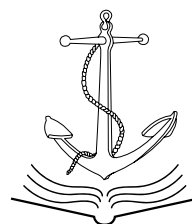


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The need for a New Naval History of The First World War

James Goldrick



KING'S
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Key Points

- The history of naval operations in the First World War urgently requires re-examination. With the fast approaching centenary, it will be important that the story of the war at sea be recognised as profoundly significant for the course and outcome of the conflict. There is a risk that popular fascination for the bloody campaign on the Western Front will conceal the reality that the Great War was also a maritime and global conflict.
- We understand less of 1914-1918 at sea than we do of the war on land. Ironically, we also understand less about the period than we do for the naval wars of 1793-1815. Research over the last few decades has completely revised our understanding of many aspects of naval operations. That work needs to be synthesized and applied to the conduct of the naval war as a whole.
- There are important parallels with the present day for modern maritime strategy and operations in the challenges that navies faced in exercising sea power effectively within a globalised world. Gaining a much better understanding of the issues of 1914-1918 may help cast light on some of the complex problems that navies must now master.

James Goldrick is a Rear Admiral in the Royal Australian Navy and currently serving as Commander of the Australian Defence College. He has seen extensive sea service, including ship and task group command, and has also lectured and published widely on naval history and naval affairs. His first book *The King's Ships Were at Sea* (USNI, Annapolis, 1984) was a study of the opening months of the Great War in the North Sea.

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Introduction

The author's argument is that the history of naval operations in the First World War, particularly the history of the British Navy in that conflict, urgently requires re-examination. That urgency is based on two factors. The first is that the centenary of the Great War is rapidly approaching. The risk is that popular fixation with the war on land will overwhelm any attempt to understand the nature and the significance of the war at sea. Britain will run the gamut of Mons to the Hindenberg Line, while Australia will fixate on Gallipoli to Le Hamel. As far as the naval side is concerned, it will be a mix of the Dardanelles, Jutland and submarines...and not much else. Yet there is a naval story to tell and one, if it does not have the mass slaughters of the western and eastern fronts, that possesses its own poignancy, its own record of sacrifice and heroism – and its own significance in what the maritime war meant for the whole conflict.¹

The second justification is professional, based on an assessment that there are important similarities between the globalised world of 1914 and that of 2011 and some potential parallels in the difficulties that navies faced in terms of managing technological change and emergent threats and understanding how maritime power should be applied. Present day navies in some ways are facing an existential crisis and there may be reflections of this in the struggles of the services of 1914 to determine just how their capabilities should best be employed – a struggle that had elements at the strategic, the operational and the tactical levels of warfare. If we can understand better what was going on in 1914, we may perhaps receive some insight into the questions that navies need to be asking in 2011.

The Official Histories

There is, of course, another reason for a new operational history and the most important one for historians. The fact that *Naval Operations*, the official history of the Royal Navy in 1914-1918, was written so soon after the war² meant that the protagonists were vitally involved in its writing and often influenced or limited the authors' conclusions, despite the undoubted integrity of both Sir Julian Corbett and Sir Henry Newbolt. Furthermore, much information, particularly that relating to signals intelligence and technological development, remained classified. Such problems also applied to the early official analyses, whether intended for the public domain or not, as in the case of the Admiralty's *Naval Staff Monographs* of which the author made substantial use in his own study of North Sea operations in 1914-15.³ Andrew Gordon has detailed something of the appalling behaviour of Admiral Beatty over the various accounts of Jutland⁴ but the issue ran wider than that. As Vice Admiral Sir Peter Gretton noted in *Former Naval Person*, the more one reads *Naval Operations* 'the more one realizes how the author was shackled by the Admiralty....There are many omissions of errors and no candid comment.'⁵ Corbett's travails have been recorded by Donald Schurman and the fact that the first three volumes of *Naval Operations* continue to possess as much value for the historian as they do is a tribute to Corbett's ability (and, in Schurman's words, to his 'partisan cunning'⁶). Nonetheless, even discounting the constraints and acknowledging Corbett's achievement, a ninety year old official history is insufficient.

