Book Reviews

Rajesh Basrur, Anit Mukherjee, and T.V. Paul (eds.). *India-China Maritime Competition: The Security Dilemma at Sea*. Cass Series in Naval Policy and History (ed. Geoffrey Till). London and New York: Routledge, www.routledge. com, 2019. xiii+192 pp., illustrations, tables, charts, index. US \$155.00, cloth; ISBN 1-978-03670-0154-4.^pp

A compilation of the work of eleven scholars, Basrur, Mukherjee, and Paul (henceforth Basrur, et al.) present a rich volume focusing on the Indian-Ocean Region (IOR), the archipelagos of Southeast Asia, and the Asia Pacific Region. They draw attention to the maritime security dilemma existing between India and China, which is defined as any situation where either state actor makes a strategic decision that the other actor perceives as a threat. This results in a corresponding action whereby the first state actor chooses to respond in kind. In effect, neither player wins or loses, but for them and anyone else in the region, "stepping up" to the inferred threat increases tension rather than calming it. The book's contributors are inclined to perceive India as the defensive state in Indo-China competition, and China as the aggressor, perhaps even anarchic, state. The distinction between the aggressor and defensive nations is left unstated *viz*. China and the United States, but the implication that China is an unpredictable, anarchic state actor remains tacit.

India-China Maritime Competition offers two distinct analytical approaches. First, the topics the contributors cover span the geographic region between Pakistan and, eventually, the United States. Distinct focus is placed on the IOR, on China, and on the states affected by China's swelling and increasingly modern navy (People's Liberation Army Navy [PLAN]) and aggressive foreign policy in the form of the burgeoning Belt and Road Initiative (BRI). The second area of focus is the effect of the United States on Sino-Indian security relations, and policy implementation vis-à-vis the two Asiatic nations.

Drawing the connection between each nation on a geopolitical scale is very useful, although perhaps not in as obvious a manner as one would think:

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Pakistan, India, Vietnam and China, for instance, are major players in the region, but a gap in policy coverage was identified by the editors and contributors in the form of the archipelagic zones adjacent to the Southern Indian Ocean. As a result, chapters six and seven address the state of defence of the Maldives, of Mauritius, the Seychelles, and other small states in the region. Ignoring these smaller states' place and roles within the regional security dilemma would be akin to ignoring Canada's claim on the Arctic's extended continental shelf: events and discourses which may otherwise be dismissed as insignificant or spurious effect the policies of even the most powerful nations nonetheless.

The contributors acknowledge the United States' support of India, however tacit or overt it may be, as a complicating factor in India's security dilemma with China. The opposite is not necessarily true. Andrew Winner argues that any conflict between India and China would not faze the United States overmuch, but as soon as China "steps out of line" and annoys or inconveniences the United States, tensions between the two nations would mount immediately. Those tensions would spill over not only onto India, but to those island and other regional states with which India has traditionally held mutually beneficial security agreements. Chapter five, by Darshana Baruah and C. Raja Mohan entitled "The emergency dynamics of a Sino-Indian rivalry in the Bay of Bengal," discusses how these tensions can even bypass large sea lines of communications (SLOCs; in this case the SLOC routes through the South China Sea) and evolve overland and into India's backyard.

This reviewer was fortunate to review a hardbound copy of *India-China Maritime Competition*, but the majority of readers will likely prefer to access the e-book version, for it is a third of the price of the hardbound edition—by far the most economical option. At this lower price point, the book is worthwhile purchasing. Given the book's hefty price tag of \$155.00 (USD) it is rather obvious that Routledge is pursuing an environmentally friendly agenda with the premium it has placed on the hardcopy. It would be a great disservice to the contributors if Routledge were to put a low price on a hardcopy, however, so this reduces the choice of format to a reader's personal preference.

Functionally, India-China Maritime Competition provides readers with a veritable goldmine of resources, ranging from primary policy documents to media releases and op-eds. For scholars seeking to dip into the realm of Asian maritime security studies, this volume is an ideal starting point. Western policy writers thrust suddenly into the topic of transpacific security dilemmas will find these resources useful in and of themselves. The analysis within is concise and well composed, its chapter structure is logical and flows nicely. India-China Maritime Competition is not recommended for undergraduate students: it is a solid academic investigation into Sino-Indian security relationships, and is utilized best by those who have a strong background in security studies, whether from a theoretical or policy perspective, or from an operational perspective.

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George J. Billy. *The USS Swordfish*. *The World War II Patrols of the First American Submarine to Sink a Japanese Ship*. Jefferson, NC: McFarland Publishing, www.mcfarlandbooks.com, 2019. xi+222 pp., illustrations, maps, appendices, notes, bibliography, index. US \$35.00, paper; ISBN 978-1-4766-7774-3. (E-book available.)

A ship's history, like its land unit equivalent, the regimental or unit history, is always an inherently personal thing. After all, it is a tale of people in the pressure cooker of combat and often, there is a personal connection either through the community and family, or it is built in the process of the writing. George Billy's recent book on the USS Swordfish is no exception. In this particular case, his uncle, Michael Billy, made a lasting impression on a very young George, one that was reinforced after the sub was lost with his uncle on board. The result of this is a history of the USS Swordfish but also a labour of love and respect for the men who went to sea in her and especially those that remain with her on eternal patrol.

The Swordfish deserves this kind of effort. A Sargo-class submarine, she was laid down on 27 October 1937 and commissioned on 22 July 1939. During her wartime career, she conducted 13 active war patrols, serving throughout the war until she disappeared around 12 January 1945 while on her last patrol. Her impressive record also includes eight battle stars, and a Naval Unit Commendation for her first, second, and fourth patrols. Swordfish played an important role in the critical early stages of the war. She was responsible for sinking the first Japanese ship by a submarine on 16 December 1941. She also ran supplies to the Philippines while helping to rescue people from the fighting there. Telling the story of such a remarkable boat, crewed and commanded by remarkable men, presented a challenge but George Billy was certainly up to it.

The story of the *Swordfish* is told across seven chapters spanning the pre-

war period through the early years of the war and the final patrol, as far as it can be told. The book is augmented by four appendices which include technical information about the boat, the crew lists for the last patrol as well as sinking data and of diagrams of the submarine itself. This is all backed up with a glossary and extensive citations from extensive archival research, interviews, and of course the literature available. Reinforced with a solid bibliography, the result is a strongly researched and written book.

The result is, thus, a well laid out history of the Swordfish, but with a strong feeling for the moment. Whether a simple description of the condition of the boat on return to harbour and the repairs needed or through a discussion of the conditions on board, it places the reader within the experience extremely effectively. An excellent example is the very first attack conducted by the Swordfish. With an extremely green crew, this first attack was the real awakening of the crew regarding their war. The author recounts the challenges of the first attack with engines that made a lot of noise and the shockwaves of closely detonating torpedoes into an experience that the reader can feel. Equally as telling are the accounts of the special missions conducted by Swordfish. For example, the rescue of President Manuel L. Quezon of the Philippines. Swordfish picked up the president, his family, and key members of his government from Corregidor, carried them through Japanese controlled waters to bring them to safety in Australia. In the process, the reader acquires a sense of the experience on board the boat, including small daily activities and the challenges everyone faced. In this case, this included the loss of air conditioning, and the corresponding humidity and potential health issues this produced for

the President. Interestingly, the health implications of the air in the boat appear to have been an issue throughout most of the early war and helped lead to a temporary change of command in July 42 when Captain Chester Smith asked to be relieved for the next patrol due to health/breathing issues that he attributed to the air in the boat.

Accounts such as these make this history of one submarine the history of virtually all of them. These are experiences that are repeated often over the course of the war and I dare say every submariner experienced such conditions at one point or another. It helped bond them together as a crew and invariably, never made it into most histories. It just is not exciting to point out the impact on damp humid air conditions laced with fuel oil, sweat and smoke. But it is a must in order to understand the experience of the crew. Being a boat that was constructed before the war, and not one of the famed Gato-class submarines, this account is even more impressive and unique. As it relates the challenges faced by these older boats in the everchanging conditions of the war. Certainly, the accounts of mechanical issues faced by the crews and the difficulties encountered in trying to correct them is an important part of our understanding of the submarine fleet. The boats were never alone, they were supported by a massive logistical system which didn't have to dodge depth charges and enemy escorts. But they did put the Swordfish and her sisters back into the fight time and again. Their work was as important as that of the men who went to sea.

Overall, George Billy does an excellent job in assembling the history of the *Swordfish*. His account is both riveting and entertaining. His passion and extensive research definitely served him well. It elevates the overall quality of his work, and I am sure, this background research is why his book resonates so loudly. Sadly, it is also a story that cannot have a happy ending. The thirteenth patrol has, of course, never ended for the *Swordfish* and her officers and the men are technically still missing, unless someone is able to discover the location of the boat. Considering the emotional connection of the author to the crew and boat, the ending of the book had to have been difficult to write but he did an excellent job.

I strongly recommend this book to anyone interested in the American submarine efforts against the Japanese. While dealing with only one submarine, the account delves into many of the issues like torpedoes, conditions, etc. which make it valuable to the reader whether starting out in the subject or not. Anyone who enjoys a good riveting sea tale will get right into the text. I most highly recommend it, to say the least.

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J.D. Davies, Alan James, Gijs Rommelse (eds.). *Ideologies of Western Naval Power, c.1500-1815*. New York, NY: Routledge (Taylor & Francis), www.routledge.com, 2019. 360 pp., notes, index. US \$149.95, cloth; ISBN 978-0-36732-128-4.

One of the joys of history is the good work that results when a group of excellent scholars come together to focus a number of different perspectives on a cutting edge topic. *Ideologies of Western Naval Power* is one such collection, assembling 16 different authors to examine how European seapower states as corporate entities, institutions, communities and groups of individuals considered, discussed, and performed seapower and sea-mindedness.

The collection is edited by three specialists who embody decades of experience in studying the English, French and Dutch navies of the seventeenth century. Their joint activities began in 2015 when they formed a panel at the 'Seapower and Statesmen' Conference at the National Museum of the Royal Navy. In the introduction, they compare maritime history to "Banquo's ghost.. unseen, uninvited, potentially upsetting". This collection of papers should definitely upset the status quo exclusion of maritime and naval history from greater historical discussions.

The first group of papers examines "Navies and National Identities". Luciano Pezzolo's discussion of the Venetian state is quite frankly better than Andrew Lambert's treatment of the same topic in his recent book Seapower States. Gijs Rommelse follows with a discussion of the importance of flags to Dutch discussions of naval ideology. Catherine Scheybeler and Patrick Villier provide good, grounded assessments of the Spanish and French navies that cast away old Anglo-centric evaluation frameworks. The second section is "Monarchical Projects". Christopher Storr's paper on Spain c.1500-1700, and Alan James's discussion of the French navy in the time of Colbert provide a non-subtle rebuke to the typical short, superficial characterizations of the Spanish and French use of seapower. Particularly interesting is Storr's discussion of the sea service as a route to social status, and its impact on available support. Likewise. James combats the French navy's "uneven record" by representing its development as consistent with French imperial ambitions from Louis XIV to Louis XVI and beyond. David Davies' chapter on the Royal Navy examines how the Stuart monarchs used mythical

imagery and arguments to build the idea of Britain as a maritime nation, and further how those myths grew beyond the control and use of the British state.

The third section is 'Communities of Violence', and features four papers which actively disrupt the usual nation-centric narratives. Sadok Boubaker's comparison of the influence of religious and national laws on Tunisian corsairs and privateers is set alongside David Trim's discussion of "Transnational Calvinist Cooperation" which highlights the large community of protestant privateers in the North Sea during the sixteenth and seventeenth centuries. Claire Jowitt's powerful discussion of the use of the 'ship of state' in English literature is a particularly fine counterpoint to Davies' earlier chapter. This section concludes with Julia Leikin's particularly evocative discussion of Russian use, and consideration of privateers in the second half of the eighteenth century. It is almost opposite to Trim's chapter, in that she discusses how the Russian state struggled to accommodate foreign-born privateers into their legal, administrative and social hierarchies.

The final section is 'Constructing Strategies'. Lars Ericson Wolke and Steve Murdoch provide two complimentary Scandinavian perspectives. Wolke discusses Sweden in particular, and the shift of its naval policies as Stockholm moved from the centre of a Swedish maritime empire to a border capital. Murdoch's paper throws a fascinating spotlight on the effects of diplomatic uncertainty, and how English and Scottish privateers were unleashed on neutral Swedish shipping, leading to cooperation between Sweden and Denmark-Norway in the 1690s. I particularly enjoy his reference to having to 'aggressively assert neutrality'. Richard Harding's paper 'Naval Ideology and its impact in Britain' convincingly emphasizes that naval power was central to British diplomatic strategy, constantly grounded in a European context. John Hattendorf's chapter on the development of the U.S. Navy from 1775-1815 raises very interesting questions about possible comparisons to Spanish and French naval development in the seventeenth and early-eighteenth centuries, both in terms of regionality and effort. The volume concludes with Andrew Lambert's afterword in which he masterfully and succinctly discusses how naval ideologies may be created, but if they are accepted, they can become true nonetheless.

This is really a very good book, and provides one of the most complex and diverse sets of perspectives on an important cutting-edge aspect of not just maritime history, but history in general. The writing is clear and concise, and approachable. Each of the authors manages to provide the reader with context and background, but non-experts can also understand and appreciate the arguments. One very minor criticism is that slight changes in the order of the chapters could have produced some powerful synchronicity-but only at the expense of those that are already there. A more serious criticism is the price— ± 120.00 it is far too expensive for most readers. This is an absolute shame, because this book should be at the centre of graduate level maritime history courses for the next decade or longer, and should be read and referenced in historical work far beyond that. Quite frankly, this is one of the best maritime/naval history books of the last decade.

Sam McLean Toronto, Ontario Eric Jay Dolin. *A Furious Sky*. New York, NY: Liveright Publishing Corporation (Division of W.W. Norton & Company), www.norton.com, 2020. xv+392 pp. illustrations, notes, bibliography, index, US \$29.95, cloth; ISBN 978-1-63149-527-4.

Eric Jay Dolin's A Furious Sky focuses on hurricanes, one of the most destructive and repetitive events of weather phenomena. Nameless severe storms threatened Columbus' New World voyages and forced him to become the first hurricane forecaster, for which he was later accused of sorcerv. A 1559 hurricane crossed the Gulf of Mexico's Coast and struck Pensacola. The destruction caused by this tempest stopped one of Spain's early forays into North America. Fifty years later, another storm almost ruined the struggling English colony at Jamestown, Virginia. Therefore, these powerful massive weather disturbances influenced some early North American coastal settlement locations.

The author then tells his readers fascinating stories about a weather phenomenon and how human resourcefulness evolved to mitigate their effects. Dolin masterfully recounts the history of momentous nineteenth- and twentieth-century scientific discoveries that led to a better understanding of the physical nature of hurricanes and our ability to monitor their paths. How and where the storms form, their general courses and finally their relationships to the laws of physics launches the reader into an intellectual adventure—and, at times, a very wild ride.

Like the blind men attempting to describe an elephant, one cannot ascertain a complete picture of the storm from anecdotal accounts of the event, especially with a reporting time-lag. Ships at sea and shore-based communities could only relate what happened, but Samuel Morse's invention of the telegraph enabled real-time communication and stimulated the development of weather forecasting. Radio communications from ships at sea, aircraft and more recent technological advances led to satellites in space that gave the weather bureau more detailed and reliable tracking and prediction data. Along the way, Dolin tells a few delightful tales that involve vignettes about Ernest Hemingway, Katherine Hepburn, Edward R. Murrow, Dan Rather, and Steven Spielberg.

Dolin also spotlights some lesser-known and humble "Hurricane Hunters" and weathermen. Perhaps the most illuminating part of the book is the historv of the creation of the Weather Bureau and the interesting scientific people who refined complexity into accuracy. These include the current Weather Channel anchor, James Cantore, but also pioneers like William M. Gray, Edward Lorenz, Charles Mitchell, Grady Norton, Charles H. Pierce, Vaugh Rockney and finally, Robert H. Simpson, who devised the widely used "Saffir-Simpson Hurricane Wind Scale." Their tools included storm-chasing aircraft, polar and stationary satellites and sophisticated but disparate computer programs that track and forecast. Some are typical outrageous stories of bureaucracy, while others are just amusing, especially the surge of activism following the decision to name hurricanes after women in 1953, later to add men's names and then retire all names of storms that were particularly damaging. One is tempted adopt Robert Brault's suggestion of "[naming] the first hurricane Zelda and fool Mother Nature into calling it a year."

