were extended, doors were sealed and they were given an impermeable and buoyant filling for the holds.

A most interesting book.

CROSLEY, Commander R. M.: *They gave me a Seafire*. Shrewsbury, Airline Publishing Ltd. 1986. 271 pp. Price £12.95.

The book is a fascinating description of the life of a World War II Fleet Air Arm fighter pilot and is most readable. There are many sections in the text and 14 appendices giving the author's clear, informed and sometimes biased views on naval air policy, both technical and operational. Even if you do not agree with all he says, the points made are well worth considering.