It would be impossible to speak of the historiography of the Royal Navy in the Great War without reference to Arthur Marder and his five volume series *From the Dreadnought to Scapa Flow: The Royal Navy in the Fisher Era, 1904-1919*. This was a remarkable accomplishment and it did in some part achieve a coherent analysis of the RN in the era. That analysis was necessarily, however, incomplete and also suffered because the series was not conceived as such from the outset, but 'grewed like Topsy' from the original concept of a single volume.⁷

To be fair to Professor Marder, the first volume will celebrate the golden jubilee of its publication in 2011 and it is some forty years since the fifth volume appeared on the streets. The first volume does not have the benefit of British official archives at all. The later books were written with the privileged access to the Admiralty Library which Marder was given before the replacement of the fifty year rule with a thirty year one in 1968, but only the fifth volume and the revised 1978 edition of the third dealing with the Battle of Jutland, enjoyed full use of the Public Record Office (TNA) material.⁸ Furthermore, research methods have advanced significantly in half a century with the availability of photo-copying, digital cameras and other recording devices which have permitted historians to be much more comprehensive in their collection and assessment of evidence.

It is not proposed to discuss here all the changes in our understanding that have come from more recent work, changes that have invalidated a number of Marder's judgements and certainly profoundly altered, generally for the better (and to that Service's advantage), our knowledge of the RN in the decade before 1914. Nor will this article enter the lists of the Roskill-Marder controversies.

It is, however, appropriate to give one example of the concerns with Marder's thesis, not necessarily related to the availability of archival material, to explain why more needs to be done. In the first volume of *From the Dreadnought to Scapa Flow*, the 1909 Imperial Conference, the associated offers of dreadnoughts by New Zealand and Australia and the establishment of the Dominion navies rate rather less than two paragraphs. However parochial an Australian observer's perspective may be in relation to this issue, it is strongly arguable that the 1909 Conference, the fleet unit concept and its execution, were of sufficient strategic importance to the Royal Navy and to the maritime defence of the Empire as a whole, to deserve rather more attention than this. But they do not get it and, a brief mention of the Canadian dreadnought controversy of 1912-14 aside, they continue not to do so for the remainder of the series.⁹ In this and other ways *From the Dreadnought to Scapa Flow* fails to regard the RN or its

responsibilities on the global scale that they require. The fact is that Marder is also not enough.

Strategy and the Role of Navies

It is true that the historiography of the navy in the Great War has improved considerably over the last thirty five years and opened up aspects that earlier historians never considered. The analysis of the elements of pre-war naval policy driving the decisions of the Royal Navy in particular and in which Jon Sumida with *In Defence of Naval Supremacy* and Nicholas Lambert with *Sir John Fisher's Naval Revolution* have made such an outstanding contribution, has fundamentally changed our perspective. Other historians have built on this work or proceeded in new directions. In addition, the publication of substantial amounts of archival material and personal papers by the Navy Records Society and the publication in English of comprehensive studies of the activities of other European navies than the British have extended our understanding of the whole. In this regard, historians such as Paul Halpern have made a particularly important contribution,¹⁰ just as have technical histories such as Norman Friedman's recent *British Destroyers*¹¹ and Ian Buxton's *Big Gun Monitors*.¹² There has also been fruitful work on other technological aspects such as anti-submarine warfare,¹³ mine warfare¹⁴ and signals intelligence¹⁵ that have moved us substantially on from the situation that prevailed in 1975.

Nevertheless, what has been achieved is not enough because it has yet to be brought together as a whole. This becomes particularly apparent when one compares naval history with that of land forces, particularly on the Western Front. While debates continue and many issues remain to be resolved, there is now a body of sophisticated work which has profoundly changed our understanding of the unfolding of the land war, dispelled many of the legends of 'lions led by donkeys' and conveyed above all to even the most superficial students of the

period some understanding of the complexity of the military environment in 1914-1918 and in particular, the learning curve that all concerned needed to follow. In terms of developing a comprehensive understanding of war at sea as a whole in the Great War, this has yet to happen, despite the achievements of a number of extremely able historians. The popular understanding of the naval conflict remains incomplete – and what there is, in short, is ‘too much Jutland’.