There are many accounts of early hurricanes that appeared in news reports especially during the 1800's. The author alludes to them, then launches a series of graphic descriptions of harrowing loss of life and the accompanying devastation, largely beginning in what he called "Death and Destruction in the Sunshine State." Florida, located off the warm Gulfstream waters and adjacent to the Caribbean, was and is especially susceptible to hurricane damage. As its population grew along its east and west coasts, near Lake Okeechobee and later as a resort destination at the southern end of the peninsula, the state's relatively flat terrain was vulnerable to the "wrath of the storm gods." It is the site of more storm landfalls than any other place in the United States, causing loss of life and costly damage. The most destructive was the infamous "Great Hurricane of 1938." Dolin narrates numerous horrific heart-rending dramas nearly compelling one to seek shelter while turning what figuratively seem like waterlogged and windblown pages.

In another chapter, the author describes in some detail other well-known hurricanes that reached North America including Andrew, Camille, Carol, Connie, Dorian, Edna, Hazel, Iniki (in Hawaii), Irma and Sandy; stories of devastation foreshadowing imminent environmental disasters. A Furious Sky, however, is also a tale that educates reader about the damage these monster storms are capable of producing. He also explains the physical processes that result in the tendency for hurricanes to frequently affect the east and gulf coasts of North America, as typhoons invade the Indian subcontinent and East Asia, and cyclones do the same in the Northwestern Pacific. Hurricanes rarely occur in Hawaii, Alaska and Europe.

Every time a hurricane is forecast, the meteorologists refer to collected data from various sources, and after reading *A Furious Sky*, readers will now be better prepared to interpret the information about the warm ocean currents off the African coast that affect atmospheric conditions, the heated air evaporating huge quantities of water that produce the dynamic climatic event we call hurricanes. Finally, Dolin projects the effects of climate change on hurricanes and other weather phenomena from past scientific data and the trends that they foretell, globally and locally.

Eric Jay Dolin has written many first-rate maritime-focused books and has received several well-deserved literary awards for his efforts. *A Furious Sky* is among his best, an excellent resource for any layman who wonders about the weather and the future of our planet.

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Steve R. Dunn. *Battle in the Baltic: The Royal Navy and the Fight to Save Estonia & Latvia 1918-20.* Barnsley, S. Yorks: Seaforth Publishing, www. seaforthpublishing.com, 2020. 304 pp., illustrations, tables, appendices, bibliography. UK £25.00, cloth; ISBN 978-1-52674-273-5. (E-book and paperback available.)

Unfortunately, the Armistice of 11 November 1918, which officially signaled the end of the First World War, did not mean that peace was restored throughout Europe. In fact, several conflicts still lingered and some new ones erupted due to the power vacuum left by the defeat of the Central Powers. Among the most forgotten of these are the various struggles that occurred in Eastern Europe as the now communist state of Russia fought to both protect its hold on Russia from counter-revolutionariesor "White Russians" - and its desire to bring the revolution to neighbouring states. One of the bitterest conflicts involved the struggle for control of the small Baltic states of Latvia and Estonia. Into this ever-changing vortex of forces with widely divergent political and ideological goals, Winston Churchill decided to throw a small group of Royal Navy warships to eliminate the threat of Communism in this region. Their mission is the subject of Dunn's latest work and he is more than qualified to tell it, as he has published several works on the Royal Navy in the era of the Great War.

The story of this mostly-forgotten Royal Navy campaign unfolds in 22 well-documented and focused chapters with accompanying appendices, tables, illustrations and maps. In addition to eight appendices. Dunn has included a table of place names, comparing the names used by the Royal Navy during this intervention with their modern ones. Most of the illustrations stem from either archives or the author's private collection and all both buttress and compliment his text. Dunn covers the story from outbreak of the Russian revolution to the treaties that ended the immediate Soviet threat to the Baltic states. Aside from the military actions, essential elements of this story encompass mutiny and even espionage. In addition to the German units, the forces involved in this struggle included White Russian counter-revolutionaries, the native forces of Latvia and Estonia that were trying to stake their claim to nationhood in the face of the Soviet threat to their homeland, troops from other Baltic states and volunteers from other nations. All of these forces had divergent goals, and their motives were often not altruistic, in particular those of the German military units.

The author maintains that the Royal Navy was arbitrarily thrown into this mix without a clear-cut objective, and hampered by inadequate planning, forces and supplies. Little, if any, attention

was paid to the nature of the Baltic Sea, especially during the winter months, and the known hazard of many uncharted German and Russian minefields was downplayed. Fears that this small force could encounter the dreadnaughts of the much larger Soviet Navy were also suppressed. Nor was much consideration given to how the men who manned these ships felt about adding another, non-voluntary, war zone tour of duty to their service after peace had been declared. The decision to intervene in the Baltic was made by Churchill, in his new capacity as Secretary of State for War and Air at the end of November 1918, largely because of his intense dislike of Bolshevism. At best, he only had lukewarm support for this intervention within the British cabinet.

As the commander of this small British force, Rear Admiral Walter Cowan struggled to meet even his most limited objectives in the face of political support for his mission at home and abroad that oscillated greatly. The Royal Navy knew that without political and military support from Britain's allies, this mission would most likely fail. But the allies were reluctant because they had little taste for involving their forces in any intervention in the Russian civil war or any attempt to limit Soviet expansion. Against all odds, Cowan and his brave crews managed to achieve their limited aim of helping Estonia and Latvia protect their independence. That they succeeded in the face of the German forces that had designs of their own in this area was no small feat. Nonetheless, this minor victory came at a severe cost, and few of the men under Cowan's command would look back on their service with fondness. That their limited success would be undone less than 20 years later is perhaps the greatest irony of them all, but it does not lesson this achievement.

Overall, Dunn's text is well-presented and most readers will not get "lost" in the tangled web that highlights the story of this intervention. While most people in the West have forgotten about this particular Royal Navy action, it is fitting that both of these Baltic countries have not. Thanks to Dunn, we have now also been reminded of this endeavour.

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Helen Edwards (ed.). *Dutchy's Diaries*. *Life as a Canadian Naval Officer in His Own Words: 1916-1929*. Victoria, BC: Edwards Heritage Consulting, heritagelady@gmail.com, 2020. xxi+306 pp; illustrations, appendices, index; CDN \$30.00, paper; available from the author.

John Crispo Edwards (1896-1978) began his naval career in 1912 and retired 38 years later in 1950. Dutchy's Diaries covers his service starting as a Midshipman and ending in 1929 with his command of HMCS Champlain, one of Canada's only two destroyers. His diary entries were terse summaries of the day's highlights. They have been transcribed verbatim by his daughterin-law, Helen Edwards, who with J.C. Edwards' son have together been tireless and effective heritage advocates in Victoria. Dutchy's Diaries have been attractively self-published with contemporary photographs, maps and detailed information about ships cited in the text. Occasional minimalist footnotes clarify abbreviations or add details about personalities.

There are few first-person accounts about the early decades of the RCN in print. *Random Memories* by Roger Bidwill (1961), H. Nelson Lay's *Memoires* of a Mariner (1982) and Alongside the *Navy 1910-1950* (1999) by the wife of a near-contemporary of Edwards, Jean Gow, are all retrospective records of events written years later. What makes *Dutchy's Diaries* different is that they have the immediacy of events just experienced. Having said this, it is only fair to note that the diaries are not introspective or analytical. Their value is in what they tell us about a typical Canadian naval officer's life in the Great War and the decade that followed.

In early 1922 Edwards, then a Lieutenant on the staff of the Royal Canadian Naval College in Esquimalt (RCNC), and his colleagues received disturbing news about the future. Three entries are a sample of how the *Diaries* combine highlights of the day's activities with snippets of other information: "March 31st. Group soccer. Dinner at the Matson's. Dance at the Pemberton's. The Comm. Received a telegram from the Naval Dept. It is very possible that the college may be closed down. Gloom." (164) May 13th Arrived (in training schooner Naden with cadets) Esquimalt 11:30 AM. In the morning's paper, news about the closing up of the Canadian Navy & only keeping 233 officers & men. Laying up of Aurora, Patriot, Patrician & two submarines. Fed up. Tennis & went to the Matson's in the evening (166) June 4th. [Edwards and three RNCC colleagues had spent three days in Qualicum on Vancouver Island] Golf in AM. Left Qualicum3:00 PM. I drove as far as Nanaimo. Arrived Victoria 8 PM. Malahat roads not V.G. Very pretty drive down... Stephens heard from Jones that the R.C.N is to keep its officers, 26 appointments in Canada & the remainder abroad...." (169).

The figure of 26 officers who would have billets in Canada may not be accurate, but the reference to "the remainder" underscores how important exposure to the RN, still the world's largest navy, would become for the Canadian Navy in the tenuous interwar years. Edwards spent 8 of the 15 years covered in the Diaries with the Royal Navy: four mostly in destroyers in the Mediterranean, Baltic and UK waters in the Great War and after; two in Portsmouth doing his specialist qualifying (Physical Recreation and Training) "long course;" and two more back in the Mediterranean in battleships in the mid-twenties. Service with the RN broadened the professionalism of the miniature RCN. When the Second World War massively expanded the Canadian Navy, its career officers were able to draw on experience in a far larger force. In Edwards' case, his time in the mid-1920s organizing sports activities in a large fleet, while also watchkeeping in a capital ship in exercises would have stood him in good stead in 1939-45 when he was put in charge of training establishments and in command of a Canadian Armed Merchant cruiser. In 1943, he opened HMCS Cornwallis in Nova Scotia's Annapolis Valley which, according to a wartime claim, became "the largest naval training establishment in the Empire". The Diaries also show how frequently John Edwards (while with the RN) socialized with Canadian contemporaries serving in other British warships ships and ashore.

Like many of the cadets in the first classes at the naval college in Halifax, Edwards came from a middle-class family in the Maritimes. This was at a time when vibrant small towns were more prominent in Canada than in later years. He grew up in Londonderry, Nova Scotia, and was sent off to Brockville, Ontario, to finish his schooling. His father was first a businessman, then later, a senior bureaucrat and amateur historian. Both of Edwards' grandparents had immigrated from Britain. Family ties across the Atlantic were obviously still close and the *Diaries* show that "Dutchy" was welcomed by a web of cousins and other kin in the UK.

Dutchy's Diaries reveal Edwards' busy social life. They are peppered with the names of young people of both sexes met when his ship was in harbour and when he served ashore. Dancing was obviously a popular evening activity. When he passed through London, he took in the latest stage shows, even though a naval officer's salary was relatively modest. According to the author, Edwards earned his nickname "Dutchy" because he had a reputation for sharing expenses with others or "going Dutch."

The *Diaries* for 1920-22, when he was on the staff of the RCNCC have an increasing number of entries concerning sporting events. (there are also several entries about jaunts in local waters with cadets in the schooner Naden attached to the college. At Easter 1921, Edwards marched the cadets from where Naden was moored, on a 6.5-mile hike to church. After the college was closed in mid-1923, "Dutchy" contemplated leaving the Service. He had originally applied for the navigation specialist course but was told the RCN had more than enough officers with this qualification. He stopped off in Ottawa while travelling east to see Captain Hose, Director of the Naval Service. Hose said that he would advise any officer who had a good civilian job offer to take it up. He told also Edwards that he could probably specialize in Physical Training and Recreation—which he did.

John C. Edwards became particularly accomplished at tennis. It was on a tennis court on Cape Breton Island that he met his wife Dorothy while he was commanding the minesweeper *Festubert*. They married in April 1926, months before sailing for Malta to start John's two years of applying his Physical and Recreational Training speciality in a large organization. The RN's Mediterranean Fleet buzzed with professional and social activity. Its calendar included two extended cruises each summer that featured exercises and port visits. Both cruises culminated in an inter-ship competition in boat pulling, sailing and other sports that were conducted in an anchorage over several days and made use of playing fields ashore. Edwards was responsible for organizing these events. The Diaries gives us snapshots of the exercises and the scope of the competitions from the perspective of a battleship watchkeeping officer. Dorothy "packed and followed" the fleet along with other naval wives when it spent several days in Alexandria one summer. She frequently appears in the Diaries as a tennis partner. Edwards obviously enjoyed matches all over the Mediterranean, even playing the King of Sweden in Monte Carlo.

When the couple returned to Halifax in May 1928, Edwards took command of the destroyer HMCS Champlain, newly arrived on loan from the RN. The *Diaries* for the following months record summer visits up the Saint Lawrence River and to various ports in the Maritimes. In January 1929, Champlain sailed south to join two RN cruisers in Bermuda. The next three months were a round of torpedo firings, gun firings and other exercises interspersed with port visits with three different cruisers in the West Indies. That summer *Champlain* again went up the Saint Lawrence and exercised with one of the RN cruisers that was in the area. The Diaries end in September 1929 before Edwards moved on to his next posting on the west coast. They tell in their usual terse pattern of various ship handling and navigational challenges shouldered, busy port visits, and again underline how operating closely with

the RN gave the officers and men of the interwar RCN valuable experience.

The couple's first child, a daughter, was tragically delivered still-born in February 1929 while Edwards was at sea in the Caribbean. The laconic entry is characteristic: "Feb 7th Rejoined Colombo and Capetown at Old Harbour [Jamaica] at 0815. We did not land a party but Cruisers landed the Argyle & Sutherlands who were supposed to be making a raid on Kingston. Rec'd a cable from Marjorie re the baby."(251)

Dutchy's Diaries are jottings about everyday events and experiences. Always curt, the daily entries are most informative when Edwards was serving at sea. Social contacts and shared events were obviously important for the writer. The Diaries show how he and his fellow naval officers, along with their girlfriends and wives, formed a closeknit group. Dutchy's Diaries portray an ordinary and gregarious young man not given to introspection maturing between 1916 and 1929, enjoying opportunities as they came along while taking on greater responsibilities.

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Robert P. Gelzheiser. *PT Boat Odyssey: In the Pacific War with Motor Torpedo Boat Squadron 16, 1943-1945.* Jefferson, NC: McFarland, www.mcfarlandpub.com, 2019. x+293 pp., illustrations, appendices, notes, bibliography, index. US \$45.00, paper; ISBN 978-1-4766-6240-0. (E-book available.)

Author Robert P. Gelzheiser, the son of PT Boat Squadron 16 member Francis L. Gelzheiser, has written a combination war diary, biography, and introspective reflection on PT Boat service in the Pacific during the Second World War. Drawing from published sources, interviews, and family stories, Gelzheiser examines the wartime service of his father and his fellow PT Boat sailors from deployment to the end of the war, and what effect his naval service had on him in the post-war period. This work is laid out in a largely chorological order, with some introspective paragraphs inserted at relevant points. An Afterword "on killing" and two appendices are included, covering Squadron 16's awards and honours and the text of the denied commendation for Squadron 16.

Gelzheiser's introduction is a tone setter for this hybrid work, a self-reflection on the Second World War veterans who were present in his life while growing up and whose stories he did not know until much later. One could argue that this work is not just a history of Squadron 16 and of Electrician's Mate Gelzheiser, but how the slowly developing knowledge of a father's wartime experiences effected his son. The early work serves as a biography of Francis Gelzheiser's pre-war life, growing up poor, spending years in an orphanage with his sister, enlisting in the Navy, and volunteering for torpedo boat service. The design and features of PT Boats are then discussed, citing their early use at Pearl Harbor and their key role in the evacuation of General MacArthur from the Philippines. The differences between Elco and Higgins designs are covered, as is the later war evolution from torpedo boat to coastal gunboat. From this point, Gelzheiser dives into his father's wartime service.

The bulk of *PT Boat Odyssey* naturally covers the deployment of Squadron 16 from New Orleans, Louisiana, through to the demobilization of the crews at the end of the war. Gelzheiser makes common use of anecdotes and stories throughout, offering names for some crewmen and leaving other, more embarrassing or incriminating stories

with anonymous participants. The detailing of PT-221's voyage from New Orleans through the Panama Canal highlights the colourful and often undisciplined nature of the PT Boat crews, backed up with personal and archival photographs. The work is slowed slightly by a 10-page 'background' delving into the Battle of Midway and the invasion of the Aleutian Islands prior to covering Squadron 16's Alaskan service, the latter of which follows the same format as the earlier voyage section. A large number of paragraph-sized stories about service in Attu present the men of Squadron 16 'capturing' Japanese survivors of the Aleutian Islands Campaign after the starving soldiers wandered onto the base and joined a chow line (80).

