and now laid up in ordinary (in reserve, or mothballed), could be "repaired", even if in the end-result, only a few scraps of the original ship (and fewer of its dimensions) remained-such finessing of bureaucracy sounds very modern ... This chapter reveals further details of the shipwright's craft, covering the process of lofting, and of the lifting and transference of moulds and bevels to the ship's timbers. The author illustrates the process superbly through a sequence of 12 of his own drawings, as well as some reproductions of contemporary illustrations. In addition, the author presents a most interesting gantt chart, reconstructed from records, of the full build sequence over two years.

Whereas the illustrations in the previous volume (2009) are all in sepia tones (except eight pages of colour in the centre of the book), this volume is in glorious colour throughout, with numerous drawings and paintings by the author (including a dozen 1:72 scale fold-out plans), as well as a number of the Willem van de Velde drawings that are such a rich resource for ships of this period. This is a very handsome volume which complements well the author's previous book and will be a valuable reference for ship-modellers and students of historical naval architectural practice.

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Marcus Faulkner and Christopher M Bell (eds). *Decision in the Atlantic*. *The Allies and the Longest Campaign of the Second World War*. Lexington, KY: Andarta Books, www.kentuckypress. com, 2019. 313 pp., illustrations, notes, index. US \$50.00, cloth; ISBN 978-1-94-966800-1.

There has been an "excessive focus" on

U-boat sinkings and convoy actions in studies of the long Atlantic campaign. That's the view expressed by American academic Kevin Smith, one of the authors represented in this collection of ten papers. They set out to address this imbalance; most of them represent recent analyses of policy issues and the overall direction of the campaign from the perspective of the Allies. This is a rich collection of insights by recognized experts in Second World War naval warfare. Four are British, two each are American and Canadian, and there is a single Australian contribution.

The papers whose themes are the most removed from descriptions of operations are both by Kevin Smith. "Immobilized by Reasons of Repair" provides an analysis of the impact caused by large numbers of British merchant ships out of action at any one time because they were undergoing repair due to weather, overloading, maritime accidents, and enemy attacks. He writes that "Contextualizing maritime management and diplomacy with reference to grand strategy is ... essential." (48). Having ships out of service due to repairs seriously limited the tonnage available both for transporting cargoes of all types and for military operations. Smith notes that in February 1941, one quarter of the UK's active importing fleet strategy was awaiting or under repair. (62) This was one of the reasons that Churchill convened the high-level Battle of the Atlantic Committee. The causes were due to inadequate repair capacity in UK yards and inefficient responses. The lack of shipping tied up under repair hastened the decline of British clout in grand strategy. In the author's words, "...the premier maritime nation [was forced] inexorably toward a humiliating logistic dependence upon the United States." (71).

Supported by statistical tables,

Smith amplifies themes introduced by C.B.A. Behrens in *Merchant Shipping* and the Demand of War (1955) and in his own Conflict Over Convoys (1996). The figures are arresting; at any given period between August 1941 and the end of summer 1943 at least seven times more shipping was immobilized out of service than was sunk by U-boats. (68) The problem was eventually solved by a combination of new construction from North America, which began to achieve prodigious levels in late 1942, and repairs abroad funded by Lend Lease. ("Throughout the war two-thirds of British-controlled tonnage immobilized for repairs lay in ports abroad". (64) Smith argues that topics such as the management of cargo shipping require further study: "These managerial issues must not be isolated from examination of combat; yet a comprehensive history of the Battle of the Atlantic that integrates its martial and managerial aspects still eludes historians." (49) Kevin Smith contributes a second chapter that shows the byzantine wartime US government and a plodding Secretary of Agriculture who stymied plans to increase meat shipments to the UK, trigging a crisis in late 1942.

Two papers discuss British air resources allocated to the campaign. Dispassionate studies since the end of the war, including the Canadian and British official histories, have demonstrated that strategic bombing, which had starved resources allocated to the Atlantic campaign, was not as effective as Churchill and other senior leaders thought. A chapter by Tim Benbow concerns struggles between the Air Ministry and the Admiralty. It criticizes the senior RAF leadership which was dominated by bombing advocates. Ben Jones writes about the role of the Fleet Air Arm in trade defence. His study includes a comprehensive discussion around the Royal Navy's employment of escort carriers (CVEs). The story traces the delays in getting US-built CVEs into service due to modifications to improve their capability. The author does not mention that a special facility in Vancouver, British Columbia, which modified 19 CVEs built in nearby Tacoma, Washington, eventually became the solution. In addition to the issue of how the RN incurred criticism from the USN because it was using escort carriers for tasks other than the Atlantic campaign, Ben Jones presents some interesting comparisons between the operations of US and RN CVEs. It is not clear whether Jones' figures, dawn from wartime studies, are comparing carriers known in the USN as the *Bogue* (Smiter in the RN) class and the larger Casablanca class, none of which were transferred. The RN operated their escort carriers with smaller crews, which meant that American CVEs operated continuously for 33-40 days as against 16-18 days. Because the US ships carried more aircraft, they managed more hours of flying per day, and "wastage" of aircraft was higher in the British carriers, in part because of undercarriage weaknesses in the RNASW aircraft, the Swordfish. (146-7)

Christopher Bell, who has published extensively about Churchill and air power in the Atlantic campaign, contributes a carefully reasoned paper on Churchill, Grand Strategy, and the Atlantic campaign. He writes that Churchill's overriding priority was managing an adequate level of imports. At times, he was willing to allocate resources to what he viewed as "offensive" purposes and to accept heavier-than-necessary shipping losses. (21) This chapter, informed by the author's familiarity with both archival resources and Churchill's role in wartime policy decisions, is a masterful discussion of the British