It is significant that the top selling operational naval history in recent years is Robert Massie’s *Castles of Steel* (although Andrew Gordon’s much more profound study of Jutland, *The Rules of the Game*, may have been nearly as much a popular success, particularly in naval professional circles). The author has elsewhere criticized the mismatch between Massie’s remarkable ability to tell a story and his under-utilisation of the most recent research of academic historians in ensuring that the story is as complete as possible.¹⁶ Furthermore, the episodic nature of the narrative of *Castles of Steel* is typical of most naval accounts of the Great War over the last century, such as Richard Hough’s *The Great War at Sea, 1914-1918* and Geoffrey Bennett’s *Naval Battles of the First World War*.¹⁷ It may have been reasonable for one of the most decorated veterans of the naval conflict to entitle his 1919 memoir *Falklands, Jutland and the Bight*,¹⁸ but it is not appropriate for modern historians to take such an approach.

The best popular history should be derived from the most comprehensive understanding possible of the historiography of the subject and not something that, consciously or otherwise, under-rates the sophistication of the reading public. It is not the duty of popular historians necessarily to do primary research for themselves, but they need to become masters of the academic output and represent that inevitably specialized and occasionally arcane product to the wider audience. There has been too little of this in naval history in the past – with the recent outstanding exception of the Napoleonic period – and the lack of it in the First World War is particularly clear.

Operations and Technology

Despite the excellent work that has already been done, the level of understanding of the land war of 1914-1918 that now prevails does not exist for the navy and it does not exist because there has yet to be a systematic effort to fuse the new research with analysis of the other key aspects of the naval war and the operational record. With the passing of the last veterans of the Great War and despite the historiographic achievements already listed, it is arguable that we are, in some ways, further away from a deep understanding of the war at sea than we were in 1975, when many adult veterans of the Great War were still hale and hearty. For, in the absence of systematic analysis, we no longer possess real understanding of the way in which ships were worked and fought in the 1914-1918 period. Ironically, the public interest in the Napoleonic era and the combination of extensive historical research, some excellent and historically informed fiction¹⁹ and the operation of a number of successful replicas, as well as the continuing utilisation of square rigged sail training by so many navies and marine organisations have meant that our comprehension of what was happening onboard the *Victory* and her sisters in 1805 is probably much greater than it is for the *Iron Duke* and the Grand Fleet in 1914, let alone 1916.

The problem exists at several levels. At the strategic level, and this relates to the point about the particular interest in the period for a professional naval officer of the present day, we do not fully understand the challenges of role and function that navies, particularly, but not only the Royal Navy faced in developing and implementing a war winning strategy. What we know of the evolution of the blockade remains incomplete, as does our understanding of its strategic effects in the wider economic context. Greg Kennedy and others have started the analysis of this extraordinarily complex question while Nicholas Lambert is completing a study that I believe will be profoundly important. Nevertheless, there is much more to do and much more to be learned in terms of the world wide operation of the maritime economic conflict.²⁰

What we know of the challenges of supporting and sustaining a navy is better than it was, particularly through the work of Jon Sumida,²¹ but this has not been fully related to the progress of the naval war and the drivers behind the disposition of forces – and even less analysed for the important Mediterranean theatre and other foreign stations than it has been for British home waters.

What don't we understand – some operational problems: Coal

Our lack of understanding of just what was required to make the ships of the era work may conceal the existence of fundamental problems which had significant implications for all the protagonists. One is that coal burning ships were absolutely dependent upon the quality of that coal in reaching their designed speeds and maximum endurance. The best coal was Welsh. There was good coal in other parts of the world, such as Southport in New Zealand, but the majority of countries did not have access to such stocks – German coal certainly does not seem to have been of the same quality for steaming coal. The difference could be extraordinary. At an extreme, trials in the battle cruiser *Australia* demonstrated that, while she used 10 tons of Welsh coal and 15 boilers in an hour to achieve just over 16 knots run (her designed speed was 25 knots), she required all 31 boilers and 16 tons per hour – supplemented by a large amount of oil – to achieve the same speed and distance run using Australian coal.²² Differences of this magnitude mean profound differences in the operational capabilities of both individual ships and of fleets but we know very little of how the issue worked itself out in their employment – even with evidence such as the battle cruiser *Von der Tann*'s plaint during the abortive High Sea Fleet sortie of April 1918 'Cannot do more than 21 knots on account of bad coal, coal consumption 50% higher than usual!'²³

Navigation

It is also true that we do not properly understand the challenges of maritime command and control and how they worked out in practice. This is despite the excellent recent work by Nicholas Lambert on the Admiralty's 'War Room' and the emergence of networked concepts for the remote control of forces at sea which has given us a much better idea of just what the Royal Navy was trying to do before 1914.²⁴ But this is not enough. Much more work is needed to understand just how those forces at sea were directed during the actual conflict, under what constraints and how the nature of that direction evolved over the war years, both at sea and in harbour. Nicholas Black has started along this path with his work *The British Naval Staff in the First World War*,²⁵ which for me in this context has as much significance for what he has to tell and what he implies about the development of the Grand Fleet naval staff as it does for the Admiralty itself.