The work finds a solid rhythm with Chapter Six's accounting of Squadron 16's refit, deployment to New Guinea, and early actions in the Philippines. As the author points out, this period of the war is where PT Boats proved most effective, and his descriptions of barge-busting missions offer a good account of Motor Torpedo Boat activities not commonly thought of by the general public. Base constructions, conditions, and locals are all illustrated via standard text and from first-hand accounts, which are blended together nicely. This is followed by a chapter comparing the industrial capacities of the United States to the warrior ethos of Japan, which is a bit of a jarring transition before Gelzheiser delves into the heart of his work, Squadron 16's service on the Philippine island of Mindoro.

Involving 92 out of the book's 260 primary pages, the accounting of Mindoro is the core of Gelzheiser's work. Subdivided into chronological sections, it details not only the time period traditionally associated with the Battle of Mindoro, but the aftermath and continuing actions around the island as well. It is not often that one finds an account of this engagement involving so much of the perspective of the smaller PT Boats, making this a good research tool for those studying the Philippine Campaign for this reason alone. Francis Gelzheiser's encounter with three Japanese soldiers in a bunker and his subsequent killing of these men in a firefight is well described, and ties in with earlier and later retrospective sections of the work (159-160). The infamous typhoon that struck Task Force 38 is described, as the men affected were those who had earlier aided the PT squadrons, and firsthand information regarding the men's experiences on the island is laid out in a well-organized and flowing nature. Kamikaze attacks, guerilla supply missions, prisoner encounters, and the final demobilization of the men and the Navy's burning of the PT fleet are all detailed in good order, providing a ground level insight into a part of the war so often lost in the public eye.

The final two chapters are introspective in nature, examining how the war effected Francis Gelzheiser later in life and the impact this had on his son. The brief chapter on Manila details the overall battle for the city, and recount's Gelzheiser's encounter with the impoverished civilians and the traumatizing nature of war on them. The last section focuses on the man in his later life, and how he spoke of the war in his later years prior to his passing. The recounting of his talk to his son's history class is clearly a moving memory, and helps drive home the human aspects of war, and the long term memories it creates (250-252).

In terms of possible improvements, a few come to mind. The first is that a few of the images in the work are pixelated or 'washed-out' to one degree or another. This is less noticeable on

some images, but on others, such as the photograph of four PT Boats moored together in New Guinea, much detail is obscured, especially when compared to a high resolution version of the same image found online (98). This could be corrected via rescans of the originals, which would help with their visual impact. The second suggestion would be the inclusion of more maps beyond just one topographical depiction of New Guinea, so as to illustrate the movement of Squadron 16 and *PT-221* throughout the war or offer a view of relative ship positions during engagements, such as the loss of PT-300 off Mindoro in the Philippines. The intermittent use of "warrior" to describe American and Japanese soldiers, sailors, and airmen is also a bit odd, and its replacement with the aforementioned standardized descriptors would be appreciated. Finally, on a technical point, Gelzheiser identifies the aircraft that destroyed PT-300 via kamikaze as a Japanese Navy D3A Val (p. 167). According to surviving Japanese records and photographs, the aircraft in question was more likely a Japanese Army Ki-51 Sonia, which was commonly mistaken for a Val in the late-war period.

PT Boat Odyssey serves as a good addition to the historiography of PT Boats as a whole and Squadron 16 in particular, providing a well written chronicle of one father's wartime experiences as told through the voice of his son. Though not without flaws, this work covers several often-overlooked aspects of PT Boat service during the Second World War, and offers an excellent ground level view into one man's experiences in the Aleutians, New Guinea, and on Mindoro.

Charles Ross Patterson II Yorktown, Virginia Michael Green. *Images Of War. United States Navy Submarines 1900-2019*. Barnsley, S. Yorks: Pen & Sword Maritime, www.pen-and-sword.uk.co. 2019. 2134 pp., illustrations, bibliography. U.K. £16.99, U.S. \$22.95, paper; ISBN 978-1-52674-206-3.

This modest volume is essentially for those who have at least a general knowledge of submarines or just enjoy reading and looking at pictures of U.S. Navy submarines. Over the years, from about 1900 until recently, the American navy has operated some 400 submarines (based on various 'Jane's Fighting Ships'). For what is really a reasonably brief reference book, this volume contains photographs, drawings and copies of paintings, each supplemented by useful descriptive paragraphs. Despite the book's soft-covered format, the illustrations are all of unusually excellent quality, many in colour. Two or three per double page encompass material from Holland's V1 in 1900 to the latest nuclear boats of the Virginia Class attack submarines.

There are a few of the customary "submarine at sea" photos (or coming alongside) but not tiresomely so. There are also examples of almost every class of boat, from the first true operational boats of the A and S classes to the plethora of Second War submarines almost all named after fish, to the monster current 'nuke' boats. For at least each arbitrarily allocated class, there are only selections of boats but closeup photographs of the development of conning towers, deck guns, periscopes and schnorkles, bridge, deck and internal layouts. A good selection of internal views shows both technical design and how things looked in-use by crews. Both layout cut-aways and technical drawings are sufficiently large to be readable-not always the case in many such books. The paintings reproduced are of first-rate quality—a few sea scenes, such as "Torpedo coming on board in early *Gato*-class" (108) or "Impression of a SUBROC launching" (203), either entertaining or educational. All these will be a model-maker's dream, serving as examples of, at least, class detail.

To open, there is a 15-page introduction to the United States' initial venture into submarine service, with only a couple of paragraphs referring to the experimental boats of the Civil War and after, the development of the motor torpedo and electric battery. There are earlier books that cover those topics sufficiently. Green then moves on with a summary of the immediate pre-First World War boats. The paragraphs here and in the introductory pages for the other major sections each have clear headings, with occasional 'boxes' of explanations-"Submawell-defined rine or submersible," "Visual Identification Markings," "End of the Linedecommissioning" and such.

The book is divided into five time periods: The Early Years, Second World War, Cold War Diesel-Electric Submarines, Cold War Nuclear-Powered Submarines, and Post-Cold War Submarines. Each chapter opens with a 9-10-page narrative to add context and generally describe the submarine types to be covered. Green's brief 10-book bibliography is pretty modest, considering the wealth of publications out there. I have about 30 titles on my shelves and the USN is not one of my major interests!

Each photograph, painting or cutaway diagram is accompanied by a useful description of what is seen, and usually why—its importance for the day. The breadth of Green's photo selection is remarkable, ranging from the usual broadside view of some boats, closeups of snorkle heads, engines, retractable hydrophones, even the collision of one of their post-Second World War Guppy boats by a U.S. destroyer, and a practice torpedo embedded in the 'sail' of USS *Volador* in 1960. The development of their conning towers, or in their terms, sails, gets considerable attention, with the accompanying captions explaining the photos.

There is not a lot of critical use-assessment of American naval submarines and their general employment as an arm in war, except when a development proved successful or a weapon, like their early Second World War torpedoes, was a failure. It is a volume to be enjoyed by those with an interest in submarines, their equipment and capabilities. I enjoyed it, and as an indication have picked it up and been through it several times, re-reading paragraphs or cut-lines I skipped over before. Well worth its shelf space.

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John Grehan. Images of War. Battle of Midway. America's Decisive Strike in the Pacific in WWII. Barnsley, S. Yorks: Pen & Sword, www.frontlinebooks. com, 2019. xxviii+164 pp., illustrations, maps, notes, bibliography. UK £14.99, paper; ISBN 978-1-52675-834-7.

The Battle of Midway is widely considered a turning point in the war against Japan. Defeat in the four-day battle, launched by Admiral Isoroku Yamamoto on 4 June 1942, put the Imperial Japanese Navy on the defensive and marked the beginning of the US Navy's successful offensive drive for control in the Pacific. John Grehan's *Midway* is the latest, and a worthy addition, to the fine Pen & Sword series on *Images of War.* As the series title suggests, it is the extensive photographic record that makes these volumes so notable and *Midway* is no exception.

In his introduction, Grehan explains the background to the battle and its significance. The Pearl Harbor attack in December 1941was Yamamoto's brainchild, intended to cripple the US Pacific Fleet and bring America to the negotiating table. Since the American aircraft carriers were at sea at the time of the attack, however, they were spared to fight another day. The opposing naval forces-carriers v carriers-met five months later at the Battle of the Coral Sea. The US lost the carrier Lexington while another, Yorktown, was damaged. The Japanese suffered less significant losses but were forced to withdraw, abandoning their push on Port Moresby in Papua, New Guinea. Still, this left Japan with an advantage of two to one in aircraft carriers in an area where airpower had proved to be decisive. Determined to seize this favourable moment, Yamamoto devised a plan to lure the US fleet into a final engagement, allowing him to complete the conclusive victory that Pearl Harbor had failed to deliver.

Grehan describes in detail Yamamoto's complex plan, how Admiral Chester Nimitz, Commander-in-Chief, Pacific Ocean Areas, was alerted to it by naval intelligence, and how Nimitz arranged to parry the blow. The Japanese main strike was to be an attack on Midway Atoll in the Hawaiian Islands, which they believed the understrength US Navy would be forced to sally to defend. Having set the scene. Grehan describes the leaders and the forces arrayed by each side and explains their movements up to the point of contact. The rest of the book covers the action from the first engagement on 3 June through the end of the battle on 6 June and the aftermath and results.

Much of this history is well known, but Grehan handles the complex and multifaceted story in succinct and lucid prose. He describes the contributions of the US Marines ashore and in the air; the nature and quality of the aircraft and vessels engaged; the roles of the naval personnel -enlisted and officers, the planners and the fighters; and the thinking behind each action. Scattered throughout are quotes from those who participated directly, putting a human face on the battle. Nor does Grehan neglect the Japanese side, which he also covers clearly and well. The real strength of this volume, however, and what gives it a memorable clarity and immediacy, is the illustrations.

Grehan has done prolific research into graphic sources to make the Battle of Midway come alive on the page. He marshals images from the US Naval History and Heritage Command, the US National Museum of Naval Aviation, the US National Archives and Records Administration, the National Museum of the US Air Force, the United States Air Force, the US Navy, the US Library of Congress, the US Army, the US Air Force Historical Support Division, the Kure Maritime Museum and the Maritime History and Science Museum, Kure. Mostly, these images are contemporary photographs, but there are also representations of dioramas and paintings by the well-known industrial designer Norman Bel Geddes. Many of the illustrations are of the vessels engaged in the battle, some taken before the action, some during, and some after, showing damage. Some of the photos were taken at a distance while others are detailed close-ups. The same is true of the photographs of aircraft. In addition, the captions are invaluable in describing the time and place the photos were taken and the technical details visible, adding significantly to an understanding of each image.

Included also are a great number of photographs of the men involved, both American and Japanese. Some shots are of individuals, some of groups, some showing them in action or at work while others are formal portraits. Clearly, the author went to a great deal of trouble to find images of the people he mentions in the text and in some cases, the pictures were taken before the war when the men were still civilians. Here, again, the captions are clear and insightful and are often enhanced in the text by thumbnail sketches of those portrayed. Photographs of Midway Atoll and its buildings before and after the Japanese attack, as well as photographs of actions at sea and in the air give the viewer a panoramic sense of what participants were engaged in and what they saw. The several maps also help to make clear the scope and course of the battle.

For anyone interested in the Second World War in the Pacific, John Grehan's graphic account of the Battle of Midway makes worthwhile reading. Even those already familiar with the details of the battle itself, and with its significance to the course of the war, will find the extraordinary number of stunning photographs and the excellent captions make the battle come alive anew.

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James R. Holmes. *A Brief Guide to Maritime Strategy*. Annapolis, MD: Naval Institute Press, www.usni.org, 2019. xxii+183 pp., notes, index. US \$24.95, paper; ISBN 978-1-68247-381-8.

A Brief Guide to Maritime Strategy is a three-chapter compact compendium, but one that is wonderfully written and very instructive. James Holmes, the current J.C. Wylie Chair of Maritime Strategic Strategy at the U.S. Naval War College takes his reader on a carefully structured journey through maritime, naval and military history. He presents a strategic philosophical perspective using an intellectual exercise in which tactics are largely excluded. Much of the material that Holmes presents may seem intuitive by contemporary standards; but the historical context and logical manner in which the array of strategies are presented makes it seem like great discoveries to carefully catalogue and, if forgotten, could jeopardize the national and world order.

The main historical sources or bricks used are the works of Alfred Thayer Mahan and Julian Corbett, but Carl von Clausewitz, Sun Tzu and Niccolò Machiavelli round off some of the corners and place the background in counter-arguments. For more modern times, Theodore Roosevelt, Wolfgang Wegener, Mao Zedong and Henry Kissinger serve the function of putting Holmes's reasoning into the architectural context of more recent times.

The author opens his book by defining the sea as a maritime common, similar to the land common of colonial America, belonging to everyone and no one-but to be used by all. Hugo Grotius and John Selden debated the latter point in the early part of the seventeenth century. Grotius thought that no state had dominion over the maritime common, but Selden countered that a sovereign, public or private, should be able to hold title to a portion of the sea just as they do on land. Therefore, a competition for domination over the ocean's reaches would follow. Holmes then defines the nature of "the deep" in more basic terms; a medium for human interactions; a unifier of time and space in three dimensions; an expansive plain broken by terrain; and finally, an environment that shapes the seafaring profession.

To dominate the oceans, one must define the nature of sea power and the author largely makes use of Mahan's arguments: controlling commerce, diplomacy and military access. The elements that in turn govern these are favourable geographic positions for support, good seaports, demographics or a major population close to a shoreline with government policy attuned to growth and healthy industries that are geared to prosper by way of control of the seas.

Holmes's second chapter titled "How to Keep the Virtuous Cycle Turning," focuses on several themes. He is largely concerned with commerce, what makes either good and bad ports, the important roles of the merchant marine, the navy, and the ships that each need to support their missions. He is concerned about "situation," potential hubs of geographic strategic positional value as well as their defensibility. Also, they must have access to resources to support the fleet with food, fuel and other provisions. In order to assemble these complex and seemingly disparate pieces into a cogent plan, one needs a strategic blueprint followed by the motivation needed to accomplish national goals with regard to the sea.

The fairly long third chapter centers on how maritime nations use their navies. First, Holmes outlines the diplomatic constraints that must be imposed and then displayed, military power that could be designed to intimidate and coerce rather than to provoke and open hostilities. The major role of a navy may be policing one's coast and areas under their protection, often with the help of allied forces. After examining the many classical strategies discussed in the previous chapters, Holmes cautions that one should consider them all before formulating a grand maritime strategy, but the advances of modern technology that have taken place since the days of Mahan and Corbett require major consideration. There are swift surface ships, difficult to detect by radar, that are armed with sophisticated long-range accurate weapons, aircraft carriers and their supply vessels in support roles. Above the sea, there are reconnaissance aircraft that give commanders real-time data concerning any threat. This gives a commander the ability to monitor a wide variety of operational scenarios and gather, process and analyze intelligence. These same implements, manned and unmanned planes, are able to deliver lethal blows to an enemy situated far away. Finally, there are several classes of stealthy submarines, some armed with torpedoes, plus some of the most devasting missile weapons devised by man. Deploying this extremely diverse armada to have greatest effect with a minimum of devastation is a challenge. The study of strategy from an historical prospective provides one the basic tools of logic to develop cogent plans when the need arises, but with one overriding caveat—a knowledge of history and use of technology alone fails to reveal what is in the minds of adversaries and strategic rivals.

A Brief Guide to Maritime Strategy is obviously not designed as a manual for those who aspire to become an admiral, secretary of the navy, or a member of an armed service committee, but it is an excellent primer for laymen who want to be aware of the historical building blocks that are used in designing maritime strategy. There is much to be learned in this well-presented compendium by one of the most respected scholars in the field.

Louis Arthur Norton West Simsbury, Connecticut John Jordan and Philippe Caresse. *French Armoured Cruisers*, 1887-1932. Barnsley, S. Yorks: Pen & Sword, www. pen-and-sword.co.uk, 2019. (Distributed by Naval Institute Press.) 272 pages, illustrations, index. UK £40,cloth; ISBN 978-1-52674-118-9.