Prime Minister's involvement in the Atlantic campaign. Bell concludes that the delay in closing the mid-Atlantic air gap with Very Long Range (VLR) aircraft might have delayed the defeat of the U-boats, but that this failure cannot be blamed on Churchill. (43)

The opening chapter by Marc Milner, the doyen of Battle of the Atlantic (BofA) scholars is subtitled "The Case for a New Paradigm". Milner cites Corbett's contention that the outcome of maritime campaign depends on sustained effort and "interfering" with the enemy, rather that on dramatic battles. The dramatic turn of events in the Atlantic in the spring of 1943 was, therefore, the culmination of several factors and did not decide the outcome of the long campaign to defend shipping. It was the system for the defence of trade organized by the British that ultimately won the campaign; "avoidance of the enemy" was the key to success. This rested on three factors (a) the main battle fleet which ensured that German heavy warships only sporadically attacked shipping early in the war (Milner reminds readers that enemy heavy units were an ongoing threat in French ports throughout 1941); (b) naval intelligence in its fullest sense including routing shipping away from the enemy using the Naval Control of Shipping organization; and (c) escorts He touches on problems in allied management of shipping but concludes that these did not adversely affect the development of allied strategy, citing the easing of tonnage in 1943. (18) The UK import crisis of 1942-43 (which features in the chapters by Kevin Smith and Christopher Bell) "was an issue of allocation." (19)

James Goldrick writes about the training of RN and RCN escort groups. His central argument is that "The creation of a sophisticated learning and training system to prepare ships and men for the ASW war is one of the most significant but under-recognized elements of the Atlantic campaign." (167). This absorbing paper covers a range of issues, such as how groups developed common procedures, the role of doctrinal publications and of the Western Approaches Tactical Unit (WATU) (whose influence is arguably underestimated), and the difference between having a group commander in command of his own ship or not. The article is obviously based on deep reading and includes comments on the alleged prewar "Cinderella" status of the RN's Anti- Submarine Branch. It is all the more cogent because of Admiral Goldrick's perspective as someone with seagoing experience of operational training and applying doctrine. The narrative is supported by extensive citations from writings by BofA participants. It's a pity that the writer seems unaware of the wartime diaries of an RN officer who commanded an RCN escort group during the final eighteen months of the campaign: Commanding Canadians (2005), edited by Michael Whitby. Goldrick characterises the two official history volumes produced by Alec Douglas, Roger Sarty and Michael Whitby as "show[ing] just how official history can and should be done." (153, ftn. 9)

Marcus Faulkner underlines that recent examinations of wartime events at sea have linked operations by German U-boats, surface ships and aircraft in widely separated areas as elements in a single campaign in the wider context of British grand strategy. In a paper titled "A Most Disagreeable Problem," he describes contemporary Admiralty assessments of the never-completed aircraft carrier *Graf Zeppelin*, launched at the end of 1938. He demonstrates that until the late summer of 1943, there was concern that *Graf Zeppelin* might emerge as part of a carrier group. In addition to laying out intelligence available about the phantom carrier, this paper describes how the Admiralty saw the threat from surface forces in light of the changing composition of the Home Fleet. Fascinating.

By 1943, the size of coastal convoys along the UK's south and east coats had more than doubled as part of the buildup for a cross-Channel assault. "The Other Critical Convoy Battles of 1943" by G.H. Bennett covers the German motor torpedo boat (Schnellboot) threat to these shipping movements. This chapter is a thorough description of successive developments by both sides of motor attack boats and defensive measures by the British. Once the Schnellboot attacks were defeated in several hard-fought engagements at the end of 1943, the Germans lacked the industrial capacity to upgrade their boats in adequate numbers. This chapter is noteworthy in being the only one in Decision in the Atlantic based extensively on both Allied and German sources.

In "The Cruise of U-188: Special Intelligence and the "Liquidation" of Group Monsson 1943-1944", David Kohen loosely uses a year-long deployment by U-188 to Penang and back in 1943-44 to discuss Allied cooperation in exploiting special intelligence. The writer covers many subjects in 36 pages. U-188 was a long-range type IXD that successfully brought scarce raw materials back from Asia and sank several Allied ships in the Indian Ocean. Kohnen corresponded with U-188's First Lieutenant and interviewed another officer in the story 20 years ago, but his focus is the overall context of how the Allies were using intercepted signals. Along the way he mentions Lieutenant John B. MacDiarmid RCNVR and the Canadian Submarine Tracking Room in Ottawa. Kohnen makes extensive use of contemporary exchanges between American and British U-boat trackers. The difference between how directly the Americans and British chose to use signals intelligence in ordering intercepts of U-boats is a theme that crops up repeatedly. In view of Marc Miner's point elsewhere in this compendium (also made in the useful Introduction) that the British aim in protecting shipping was to avoid the enemy, it is arresting to read a direct statement in 1944 by US Chief of Naval Operations Admiral King. He remarked that the Admiralty tactic of routing convoys on evasive courses "appears potentially one of the most dangerous operational uses of such intelligence in the Atlantic Theatre... consistently diverting North Atlantic convoys around his u/ boat concentrations has caused the enemy grave concern [about the security of their communications."](278) This was part of an exchange of messages with First Sea Lord Admiral Cunningham who had expressed caution about using special intelligence in hunter-killer operations against U-boats. The Germans had become suspicions about their communications after two of their tankers operating in the Indian Ocean to support U-188 and other U-boats had been located and sunk by the British. King's view was "It is my opinion that continued use of special intelligence for operational purposes does not in itself involve undue risk." (278)

Decision in the Atlantic has a good index and four interesting photos illustrating David Kohnen's paper on special intelligence. This is a collection of outstanding papers by experts in their topics reflecting recent scholarship on the Atlantic campaign 75 years after it ended.

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