There are other examples of our relative ignorance of the factors at work. They may appear mundane on first consideration, but they were vitally important in the way that naval forces operated and had direct relationships with the constraints on operations that existed in the First World War. A key issue is that of navigation – in units which had no long range sensors, other than the uncertain possibility of detection of enemy wireless transmissions, and which were bounded by their visual horizon, then accuracy in reckoning became vital. This was one of the reasons why the Admiralty's 'War Room' did not always work well in practice – in poor visibility, even a mile could be decisive in determining whether contact would be gained or not, as clearly demonstrated by incidents during the Scarborough Raid of 1914.²⁶ Volume III of the *North Sea Pilot* notes that visibility in the eastern part of the sea is, on average 'only from 3 to 8 miles' while fogs can be expected in winter from three to six days a month and in summer from one to three days.²⁷

Yet, at this point in the machine age, the artificial aids available to mariners had not greatly advanced. The majority of ships still relied upon magnetic compasses, while the ones that did possess gyroscopic compasses had to maintain a constant watch upon their accuracy. The arts of correcting and operating magnetic compasses had achieved a high degree of refinement,²⁸ through techniques such as compass adjustment and improved binnacle design, but it was a fact – as it remains today – that such compasses were susceptible to local magnetic changes and anomalies (variation in the English Channel changes 5 degrees over 400 nautical miles²⁹) and to interference from metallic objects inappropriately located, as well as a number of other potential influences, such as magnetic storms. The mechanical logs of the day which measured speed were an improvement on their hand held predecessors, but they provided information only on the relative movement of ships through the water mass – which was itself moving – not in relation to the earth and themselves required careful calibration. The North Sea, with its currents and tides, represented a particularly complex environment, but such problems applied in many other parts of the world, often in circumstances where the data derived from historical observations was, despite the best efforts of the hydrographers, not nearly as comprehensive as that for British home waters.

The climatic conditions in the North Sea also frequently prevented the use of heavenly bodies – which were not always available in any case. The *North Sea Pilot* notes that ‘the average amount of cloud is between 6/10 and 8/10, and is slightly greater in mid-winter than in spring and early summer.’³⁰ Even in the most ideal conditions, in which star sights could be taken, a ‘fix’ was only possible during twilight, while the use of the sun or moon at other times was based upon a combination of the sight and dead reckoning.

In the absence of other aids, and many buoys had been removed and lighthouses doused, it is thus not surprising that ships could rapidly in the North Sea and more gradually elsewhere progressively become more uncertain as to

their position as the pool of errors increased. Even ships operating in company could develop rapidly different 'solutions' because of the different weight that individual navigators would place upon the fidelity and significance of the different sources of information available to them. As was clearly demonstrated at Jutland, when ships had sailed from different ports at different times, their navigational plots after only a few hours could be catastrophically at variance, to the extent that a coherent picture of the situation could be impossible to develop, even when scouting units did their reporting job. In the words of the *Narrative of the Battle of Jutland*, the problem of determining just who was where 'is more of the nature of a complicated mosaic or puzzle picture whose composition requires a great deal of knowledge, skill and patience – how much can only be known by those who have tried it.'³¹

This navigational uncertainty extended to practically every aspect of operations. It was all very well, for example, to plan a minefield in an area of potential opportunity, but such a field could not only fail in its purposes but become just as lethal for friend as for foe if, in the case of an early German field, it was laid some thirty nautical miles in error. The minelayer concerned had been at sea in restricted visibility for some 30 hours – without the benefit of a 'fix'.³² At Jutland, at the encounter of the Grand Fleet with the Battle Cruiser Fleet, the combined error in the positions of the flagships in relation to each was some twelve nautical miles, a difference exacerbated by a time error which added more than four miles to *Lion's* misconception of *Iron Duke's* true position.³³ Given these challenges, the fact that so few ships were lost for navigational causes between 1914 and 1918 must stand tribute to the professionalism of the Royal Navy.³⁴