John Jordan has a lengthy publishing resumé in the field of French warships from the late- nineteenth to the mid-twentieth century. These books have involved a partnership with French experts (Robert Dumas and Jean Moulin) on differing classes of warships. He was also editor of Warship, contributing a number of articles there over the years prior to assuming that role. This impressive volume compliments nicely his earlier book co-authored with Philippe Caresse of French Battleships of World War One, published in 2017. Both are well worth acquiring if interested in naval affairs in the Great War era. The role and performance of the 'secondary' fleets of the other powers in the Great War are, perhaps inevitably, overshadowed by the titanic struggle between Britain's Royal Navy and its German challenger, the High Seas Fleet. That this is only part of the story is certainly not news to historians of the period, but the eclipse of the 'second eleven' by these two dominant navies is most unfortunate and significantly obscures their vital role in the war and the influence they bore in the decades leading up to the conflict that forever changed our world.

Of the secondary navies that were involved in the run-up to the First World War, the most significant was that of France, followed by Russia. Indeed, these two nations were considered the chief rivals to Great Britain into the first years of the twentieth century. It was only with the advent of the German navy and its self-evident objective of surpassing Great Britain that this calculus changed. The last decades of the nineteenth century, therefore, witnessed considerable British unease over the French adoption of the guerre de course strategy of the Jeune Ecole. This French approach to maritime war involved attacking British merchant trade with fast, well-armed cruisers in all global shipping lanes. It was a strategy necessitated by the weakness of the French battlefleet vis-à-vis Britain's. The French argued that the British could not be everywhere guarding their merchant marine, so a powerful force of cruisers could strangle British trade and hence, the source of its economic strength. The cruisers intended for this task are the subject of this fine book.

Jordan and Caresse have explored the archives to secure the details for all the cruisers built for the French navy over the 50-year period covered by the book. The early decades of this era were characterized by both the general technological ferment in naval architecture affecting all navies, as well as indecision and prevarication by the French Ministry of Marine and its design board (Conseil des Travaux). As a consequence, there were a number of trials of single units, or small classes, of cruiser, which were, to put it charitably, disappointing. Indeed, to modern eyes, a number of these warships were positively bizarre in shape and structure the Dupuy-de-Lôme was noteworthy in this regard. Performance was in consequence extremely uneven, effectiveness difficult to prove, and even fundamental stability questionable. All true but for one significant point. These vessels served their purpose in providing a credible threat to the dominance of the Royal Navy on the globe's sea lanes, and so required a response. The fact that numbers of French designs were seemingly ineffectual was a subjective

conclusion as RN officials well knew and consequently an expensive and comprehensive response was required and provided.

Undaunted, the French Ministry of Marine persevered into the early years of the twentieth century, producing increasingly better designs and larger classes of warship in comparison with the period's early years. Jordan and Caresse have provided outstanding analysis of these warships, noting their weaknesses and strengths, and provide a comprehensive overview of their fitness for purpose. Once past the first years of the new century, the geopolitical situation had dramatically altered and the new friendship with Great Britain rendered this guerre de course strategy of less immediate value. The cruiser force, as built, was shifted to other functions, notably assisting in the control of the Mediterranean and Channel in co-operation with the RN and aiding more generally in any future global conflict. The authors provide a short, useful, operational history of the Great War and the performance of these cruisers, illustrating a largely unknown French contribution to the war at sea.

The book is richly illustrated with period photographs, many from the collection of Caresse, that are evocative of a past long gone, as well as numerous well executed drawings of the ships involved-including side and aerial views, as well as diagrams of turrets, machinery layouts, and cross-sections at appropriate points-most drawn from original plans by Jordan. A comprehensive overview is also provided of gunnery, armour, machinery, crewing and other details that round out the analysis of these fascinating warships. One minor note is that the end date given in the book's title relates to when the surviving ships finally were decommissioned. No French armoured cruisers were built during or after the First World War—indeed, the last completed, *Waldeck-Rousseau*, was built in 1912.

Jordan and Caresse have produced a wonderful companion to their earlier work on French battleships and as such, it certainly deserves a place on the bookshelf of any who acquired this first volume of their fruitful partnership. More generally, French Armoured Cruisers provides an important insight to one of the major influences on the thinking as to how to conduct maritime war in the closing decades of the nineteenth century into the early years of the twentieth. It was the example of cruisers such as those built by France that animated thinkers such as Mahan, Corbett and Laughton and so had a powerful affect on how other navies, not the least of those of Germany, Great Britain, Russia, Japan and the United States, set about their own construction programmes. I can unhesitatingly recommend this volume to all interested in the naval history of this era.

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John Jordan (ed.). *Warship 2019*. Oxford, UK and New York, NY: Osprey Publishing, www.ospreypublishing. com, 2019. 224 pp., illustrations, diagrams, tables. CDN \$79.00, cloth; ISBN 978-1-4728-3595-6. (E-book available.)

This *Warship* annual has its usual mix of articles that appeal to a wide selection of naval historians, professional and amateur, who are interested chiefly in the later nineteenth century and on through the last hundred year to the present. These are written by a range of experts, both established and upcoming, but all reveal new information and surprising facts that have, in some cases, escaped previous writers.

The earliest events discussed in the 2019 volume by David Boursnell concern the manufacture and testing of early British iron armour, as the Royal Navy reacted to the challenge of the first French ironclad, the Gloire. The next, if we are going to be chronological, is an article by Hans Lengerer, a wellknown expert on the Japanese Navy, on the policies and construction of the fleet that was triumphant in the Russo-Japanese War 1904-1906. Then we have the story of the development of the Brown Curtis turbine by Ian Johnston. A1though the reaction turbine invented by Charles Parsons (first used for electrical generation ashore) had been adapted for marine use in British ships in the early years to the century, the impulse turbine designed by the American Charles Gordon Curtis soon followed, and the rights to build it were acquired by John Brown and company, Clydebank, Scotland. The General Electric company's engineer, Stephen Pigott, worked at Brown's for one year to assist them with the Curtis system, but stayed for the rest of his working life, taking over from Sir Thomas Bell as their top engineer and director (and being knighted himself). An allied article to this is a piece of detective work by Brian Newman about the engines of the battlecruiser Tiger, built by John Brown, which was the first British capital ship with Curtis turbines. The author maintains that a lot of erroneous information has been accepted on this subject, and he has used photographs taken at the assembly shed before being installed in the ship to sort out these errors.

Descriptions of ships and analysis of their design have always been a feature of Warship annuals. This year, Phillipe Caresse deals with the French battleship *Brennus*, laid down in 1889, launched in 1891, completed in 1893 but found to be so top heavy that much of her superstructure had to be removed, meaning she did not enter service until 1896. With a twin 34 cm turret forward and a single one aft, Brennus was totally unlike her four predecessors and the five subsequent Marine National battleships, all of which had their main armament distributed on the lozenge principle. Sources like Brasseys continued to criticize her for inadequate stability but, surprisingly, she seemed to have been much liked in the French Navy and was always a flagship, first of the main Mediterranean squadron and then of the Second Division. She went into reserve in 1912 and in 1914 became an accommodation ship. Other ships described are the Imperial Russian Navy's Diana class cruisers by Stephen McLaughlin, who specialises in that era, and Australia's first destroyers by Mark Briggs: six ships that served in the First World War.

There is an account by Peter Cannon of the Admiralty's plans between the wars for the conversion of medium-sized passenger ships to Armed Merchant Cruisers (AMCs), which had been successful in the First World War. Finally, the actual conversion of the Australian coastal passenger motor vessel Kanimbla is described in detail. This ship had a distinguished war record both as an AMC and from 1943 as an Infantry Landing Ship. Also in this category, by A. D. Baker III, is the history of a USN auxiliary vessel; the USS Lebanon, a small merchant ship taken up in 1898 for the Spanish American War that served until 1922. Other articles are: an account by Katherin Milanovitch of the significant Japanese ship losses by magazine explosion in the early-twentieth century; the post-1918 fate of former German destroyers by Aidan Dodson, who has previously dealt with the light cruisers, and a description by

the editor of the Toulon coastal defenses at Cape Cepel, which utilized guns and turrets from uncompleted battleships. Moving to a more modern era, Jon Wise describes Anglo-Dutch naval co-operation during the Cold War and Michel Cosentino describes an unsuccessful Italian project to acquire a nuclear- powered submarine.

As usual there are Warship note and book reviews. The book is printed and bound in India and the production quality is excellent. A product of prodigious research by the various authors, every Warship edition is bound to contain information that any reader, no matter how expert, didn't know before.

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Angus Konstam and Paul Wright (illust.). *British Escort Carriers 1941-45*. New York: Osprey Publishing, www. ospreypublishing.com, 2019. 48 pp., illustrations, tables, bibliography, index. UK £11.99; US \$19.00, CDN \$25.00, paper; ISBN 978-1-4728-3625-0.

This illustrated book is another addition to Osprey's numbered New Vanguard series that focuses on the machines and equipment of warfare across history, popular with scale modelling enthusiasts, persons interested in military and naval history, and customers in museum gift shops. It follows a tried and true format that incorporates informative readable text, period photographs, technical details in tables, as well as reproduced and original commissioned artwork. Angus Konstam, a former naval officer, underwater archeologist, and museum curator, and Paul Wright, an artist focusing on modern warships, are among the most prolific of Osprey's stable of contributors to the growing catalogue of titles, especially on the naval side. New Vanguard no. 274 focusing on Royal Navy escort carriers during the Second World War is a companion to another earlier volume, New Vanguard no. 251, that dealt with U.S. escort carriers over the war years. Some crossover is inevitable, since many of the escort carriers were built in the United States to an American design and transferred to the British for operational use.

As intended, the book provides a basic primer on the subject of this extemporized innovation that met the urgency of time and operational need as air power revolutionized naval warfare. The number of available, purpose-built fleet aircraft carriers in navies like Britain's Royal Navy was limited due to treaty limitations, cost, and losses. Construction of new ones was acknowledged to take some time, probably longer than desired as losses mounted against German U-boats. The idea of taking hulls from the mercantile trade and adding a flight deck and other arrangements was credited to Winston Churchill, though the actual design and development actually dated from the First World War and interwar period. The most pressing requirement was to provide air coverage to convoys in the mid-Atlantic air gap outside the range of land-based patrol aircraft. The British converted several merchant ships, HMS Audacity (the captured former German cargo liner Hannover) being the first, into 'baby flattops'. Early one-off and grouped class conversions described in the book mention the inherent limitations of changing existing ships. The Merchant Aircraft Carrier (MAC) concept put flight decks on working grain carriers and tankers, manned by merchant navy crews and carrying commodity cargoes for the British populace. The Royal Navy was given access to conversions and serial production of escort carriers in the United States through the auspic-

es of Lend-Lease and benefited directly from the North American miracle of volume wartime shipbuilding. The Attacker and Ruler classes delivered the majority of escort carriers to the British from standardized U.S. Maritime Commission C3 hulls. Side profiles and a cut-away drawn by Wright show the differences in ships and aircraft carried, as well as known paint and camouflage schemes. Konstam also provides brief operational details for each escort carrier in British service and some concluding observations about life onboard these warships for sailors, including the novelty of soda fountains, ice cream makers, and centralized cafeteria-style messing. American material assistance. well represented by the escort carrier, effectively kept the Royal Navy in the game and gave access to the latest technology in armaments, radar, and naval aircraft, including the allied answers to superior Japanese aircraft, the Grumman Hellcat and Avenger.

While essential, dependence on American supply also came with drawbacks. After investigation into the explosion and loss of HMS Dasher in the Clyde estuary, the British Admiralty concluded changes were required for better fuel storage and safety in the escort carriers being delivered to them. The bibliography does not include the memorial book by John and Noreen Steele, They Were Never Told, that deals with that tragic incident. The U.S. Navy, however, refused to interrupt the existing production line schedule at Seattle-Tacoma Shipbuilding Corporation in Puget Sound to make the necessary changes, which meant the Royal Navy brought the allocated escort carriers for refit in nearby Vancouver, British Columbia, or upon arrival in British destinations. Opportunity was also taken to lengthen flight decks to handle higher power aircraft made available from

American manufacturers and assigned to the Royal Navy in Washington. The U.S. Navy predominantly deployed escort carriers for transporting aircraft across oceans into theatres of operations. The British used escort carriers in a variety of roles beyond trade protection in later years in support of amphibious landings in South East Asia Command and working within the East Indies and Pacific fleets, going so far to group them under the assault carrier nomenclature with dedicated strike wings. Text boxes and colour art cover the torpedoing and loss of HMS Avenger and write-off of the Canadian-manned HMCS Nabob after limping back to port with a big hole and heavy list courtesy of U-354 during operations off Norway.

The current Osprey offering builds upon the work of Kenneth Poolman on escort carriers, a similar illustrated book published by Arms and Amour Press in 1989 as part of the Warships Fotofax series, and more recent books by David Hobbs. Neither the text nor the photographs are referenced, though the main narrative stands up quite well for those familiar with the archival sources in the United States and United Kingdom. Konstam has done his research and the colour illustrations provided by Wright add a significant improvement to standard black-and-white ship line drawings. Ship model makers will find the combination quite appealing and inspirational. For such a small book, the index is remarkably utilitarian and improves upon Poolman's book which did not come with one.

For the price, Osprey books are known for their high quality, accessibility, and range of esoteric topics in the area of warfare. *British Escort Carriers* 1941-45 satisfies that market in many regards and compares favourably to offerings in the New Vanguard and other series. Conveniently, many of those titles are shown inside the front and back covers of the book for purchase and enjoyment. This illustrated book is recommended for a general audience interested in naval warfare during the Second World War and warship modelers.

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Emily Malcolm and Michael R. Harrison. *Glasgow Museums*. *The Ship Models*. *A History and Complete Illustrated Catalogue*. Barnsley, S. Yorks: Seaforth Publishing, www.seaforthpublishing. com, 2019. xi+374 pp., illustrations. UK £35.00, cloth; ISBN 978-1- 5267-5752-4. (E-book available.)

Museum catalogues may, in the past, have tended to the dry and factual, more an inventory tool for specialists than a treat for enthusiasts. This magnificent new volume from Seaforth Publishing sets a gold standard for what such catalogues can be. The objective of the volume, as stated in the Director's forward and the authors' introduction, is to place the models in both the cultural and functional context of shipbuilding, viewing them as intrinsic articles of historical interest themselves, rather than just representations of the ships. This perspective is particularly relevant given the rich shipbuilding history of the Clyde and the evolving role of ship models. Five chapters of text (pages 1-147) cover such topics as; Models in Shipbuilding, Professional Model Making, Amateur Models, Ship Models and Exhibitions, and Building the Collection.

Models were originally built in shipyards as part of the design process, both for the purposes of communicating ship forms to clients, as well as a medium for working out complex three-di-

mensional design issues. In this respect, plating models of the iron and steel era are a particularly interesting category in which the riveted plating layout was inked on the model by draftsmen. Models were built to a common scale of 1/4 inch = 1 foot (1:48 scale), and by tradition, modelled the starboard side (although there are exceptions). They were made from yellow pine with the grain running in alternate directions, producing a striking herringbone effect (examples are depicted on the cover and page 23). Generally, half hulls were glued and screwed and not constructed to be separated in lifts. Drawn plans were then prepared from the model. Clyde models have a distinctive 'angled carved return' (effectively a bowed back) to allow accurate lifting of measurements (12). This process would be similar to lifting lines from full-sized ships and would be similar in accuracy to lifting tables offsets from 1:48 scale drawings. Thus, models were an essential tool in the design process; only later would the marketing purpose dominate. The A&J Inglis Drawing Office Record Book records that of 200 vessels built between 1871 and 1910, each one was modelled.

Initially the naval architect was the model builder. It is recorded that Alexander Stephen built with his own hands 19 models of the 25 ships he built between 1860-64. The chapter on Professional Model Making traces the evolution of the model-making task from the hands of the designer to those of craftsmen hired for that dedicated purpose, developing models from drawings. This coincided with the shift by the 1890s to drawings as the primary archival mode (with the associated disposal of many models) and the evolution of purpose from technical models to display models. At first, the model makers were direct employees of the shipyards

and some shipyards had sizable model shops—in 1909, Fairfield's employed a foreman plus 7 model makers.