Communications

Tactical communications are another problem. We do in 2011 understand something of the intricacies of flag signaling – an art which is, at least to some

extent, still cultivated in some navies – but the perspective on the contemporary state of radio telegraphy and its capabilities and limitations is incomplete, as is our understanding of the vital importance of the cable telegraph (Stephen King-Hall commented of the *Iron Duke's* telegraph office in 1915, 'Section I was connected directly to the Admiralty, and whilst I was there a continuous stream of messages was passing both ways at the rate of seventy words a minute. Section II could be connected by relays to any place in the British Isles'³⁵). This uncertainty extends not only to activities within the North Sea, of which Andrew Gordon has given us a much better but still incomplete perspective in *The Rules of the Game*, but to oceanic operations as well. Factors such as the transmission power of shore radios as well as atmospheric conditions could be critical in whether ships received vital signals or not.³⁶ Associated with this is our still incomplete knowledge of the role and working of signals interception at sea and the extent to which it was employed by commanders on both sides – such as the German surface raiders.³⁷

Formation Keeping

The practical issues associated with station keeping and operation in formations are also no longer clear. Those who understood the techniques of manoeuvring and controlling reciprocating or early steam turbine machinery deriving impetus from coal fired boilers are no longer with us. Modern warships spend much less time in close company, while the majority are much smaller than the dreadnoughts and pre-dreadnoughts of 1914-1918 and possess much more flexible and precisely controllable machinery. Even so, other than for replenishment under way (which counts as an art almost in its own right³⁸) and the occasional 'photo-formation', large warships simply do not steam as close to each other as the Great War battle lines – and it would be considered unseamanlike to do so because there are few operational benefits to justify the hazards involved – or the human energy consumed. The dreadnoughts of the

Grand Fleet operated 500 yards apart, the pre-dreadnoughts at 400 yards.³⁹ Modern big ships keep 1,000 yards distant and for good reason.

The point is that it is very clear in retrospect that operating the fleets of the day in the way that they were represented a profound professional challenge and one that must have consumed a great deal of the attention of the bridge and command personnel, particularly but not only at night, in low visibility or in heavy weather. It should be noted that, although there seem to have been progressive increases in formation speeds and in the complexity of exercises before 1914, these were relatively recent developments and it may be argued that, at the outbreak of the war, the experience levels were not high and that personnel were under considerable strain.⁴⁰ The available evidence indicates that customary formation speeds before 1914 in the Royal Navy were several knots less than those which had soon to be adopted in wartime in face of the submarine threat.⁴¹ One question that may be asked is the extent to which the concentration on station keeping may have come at the expense of battle mindedness and unit initiative. If so much attention had to be paid to following the leader, how much remained to look out for the enemy?

Internal Organisation

Little recent work has been done on the internal organisation of ships and the way that it evolved during the Great War to meet its demands. There are a number of useful collections and analyses of oral history, but rather fewer detailed efforts at understanding how ships' companies were employed and how they spent their day, both at work and in recreation. As already suggested, there is much more analysis available of the operation of Nelson's ships of the line than there is of Jellicoe's battleships. Of the published work, Christopher McKee's *Sober Men and True: Sailor Lives in the Royal Navy* is the most outstanding of the oral histories, as Anthony Carew's *The Lower Deck of the*

Royal Navy 1900-1939 is of the social history, but there is yet to be assembled a coherent picture of how all the human parts of the vast organisation that was the Royal Navy fitted together and how they worked and fought their ships changed during the conflict. For example, during the war one of the most profound changes in the life of ships companies since the end of sail came with the arrival of oil fired big ships which did not require to be coaled. The magnitude of this change cannot be understated, but it has not been mapped out. While there is some literature on coaling ships, little systematic comparison has been made between the experience of crews (such as that of the light cruiser *Southampton*) who undertook 'our fifteenth coaling in thirty nine days'⁴² and those of ships only a few years younger who had simply to berth on a tanker, connect pipes and start pumping. Perhaps there was a difference (and a significant advantage) in the shared morale and internal cohesion of a ship in which the freemasonry of coaling meant that:

Everybody was brought down to one level there. Everybody was as good as anybody else, because you could say what you like, you could do what you like....you're talking about the only time that [officers and ratings] ever really mixed to be equals.⁴³

There may be a connection between the collective effort (and misery) of coaling and the fact that the Grand Fleet did not mutiny in 1918 or 1919 – and there may also be a connection between the introduction of oil fuel and the increasing divisions between wardroom and lower deck which contributed to the Invergordon mutiny in 1931. But we do not know.

Conclusion

This Corbett Paper has raised only a few of the questions that need to be answered before we can be confident that we have achieved a reasonable understanding of the navy and of naval warfare in the first global conflict of the

twentieth century. The Australian Navy intends to rise to the challenge and produce its own new history of 1914-1918, despite the undoubted quality of A.W. Jose's volume of 1928 – an official history of which Stephen Roskill more than once expressed his admiration to me.⁴⁴ This is something which needs to be done – needs even more to be done – in Britain. The financial pressures on the Royal Navy are such that it is unlikely to be able to provide much more than moral support for such a venture but there are certainly resources in the United Kingdom and a body of potential support which can be tapped to get things under way. To paraphrase Patrick O'Brian's hero, Jack Aubrey, 'There is not a minute to lose.'

Endnotes

¹ The tendency to focus almost wholly on the land war is demonstrated in the recently published proceedings of an Australian War Memorial conference to mark the ninetieth anniversary of the end of the Great War, *1918 Year of Victory: The end of the Great War and the shaping of history* (Ashley Elkins Ed., Exisle, Auckland, 2010). Of twelve chapters dealing with the war itself, ten are about the land conflict, only one (to which the author contributed) on the sea and one on the air. The summary chapter devotes but five lines to the war at sea, acknowledging that 'very little is known of the details of the blockade and its impact...the naval history of the war remains very under-studied when compared to land warfare.' See Stephen Badsey contribution to that volume 'Ninety Years On: Recent and Changing Views on the History of the First World War'.

² The five text volumes of *Naval Operations* were published between 1920 and 1931.

³ James Goldrick, *The King's Ships Were at Sea: The War in the North Sea, August 1914-February 1915*, (USNI Press, Annapolis, 1984). The *Naval Staff Monographs* were issued between 1920 and 1939 – production unsurprisingly stopping at the outbreak of the Second World War. Despite the fact that the narrative ceased for home waters at the end of July 1917 and for the Mediterranean in 1915, the work was never resumed. Probably the final internal Admiralty publication on the First World War was the 1940 volume *Review of German Cruiser Warfare 1914-1918*, largely based on the German official history of cruiser warfare and clearly intended as a guide to consideration of the contemporary raider war. The Admiralty also published a series of *Technical Histories* soon after the end of the First World War.

⁴ Andrew Gordon, *The Rules of the Game: Jutland and British Naval Command*, (John Murray, London, 1996), p.539 et seq.

⁵ Vice Admiral Sir Peter Gretton, *Former Naval Person: Winston Churchill and the Royal Navy*, (Cassell, London, 1968), p. 107.

⁶ Donald M. Schurman, *Julian S. Corbett, 1854-1922: Historian of British Maritime Policy from Drake to Jellicoe*, (Royal Historical Society, London, 1981), p. 176 (and to p.201).

⁷ Marder's introductions to the first, second and fourth volumes contain apologies for its expansion to two, four and then five parts.

⁸ Barry Gough's dual biography of Arthur Marder and Stephen Roskill, *Historical Dreadnoughts: Marder and Roskill: Writing and Fighting Naval History*, (Seaforth, Barnsley, 2010), explains the evolution of Marder's historical research and writing.

⁹ Arthur J. Marder, *From the Dreadnought to Scapa Flow: The Royal Navy in the Fisher Era, 1904-1919* Volume I, *The Road to War, 1904-1914*, (Oxford University Press, London, 1961), p. 179 (1909) and p.298 (Canadian battleships). See Nicholas A. Lambert, *Australia's Naval*

Inheritance: Imperial Maritime Strategy and the Australia Station, 1880-1909, Papers in Australian Maritime Affairs No. 6, Sea Power Centre Australia for a comprehensive study of the Australian aspects of this question.