The late 1800s change in the purpose of models also coincided with the age of exhibitions, where "highly detailed models acted as surrogates for real ships, their quality signifying that of the actual vessels ..." (101). At these exhibitions, not only were the ship designs represented awarded prizes, but increasingly, the quality of the model making was also judged and awarded medals. It is an interesting insight into the culture of the day that (with a few exceptions) the professional model makers were anonymous and, even when named, the model prize was considered as an award to the shipbuilder concerned; the Bronze medal awarded in 1897 to Alexander Clark (foreman model maker to Clydebank Shipbuilding) was retained in the company archives until the Museum acquired it 1970 (37). The models of this era were wonderfully detailed and could take up to six months to build. Two models were sold to the French Musée Navale in 1878 for £500, then the equivalent of five years' wages for a skilled model maker (53).

Inevitably, as the design and display purpose of models continued to diverge, the job of model making shifted outside the shipyards and the period from about 1875 onwards saw the growth of commercial firms, the foremost being Kelso & Company. Matthew Kelso started in

1872 as an optician specializing in the "manufacture of optical, mathematical and philosophical instruments", and the firm grew from five men and four boys in 1881 to employing 60 workers by 1900. It is of interest that commercial model making is characterized by the authors as "an accidental profession" as the skilled workers came from the ranks of cabinetmakers, clockmakers, pattern-makers, opticians, brass turners, jewellers, etc. The versatility of such a collection of craftsmen is seen in the fact that Kelso's also produced instrumentation for model experimental tanks.

The combination of outsourced model making and the interplay between intense public interest and increasing shipbuilder participation in exhibitions indirectly led to a growth of amateur model building. This was aided and abetted by firms (such as Kelso's) producing scale model components, and a fortuitous collaboration of authors such as the famed Harold Underhill with the Glasgow publishing house Brown Son & Ferguson. Underhill's classic reference was the two-volume Plank on Frame Ship Models (1958/1960), and he espoused a modelling approach in the pursuit of perfection.

The final chapter, Building the Collection, contains many interesting insights into the interplay of curatorial connections and the growth of the collection. It is particularly notable that the museum's collection arose as a natural evolution of the Exhibitions' stated purpose to "... amuse and instruct the working classes..." (125). The first catalogue of the collection was published in 1956 with 321 models listed. The 1971 catalogue listed 522 models. The growth of the collection was facilitated by the appointment of naval architects, Philip Tanner in 1951 and Tony Browning in 1955, to curate the collection. This direct connection with industry came at a most opportune (if unfortunate) time when, with the shipbuilding industry in decline, a number of models were acquired which might otherwise have been lost.

The catalogue portion itself (pages 147-359) comprises 210 pages of pictures showing all 676 models of the collection. These are well presented with broadside views of each model (eight of them featured as a full two-page spread) and an additional 20 full-page detailed shots. Each picture is labelled with details of the model itself (type, scale, dimensions, model maker, ownership and use, provenance, exhibition history, and conservation work) and of the ship represented (type, tonnage, year built, shipbuilder and location, working life, and fate).

There are too many notable models to mention, and any such mentions would betray my biases (the plating model of Aquitania (490), 5.75 metres long and weighing almost 1/4 ton being a case in point). The breadth and variety (and, in some cases, plain weirdness) of Clyde shipbuilding is fully revealed. A few minor errors (e.g., the inexplicable notation of a Grand Banks Schooner (model 372) as being "ship-rigged") do not detract from the tremendous browsing value of this book.

The production values of this volume are exceptional, from the quality and colour reproduction of the photographs, to the outstanding layout that shows each model to advantage. The only quibble is that this is a heavy book (2.75 kg) and, while it is solidly bound in signatures, I have some fear that the hinges might not be up to the repeated handling that it is sure to get. This is a beautiful volume that deserves a place in the library of anyone interested in the use of models as essential functional elements in the history of shipbuilding.

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R. Andrew McDonald. *The Sea Kings*. *The Late Norse Kingdoms of Man and the Isles, c. 1066-1275*. Edinburgh, UK. Birlinn Publishing, www.birlinn. co.uk, 2019. xii+426 pp., illustrations, maps, genealogies, notes, bibliography, index. US \$85.00, cloth; ISBN 978-1-

910900-21-5.

Most of us tend to envision nation states in terms of land mass and contiguous territories, but such has not always been the case. To the Norsemen of old, the land holds were dry portions of kingdoms extending across seas and tied together by sailing vessels. *The Sea Kings: The Late Norse Kingdoms of Man and the Isles c. 1066-1275* is an in-depth study of one such kingdom.

This kingdom was headquartered on the Isle of Man in the Irish Sea and extended over the waters of the North Atlantic to include island and coastal areas of western Scotland, such as Skye, Lewis, North and South Uist, Iona and others. It was a kingdom that expanded and contracted with the tides of power and influence before being absorbed into other kingdoms with which we are more familiar.

Works such as this guide the reader's mind into new paradigms. Images of modern-day Ireland, Scotland and England are replaced by a seascape that washes the shores of Man, Dublin, settlements in Ulster and Galloway with Norway, Normandy, England and Scotland and Church authorities in Rome and elsewhere being foreign powers with whom the Manx Kings dealt as equals, relatives, rivals, allies and co-religionists.

The key word in this title is "Kings". McDonald focuses intently on the kings, their names, families, years of lives and reigns, and the events that they influenced and that contributed to their successes and failures. The narrative about the Isles themselves is primarily supportive of the sagas of the kings. A key word in the subtitle is "Norse". Almost all of the names are of obvious Nordic origin with occasional Celtic or native English words making an appearance. One advantage of reading biography is the introduction it provides to the stage on which the subject performed. McDonald's work introduces us to the lands and seas of Man and the Isles along with the Northern Europe of which they were a part. He follows the histories of the kings and kingdoms chronologically and by subject matter, dedicating chapters to the nature of Manx kingship, which was an accomplishment in that many lands were ruled by lower lords such as dukes or earls, as well as the economy and the religion of the isles.

Northern Mariner readers may take particular interest in the chapter entitled "Men of the Speckled Ships: Ships, Sea Power and Fighting Men". Here are described the ships, their types, sizes, numbers of ships, the oars on which they relied for propulsion, the battles in which they fought and the men who crewed them. The one representative of Manx Norse vessels is found in a carving in a memorial stone at Maughold, on the eastern side of the Isle of Man. The ships are depicted as "clinker-built, high stemmed, propelled by oars and sails...potent symbols of power, wealth and prestige". (224) Their ability to project power came not only from the ships themselves, but also from the land troops they transported, much like modern troop and aircraft carriers. Manx fleets are compared to those of other kingdoms, such as Norway, whose vessels plied the same waters and who contested the Manx kings for mastery.

This book is extraordinarily detailed in its narratives, explanations and documentation. Being unfamiliar with Manx history I became lost amidst the names of kings and nobles who are the *dramatis personae*, but there are other ways to enjoy this book. From these lines one can appreciate the interrelationships between medieval powers of the Irish Sea and the changes as nations as local nobles gave way to the expanding modern kingdoms of Scotland and England. I always wondered where one discovers facts about such long ago times and found the references to the thirteenth-century *Chronicles of the Kings of Man and the Isles* and other manuscripts along with archeological finds to be fascinating. It has whetted my appetite to delve into these tomes (in translation) to walk among the titans of ages past.

The pictures of documents, graffiti, ecclesiastical ruins, abbeys and castles help anchor the text to the visual world. The maps are indispensable to an envisioning of the part of the world in which the action is set and where the characters have played their parts. In addition to an exhaustive bibliography, the book directs readers to books and sites to visit on Man and the Isles. The family trees of the various kings and the index aid in keeping the names straight.

I recommend *The Sea Kings* for readers already familiar with the history of the Isle of Man or the Norse world of the Irish Sea between 1066 and 1275 who want to learn more. Many readers, myself included, will have to glean the wheat of understanding from amongst the details that, while of value to the expert, may be chaff to the generalist.

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Pirouz Mojtahed-Zadeh Ph.D. Maritime Political Geography: The Persian Gulf Islands of Tunbs and Abu Musa. Boca Raton, FL: Universal Publishers, www.universal-publishers.com, 241 pp., illustrations, maps, notes, bibliography. US \$44.00, paper; ISBN 978-1-61233-295-6. (E-book available.)

Maritime Political Geography: The Persian Gulf Islands of Tunbs and Abu

Musa dated 2015, deals with the unresolved dispute between the United Arab Emirates (UAE) and Iran over several islands in the Persian Gulf that each claim. Mojtahed-Zadeh provides historical background to the various claims, reaching back to the early nine-teenth century and continuing until the withdrawal of the British protectorate and the establishment of the UAE in 1971. He reprises his personal role acting on behalf of Iran in negotiations between the two states since then and presents letters and documents relating to the separate claims.

The book is arranged as an introduction, eight chapters and concluding remarks. Chapters review the geography and history of the dispute, including British 'colonial' arrangements and the bases of claims of the UAE and Iran. The first seven chapters comprise 140 pages and include the discussion and presentation of documents and maps as evidence, while the eighth chapter of 60 pages presents a collection of letters from the author on the subject of the Persian Gulf islands dispute.

In the opening paragraph, maritime political geography is defined as the "study of implementation of state sovereignty at sea" or, less elegantly, it is "the art of determining extension of sovereignty exercise of a state in the maritime areas surrounding its territories" (17). The awkward English usage is an occasional theme and Mojtahed-Zadeh appears in this instance to have been inadequately served by the standard of proof-reading in general. Changes from third to first person in the same paragraph (147) serve to confuse. The shortened form 'UAE' is rendered alternatively 'UAB', 'U AB' and 'DAB' on the same page (172), perhaps indicating faults of optical character recognition. These avoidable errors inevitably detract from the flow of the text and, together with the low-quality reproductions of documents, maps and images, hint at careless or rushed review of an important volume.

Yet, read on. Dr. Mojtahed-Zadeh, a long-established expert on the issue, compiles his history of the dispute well using a variety of sources and he has clearly invested considerable professional and personal effort in the negotiations on behalf of Iran and on the topic in general. If not by anything else, this personal investment is evidenced by the remarkable tit-for-tat exchange with a reviewer of one of Mojtahed-Zadeh's previous works in which he appears to take umbrage at an accusation of partiality in the dispute, and fires the same claim back at his reviewer (171-178). The conceptual discussion of maritime political geography in the Persian Gulf in the introductory chapter immediately betrays a sympathy for the Iranian view and, notwithstanding the risk of riposte for the present review, the author's claims of academic impartiality are unconvincing. The frequent use of the familiar pronoun 'her' in relation to Iran's claims, and particularly immediately after referring to the UAE's claims to 'alleged ownership' throughout chapter four, suggests otherwise. Perhaps responsibility for this oversight may be excused as the author is clearly writing in a second language, but precise and dispassionate language are markers of impartiality.

Although published in 2015, the latest source in the bibliography is 2011, one of ten of the author's own cited, and of the remaining 60 documents cited, only two are later than 2000. Although this is clearly influenced by the use of historical sources, the majority of recent citations are media reports rather than peer-reviewed articles or books. A Google Scholar search reveals numerous peer-reviewed or scholarly sources published in the first decade or so of this century that might have been used to enrich the discussion presented in this work. Perhaps alternate opinions have been addressed thoroughly in the author's previous works, and the separate list of these provided impressively covers nearly five pages, but the absence of recent peer-reviewed literature from anyone else should be noted.

Similarly, the eighth chapter listing letters to "world leaders" (157) only cites outgoing correspondence, with the exception of that relating to the dispute with a reviewer of one of the author's previous works. The author summarises the responses to these letters in one sentence by claiming the 'controversies' that elicited the correspondence were "never repeated" (158). This paucity of alternate views, together with the photographs presented as evidence of the author's meetings with important personages, creates the impression that the book is really about the author's role in the negotiations rather than an impartial review of the dispute.

As a case of maritime political geography, this book makes an important contribution to studies of the Persian Gulf islands dispute. Given the implicit lean towards the Iranian view, the distracting minor errors, and thin reference to recent literature, this book would better serve as a sourcebook for the dedicated student of the issue rather than as a primer for the uninitiated. There is great value in Mojtahed-Zadeh's personal insights to the negotiations surrounding the dispute over the Persian Gulf islands and this is the work's greatest strength. For the price though, I suggest that readers of this Journal with a general interest in maritime studies might prefer to access other sources on the topic.

Mick de Ruyter Adelaide, South Australia R. O. Neish. *Leith-built Ships, Vol. 1.* (1850-1919). They Once Were Shipbuilders. Dunbeath, Scotland: Whittles Publishing, www.whittlespublishing. com, 2019. xvi+144 pp., illustrations, tables, glossary. UK £16.99, US \$22.95, paper; ISBN 978-1-84995-443-3.

Author Ron Neish is a former shipbuilder who had worked at the Henry Robb Victoria Shipyard at Leith and later as a consultant. Leith, of course, is the port for Edinburgh and ships had been built there from medieval times. It was in the early days of the industrial revolution in first part of the nineteenth century, however, that Leith developed as a shipbuilding centre, pioneering in the transition from sailing ships to steamers and from wood to iron and then steel. As in any industrial area, companies evolved, merged and changed names and owners over the years. This volume is focussed on the years 1850 to 1919, which include what Neish calls the "golden years", the '80s and '90s, though the first decades of the twentieth century seemed almost as prosperous. Nevertheless, there were ups and downs. Demand for shipping and employment for shipyards has always fluctuated between urgent need and oversupply resulting in periods of full employment followed by lay-offs for the workers in a time when the modern social safety net did not exist. The author, while describing the shipyards and their output, never forgets his predecessors, the skilled workmen who built the ships and the often-difficult conditions in which they lived and worked.

The early shipyards of what was to become an impressive industry grew up on the banks of the Water of Leith, a small river that runs through the heart of Edinburgh. In 1818, Leith shipbuilder Thomas Morton invented the slipway on which a vessel can be hauled out of

the water on a cradle, a cheaper alternative to a drydock and the first one was installed beside the river. By 1850, the S & H Morton company was a prominent builder at their Victoria Shipyard which would later be taken over by Henry Robb for whom Neish worked. The other large-scale yard was R & F Shipbuilders, later Ramage & Ferguson, established in 1877 and absorbed by Robb in 1934, while a third was J. Cran & Co. which specialized in building tugs and some fishing vessels. The others built sailing ships, cargo steamers, paddle ferries and excursion vessels and many beautifully finished steam vachts. When prosperous Victorians wanted to display their wealth, a steam vacht was the ideal showcase, and Leith was the place to order one. The careful finishing of these yachts must have employed many skilled craftsmen and would have been a marked contrast to the simple cargo steamers of the day building on adjacent slipways. The author was lucky to obtain a complete list of the ships by yard number built by R & F/Ramage and Ferguson between 1878 and 1931. This shows not only the variety of ships but also that, on average, the largest were sailing ships: the big steel full-riggers and four-mast barques which were the pre-First World War bulk carriers. Leith did not build really large ships: in Scotland, these were constructed by the major shipyards of the Clyde. Many of the Leith ships were built for companies based at that port trading into the Baltic and Northern Europe. They also included the famous whaling company, Christian Salvesen. Nevertheless, some notable and famous vessels were built at the port: the Sirius, in 1838 the first steamship to cross the Atlantic from East to West, just beating Brunel's Great Western by a day; the Maha Chakri (1892) an armed yacht built for the King of Siam; and the five-mast barque *Kobenhavn* (1921) the largest sailing ship constructed in Great Britain and a training ship for the Danish East Asiatic Company. In 1928, with 75 men on board, she disappeared without trace on a voyage from Buenos Ayres to Melbourne; an unsolved mystery of the sea.

Neish devotes a chapter to activities during 1914-1918 which involved construction of anti-submarine trawlers and X -Lighters (landing craft), but chiefly cargo ships, attempting to offset the enormous losses to U-boats that nearly brought victory to Germany. The statistical account is staggering. Between February and May nearly two million tons of shipping was lost to submarines, 25% of all ships heading to Britain. Even after the introduction of convoys, losses remained high as there was no effective sonar or weapon. Another chapter describes the adventures and fates of Leith-built ships in wartime.

There must be many places around the United Kingdom and, indeed, the entire industrialized world, where great ingenuity and physical endeavour were invested in creating the mechanical culture that for over 150 years we took for granted as the dominant feature of our civilisation. Such regions are now known as "the rust belt". Neish was determined that the industrial history of his area and the profession in which he worked would not be forgotten. This is only Volume 1. The period 1918-1939 will be covered in Volume 2.