¹⁰ For example, Paul Halpern's *A Naval History of World War I*, (USNI Press, Annapolis, 1994), represents the best history to date which explains the war in global terms – and not just with the British or German concept of 'global'.

¹¹ Norman Friedman, *British Destroyers: From Earliest Days to the Second World War*, (Naval Institute Press, Annapolis, 2009).

¹² Now issued in a revised and expanded edition: Ian Buxton, *Big Gun Monitors: Design, Construction & Operations, 1914-1945*, (Naval Institute Press, Annapolis, 2008). Originally published 1978.

¹³ For example, John J. Abbatiello, *Anti-Submarine Warfare in World War I*, (Routledge, London, 2005).

¹⁴ Peter Halvorsen, 'The Royal Navy and Mine Warfare, 1868-1914', *Journal of Strategic Studies*, Volume 27, No. 4.

¹⁵ Jason Hines, 'Sins of Omission and Commission: A Reassessment of the Role of Intelligence in the Battle of Jutland', *The Journal of Military History*, Vol. 72, No. 4, October 2008, pp. 1117-1154.

¹⁶ James Goldrick, 'Review of Robert K. Massie *Dreadnought: Britain, Germany and the Coming of the Great War*', *Naval War College Review*, Winter 1993, Volume XLVI, No. 1, No. 341, pp. 114-116. The tendency observed in *Dreadnought* is also apparent in *Castles of Steel*.

¹⁷ Bennett's book, *Naval Battles of the First World War*, (Batsford, London, 1968) can be justified in its approach in that it is demonstrably about battles, but Richard Hough's *The Great War at Sea, 1914-1918*, (Oxford University Press, 1983) has less excuse in devoting no less than 86 out of 321 pages to Jutland.

¹⁸ Commander the Honourable Barry Bingham, VC, *Falklands, Jutland and the Bight*, (John Murray, London, 1919).

¹⁹ The absolute absence of high quality fictional treatments of 1914-1918 at sea by comparison with 1793-1815 and 1939-1945 is striking – let alone with the war on land. Where such fiction does exist, it is by contemporary writers such as "Taffrail" (Captain H. Taprell Dorling) and "Bartimeus" (Paymaster Lewis Ricci) and, while giving much colour and some insight, their writing does not display the depth of works such as Nicholas Monsarrat's classic of the Battle of the Atlantic, *The Cruel Sea*.

²⁰ Greg Kennedy, 'Strategy and power: The Royal Navy, the Foreign Office and the Blockade, 1914-1917', *Defence Studies*, Volume 8, Issue 2, 2008 and 'Intelligence and the Blockade, 1914-1917: A study in Administration, Friction and Command', *Intelligence and National Security*, Volume 22, Issue 5, October 2007. See also Christopher Martin 'The Declaration of London: a

matter of operational capability', *Historical Research*, Volume 82, Issue 218, 2009 and 'The 1907 Naval War Plans and the second Hague peace conference: A case of propaganda', *Journal of Strategic Studies*, Volume 28, Issue 5, 2005. Nicholas Lambert's book *Taming Armageddon: British Economic Warfare Planning and Practice, 1901-1916* will be published by Harvard University Press in 2011.

²¹ Jon Tetsuro Sumida, 'British Operational Logistics, 1914-1918', *Journal of Military History*, Volume 57, July 1993 and 'Forging the Trident: British Naval Industrial Logistics, 1914-1918' in John A. Lynn (Ed.) *Feeding Mars: Logistics in Western Warfare from the Middle Ages to the Present*, Westview, Boulder, 1993 and 'Challenging Parkinson's Law', Seminar on World War I, Robert McCormick Tribune Foundation/ United States Naval Institute, August 1993, *Naval History* No. 8, November-December 1994.

²² Arthur W. Jose, *The Royal Australian Navy, 1914-1918* Volume IX *The Official History of Australia in the War of 1914-1918*, (Angus & Robertson, Sydney, 1928), p. 457.

²³ Hugo von Waldeyer-Hartz, *Admiral von Hipper*, (Rich & Cowan, London, 1933), p. 242.

²⁴ Nicholas Lambert, 'Strategic Command and Control for Maneuver Warfare: Creation of the Royal Navy's "War Room" System, 1905-1915', *The Journal of Military History*, Volume 69, Issue 2; 'Transformation and technology in the Fisher era: The impact of the communications revolution', *Journal of Strategic Studies*, Volume 27, Issue 2.