Incidentally, one maritime feature of the Port of Leith today is the former Royal Yacht *Britannia*, which can be visited and where occasional banquets are held.

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Simon Parkin. A Game of Birds and Wolves: The Ingenious Young Women whose Secret Board Game Helped Win Word War II: New York, NY: Little, Brown and Co., www.littlebrown. com, 2020. 301 pp., illustrations, notes, bibliography, index, US \$29.00, CDN \$37.00, cloth; ISBN 978-0-316-49209-6. (E-book available.)

Marc Milner noted in 2003 that "The development of tactics and doctrines within Western Approaches Command has never been looked at by modern scholars" (Battle of the Atlantic, 2003, 20). Western Approaches was responsible for controlling Atlantic convoys; its Western Approaches Tactical Unit (WATU) was created in early 1942 to analyze ongoing convoy operations and to improve anti-U-boat tactics. Its story was told in 2017 by Paul Edward Strong in Wargaming the Atlantic War: Captain Gilbert Roberts and the Wrens of the Western Approaches Tactical Unit, a paper for a wargaming forum. (It is available online under that title). Simon Parkin, an accomplished British journalist, who has written for The New Yorker and The Guardian, has now produced A Game of Birds and Wolves, a creative and riveting account about the Tactical Unit that greatly expands Strong's account (he and a colleague at Britain's Defence Science and Technology Laboratory were consultant readers for the book). Parkin tells how WATU Unit was created and run by the creative Captain Gilbert Roberts, but he also emphasizes the role of the members of the Women's' Royal Navy Service (WRNS, known as Wrens) who played important roles not only in the Tactical Unit but more widely in the wartime RN.

Simon Parkin is a great storyteller. He relates events as experienced by Gilbert Roberts, several Wrens and naval officers to carry his narrative. For example, descriptions of how U-boat tactics evolved are conveyed through individual U-boat "Aces" and their attacks. The vicissitudes of a young RN officer, who courted a Wren who had served at WATU, and then went off to one of the great convoy battles in 1943 in a destroyer personify how escort vessels experienced the long Atlantic campaign. At times, the book strays beyond WATU and the struggle to defend convoys; for example, by relating the harrowing loss to a torpedo attack of a contingent of Wrens bound for Gibraltar or the sybaritic interlude enjoyed by the officers of a British cruiser refitting in New York in 1942. Overall, this is popular history at its best.

The story of WATU's creation is interesting is one about good decisions. In November 1941, retired Vice Admiral Cecil Usborne was appointed as Churchill's Naval Advisor on Anti-Submarine Warfare. One of his first actions was to sponsor the creation of a tactical unit at Western Approaches Command in Liverpool in January 1942 under Gilbert Roberts. The selection of Roberts (who had been invalided out of the RN due to tuberculosis in 1938) proved to be inspired. He had commanded a destroyer and had been on the staff of the Tactical Course in Portsmouth in the mid-thirties that analysed tactical problems and taught doctrine through war gaming; of this experience he wrote "What an astonishing two years! I loved it absolutely" in his unpublished The Life and Letters of Gilbert Roberts held by the Imperial War Museum. Usborne had commanded the Tactical Course several years earlier.

After a being briefed by Usborne, the Second Sea Lord and a short session with the Prime Minister who told him "Find out what is happening and sink the U-boats," (122) Roberts headed for Liverpool.

There he started analyzing convoy battles using after-action reports and in-

terviews with escort officers. He created a tactical floor where he and his staff. largely of young Wrens, could wargame past convoy actions and work out new tactics. He then started teaching weeklong courses about anti-U-boat tactics, built around realistic games that demonstrated standard procedures and exercised attendees in their application. The courses were eventually attended by almost 5,000 escort officers. In running the games Gilbert Roberts made excellent use of his small team of bright Wrens who were astonishingly young-his first core group were 18 to 21 years old. The process became a sort of feedback loop with Roberts adroitly incorporating reports from sea and intelligence reports into WATU's understanding of problems. He was able to quickly respond with a defensive tactic when the Germans introduced anti-escort homing torpedoes in mid-1943. Roberts was an accomplished communicator. Simon Parkin relates how, because he was mindful of the need to hold the attention of his students and to keep his presentations from becoming stale, Gilbert Roberts consulted a leading radio entertainer. In reviewing this book in The Guardian on 14 December 2919, historian Richard Overy aptly wrote "Roberts was an accomplished impresario of the game.".

At its peak in 1944, the WRNS was 75,000 strong. Its wartime importance is a leitmotif in *A Game of Birds and Wolves* which argues that Wrens received inadequate recognition for a variety of reasons. Their part in signals intelligence alone was pivotal: "(U-boat) Messages intercepted by Wrens in Scarborough were passed to Bletchley Park. There a staff of Wrens led by the genius cryptographer Alan Turing would decipher U-boatmen's messages. Once translated, information was passed to the commander-in-chief

of Western Approaches, who could then more intelligently direct his escort ships in the Atlantic...." (119).

Simon Parkin and his researchers have drawn on Gilbert Roberts' lively but unaccountably unpublished Life and Letters, and audio and paper accounts by other contemporaries. The author has a flair for conveying atmosphere and bringing individual stories to life. The descriptions of individuals are detailed and well-rounded; it is noteworthy that observations by contemporaries about Roberts' difficult personality are included. One of the fascinating aspects of the Gilbert Roberts story is that he, a German speaker, was sent to Germany shortly after V-E Day to interview U-boat veterans. His brief encounter with Admiral Dönitz and his sessions with Admiral Godt, who had been in tactical command of the U-boat force, and others are dramatically related. In retirement, Gilbert Roberts settled in Devon and married a second time. Parkin writes that he "continued to feel underappreciated" (275). Twenty years after the end of the war he received a letter saying that he was to receive a knighthood. The following day there was a telephone call explaining that the notification had been set in error, there was to be no new honour. Incredible.

Parkin and his industrious team are occasionally careless about peripheral details: to cite three, Vyacheslav Molotov was the Soviet foreign minister, not premier (106), a degaussing range was where ships fitted with antimagnetic wire coils were tested for how well they functioned rather than where the degaussing systems were fitted (110), and Operation Torch, the Allied landings in North Africa did not take ships to the South Atlantic (198). The overall discussion of the complex Battle of the Atlantic lacks depth. For example, when discussing the issues about insufficient patrol aircraft it talks about too few bombers. The long-range aircraft in question were, in fact, specially modified bombers but describing them this way misstates how they were employed against U-boats.

The WATU was one of many factors that contributed to Allied success in the Battle of the Atlantic. A Game of Birds and Wolves tells its story well but underplays the other factors. In its own way, the book echoes how Gilbert Roberts was seen by Commander Frank Layard, RN, an escort group commander and very experienced destroyer captain who took the tactical course twice. In September 1943 he observed: ".... Capt. Roberts....is a v. good lecturer but v. theatrical and, of course, would like you to know that he was 75% responsible for the recent defeat of the U-boat in the N. Atlantic." (Michael Whitby, ed. Commanding Canadians: The Second Word War Diaries of A.F.C. Layard, 2005, 33).

A Game of Birds and Wolves is a terrific read that presents a series of episodes as experienced by participants to tell the story of the Western Approaches Tactical Unit, its driving force, Captain Gilbert Roberts and the role of young Wrens in its success. The text is supported by well-chosen photographs. The book has received popular acclaim in the UK. Film rights have apparently been purchased by Steven Spielberg. Recommended as an engaging and rewarding new popular study of one aspect behind Allied success in the Battle of Atlantic.

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Lawrence Paterson. *Eagles over the Sea* 1935-42. A History of Luftwaffe Maritime Operations. Barnsley, S. Yorks: Seaforth Publishing, www.seaforthpublishing.com, 2019. xvi+464 pp., illustrations, glossary, appendix, notes, bibliography, index. UK £30.00, cloth; ISBN 978-1-52674-002-1.

The exploits of the German Luftwaffe (Air Force, hereafter, LW) in the Second World War have been heavily documented for 70 years-with one exception-the efforts of the LW in maritime reconnaissance, anti-shipping roles: missions, coordination with the Kriegsmarine (World War Two German Navy, hereafter, KM,) search and rescue, and other maritime-related aviation roles. In Eagles over the Sea 1935-42. Paterson provides a comprehensive history of LW maritime operations during the first seven years of the LW's existence and the first three years of the Second World War.

Over the years, much has been written about the Second World War LW fighter pilots, especially its ace pilots, and there have been many books about the LW bomber units. But the near-obscurity of LW maritime operations writings is traceable to one man: Hermann Goering, the commander of the LW from its inception to almost the end of the war and the number two man in the Nazi hierarchy. Goering, a German war ace in the First World War, declared when put in charge of the LW, "Everything that flies belongs to me!" Unlike the United States Navy, the Imperial Japanese Navy, and the British Royal Navy (after 24 May 1939), this meant the KM was denied an independent air arm of its own. Throughout the war, the German Navy had to negotiate with the LW for use of its assets when the navy needed air support. This fact has obscured LW operations in support of the KM, or independent LW maritime operations in favour of the more prominent fighter pilots and bomber pilots and their units.

Paterson wisely starts his narrative

with a chapter on the history of German naval aviation prior to the Nazi seizure of power. Prior to the First World War, the Imperial German Navy (IGN) established both airship and aircraft units. With outbreak of hostilities in 1914, the IGN expanded its airship and aircraft combat units. The airship units—zeppelins, which bombed England—are famous. Overshadowed by its Imperial German Air Force comrades, the IGN pilots fought a private war along the Flanders coast. At least 20 IGN pilots became ace pilots.

The Treaty of Versailles imposed harsh restrictions on defeated Germany, especially its armed forces. The German Navy was drastically reduced in size and was allowed to keep only a small number of aircraft with associated pilots and ground crew. Although German Naval Aviation was officially disbanded in 1920, the German Navy kept six aircraft for minesweeping purposes into the 1930s. Although small, this unit provided a nucleus for a future German naval air arm.

Paterson's next chapter relates previously little-known information. Throughout the 1920s and early 1930s, Germany secretly began to rebuild its air services. The story of the clandestine training of future LW personnel is well-known; what Paterson relates in his book's second chapter is the parallel efforts of the German Navy to establish a future naval air arm.

When Hitler came to power in Germany in 1933, he quickly abrogated the Treaty of Versailles and began a program of substantial rearmament. It was then that the struggle for an independent naval air arm began. Erich Raeder, commander of the KM, pushed for a return to the First World War model an independent German Naval Air Arm. Goering stepped in and took control of all military air assets, forcing the KM to rely on the LW throughout the war. The power struggle between the KM and the LW was recurrent throughout the war. Fortunately for the KM, many LW officers had served in the interwar German Navy and thus, were familiar with naval operations. This permitted a degree of cooperation between the two services at an operational level.

Paterson relates all of this and thoroughly describes the maritime activities of the LW, as well as the power struggles. He carefully describes the LW activities starting in the Spanish Civil war, the early Second World War period, and all fronts where the LW operated from the English Channel, to Norway, to the Mediterranean, and the Russian Front. While the LW did not develop a truly dedicated maritime attack aircraft, it successfully adapted its existing aircraft to maritime operations.

The narrative is supported by many excellent illustrations whose relevance is of great aid to the reader. At the beginning of the book, a glossary contains definitions, rank and organizational tables and notes, definitions of the various LW unit names, and a guide to LW aircraft identification codes. This last is valuable, as Paterson includes the aircraft identification code for many aircraft mentioned. The reader unfamiliar with the LW system of aircraft identification would find the inclusion of an aircraft's identification code confusing without the glossary's assistance. An appendix to the narrative details the many aircraft used in LW maritime operations while end notes provide valuable reference material and information that supplements the narrative. The bibliography lists a host of references for further reading.

This is a most impressive work. It has earned the title, "Definitive," and may well remain the best in-depth treatment of LW maritime operations. Paterson plans a second volume on LW maritime operations from 1942 to 1945—a prospect this reviewer greatly relishes.

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Stephen Puleo. Voyage of Mercy. The USS Jamestown, the Irish Famine, and the Remarkable Story of America's First Humanitarian Mission. New York, NY: St. Martin's Press, www.usmacmillan. com, 2020. 336 pp., bibliography, index. US \$28.99, cloth; ISBN 978-1-25020-047-1. (E-book available.)

Great shifts in public policy and national behaviour sometimes arise, not out of clash of arms or revolutionary swings on election day, but in the generous response to a *cri de coeur* that that will never let the world stay as it always had been. *Voyage of Mercy* is the story of one such response.

In 1847, Ireland was in the midst of *an Gorta Mor*, the Great Hunger, in which half of a country literally starved to death or fled. The United States was committed to a war with Mexico that claimed its attention and resources. It was out of this murky milieu that a precedent for international humanitarian aid flowed.

The history of the United States, or even the world for that matter, had never known a circumstance in which one nation extended uncompensated aid and relief to the subjects of another. As reports of the failure of the potato crop on which most Irish depended reached America, committees formed across the land to collect food for transportation to Ireland and Scotland, which also suffered from the potato blight. The first voyage was made by the U.S.S. Jamestown, a United States Navy vessel. The decision to turn the Jamestown over to a private crew for a humanitarian mission in time of war was not lightly taken. Besides Mars' demands on available resources, the question of whether government aid to another country was constitutional was hotly debated at the time. Meanwhile, the British government balanced the survival of the Irish against the stability of grain markets and the utility of saving the Irish from dependence on others.

Much of the book focuses on two main characters: Fr. Theobald Mathew, the Apostle of Temperance, and Captain Robert Bennet Forbes, who guided the *Jamestown* on its historic mission. It was Fr. Mathew who devoted his life to his people and piqued the conscience of the world by his repeated reports and pleas. Forbes was an accomplished seaman, who had spent much time away from home as his wife managed their family, mourned as their children grew and died and their fortunes were made and lost.

The voyage was rare, if not unique. Stripped of most of its guns, with a makeshift, and not particularly proficient volunteer crew, the Jamestown was loaded, beginning on St. Patrick's Day, with 8,000 barrels of food along with clothing. Leaving Boston on 28 March 1847, ship and inexperienced crew endured snow, sleet, dense fog, ice, howling gales, rain and variable winds before arriving in Cork Harbour on April 12. After being greeted by Fr. Mathew, Forbes and his ship were accorded the most lavish welcome of which Cork was capable. The trip to town was an education for Forbes. Impressed, first, by the humbleness of Fr. Mathew, he was shocked by the horror he encountered during his walk through the city. "I saw enough in five minutes to horrify me...hovels crowded with the sick and dying-some called for water...and others for a dying blessing." (159) Forbes' offer of silver coins to starving beggars fomented a mob that threated to crush him and Mathew.

Fortunately, the voyage of the *Jamestown* was the start of a flood of relief supplies flowing from America to Ireland passing a surge of immigrants to the land of their benefactors. Even the well-meaning have their limits, and by 1848, American interest in Ireland was ebbing, leaving the remaining Irish to fend for themselves and the principals of the story moved on.

Forbes went back to commercial shipping, supervised the building of gunboats for the Union during the Civil War, rode on the first non-transfer transcontinental train trip from Boston to San Francisco and wrote his memoirs. To his death in 1885, the *Jamestown* Mission remained "the most prominent event of my life."

Fr. Mathew continued to expend himself for his people to the extent of exhaustion and a paralytic stroke. His long-sought trip to America in the causes of temperance and thanksgiving engendered controversy unknown in Ireland. He was accorded a hero's funeral in Cork in 1856.

Quite a story. After the voyage of the Jamestown, natural and man-made disasters spurred relief efforts far and wide. The Famine ignited a burning resentment in Irish hearts toward the English whom they fault for abandonment in their hour of crisis and a lasting affection for the United States, the land that provided for their needs and accepted, although not always welcomed, their emigrants. Author Stephen Puleo has woven the tale of a tragedy, callous and generous responses, heroes and villains and earth-changing events into a captivating tapestry of history, biography and reflection. The seven parts of this work alternate the scene between the United States and Ireland. The index and bibliographic essay at the end are helpful. In times of challenge it is worth looking back on prior tragedies. This is an excellent read for anyone interested in the history of humanitarian relief, Ireland, the American experience, and "soft" sea power.

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Margaret Schotte. Sailing School: Navigating Science and Skill, 1550-1800. Baltimore, MD: John Hopkins University Press, www.press.jhu.edu, 2019. xii+297 pp., illustrations, glossary, notes, bibliography, index. US \$59.95, cloth; ISBN 978-1-4214-2953-3 (E-book available).

Anyone who has enjoyed the challenge of celestial navigation will find Margaret Schotte's book fascinating as it describes the history of techniques involved, as well as the international aspects of improving on those techniques over the two and a half centuries she covers. This reviewer certainly recalls staring disconsolately at a worksheet with observations taken, on an anything but stable deck, with no skill using his sextant, on stars with dodgy identifications and breaking them down with Norie's Nautical Tables in hand, producing a cocked hat on the chart that would take a day's sailing to traverse. All only requiring an hour to calculate. Ah, such were the joys... Like my fellow sufferers, I certainly pondered the evil nature of those mariner forebearers who had dreamt this stuff up and had passed on these techniques to torture the dreams of their successors. Nowadays, of course, it is a mere matter of punching a button on the GPS and you have your position instantly and with an accuracy impossible to meet using celestial bodies and a sextant.
The art of navigation is generally one of those aspects of maritime life that is taken for granted, much like victualling, stores, finance and other quotidian and mundane background matters. Yes, everyone knows that such activities have to be managed, but most skip over them into more compelling narratives of exploration, war or trade. Yet, without navigational skills and techniques, Europe's dominance of the world's oceans, generally dating from the late Fifteenth Century's Portuguese voyages down the African West Coast and into the Atlantic, could not have occurred. Without minimising the very real ocean navigation capabilities of the Polynesians, the dominance of Europe in global history terms has amongst its roots the navigational skills of its sailors and their capacity of transmitting the knowledge gained from experience to their successors in the trade. Schotte's story is therefore an important and foundational examination of one of the key drivers of European and global maritime history.

Schotte has presented us with a marvellous account of the development of celestial navigation, displaying truly impressive and outstanding scholarship in no less than six languages. Her model was to explore the textbooks used to train navigators from the Sixteenth Century to the late Eighteenth Century from across maritime Europe. As has been the case up to, at least, the very recent past, navigation training involved a combination of shore-based education and ship-based practical experience. As is the case with most aspects of maritime life, experience is critical in the development of competence. "Book learning" by itself simply won't do, vet without it progress is haphazard at best and the transmission of knowledge across years and geographies impossible. The story Schotte presents across nationalities and time demonstrates this reality exceptionally well.

The book is broken down into chapters that assess the state of the art in varying time periods and in varying locations. She pulls together the links between both dimensions masterfully throughout her narrative – essentially via the route of printed manuals and books of instruction. After an introductory chapter that lays the foundations for her analysis, Schotte explores navigational training chronologically (for the most part) starting with the Spanish experience (Seville - 1552). She moves then to Amsterdam (1600), Dieppe (1675), London (1683), Netherlands (1710), and summed up the state of the art with the epic navigation of HMS Guardian under the command of a Lieutenant Riou, RN in 1789. Riou's ship was holed by an iceberg south of the Cape of Good Hope, and only his impressive celestial navigational skills (combined with his equally impressive leadership, ship handling and damage control attributes) was he able to save his ship and crew from certain loss in the trackless wastes of the Southern Ocean. The fruits of the previous centuries developments of navigational techniques were well represented by this relatively young captain facing extraordinary circumstances. This vignette makes for a fine example demonstrating Schotte's points regarding navigation and how knowledge was transmitted across time and geographies to telling effect.

The book is wonderfully illustrated throughout with black and white engravings from the navigation books used as sources for the narrative. There is also a small collection of colour plates that have been well selected and well produced. Schotte has also provided copious and useful endnotes; an extensive bibliography, notably of primary sources, but a comprehensive survey of secondary sources is quite evident. A useful glossary has also been provided – in English, Portuguese, Spanish, French and Dutch.

Schotte's book is an important contribution to maritime history and absolutely should be on the shelf of all interested in the details of seafaring life in the age of sail, as well as those studying Europe's centuries of expansion and conquest. I strongly recommend this book accordingly.

As a final note, to return to my own navigational experiences, *Norie's Nautical Tables* was first produced in 1803 and so is itself the product of the centuries of navigational development that Schotte has so ably presented in this book. *Norie's* remains available to this day notwithstanding the advent of GPS.

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Mark Stille. Osprey Campaign #144: Java Sea 1942. Japan's Conquest of the Netherlands East Indies. Oxford, UK; Osprey Publishing, www.ospreypublishing.com, 2019. 96 pp., illustrations, charts, bibliography, index. UK £14.99, US \$24.00, CDN \$32.00, paper; ISBN 978-1-4728-3164-4.

When the Japanese military attacked the Western possessions in Asia and the Pacific in December, 1941, they did so to enable a conquest of the resource-rich Dutch East Indies (now Indonesia). After conquering British Hong Kong and Malaya/Singapore, while also pinning down American forces in the Philippines, the Japanese military focused their attention on the Dutch East Indies. In Java Sea 1942. Japan's Conquest of the Netherlands East Indies, Mark Stille relates the naval battles, including the climactic historic surface battle that resulted in the Japanese having a virtual open door to invade the key island of Java.

Soon after the Japanese attacks on Pearl Harbor, Hong Kong, Malaya, and the Philippines, the Americans, British, Dutch and Australian military formed the ABDA command to face the Japanese onslaught. The Americans had suffered a major defeat in the Pearl Harbor attack, lost possession of Wake Island and Guam, and faced the Japanese in the Philippines. The British had combat forces in North Africa and had to defend the Indian Subcontinent. Australia had its combat troops in North Africa. But the Dutch also faced significant obstacles to defending its colony: the German Army invaded the Netherlands in 1940 and the Dutch Government-in-Exile was based in London. The Royal Netherlands East Indies Army was small, moderately equipped, and composed largely of native soldiers. Moreover, the Dutch East Indies (now Indonesia) consists of hundreds of islands throughout the Pacific. Many of the native islanders were naturally hostile to the Dutch. Moreover, the underlying strategies of the ABDA governments differed: the Americans wanted to save the Philippines; the British wanted to save Malaya/Singapore; Australians naturally wanted to prevent a Japanese takeover of their continent; and the Dutch wanted to save their colony. While ABDA command seemed unified and coherent, the reality was much different.

The Japanese force that faced this combined opposition was well-trained and better-equipped than its adversaries; the A6M Zero fighter airplane of the Imperial Japanese Navy was the best carrier fighter in the world at that time, able to outperform any aircraft that the Americans, British, Dutch, and Australians put up against it. The Imperial Japanese Navy also had the Type 93 "Long Lance" torpedo, able to operate at great distances by well-trained crews. The Japanese army had officers and men that had seen combat in China during the period 1937-41 which meant that ABDA was up against a truly formidable foe.

The key to the Dutch East Indies was the island of Java—the centre of Dutch administration. Starting in late December, 1941, the Japanese systematically attacked and conquered Dutch islands—among them, Borneo, Sumatra, Timor, Bali, Ambon, and many others. By late February, 1942, Java was surrounded and the Japanese had almost complete mastery of the air over the Dutch East Indies. It was only a matter of time before the Japanese invaded Java.

Stille's book describes the naval efforts to prevent the invasion of Java. Before narrating the sea battles, he analyzes the background to the East Indies campaign, which is helpful for those unfamiliar with the history of them 1941-41 Pacific War. He further relates biographies of the opposing commanders on both sides, their fleets and battle plans.

He then analyzes the four naval battles that made up the Java Sea campaign. These were primarily heavy and light cruiser and destroyer battles, with no battleships from either side involved. The first battle mentioned is the Battle of Balikpapan on 24 January 1942, when U.S. Navy (USN) destroyers sank four Japanese troop transports and a patrol boat. It was the sole ABDA naval victory of the Java campaign, but did little to stem the Japanese advance.

The next battle occurred 19-20 February 1942, in the Badoeng Strait, when a force of American and Dutch destroyers, together with the Dutch light cruisers *De Ruyter*; *Java*, and *Tromp*, tried to prevent the invasion of the island of Bali. The result was a Japanese victory; one Dutch destroyer was sunk, the Dutch light cruiser *Tromp* was damaged and had to sail to Australia for repairs, and a USN destroyer damaged and sent to dry dock.

The most famous battle of the Java campaign came next, the Battle of the Java Sea on 27-28 February 1942. In this, a naval force of American, British, Dutch, and Australian ships faced a Japanese invasion fleet headed for Java. The Dutch Admiral Karel Doorman commanded the fleet-a "no-win" assignment. Units of four different navies (USN, Royal Navy, Royal Netherlands Navy, and the Royal Australian Navy) speaking different languages (Dutch and three different English dialects, with different operational methods, set out to face the Japanese invasion force. It was no contest; Doorman did his best, but the result was a loss of the Dutch light cruisers De Ruyter, Kortenaer, and Java; significant damage to HMS *Exeter;* and the loss of HMS *Electra*. Doorman, in keeping with classic naval tradition, died when De Ruyter sank.

The ABDA agony was not finished; the day following the Java Sea battle, the Japanese sank the heavy cruiser USS *Houston* and the light cruiser HMAS *Perth* and cleared the way for the Japanese invasion of Java. After some ground fighting, the Dutch Army commander surrendered Java on 8 March 1942. Some fighting continued for three weeks when the last Dutch garrison on northern Sumatra surrendered on 28 March. The Japanese had completed their conquests.

The Battle of the Java Sea, involving as it did American, British, and Australian ships, has been related in many English-language books on the Pacific War. So, does Stille's book fill a need? The answer is yes. *Java Sea 1942* is a coherent account of these early naval

battles. He includes many photographs of the ships and commanders. The book has several "in action" colour plates depicting the agony of Second World War naval combat. Most useful are the charts included showing the ships' movements during the battles. This adds clarity to the narrative and enables the reader to grasp what took place. Stille, a retired USN Commander is unsparing in his evaluations. He shows that Vice-Admiral Conrad Helfrich, commander of the Dutch naval forces, was not an effective commander. History has painted Karel Doorman, and Stille agrees with this, as a task force commander who was given an impossible mission, did the best he could, and died bravely. In short, Java Sea 1942 is a book worth purchasing.

In November, 2016, an article appeared stating that the wrecks of *De Ruyter* and *Java* were missing from the sea bed—probably plundered by scrap metal hunters. As well, the wreck of *Kortenaer* showed damage. The wreck of USS *Houston* may still be in good shape, but it is the final tragedy of the Java Sea campaign that the ships that comprise the last resting place of so many valiant sailors may fall victim to scrap metal pirates.

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Graham A Thomas. *Pirate Hunter*. Barnsley, S. Yorks: Pen and Sword, www.pen-and-sword.co.uk, 2019. xi+176 pp., illustrations, notes, bibliography, index. UK £12.99, US \$24.95, paper; ISBN 978-1-52676-077-7.

The life of the man who was arguably the most important figure in ending "the golden age of piracy" is from that fact alone remarkable. To describe that said person, Woodes Rogers, as such however would be unfaithful. Rogers life story is an epic biography that comes to light in the pages of *Pirate Hunter*.

The reader will find the irony of the title shortly after diving into the work, for Rogers before he became the bane of Caribbean pirates was himself not all too different from those he would later fight against. To be fair, the reviewer will admit that a privateer wasn't exactly a pirate, but the Spanish colonies of the Pacific nevertheless were raided by the man during a voyage emulating that of Sir Francis Drake.

Rogers was born into a well-established seafaring merchant family and at age 18 had gone to sea. Following a seven-year apprenticeship he had moved to Bristol and married the daughter of Royal Navy Rear Admiral Sir William Whetstone. It is from this man the author writes that stories of the wealth of Spanish empire melded and formed in Rogers' mind to lead an expedition that would make him a rich man.

What follows is an adventure story lasting from 1 August 1708 to 14 October 1711. Starting out as two-ship privateering expedition, Rogers and his fellow captains sailed from Bristol into the Pacific--battling mutiny along the way, sacked the Spanish town of Guayaquil, captured the treasure galleon Encarnación, survived a horrific musket wound through the mouth, lost his brother who was killed in battle, and brought his two ships plus prize back to England three years later. The voyage is told in great detail by the author who highlights that overall Rogers' most important personality trait was that of perseverance. Despite having been the de-facto leader of the expedition it was however mainly funded by others and each had their representative on the 'council' that was to make the decisions throughout. The largest investor was also made chairman, a physician by the name of Thomas Drover with

whom Rogers would constantly battle. Nevertheless, Rogers accomplished the aim of expedition, brought his ships and most of his original crew back home.

The second half of the book is about the period where the book gets its name. Although successful his previous voyage was, financially the rewards were small and after he had paid amounted debts, been sued by his former crew, and even written a famous book on the voyage-- the net balance was bankruptcy. So Rogers hoped a new expedition against the pirates in the Caribbean would get himself out of his predicament. In the end Woodes Rogers served two terms as the Royal Governor of the Bahamas from 1718-1721 and again from 1728-1732. During this period Rogers cleared the Islands of Pirates, survived the threat of Spain, lost his governorship and was imprisoned for debt before returning for a second term before literally dying still trying to build a successful colony.

It is evident that the narrative alone is already a great 'story' so there is a substantial amount of substance for the author to have wrestled with while relating this man's life to the reader. This of course was used but what also jumps out at the reader is the fastidious research in the archives and primary source work that was done. Rogers' journal appears to have been a key source and we become convinced that the man was forward thinking, had a plan, and was resourceful enough to get it done one way or another. This is perhaps best demonstrated during his first term as governor of the Bahamas where he found the correct balance between harsh but fair rule. Hanging men when needed or a quick lashing and then released back into the populace.

In a few places the reader is left with some unanswered questions. Prime example being that during his tenure as governor, Rogers wrote letter after letter to the appropriate authorities in England, asking, and essentially pleading for aid that were never answered. The author notes that these were all received as they are accessible in the archives, so they were read but himself asks the question "why did they not respond?" (128). As readers we never do get the answer and that avenue of research on the topic is left unexplored.

Any reader will throughout the work certainly begin to 'feel' for Woodes Rogers as the author does a fantastic job of bringing his struggles and ideals to life for us. Graham Thomas even admits right in the Preface "Rogers was a hero." (xi) The only caution here is that as good historians we have a job to do too. This reviewer can still hear his former mentors reminding constantly to consider the source and read evervthing with the most critical eye. An example being that Rogers raiding voyage around the world is presented in the book of having been Rogers' own idea. Other writers have pointed out though that William Dampier, who would be Rogers' pilot on the voyage (an already having completed two circumnavigations), was the one who had suggested the idea as his own career was fading rapidly. Furthermore, within the book Rogers is constantly arguing and bickering with people and at one point literally beating people over the head to get things done. One cannot wonder if perhaps it was Rogers who the difficult one?

Overall, one is captured by the story throughout. In line with the publisher's style there are few footnotes but as mentioned about much work in the primary sources was done to produce this work. One nagging comment is that a detailed map of the voyage and one of the Caribbean would have been nice, but we can make do without. The details, the personal intrigues, and an immersion into the period are just a few things *Pirate Hunter* offers and an incredible biography of a man who was deeply goal driven and died still working toward them. Anyone seeking a period biography or a fantastic sea story should have a read.

Christopher Kretzschmar Rusagonis, NB

Kazushige Todaka and the Kure Maritime Museum (ed.), Robert D. Eldridge (translation). *Aircraft Carriers and Seaplane Carriers: Selected Photos from the Archives of the Kure Maritime Museum*. Annapolis, MD: Naval Institute Press, www.usni.org, 2020. 235 pp., illustrations, tables. US \$75.00, cloth; ISBN 978-1-68247-421-1.

Part of a newly translated six-volume series, this work is a photographic compendium of the Imperial Japanese Navy's wartime aircraft carriers, seaplane carriers, gunboats, and dispatch vessels first released by the Kure Maritime Museum of Japan in 2005. Translated into English through the efforts of Frank M. Gren and Robert D. Eldridge, this compilation is largely built around images collected by former Imperial Japanese Navy Commander Shizuo Fukui, selected for "both their historical value and their artistic beauty" and depicting all vessels of the above-mentioned ship types, to include examples not completed before Japan's surrender (3). Given the widespread destruction of material during and after the Second World War, the availability of some of these images is extremely rare, with some vessels only having a few known images extant. For the sake of image clarity, text in this work is minimal, with a vast majority of photographs rendered as either full pages or double pages. The labeling of all

images follows a standardized format, listing the photograph's identification number, ship's name and class (if applicable), and a one- or two-line caption containing the date and a short description. A collection of standardized ship specifications follows the photographic section, with a brief one- page summary of the Kure Maritime Museum closing out the work.