²⁵ Nicholas Black, *The British Naval Staff in the First World War*, (Boydell Press, Woodbridge, 2009).

²⁶ James Goldrick, *The King's Ships Were at Sea*, pp. 206-207.

²⁷ Admiralty Hydrographic Department, *North Sea Pilot Part III*, (Admiralty, London, 1948). p. 23.

²⁸ And were considered fundamental within the body of professional knowledge which executive branch officers and seaman senior ratings were expected to master. Compass lore was not confined to specialist navigation publications but included at length within Volume II of *The Manual of Seamanship*, see the 1909 edition, (HMSO, London, 1909), pp. 314-338.

²⁹ *North Sea Pilot Part III*, p.xxiii.

³⁰ *Ibid*, p.21.

³¹ Admiralty, *Narrative of the Battle of Jutland*, (HMSO, London, 1924), p. 3.

³² James Goldrick, *The Kings Ships Were at Sea*, p. 80.

³³ Admiralty, *Narrative of the Battle of Jutland*, pp. 34-35.

³⁴ Only one major unit, the armoured cruiser *Argyll* was wrecked during the Great War. The armoured cruiser *Cochrane* stranded in the Mersey three days after the Armistice. Only eight destroyers were lost by stranding, compared with 14 in collision. See F.J. Dittmar & J.J. Colledge, *British Warships 1914-1919*, (Ian Allan, London, 1972).

³⁵ 'Etienne' (Stephen King-Hall), *A Naval Lieutenant 1914-1918*, (Methuen & Co., London, 1919), p. 109. *Iron Duke's* flagship buoy had the cables attached to it and they were connected after the ship moored.

³⁶ For example, then Lieutenant Cunninghame Graham complains of nearly ending his career as a signals officer in the *Colossus* off Norway through his failure to receive a signal in poor atmospheric conditions from the weak Rosyth transmitter. See Admiral Sir Angus Cunninghame Graham, *Random Naval Recollections*, (Famedram, Gartocharn, 1979), p. 48.

³⁷ The Admiralty's *Review of German Cruiser Warfare*, pp. 30-31, largely compiled from the German official history, contains scathing comments about the excessive use of wireless by British trade protection units and the way in which this allowed German commerce raiders to avoid patrolling units.

³⁸ And one, to be fair, which has developed since the early 1930s with the United States Navy always in the lead and whose sophistication would astonish even the most expert mariners of 1914-1918. As Admiral of the Fleet Lord Chatfield has noted, 'There is a modern seamanship as well as an old.' *The Navy and Defence Volume II It Might Happen Again*, (William Heinemann, London, 1947), p. 59.

³⁹ See A. Temple Patterson, *The Jellicoe Papers Volume I 1859-1916*, (Navy Records Society, London, 1966). pp. 52-53. Extract from *Grand Fleet Battle Orders* 18 August 1914.

⁴⁰ The author explores some elements of this argument at greater length in 'The Impact of War: Matching Expectation with Reality in the Royal Navy in the first months of the Great War at Sea', *War in History*, Volume 14, No. 1, 2007, pp. 23-35. But see Lieutenant the Hon R. Plunkett, *The Modern Officer of the Watch*, (Griffin, Portsmouth, 1910, Fourth Edition) which gives an excellent summary of the issues involved in fleet station keeping and manoeuvring – at rather slower speeds than would prevail by late 1914.

⁴¹ For example, Captain Christopher Cradock's *Whispers from the Fleet*, (Second Edition, Griffin & Co, Portsmouth, 1908), indicates that 'half' or cruising speed for major units was only 10 knots (p.55). Dr Nicholas Lambert's researches on pre-war logistics have provided confirmation that the pre-war annual distance run by major units was generally less than 10,000 nautical miles a year (See ADM 116/3151).

⁴² 'Etienne', *A Naval Lieutenant*, p. 114.

⁴³ Recollections cited in Christopher McKee, *Sober Men and True: Sailor Lives in the Royal Navy 1900-1945*, (Harvard University Press, Cambridge, 2002), p. 122.

⁴⁴ As he did of G. Hermon Gill's two volume official history of the RAN in World War II.