The majority of photographs presented naturally deal with aircraft carriers and seaplane carriers of the Japanese fleet, totaling 140 pages of images. Twenty-nine aircraft and eight seaplane carriers are represented, arranged within their own sections in chronological order for each vessel's start of construction. No distinction is made between full, light, escort, conversion, or uncompleted vessels, and the Imperial Japanese Army's half -dozen escort carriers/landing craft carriers are not represented. The older carriers offer a good variety of prewar construction and testing images, allowing one to see construction images alongside defensive armaments, exhaust systems, and aircraft not present in their more iconic Second World War configurations. There is an odd gap of wartime photographs for some of these ships, such as the Kaga, Ryujo, Soryu, and Hosho, with the latter's depictions jumping from September 1924 to October 1945 (16-17). Some wartime photos of these vessels do exist, but their absences could be a result of the images not meeting the museums selection criteria. An interesting collection of comparison images rounds out this section, depicting the pre-war passenger liner configurations of Nitta Maru, SS Scharnhorst, and Aruzenchina Maru prior to their wartime conversions into the carriers Chuyo, Shinyo, and Kaiyo, respectively (116-121). The much smaller section on seaplane carriers that follows does offer some impressive views dating back to 1914. A large percentage of these images are pre-1941, with just six images dated 1941 or 1942. Of particular note are the profile and seaplane recovery images of IJN *Wakamiya* in 1914, 1917, and 1935 versus those of IJN *Akitsushima* in 1942, which together offer a solid visual comparison of the ship and seaplane evolutions undertaken by the Japanese between the two World Wars (125-127, 146-147).

Unmentioned in the title is the second half of the work's images consisting of photographs of Japan's gunboats and dispatch vessels. Covering 58 pages, these photographs are largely of older vessels than the earlier sections' carriers, with the earliest images dating to the late 1870s. There is also a high number of captured and re-purposed ships in this section as well, including Chinese gunboats taken in the Sino-Japanese War, the scuttled HMS Moth, former USS Wake and Luzon, Italian vessels scuttled in 1943, and Russian vessels captured or recovered during the Russo-Japanese War. The inherent variety in such designs is quite noticeable, and one can follow design progressions from side-wheel steamers and screw-sloops to modern steelhulled gunboats and converted cruisers. A few of the captured and re-purposed gunboat photos are of the smaller variety, with two to three images on a page, but this is in no way a detraction from their representation.

The final 29 pages constitute the bulk of the work's textual information, containing technical specifications and service timelines for the represented ships. Three columns are allocated per page, detailing name, type, length, beam, draught, displacement, speed, armament, propulsion, boilers, and power in a block. This is followed by information regarding the ship's planning date or hull origin, builder, and major construction milestones. Finally, a simplified timeline of primary events rounds out the section. Oddly, Second World War service is often highly simplified, such as IJN *Shinyo*'s entry of "1944 World War II: escorted convoys" or IJN *Suma*'s "1942-45 Patrolled the Yangtze River" (216, 231).

In terms of possible improvements, a few come to mind. The specification information, currently clustered together after the photographic sections with no divisions, could be broken up and inserted with the ship types or sub-classes to better pair the information, offer some analysis throughout, and create more distinct divides between ship types, classes, and one-off designs. Additionally, all vessel names are in their romanized Japanese. The additional inclusion of exact translations: for example, IJN Chitose means Thousand Years or IJN Zuikaku is the Auspicious Crane, would add a detail often lost in works on the Japanese fleet. Occasionally, some photograph dates appear to be in error. This includes close mistakes, such as a 1938 photo of *Hiryu* marked as 1939 (56). More glaring examples include a 1944 date on a photograph of IJN Shoho, sunk May 7, 1942, and a 1946 date listed for the gunboat Hosho, a vessel scrapped in 1907 (90, 150). An editorial sweep could easily rectify this. Finally, the inclusion of an appendix of colour plates would be much appreciated. Imperial Japanese hull and flight deck camouflage patterns were unique during the war, and some of the detail and vibrancy is lost when they are only seen in black-and-white images. To include colourized views of the Zuiho's black, green and brown decking, seaplane carrier Akitsushima's unique spotted patterns, or the disruptive false hull outlines painted on the sides of some carriers in the same book as these

photographs would add yet another dimension to an already impressive work (97, 146).

Aircraft Carriers and Seaplane Carriers is an impressive image repository and a most welcome addition to the English language historiography of the Imperial Japanese Navy. The rendered size and clarity of a majority of the images is impressive, with the earlier glass plate negative pictures offering incredibly sharp levels of detail. The inclusion of gunboats and dispatch vessels alongside the more well know carriers of the IJN further illustrates the variety of vessels built, seized, or converted by the Japanese Navy of 1868 to 1945, and the chronological nature of the layout gives a visual record of design changes and evolutions across both vessel types and some individual vessels as well. For those interested in carriers, gunboats, or dispatch vessels of the Imperial Japanese Navy, this is an excellent visual source for a variety of rare construction, operation, and final disposition images.

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Conrad Waters. British Town Class Cruisers: Design, Development and Performance Southampton and Belfast Classes. Barnsley, South Yorks, UK: Seaforth Publishing, www.seaforthpublishing.com, 2019. 320 pp., illustrations, tables, appendices, bibliography, index. UK £40.00 RRP, cloth; ISBN 978-1-5267-1885-3.

This work is a "technical history" of the Royal Navy's ten Town Class Cruisers from their initial inception to final dispositions (6). Most works regarding these vessels, Britain's most modern light cruisers at the outbreak of the Second World War, are either individual ship studies or specifically wartime focused. Waters aims to improve the historiography with his in-depth research into class origin, construction, and ship histories from keel-laying to final disposition. Of the six Town cruisers to survive the Second World War, one, HMS Belfast, was preserved in 1971 as a museum ship on the Thames River, making the Town Class one of the most recognizable Royal Navy designs in the minds of the general public. In order to fully examine these warships, Waters utilizes original plans, period photographs, and schematic renderings of battle damage throughout the work, offering class-wide examinations of design, construction, and modifications in addition to vessel-specific wartime service and postwar dispositions. A final "Evaluation" of the Town Class acts as the conclusion, with three appendices on ship camouflage and appearance, the Supermarine Walrus, and ship battle honours preceding the bibliography and index.

Waters' work can be viewed as three acts, pre-war, wartime, and post-war. The pre-war design and construction phase is an interesting study in itself, first tracing the development of British cruisers in the lead-up to the Washington Treaties, before closely following the evolution of design submissions and changes that would eventually result in the Town Class. This includes the preliminary trade protection cruiser 'K' sketches, whose modified 'M' class design gave birth to HMS Southampton, utilizing tables, schematics, "as fitted" plans, and pre-war photographs to further highlight the process. Footnotes with additional research sources and interesting notes are positioned throughout the text. Waters includes a series of tables that are helpful as well, to include construction time tables, tender prices, launch details, sea and incline trials, and squadron allocations for all four building programs from 1933 to 1936. The design description chapter is a robust 43 pages, offering solid information on the standardized elements such as layout, propulsion, command and control, and armament, to include outlining variations between the four building programs as well. A comparison schematic of the bridge decks for *Southampton, Manchester*, and *Edinburgh*, for example, exemplifies the debates over design merits ongoing during construction by showcasing the three different, yet clearly related, layouts used by the Town designs (106).

The work hits its stride in the middle chapters, Wartime Improvements and Wartime Operations and Performance, which together constitute 115 out of the main text's 287 pages. Wartime improvements examines "the technological enhancements" main and ship-specific upgrades applied in the early-, mid-, and late-war periods (114). Once again, strong use of photographs, tables, and schematics enhances reader understanding of the minutiae documented by Waters, from radar and armament to protection and habitability. The Operations and Performance chapter begins with an overview of the class as a whole, covering deployments, surface actions, aerial attacks, and damages incurred. Tables outlining damage inflicted on enemy forces and damage occurring on the Towns themselves are also provided for quick reference. Each ship is then examined in turn, chronicling their wartime service and damage. Naturally, the text devoted to each ship varies, based on how much action was seen in wartime. Major damage is rendered on profile schematics and paired with period photographs when available to further illustrate what Waters describes in the main text. Most impressive is the sections related to the loss of HMS Liverpool's bow from damage sustained on 14 October 1940, which has a series of photographs not only showing the section's loss, but its rebuild at Mare Island as well (178-179, 213-215).

The two chapters on post-war requirements, refits, operations, and disposal follow similar lines to their wartime counterparts, outlining in the general actions taken with the six surviving Town class ships as a whole before summarizing each individual vessel's post-war career. The length of this latter section depends largely on the length of the vessel's survival, with the preserved Belfast receiving the longest post-war analysis. A final three-page evaluation of the Town designs, examining the class' performance in regard to staff requirements, design flexibility, and operational performance concludes the main body of text, with Waters arguing in favour of the success of the The appendices that follow design. are a nice addition, especially the one on camouflage and appearances, whose colour plates add a detail not otherwise visible in the period photographs in the main body of work and can be helpful in dating photos or for modelers seeking to recreate a specific view of the various Towns in service.

In terms of possible improvements, few come to mind. Waters makes mention in his preface that there are gaps in surviving records and even offers his contact e-mail if one finds an error or new information for future editions, a facet not commonly seen in published works. There are some spelling mistakes in the text, such as 'page' spelled 'pahe' and 'Programme' typed 'Pr-Ogramme,' which could be solved with an editor's sweep (32, 107). An expansion of the Index might be possible to allow for more detailed quick reference, although the current one is functional. The location and inclusion of additional period colour photographs would be beneficial to aid the appendix on camouflage and colouration, however, such images are rather rare, so the presence of only two in the work is understandable and in no way a detraction (296).

British Town Class Cruisers is a fine addition to the historiography of both Royal Navy cruiser design of the early- to mid-twentieth century and the service histories of each vessel. Given that the museum ship HMS Belfast is perhaps the most iconic survivor of the Second World War era Royal Navy, Waters' writings can aid the public in understanding the life of the last Town cruiser, and aid academics by providing solid wartime and post-war information on her sister ships not previously compiled in such a manner. With the heavy action seen by the Town cruisers so soon after their construction, it is fitting that someone so clearly devoted to telling their story as accurately as possible undertook this work, and it is doubtless that Waters' scholarship will serve as a solid foundation for further research into the Royal Navy's cruiser force in the Second World War and Korea.

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Conrad Waters (ed.) *World Naval Review 2020*. Barnsley, S. Yorks; Seaforth Publishing, www.seaforthpublishing. com, 2019. [Distributed in the US by Naval Institute Press.] 192 pp., illustrations, tables, notes. UK £35.00, US \$55.95, cloth: ISBN 978-1-5267-6062-3. (E-book available.)

In examining World Naval Review editions over the last few years, one is struck by three trends. First, many navies once considered small are expanding both in terms of numbers and types of ships and their size. Viet Nam owns Russian-built submarines and frigates, Bangladesh operates submarines, Myanmar has frigates, and the city state of Singapore has submarines, frigates and a lot of missile-armed patrol vessels.

Secondly, more countries, like Turkey and Indonesia, have become able to build effective warships and even export them. Turkey is building submarines and corvettes. Indonesia, with technical help, is building submarines to a South Korean design, and has not only built amphibious transports docks (LPDs) but supplied one to the Philippines. The larger navies with established design and construction capability: South Korea and especially China, are exporting warships as well as enlarging their own navies, although Japan is not prominent in the export market. India is finding it difficult, mostly for financial reasons, to meet its own requirements and continues to cooperate closely with Russia, while China is assisting Thailand and Pakistan. Nevertheless, Spain, France and Italy are still receiving orders from countries like Egypt and the Gulf States. There is less of a demand for older decommissioned USN and European warships as everyone is seeking the latest in stealth, electronics and advanced weaponry.

Finally, there has been a proliferation of surface warships under the rating of frigate. There are many interesting photos in WNR 2020 illustrating their diversity. They may be called small frigates, corvettes, littoral combat ships (USN), guard ships (Russia), missile vessels or offshore patrol vessels (OPV), and vary from being heavily armed to having principally fishery protection or police duties. Our Canadian version is the AOPS—the Arctic/Offshore Patrol Ship, which is quite a large ship, displacing more than our present frigates. Six have been ordered for the Navy, plus two for the Coast Guard.

There have always been factors which cause the size of warships of every class to be enlarged over time. For example, frigates, which today can be considered the most common general-purpose surface fighting ships, started in the Second World War at about 1400 tons, displaced about 2500 tons in the 1950s/60s, grew to 4500 tons in the 90s and future examples will be 6000 tons. A heavily armed warship of 3000 tons is now quite likely to be classed as a corvette, a long way from the little *Sackville* at her pier in front of the Halifax Maritime Museum. But another trend, to drones or uncrewed vehicles (UAVs), leads in the opposite direction. With no crew to accommodate, a lot can be packed into a smaller vehicle. It should also be noted that some navies, notably the United States and Britain, are finding it difficult to recruit personnel. The Royal Canadian Navy and our Coast Guard are having a similar problem

To anyone with a sense of naval history these are fascinating developments to follow.

This year's World Naval Review keeps the layout of its predecessors: an introductory overview followed by four regional reviews, all by the editor, Conrad Waters. Each regional review: the Americas, Asia-Pacific, Indian Ocean and Africa, Europe and Russia, provides short descriptions of all navies that have any pretence of effectiveness, supported by informative tables, illustrations and photographs. The Chinese People's Liberation Army Navy is not as much featured in this issue as in the past, although it is the second most powerful navy in the world and actually has more ships than the United States Navy.

Within the regional reviews are articles on specific navies by other experts. One change this year is that all reviews focus on just one of the regional sections—Europe. Richard Beedall's survey of the Royal Navy provides an admirable explanation of its bases, stations, ships, weapons and tasks. With the new Queen Elizabeth class aircraft-carriers, the RN is again capable of world-wide power projection, or at least that is its ambition, but other types of ship seem to continually reduce in number and there are hardly enough sailors to crew those left. The German Navy, (article by Dieter Stockfisch) was greatly reduced in the 1990s as the Cold War ended, but continued to introduce innovative technology. Germany has been contributing to policing and anti-piracy patrols in the Indian Ocean but attention is now returning to the Baltic and North Sea. It has a special expertise in mine countermeasures and shallow water operations. The force, described by Guy Toremans, is that of Finland, which is close to its neighbours but has an extremely complex coastline with myriad islands and rocks and wisely concentrates on coast defence including mine warfare.

In the third section, Mrityunjoy Muzumdar describes the Indian Navy's indigenously designed and built anti-submarine corvettes, the Kamorta class. Four of these have now been delivered. The 'Tide' class (article by the editor), is a group of five fleet tankers, four built for the British Royal Fleet Auxiliary and one for the Norwegian Navy. They are able to provide some other stores and support helicopter operations. They were designed by BMT Defense Services but built by Daewoo Shipbuilding and Marine Engineering, Okpo, South Korea, with equipment of a naval or classified nature being installed later at Falmouth. All four RFA ships should be in service by the time this review appears as well as HNoMS Maude. That article is by the editor.

The US Navy's *Virginia* class attack submarines are described by Norman Friedman, who also contributed the article on future submarine technology in the fourth section. The *Virginias* are replacing the *Los Angeles* class. Two units per year have been authorised, a pace which will have to be stepped up in the future if goals are to be met. The increased possibility of uncrewed submarines is discussed in Dr. Friedman's article on future trends.

Section Four also includes the usual review of naval aviation by David Hobbs. This covers fleet aircraft carriers, other classes with decks capable of operating aircraft and those limited to helicopters. Hobbs points out that a CVN (nuclear-powered carrier) would have cost the Royal Navy as much as three Queen Elizabeths. He also surveys the aircraft themselves, particularly the US Navy's inventory and planned production. Finally, there is an article on Brazilian submarine development by Richard Scott. All these are well worth reading and give a good idea of why these ships and submarines are required by their respective navies, along with their characteristics and the difficulties encountered in construction and delivery.

The quality of the book is very high. It is lavishly illustrated with well chosen photographs, some quite dramatic, mostly black and white but none the worse for that. It is printed in China!

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